Psychiatric Nutrition Therapy:  
A Resource Guide for Dietetics Professionals  
Practicing in Behavioral Health Care

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Preface

This resource for practice is intended to assist the Registered Dietitian (RD) when providing nutrition therapy to clients who have mental illnesses. Other areas of Behavioral Health Care, specifically: developmental disorders, eating disorders, and chemical dependency are beyond the scope of this resource guide.

Providing nutrition service to people who have mental illness is a complex task. Clients will often have more than one condition. For example, a client with a major mental illness may also have a medical condition such as diabetes mellitus, or a chemical dependency, or both. Registered Dietitians serving clients with mental illnesses must have an understanding of the nutritional needs of people with altered thought processes, unstable moods, learning disabilities, dangerous food habits, and who may be at risk of endangering themselves or others.

This resource is meant to serve as a general guide to providing nutrition services to persons with mental health issues. Individual circumstances will vary, therefore, the individual skill and judgment of the nutrition provider/RD must always dictate treatment decisions.

Registered Dietitians are urged to be familiar with the Standards of Practice and Standards of Professional Performance in Behavioral Health Care. These tools should be reviewed at regular intervals to evaluate and identify opportunities to improve their competency and enhance their professional performance in this area.
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### Other contents, included as separate files on this compact disk:

- Adolescent Nutrition Group Power Point Presentation
- Adult Nutrition Group Power Point Presentation
- Child Nutrition Group Power Point Presentation
- Omega-3 Fatty Acid Food Sources Power Point Presentation
- Foods and Moods Power Point Presentation
- American Dietetic Association: Standards of Practice, and Standards of Professional Performance for Registered Dietitians (Generalist, Specialty, and Advanced) in Behavioral Health Care
- Order Form for Additional Copies of This Manual

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Introduction

The purpose of this resource guide is to provide the Registered Dietitian with tools to provide medical nutrition therapy that will help to bridge the gap between food, moods and behavior and thus augment the therapy provided by other members of the mental health care team. It is intended as an informative resource for dietitians in their role as Medical Nutrition Therapists in Behavioral Health settings.

Food choices influence our moods and in return, moods influence our food choices and behaviors. Some consumers of behavioral services are unaware that they are choosing foods that may exacerbate depression, insomnia, mania, fatigue, cravings, stress, memory loss and clarity of thought. Others have food habits that set them up for cravings and weight gain and/or nutrient deficiencies.

The link between food and mood is circular. Poor quality food intake may result in dietary deficiencies or excesses. These deficiencies or excesses can cause or increase depression, mood swings, poor concentration or fatigue. When depressed, tired or stressed, many mental health care consumers don’t make the effort or don’t have the means to eat well. This poor nutrition aggravates their mental conditions. Thus, they feel bad and continue to promote their illnesses without knowing they are doing so.

While the effects of many dietary choices take decades to develop, i.e. osteoporosis, or coronary artery disease, many people do not realize the immediacy of the food to mood connection. Consumers are more likely to feel good, sleep well and have the energy they need to cope with their mental illness if their body is fueled with the food it needs.
Introduction to Behavioral Health Care
Biochemistry and Neurobiology Review

Neuron: A nerve cell.

The anatomy of a neuron:

Dendrite: Branches at the end of the cell that receives incoming messages from other neurons.

Axon: The trunk of the neuron that connects the dendrites to the axon terminals. It relays messages through the nerve cell. Length varies from less than a millimeter to three feet long.

Axon Terminal: The very ends of the neuron that deliver messages to the dendrites of other nerve cells through synapse.

Synapse: Small gap that is between the axon terminal of the sending neuron and the dendrites of the receiving terminal. It consists of a pre-synaptic ending that contains the neurotransmitters, mitochondria and other cell organelles, and a post-synaptic ending that has receptor sites for neurotransmitters.

Synaptic Cleft: The space between the pre-synaptic and post-synaptic endings.

Neurotransmitter: Nerve chemical stored in small sacs at the end of the axon terminals. Electrical stimulation of the neuron causes the release of the neurotransmitter, which flows across the synapse to deliver the “message” to the receiving dendrite. There are five neurotransmitters directly linked to food commonly consumed. They are:

1. Serotonin
2. Dopamine
3. Norepinephrine
4. Histamine
5. Acetylcholine

Re-Uptake: Once the neurotransmitter has delivered its message, it is broken down or resorbed back into the receiving cells’ storage space to be used again.
**Blood Brain Barrier (BBB):**
Functions to maintain a constant environment for the brain. Filters substances in blood allowing some to cross into the neurons. It is like a wall, some substances enter directly, some by special carrier, and some break down as chemicals.

**Amino Acids:**
Building blocks of neurotransmitters.

**Vitamins and Minerals:**
Assist in the production of neurotransmitters (as precursors and catalysts), enhance neurotransmitter activity, or protect neurotransmitters from damage.

Reference:
Neurotransmitters, Diet, and Behavior

In the past twenty years or so, hundreds of compounds regulating multiple body functions have been identified. Of these there have been at least 70 neurotransmitters identified which regulate such functions as memory, appetite, cognition, emotion and sleep. Disruption of a neurotransmitter changes nerve cell function and affects other neurotransmitters. This can have major effects on physical, mental or emotional processes.

For example, if an electrical message moves along the axon but there is an insufficient amount of the correct neurotransmitter- perhaps serotonin- at the terminal the message is not communicated to the next neuron and the information flow stops. Too little serotonin can result in depression. Food intake can drastically affect the production and the use of the neurotransmitters. If the diet does not contain enough of the “building blocks” for the production and storage of the neurotransmitter, then the neurotransmitter is limited causing the body to experience changes in mood, appetite, and cognition.

Activity of some neurotransmitters is enhanced or limited based on diet. Over consumption or severe restriction of a macronutrient such as carbohydrate or fat can trigger imbalances, which contribute to mood swings, irritability and food cravings. Additionally, some additives prevalent in the food supply can interfere with the manufacture or release of neurotransmitters. Other additives block neurotransmitters so the receiving neuron can’t understand the message, while still other additives alter the structure of the neurotransmitter or affect the enzymes that regulate how much neurotransmitter remains in the synapse. These changes can result in changes in mood and thought.

Table 1 Neurotransmitters Made from Food

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Nutrient Base</th>
<th>Food of Origin</th>
<th>Brain Concentration</th>
<th>When</th>
<th>Effect on Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serotonin</td>
<td>Tryptophan plus B₆, B₁₂, Folic Acid</td>
<td>Eggs, meat, yogurt, milk, bananas, nuts, seeds, oats, cheese</td>
<td>Increased with high CHO diet Decreased with high protein diet Increased with Omega 3 FA</td>
<td>Always</td>
<td>General regulation; Improved mood, Increased pain tolerance, Increased sleep, normalizes body temperature, Decreased aggression, Decreased cravings</td>
</tr>
<tr>
<td>Dopamine</td>
<td>Phenylalanine plus B₁₂, Folic Acid</td>
<td>Beets, soy beans, almonds, meat, egg, grains</td>
<td>Increased with high protein diet</td>
<td>If more needed or with decreased number of nerve cells</td>
<td>Increased tolerance, mood, alertness, cognition, problem solving</td>
</tr>
<tr>
<td>Norepinephrine</td>
<td>Tyrosine</td>
<td>Meat, milk, fish, legumes</td>
<td>Increased with high protein diet</td>
<td></td>
<td>Too much = addiction, fear, depression, compulsion, mood swings Too little = paranoia, schizophrenia</td>
</tr>
<tr>
<td>Histamine</td>
<td>Histadine</td>
<td>Fish, spinach, tea, tomatoes, cheese, chocolate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Affected By</th>
<th>Effect on Food Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylcholine</td>
<td>Liver, soy beans, wheat germ, eggs, corn, peanuts, lecithin, choline supplements</td>
<td>Increased fat in diet = Increased choline to brain</td>
</tr>
<tr>
<td>Choline</td>
<td>Increased memory, problems solving</td>
<td>Decreased mania</td>
</tr>
<tr>
<td>Glutamate</td>
<td>Glutamic Acid</td>
<td>Flour, potatoes</td>
</tr>
</tbody>
</table>

Table 2 Neurotransmitter’s Influence on Food Consumption

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Affected By</th>
<th>Effect on Food Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuropeptide Y</td>
<td>Blood glucose, serotonin, noradrenalin, gamma-aminobutyric acid (GABA)</td>
<td>Increased CHO cravings</td>
</tr>
<tr>
<td>Galanin</td>
<td>Fatty acids, estrogen, cortisol, insulin, endorphins, time of day – Increased in evening</td>
<td>Increased fatty food cravings, influences how much dietary fat is stored as fat</td>
</tr>
<tr>
<td>Endorphins</td>
<td>Progesterone, GABA, Sweet creamy foods</td>
<td>Increased intake of sweet creamy foods, Increased alcohol craving</td>
</tr>
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Reference:

## Diagnostic Categories

The following is a list of Mental Health Disorders classified by categories. These are generally classified as AXIS I or AXIS II in the diagnosis listing of an assessment.

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<th>Category</th>
<th>Psychiatric Diagnosis</th>
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<td>Panic Disorder&lt;br&gt;Agoraphobia&lt;br&gt;Social Phobia&lt;br&gt;Specific Phobia&lt;br&gt;Obsessive-Compulsive Disorder&lt;br&gt;Post Traumatic Stress Disorder&lt;br&gt;Generalized Anxiety Disorder&lt;br&gt;Acute Stress Disorder</td>
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<td>Childhood Disorders</td>
<td>Asperger’s Disorder&lt;br&gt;Attention-Deficit Disorder&lt;br&gt;Attention-Deficit Hyperactive Disorder&lt;br&gt;Autistic Disorder&lt;br&gt;Conduct Disorder&lt;br&gt;Oppositional Defiant Disorder&lt;br&gt;Separation Anxiety Disorder&lt;br&gt;Tourette’s Disorder</td>
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<td>Cognitive Disorders</td>
<td>Delirium&lt;br&gt;Multi-Infarct Dementia&lt;br&gt;Dementia (Alcoholism)&lt;br&gt;Dementia (Alzheimer’s type)&lt;br&gt;Dementia</td>
</tr>
<tr>
<td>Eating Disorders</td>
<td>Anorexia Nervosa&lt;br&gt;Bulimia Nervosa&lt;br&gt;Eating Disorder, NOS (Not Otherwise Specified)</td>
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<tr>
<td>Mood Disorders</td>
<td>Major Depressive Disorder&lt;br&gt;Bipolar Disorder&lt;br&gt;Cyclothymic Disorder&lt;br&gt;Dysthymic Disorder</td>
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<td>Personality Disorders</td>
<td>Paranoid Personality&lt;br&gt;Schizoid Personality&lt;br&gt;Schizotypal Personality&lt;br&gt;Antisocial Personality&lt;br&gt;Borderline Personality&lt;br&gt;Histrionic Personality&lt;br&gt;Narcissistic Personality&lt;br&gt;Avoidant Personality&lt;br&gt;Dependent Personality&lt;br&gt;Obsessive-Compulsive Personality</td>
</tr>
<tr>
<td>Schizophrenia and Other Psychotic Disorders</td>
<td>Schizophrenia&lt;br&gt;Delusional Disorder&lt;br&gt;Brief Psychotic Disorder&lt;br&gt;Schizophreniform Disorder&lt;br&gt;Schizoaffective Disorder&lt;br&gt;Shared Psychotic Disorder</td>
</tr>
<tr>
<td>Substance-Related Disorders</td>
<td>Alcohol Dependence&lt;br&gt;Amphetamine Dependence&lt;br&gt;Cannabis Dependence&lt;br&gt;Cocaine Dependence&lt;br&gt;Hallucinogen Dependence&lt;br&gt;Inhalant Dependence&lt;br&gt;Nicotine Dependence&lt;br&gt;Opioid Dependence&lt;br&gt;Phencyclidine Dependence&lt;br&gt;Sedative Dependence</td>
</tr>
</tbody>
</table>
Frequently Seen Psychiatric Diagnoses

The following are psychiatric diagnoses frequently seen in a psychiatric treatment setting (adapted from the DSM-IV, American Psychiatric Association, Washington, 1994):

**Mental Retardation**
The essential feature of Mental Retardation is significantly sub average general intellectual functioning that is accompanied by significant limitations in adaptive functioning in at least two of the following skill areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety. The onset must occur before age 18.

**Pica**
Pica is the persistent eating of nonnutritive substances for a period of at least one month. The substances ingested include paint, plaster, string, hair, cloth, animal droppings, sand, insects, leaves, pebbles, clay, soil, and cigarette butts. There is no aversion to food. The behavior must be developmentally inappropriate and not part of a culturally sanctioned practice. While vitamin or mineral deficiencies have been reported in some instances, there are usually no specific biological abnormalities found.

**Rumination Disorder**
Rumination Disorder is the repeated regurgitation and rechewing of food. Partially digested food is brought up into the mouth without apparent nausea, retching, disgust, or associated gastrointestinal disorder. The food is then either ejected from the mouth or, more frequently, chewed and reswallowed. The disorder is most commonly observed in infants, but may be seen in older individuals, particularly those who also have Mental Retardation.

**Delirium**
The essential feature of a delirium is a disturbance of consciousness that is accompanied by a change in cognition that cannot be better accounted for by a preexisting or evolving dementia. The disturbance develops over a short period of time, usually hours to days, and tends to fluctuate during the course of the day. Delirium is manifested by a reduced clarity of awareness of the environment. The ability to focus, sustain, or shift attention is impaired. The person is easily distracted by irrelevant stimuli. There is an accompanying change in cognition (which may include memory impairment, disorientation, or language disturbance) or development of a perceptual disturbance. Memory impairment is most commonly evident in recent memory. Disorientation is usually manifested in that the individual is disoriented to time or place. Language disturbance is characterized by dysnomia (the impaired ability to name objects) or dysgraphia (the impaired ability to write).

**Dementia**
Dementia is characterized by the development of multiple cognitive deficits that include memory impairment and at least one of the following cognitive disturbances: aphasia,
apraxia, agnosia, or disturbance in executive functioning. The development of these deficits is due to the direct physiological effects of a general medical condition, to the persisting effects of a substance, or to multiple etiologies. The cognitive deficits must be sufficiently severe to cause impairment in occupational or social functioning and must represent a decline from a previously higher level of functioning. Memory impairment is required to have a diagnosis of dementia and is a prominent early symptom.

Deterioration of language function (aphasia) may be manifested as a difficulty producing names of individuals and objects. In the advanced stages of dementia, individuals may be mute or have a deteriorated speech pattern characterized by echolalia (echoing what is heard) or palilalia (repeating sounds or words over and over). Apraxia (impaired ability to execute motor activities despite intact motor abilities, sensory function, and comprehension of the required task), and agnosia (failure to recognize or identify common objects despite intact sensory function) are also common in individuals with dementia. Disturbances in executive functioning are a common manifestation of dementia. Executive functioning involves the ability to think abstractly and plan, initiate, sequence, monitor, and stop complex behavior.

**Schizophrenia and Other Psychotic Disorders**

The term psychotic has historically received a number of different definitions. Here the term refers to delusions, any prominent hallucinations, disorganizes speech, or disorganized catatonic behavior.

**Schizophrenia**

The essential features of Schizophrenia are a mixture of characteristic signs and symptoms (both positive and negative) that have been present for a significant portion of time during a one month period, with some signs of the disorder persisting for at least six months. These signs or symptoms are associated with marked social or occupational dysfunction. Characteristic symptoms may be divided into two broad categories – positive and negative. The positive symptoms appear to reflect an excess or distortion of normal functions, whereas the negative symptoms appear to reflect a loss or lessening of normal functions. The positive symptoms include delusions (distorted or exaggerated thinking), hallucinations (distorted perceptions), disorganized speech (distorted language and communication), and grossly disorganized or catatonic behavior (behavioral monitoring).

Delusions are erroneous beliefs that usually involve a misinterpretation of perceptions or experiences. Delusional content may include a variety of themes (e.g., persecutory, referential, somatic, religious, or grandiose). Persecutory delusions are the most common. Hallucinations may occur in any sensory modality (e.g., auditory, visual, olfactory, gustatory, and tactile). Auditory hallucinations are the most common and characteristic of schizophrenia. Disorganized thinking/speech is a significant feature of schizophrenia. The speech of individuals with schizophrenia may be disorganized in a variety of ways. The person may speak with loose associations or have derailment (skipping from one topic to another); answers to questions may be poorly related or completely unrelated to the topic (tangentiality); and occasionally speech may be so severely disorganized that it is nearly incomprehensible (incoherence or word salad). Grossly disorganized behavior may manifest itself in a variety of ways, ranging from childlike silliness to unpredictable agitation. The individual may have difficulties
performing activities of daily living such as organizing meals or maintaining hygiene. The person may appear disheveled or dress in an unusual manner. Catatonic motor behaviors include a significantly decreased reactivity to the environment, sometimes reaching an extreme degree of complete unawareness.

Negative symptoms include restrictions in the range and intensity of emotional expression (affect flattening, in the fluency and productivity of thought (alogia), and in the initiation of goal-directed behavior (avolition). In schizophrenia affective flattening is very common and is characterized by the person’s face appearing immobile and unresponsive, with poor eye contact and reduced body language. Alogia is manifested by brief, laconic, empty replies. Avolition is characterized by an inability to initiate and persist in goal-directed activities. The person may sit for long periods of time and show little interest in participating in work or social activities.

There are also subtypes of schizophrenia:
- Paranoid Type
- Disorganized Type
- Catatonic Type
- Undifferentiated Type
- Residual Type

Paranoid Type features the presence of prominent delusions or auditory hallucinations. Delusions are typically persecutory or grandiose, or both.

Disorganized Type is manifested by disorganized speech, disorganized behavior, and flat or inappropriate affect. The disorganized speech may be accompanied by silliness and laughter that are not closely related to the content of the speech. The behavioral disorganization may lead to severe disruption in the ability to perform activities of daily living.

Catatonic Type is characterized by significant psychomotor disturbance that may involve motoric immobility, excessive motor activity, extreme negativism, mutism, and peculiarities of voluntary movement, echolalia or echopraxia. Stupor may be seen.

Undifferentiated Type is the presence of the characteristic features of schizophrenia, but do not include paranoid, disorganized, or catatonic type features.

Residual Type is diagnosed when there has been at least one episode of schizophrenia, but the patient is currently without prominent positive psychotic symptoms.

**Schizoaffective Disorder**
Schizoaffective disorder is described, as an uninterrupted period of illness during which there is a Major Depressive, Manic, or Mixed Episode along with the symptoms of Schizophrenia. In the same period of illness there have been delusions or hallucinations for at least two weeks in the absence of prominent mood symptoms. Finally the mood symptoms are present for a substantial portion of the total duration of the illness.
Delusional Disorder

The presence of one or more non-bizarre delusions that persist for at least one month is the essential feature of Delusional Disorder. Delusions are deemed bizarre if they are clearly implausible, not understandable, and not derived from ordinary life experiences. In contrast, non-bizarre delusions involve situations that can conceivable occur in real life (e.g., being followed, poisoned, infected, loved at a distance, or deceived by one’s spouse or lover).

Psychosocial functioning is variable. Some individuals appear to be relatively unimpaired in their interpersonal and occupational roles. In others, the impairment may be substantial and include low or absent occupational functioning and social isolation.

Delusional Disorder may be specified by the delusional theme:
- Erotomanic – delusions that another person, usually of higher status, is in love with the individual
- Grandiose – delusions of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person
- Jealous – delusions that the individual’s sexual partner is unfaithful
- Persecutory – delusions that the person (or someone to whom the person is close) is being malevolently treated in some way
- Somatic – delusions that the person has some physical defect or general medical condition
- Mixed – when no one delusional theme predominates
- Unspecified – when the dominant belief cannot be clearly determined or is not described

Mood Disorders

Mood disorders are characterized by a disturbance in mood as the predominant feature. Mood episodes (Major Depressive Episode, Manic Episode, Mixed Episode, and Hypomanic Episode) serve as the building blocks for the disorder diagnoses. The Mood Disorders including Major Depressive Disorder, Dysthymic Disorder, and Bipolar I Disorder require the presence or absence of the mood episodes. Included in the diagnosis of a Mood Disorder is the specifier that describes either the most recent mood episode or the course of recurrent episodes.

Major Depressive Disorder is characterized by two or more Major Depressive Episodes (a period of at least two weeks during which there is either depressed mood or the loss of interest or pleasure in nearly all activities. Four additional symptoms must also be present including changes in appetite or weight, sleep, and psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating, or
making decisions; or recurrent thoughts of death or suicidal ideation, plans or attempts) without a history of Manic, Mixed, or Hypomanic Episodes.

Dysthymic Disorder is evidenced by a depressed mood for most of the day, for more days than not, for at least two years. Also present, while depressed, two or more of the following: poor appetite or overeating; insomnia or hypersomnia; low energy or fatigue; low self-esteem; poor concentration or difficulty making decisions; feelings of hopelessness. No Major Depressive Episode has been present during the first two years of the disturbance. There has never been a Manic Episode.

Bipolar I Disorder is a clinical course that is characterized by the occurrence of one or more Manic Episodes (a distinct period during which there is an abnormally and persistently elevated, expansive, or irritable mood lasting at least one week. The mood disturbance must be accompanied by at least three additional symptoms from a list that includes inflated self-esteem or grandiosity, decreased need for sleep, pressure of speech, flight of ideas, distractibility, increased involvement in goal-directed activities or psychomotor agitation, and excessive involvement in pleasurable activities with a high potential for painful consequences) or Mixed Episodes (a period of at least one week in which the criteria are met both for a Manic Episode and for a Major Depressive Episode nearly every day. The individual experiences rapidly alternating moods - sadness, irritability, and euphoria. The symptom presentation frequently includes agitation, insomnia, appetite dysregulation, psychotic features, and suicidal thinking).

Bipolar II Disorder has a clinical course that is characterized by the occurrence of one or more Major Depressive Episodes accompanied by at least one Hypomanic Episode (a distinct period during which there is an abnormally and persistently elevated, expansive, or irritable mood that lasts at least four days. This period of abnormal mood must be accompanied by at least three additional symptoms including inflated self-esteem or grandiosity, decreased need for sleep, pressure of speech, flight of ideas, distractibility, increased involvement in goal-directed activities or psychomotor agitation, and excessive involvement in pleasurable activities that have a high potential for painful consequences).

Cyclothymic Disorder is a chronic, fluctuating mood disturbance involving many periods of hypomanic symptoms and many periods of depressive symptoms.

**Anxiety Disorders**
There are several disorders in the Anxiety family.

Panic Attack – is a discrete period in which there is a sudden onset of intense apprehension, fearfulness, or terror often associated with feelings of impending doom. During these attacks, symptoms such as shortness of breath, palpitations, chest pain or discomfort, choking or smothering sensations, and fear of “going crazy” or losing control are present.

Agoraphobia – is anxiety about, or avoidance of, places or situations from which escape might be difficult (or embarrassing) or in which help may not be available in the event of having a Panic Attack or panic-like symptoms.
Panic Disorder Without Agoraphobia – is characterized by recurrent unexpected Panic Attacks about which there is a persistent concern.

Panic Disorder With Agoraphobia – is characterized by both recurrent unexpected Panic Attacks and Agoraphobia.

Agoraphobia Without History of Panic Disorder – is characterized by the presence of Agoraphobia and panic-like symptoms without a history of unexpected Panic Attacks.

Specific Phobia – is characterized by clinically significant anxiety provoked by exposure to specific feared object or situation, often leading to avoidance behavior.

Social Phobia – is characterized by clinically significant anxiety provoked by exposure to certain types of social or performance situations, often leading to avoidance behavior.

Obsessive-Compulsive Disorder – is characterized by obsessions (which cause marked anxiety or distress) and/or by compulsions (which serve to neutralize anxiety).

Posttraumatic Stress Disorder – is characterized by the re-experiencing of an extremely traumatic event accompanied by symptoms of increased arousal and by avoidance of stimuli associated with the trauma.

Acute Stress Disorder – is characterized by the symptoms similar to those of Posttraumatic Stress Disorder that occur immediately in the aftermath of an extremely traumatic event.

Generalized Anxiety Disorder – is characterized by at least six months of persistent and excessive anxiety and worry.

**Eating Disorders**

Anorexia Nervosa - involves the refusal by the individual to maintain a minimally normal body weight, intense fear of gaining weight and exhibition of a significant disturbance in the perception of the shape or size of the body. The individual maintains a body weight that is below a minimally normal level for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during growth, leading to body weight less than 85% of that expected). The patient also has an intense fear of gaining weight or becoming fat, even though underweight.

Bulimia Nervosa – involves binge eating and inappropriate compensatory methods to prevent weight gain. There are recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
- eating in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances
- a sense of a lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)
Recurrent, inappropriate compensatory behaviors to prevent weight gain include self-induced vomiting, misuse of laxatives, diuretics, enemas, or other medications, fasting, or excessive exercise. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a month for three months.

**Personality Disorders**

Paranoid Personality Disorder – is a pattern of mistrust and suspiciousness where others’ motives are interpreted as malevolent.

Schizoid Personality Disorder – is a pattern of detachment from social relationships and a restricted range of emotional expression.

Schizotypal Personality Disorder – is a pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior.

Antisocial Personality Disorder – is a pattern of disregard for, and violation of, the rights of others.

Borderline Personality Disorder – is a pattern of instability in interpersonal relationships, self-image, and affects, and marked impulsivity.

Histrionic Personality Disorder – is a pattern of excessive emotionality and attention seeking.

Narcissistic Personality Disorder – is a pattern of grandiosity, need for admiration, and lack of empathy.

Avoidant Personality Disorder – is a pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation.

Dependent Personality Disorder – is a pattern of submissive and clinging behavior related to an excessive need to be taken care of.

Obsessive-Compulsive Personality Disorder – is a pattern of preoccupation with orderliness, perfectionism, and control.
Multi-Axial Assessment

In many mental health settings a multi-axial system is used to assess a client. The multi-axial system involves an assessment of several areas, each of which refers to a different domain of information that may help the physician (psychiatrist) plan treatment and/or predict outcome.

The use of the multi-axial system facilitates a comprehensive evaluation with systematic attention to various areas that might be overlooked if the focus were on assessing a single presenting problem. It also provides a format for organizing and communicating clinical information and capturing the complexity of the patient's condition.

There are five axes included in the DSM-IV multi-axial classification:

- **Axis I**: Clinical Disorders
  - Other Conditions That May Be a Focus of Clinical Attention

- **Axis II**: Personality Disorders
  - Mental Retardation

- **Axis III**: General Medical Conditions

- **Axis IV**: Psychosocial and Environmental Problems

- **Axis V**: Global Assessment of Functioning

**Axis I**: Clinical Disorders and Other Conditions That May Be a Focus of Clinical Attention

Axis I identifies all the various psychiatric disorders or conditions in the classification except for the Personality Disorders and Mental Retardation.

**Axis II: Personality Disorders and Mental Retardation**

Axis II is used to identify Personality Disorders and Mental Retardation. It is also used to note prominent maladaptive personality features and defense mechanisms.

**Axis III: General Medical Conditions**

Axis III is for identifying current general medical conditions that are potentially relevant to the understanding or management of the client's mental disorder. The purpose of distinguishing general medical conditions is to encourage thoroughness in evaluation and to enhance communication among health care providers.
General medical conditions can be related to mental disorders in a variety of ways. In some cases the general medical condition is directly etiological to the development or worsening of mental symptoms and that the mechanism for this effect is physiological. There are other situations where the identification of the general medical conditions is important to the overall understanding or the treatment of the individual with the mental disorder. Some general medical conditions may not be directly related to the mental disorder but nonetheless have important prognostic or treatment implications.

Alex IV: Psychosocial and Environmental Problems

Axis IV is used to identify psychosocial and environmental problems that may affect the diagnosis, treatment, and prognosis of mental disorders. These problems are grouped together in the following categories:

- **Problems with primary support group:** e.g., death of a family member; health problems in family; disruption of family by separation, divorce, or estrangement; removal from the home; remarriage of parent; sexual or physical abuse; parental overprotection; neglect of child; inadequate discipline; discord with siblings; birth of a sibling.

- **Problems related to the social environment:** e.g., death or loss of friend; inadequate social support; living alone; difficulty with acculturation; discrimination; adjustment to life-cycle transition (such as retirement).

- **Educational problems:** e.g., illiteracy; academic problems; discord with teachers or classmates; inadequate school environment.

- **Occupational problems:** e.g., unemployment; threat of job loss; stressful work schedule; difficult work conditions; job dissatisfaction; job change; discord with boss or co-workers.

- **Housing problems:** e.g., homelessness; inadequate housing; unsafe neighborhood; discord with neighbors or landlord.

- **Economic problems:** e.g., extreme poverty; inadequate finances; insufficient welfare support.

- **Problems with access to health care services:** e.g., inadequate health care services; transportation to health care facilities unavailable; inadequate health insurance.

- **Problems related to interaction with the legal system/crime:** e.g., arrest; incarceration; litigation; victim of crime.

- **Other psychosocial and environmental problems:** e.g., exposure to disasters, war, other hostilities; discord with non-family caregivers such as counselor, social worker, or physician; unavailability of social service agencies.

There may be multiple conditions listed for each Axis I-IV.
Axis V: Global Assessment of Functioning (GAF)

Axis V is for reporting the clinician’s judgment of the client’s overall level of functioning. This information is used to plan treatment, to measure its impact, and to predict outcome. The GAF is rated with respect only to psychological, social, and occupational functioning. It is not to include impairment in functioning due to physical or environmental limitations. For the purposes of Medical Nutrition Therapy, information in Axis V may provide the Registered Dietitian with an indicator of the patient’s ability to manage self care activities such as making appropriate food choices and/or learning readiness for Nutrition Education.

### Global Assessment of Functioning (GAF) Scale

The Global Assessment of Function Scale considers only the psychological, social, and occupational function on a hypothetical continuum of mental health-illness. The Scale does not include impairment in functioning due to physical or environmental limitations.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Superior functioning in a wide range of activities, life’s problems never seem to get out of hand, is sought out by others because of his/her many positive qualities. No symptoms.</td>
</tr>
<tr>
<td>99</td>
<td>Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g., an occasional argument with family members).</td>
</tr>
<tr>
<td>88</td>
<td>If symptoms are present, they are transient and expectable reactions to psychosocial stressors (e.g., difficulty concentrating after family argument), no more than slight impairment in social, occupational, or school functioning (e.g., temporarily falling behind in schoolwork).</td>
</tr>
<tr>
<td>77</td>
<td>Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social, occupational, or school functioning (e.g., occasional truancy, or theft within the household), but generally functioning pretty well, has some meaningful interpersonal relationships.</td>
</tr>
<tr>
<td>66</td>
<td>Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers).</td>
</tr>
<tr>
<td>55</td>
<td>Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job).</td>
</tr>
<tr>
<td>44</td>
<td>Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).</td>
</tr>
<tr>
<td>33</td>
<td>Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day, no job, home, or friends).</td>
</tr>
<tr>
<td>22</td>
<td>Some danger of hurting self or others (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute).</td>
</tr>
<tr>
<td>11</td>
<td>Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.</td>
</tr>
<tr>
<td>1</td>
<td>Inadequate information.</td>
</tr>
</tbody>
</table>

From DSM-IV. American Psychiatric Association, Washington, 1994
Glossary of Technical Terms

Affect – A pattern of observable behaviors that is the expression of a subjectively experienced feeling state. Common examples of affect are sadness, elation, and anger. Disturbances in affect include blunted (reduction in the intensity of emotional expression), flat (absence or near absence of any signs of affective expression), inappropriate (discordance between affective expression and the content of speech or ideation), labile (abnormal variability in affect with repeated, rapid and abrupt shifts), restricted or constricted (mild reduction in the range and intensity of emotional expression).

Agitation (Psychomotor Agitation) – Excessive motor activity associated with a feeling of inner tension. The activity is usually nonproductive and repetitious and consists of such behavior as pacing, fidgeting, wringing of the hands, pulling of clothes, and inability to sit still.

Alogia – An impoverishment in thinking that is inferred from observing speech and language behavior.

Anxiety – The apprehensive anticipation of future danger or misfortune accompanied by a feeling of dysphoria or somatic symptoms of tension. The focus of the anticipated danger may be internal or external.

Aphasia – An impairment in the understanding or transmission of ideas by language in any of its forms.

Aphonia – An inability to produce speech sounds that require the use of the larynx that is not due to a lesion in the central nervous system.

Ataxia – Partial or complete loss of coordination of voluntary muscle movement.

Attention – The ability to focus in a sustained manner on a particular stimulus or activity.

Avolition – An inability to initiate and persist in goal-directed activities.

Defense Mechanism – An automatic psychological process that protects the individual against anxiety and from awareness of internal or external stressors or dangers.

Delusion – A false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary.

Derailment – A pattern of speech in which a person’s ideas slip off one track onto another that is completely unrelated or only obliquely related.

Disorientation – Confusion about the time of day, date, or season (time), where one is (place), or who one is (person).
Dysarthria – Imperfect articulation of speech due to disturbances of muscular control.

Dyskinesia – Distortion of voluntary movements with involuntary muscular activity.

Dyssomnia – Disorders of the amount, quality, or timing of sleep.

Dystonia – Disordered tonicity of muscles.

Echolalia – The pathological, parrot-like, and apparently senseless repetition of a word or phrase just spoken by another person.

Echopraxia – Involuntary repetition by imitation of the movements of another.

Flight of Ideas – A nearly continuous flow of accelerated speech with abrupt changes from topic to topic that are usually based on understandable associations, distracting stimuli, or plays on words.

Grandiosity – An inflated appraisal of one's worth, power, knowledge, importance, or identity.

Hallucination – A sensory perception that has the compelling sense of reality of a true perception that occurs without external stimulation of the relevant sensory organ.

Ideas of Reference – The feeling that casual incidents and external events have a particular and unusual meaning that is specific to the person.

Incoherence – Speech or thinking that is essentially incomprehensible to others because words or phrases are joined together without a logical or meaningful connection.

Mood – A pervasive and sustained emotion that colors the perception of the world. Common examples of mood include depression, elation, anger, and anxiety.

Panic Attacks – Discrete periods of sudden onset of intense apprehension, fearfulness, or terror, often associated with feelings of impending doom.

Paranoid Ideation – Ideation, of less than delusional proportions, involving suspiciousness or the belief that one is being harassed, persecuted, or unfairly treated.

Personality – Enduring patterns of perceiving, relating to, and thinking about the environment and oneself.

Phobia – A persistent, irrational fear of a specific object, activity, or situation (the phobic stimulus) that results in a compelling desire to avoid it.

Pressured Speech – Speech that is increased in amount, accelerated, and difficult or impossible to interpret. Usually it is also loud and emphatic.
**Psychogenic Polydipsia** - is the psychiatric condition in which patients feel compelled to drink large quantities of water. The condition is often a single symptom in a broader syndrome of psychiatric indications. Patients suffering from psychogenic polydipsia are at high risk of water intoxication, especially as the initial symptoms of lightheadedness and confusion may be misdiagnosed by care-takers as due to other causes.

**Residual Phase** - The phase of an illness that occurs after remission of the full syndrome.

**Sign** – An objective manifestation of a pathological condition.

**Symptom** – A subjective manifestation of a pathological condition.

**Water Intoxication** - (also known as *hyperhydration* or *water poisoning*) is a potentially fatal disturbance in brain function that results when the normal balance of electrolytes in the body is pushed outside of safe limits by a very rapid intake of water.

Adapted from the DSM-IV, American Psychiatric Association, Washington, 1994
Alphabet Soup

AIMS – Abnormal Involuntary Movement Scale. A widely used assessment/screen for tardive dyskinesia. The assessment is administered on a regular basis to check for signs of abnormal involuntary movements of the face, mouth, extremities, and trunk.

ED – Eating Disorder.

EPS – Extrapyramidal Side Effects. These include Dystonia, Parkinsonism, Akathisia, Rigidity, Parkinson Tremor, and Akinesia.


IPOS – Individualized Plan of Service.

IST – Incompetent to Stand Trial.

MAOI – Monoamine Oxidase Inhibitor. An enzyme that deactivates catecholamines and indoleamines within the presynaptic neuron, and indoleamines in the synapse. MAOIs are an older medication used for the treatment of depression.

MNT – Medical Nutrition Therapy.

NGRI – Not Guilty by Reason of Insanity.

PCP – Person Centered Planning. Person-centered planning is the approach used to empower persons with disability labels. It focuses on the person and their needs, not on the systems that may or may not be available to serve them. This ultimately leads to greater inclusion as valued members of both community and society. Person-centered planning involves the development of a "toolbox" of methods and resources that enable people with disability labels to choose their own paths to success; the planners simply help them to figure out where they want to go and how best to get there.

SSRI – Selective Serotonin Reuptake Inhibitor. A class of antidepressant medication. SSRIs work by increasing the level of serotonin in the brain, which can help to relieve the symptoms of depression.

TCA – Tricyclic Antidepressants. Medication for depression. Most tricyclic antidepressants also reduce REM sleep; also used to control cataplectic attacks, hypnogogic hallucinations, and sleep paralysis.

TD – Tardive Dyskinesia. A movement disorder, often irreversible, which occurs as an adverse effect of neuroleptic medications. It can be present during medication treatment or after discontinuation of the medication.

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Co-Morbid Eating Disorders

Psychiatric and medical conditions frequently have co-existing eating disorders. It is important to evaluate clients presenting with psychiatric conditions for possible co-morbid eating disorders as nutritional status may influence the clients' response to the psychiatric and/or psychological treatment.

The following are **AXIS I** diagnoses that commonly have a co-morbid eating disorder:
- Unipolar Depression
- Bipolar Depression
- Obsessive-Compulsive Disorder
- Seasonal Affective Disorder
- Post Traumatic Stress Disorder
- Attention Deficit/Attention Deficit Hyperactive Disorder
- Paranoid Schizophrenia
- Substance Abuse

**AXIS II** includes personality disorders. Additionally, it is used to note prominent maladaptive personality features and defense mechanisms. The DSM-IV recognizes three clusters of personality disorders:

- **Cluster A** is paranoid, schizoid, and schizotypical
- **Cluster B** is antisocial, borderline, narcissistic, histrionic
- **Cluster C** includes avoidant, dependent, obsessive-compulsive, and personality disorder, NOS

**Eating Disorders** frequently occur with clusters B and C, especially borderline, histrionic, dependent, and avoidant personality disorders. As with the Axis I diagnosis, it is prudent to screen for eating disorders in clients presenting with these clusters of personality disorders.

Reference:
### Behaviors and Nutrition Implications Associated with Psychiatric Disorders

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Potential Impact to Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxious</td>
<td>Overeating or under eating&lt;br&gt;Development of rigid eating patterns&lt;br&gt;Difficulty deciding what to eat</td>
</tr>
<tr>
<td>Depressed</td>
<td>Overeating or under eating&lt;br&gt;Feels too unworthy to eat&lt;br&gt;Somatic delusions of not being able to eat or physically too ill to eat</td>
</tr>
<tr>
<td>Mania</td>
<td>Under eating&lt;br&gt;Overactive, unable to take time to eat or drink</td>
</tr>
<tr>
<td>Suspicious</td>
<td>Under eating&lt;br&gt;Concern that food or fluid may be poisoned or altered</td>
</tr>
<tr>
<td>Behavior related to organic brain syndrome</td>
<td>Under eating&lt;br&gt;Confusion and forgetfulness; may not remember to eat</td>
</tr>
<tr>
<td>Withdrawal (as seen in schizophrenia)</td>
<td>Under eating&lt;br&gt;Expected delusions regarding food and fluid&lt;br&gt;Lack of interest in eating</td>
</tr>
</tbody>
</table>
Psychiatric Medications
Common Issues with Medications
Mary Emerson, M.S., R.D./L.D.

Antipsychotic Medications

Antipsychotics are commonly used to treat schizophrenia. The older medications known as the typical antipsychotics (Haldol, Mellaril, Thorazine and Stelazine) are not commonly used due to risk of extrapyramidal syndrome (EPS). The ‘atypicals’ are the newer line of antipsychotics known to be equally effective in treating psychotic disorders, but with a lower incidence of negative symptoms such as anhedonia, withdrawal, lack of energy and EPS. The atypical antipsychotic medications are more prone towards weight gain. The atypical antipsychotic medications are Clozaril (clonazepine), Zyprexa (olanzapine), Risperdal (risperderone), Seroquel (quetiapine), Abilify (aripiprazole), and Geodon (ziprasidone) in descending order of tendency towards weight gain. The most common side effects of the antipsychotics include dry mouth, weight gain, photosensitivity, and constipation. Other side effects that are less common include diarrhea, nausea, headache, weakness, and sleeplessness.

It is important that weights be monitored and any initial signs of weight gain be addressed. Commonly with dry mouth is the increase intake of caloric beverages that can promote weight gain. Some patients may report a decrease sense of satiety in eating. Increasing fiber and low calorie fluid intake can help with achieving a better feeling of satiety as well as counter potential constipation. It is important to discuss this with patients early in the course of treatment (particularly if the patient is on Olanzapine to help them identify signs that could lead to potential weight gain. Patients are encouraged to avoid alcohol while taking all the atypical antipsychotics. Another important concern with the atypical antipsychotics is the potential for metabolic syndrome (centralized obesity, insulin resistance, athrogenic dyslipidemia, and raised blood pressure). It is important to screen patients for risk factors (such as elevated blood pressure, abnormal lipid panel, elevated fasting blood glucose, elevated BMI, smoking, and a family history of cardiovascular disease) and discuss positive lifestyle changes to lower risk.

There is some experimentation of treating EPS with high dose Vitamin E, however this is still in the experimental stages.

Sources:

Information provided by www.SpringHarborHospital.com, Westbrook, Maine
## Antipsychotic Medications

<table>
<thead>
<tr>
<th>Nutritional Problems</th>
<th>Recommended</th>
<th>Not Recommended</th>
</tr>
</thead>
</table>
| **Dry Mouth**        | Encourage adequate water or non-caloric beverage intake.  
Suggest sugarless gum.  
Encourage moist foods, such as fruits, casseroles, etc.  
Encourage tart foods, such as sugar-free lemonade, lemon water, and citrus fruits. | Consumption of regular sugar containing soda on a daily basis as this can lead to undesired weight gain.  
Don’t ignore this problem as not treating dry mouth can cause the patient to consume greater amounts of foods and caloric beverages than needed leading to weight gain. |
| **Weight Gain**       | Evaluate the appetite stimulating effect of any new medication early in the course of treatment to limit weight gain.  
Olanzapine tends to cause weight gain early in the course of treatment with half of all weight gain occurring in the first 6 weeks and the second half occurring from 6 weeks to 6 months of treatment. Abilify has the lowest incidence of weight gain.  
Evaluate beverage consumption.  
Evaluate feelings of satiety.  
Discuss what is a normal portion of food.  
Encourage consumption of low calorie foods such as, nutrient rich fruits and vegetables. Suggest use of frozen vegetables and fruits on special.  
Encourage client to drink a large glass of water prior to meals to increase satiety effect of the meal.  
Increase fiber in the diet to increase satiety.  
Have the client utilize relaxation techniques to slow down food consumption at meals.  
Involve family members who are involved in meal planning and preparation to join in developing intervention plan. | Don’t assume if the client has gained weight that the medication has to be changed. First find out what the client is eating and drinking, then make modifications needed to achieve weight stabilization.  
Don’t assume the client will feel full at the end of a meal. Many times the feelings of satiety are diminished.  
Avoid the use of negative words, such as “Don’t eat ice cream”. It is better to emphasize what the client should eat more of.  
Avoid the use of “diet”. What we are talking about is a lifestyle change.  
Don’t set unrealistic goals for weight loss. Aim for 10% and break that down to more meaningful mini-goals. |
| **Constipation**      | Constipation may be caused by drug therapy or it may be due to inadequate fluid or food intake. If the client suffers from constipation, try to increase their fluid intake if this is medically appropriate.  
Encourage hot beverages.  
High fiber foods such as raw fruits and vegetables (especially the skins), whole grain bread and cereals, and dried fruits | Discourage the use laxatives unless under the supervision of their health care provider. |
<table>
<thead>
<tr>
<th>Nutritional Problems</th>
<th>Recommended</th>
<th>Not Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>provide good sources of fiber. Unprocessed bran may be added to casseroles and other foods the client normally eats. When possible, movement or light exercise should be encouraged to induce bowel movements. Positive benefits of exercise in stress management should be emphasized.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td>This may occur for 2-3 days after initiation of medication. Encourage small, frequent meals using bland foods. Contact health care provider if nausea continues more than 3 days. Avoid strong aromas. Avoid high fat foods.</td>
<td></td>
</tr>
<tr>
<td>Diarrhea</td>
<td>This may be transient – lasting less than 1 week. Contact health care provider if diarrhea continues more than 1 week. Encourage client to avoid milk greater than four ounces at a time. Encourage intake of foods that promote binding such as bananas, rice, applesauce, and yogurt.</td>
<td>The client should not consume sugar-free hard candies as these items contain sugar alcohols such as sorbitol and mannitol, which can cause diarrhea.</td>
</tr>
<tr>
<td>Sleeplessness</td>
<td>Establish a sleep-wake cycle. Stay active during the day. Establish a quiet sleep area. Avoid caffeine containing foods and fluids for 10 hours prior to sleeping.</td>
<td>Don’t take naps. Don’t keep trying to sleep more than 30 minutes if unable to sleep – get up, do something, then try again. Remember 1 hour of rest = ½ hour of sleep</td>
</tr>
</tbody>
</table>

Sources:

Nursing 2004 Drug Handbook, Lippincott, Williams & Wilkins.
Attention Deficient Hyperactivity Disorder (ADHD) Medications

These medications are divided into groups based on their length of action. The long
acting stimulants such as Adderrall XR, Concerta, Methodate CD, and Ritalin LA are
typically taken once a day with a length of action of 8-12 hours. The short-acting
stimulants include Ritalin, Ritalin SR, Metadate ER, Metadate CD, Metylin, Methylin ER,
Focalin, Dexedrine, Dextorstat and Adderall. The duration of action can range from 3 to
8 hours. The most common side effects of the stimulant medications are decreased
appetite, weight loss, stomach aches, headaches, trouble getting to sleep, jitteriness,
and social withdrawal. These adverse effects can usually be managed by adjusting the
dosage or timing of administration of the medication. If weight loss has been
experienced ensure that the medication is being with the meal rather than prior to it and
stress caloric density. The greatest caloric intake often occurs at breakfast and HS
snack. Strattera is a non-stimulant medication used for ADHD and should not have the
appetite dampening effect. Growth should be closely monitored for all children on
ADHD medications.

Other medications may be used in the treatment of ADHD, including tricyclic
antidepressants (Imipramine or Desipramine), Clonidine or bupropion (Wellbutrin).
Parents often utilize caffeine containing beverages with children since caffeine is a mild
stimulant. Individuals with ADHD may react to caffeine differently and actually find it to
have a calming effect. Always ask about caffeinated beverage intake and evaluate in
diet.

Sources:


Information provided by www.SpringHarborHospital.com, Westbrook, Maine
Antidepressant Medications

Low appetite is a common component of adhedonia typically seen in major depressive disorder. Depression by itself takes a significant toll on nutritional status with diminished intake in most people. Appetite stimulation may be key issue when working with a patient with Major Depressive Disorder. Antidepressant medications stimulate appetite (such as with Remeron (noted to plateau in 2-3 months), Paxil and Zoloft (particularly in the elderly)). Antidepressant medications may also dampen appetite (such as Prozac & Wellbutrin). There may be a one to two week adaptation period for gastrointestinal side effects such as nausea or abdominal discomfort.

Antidepressant medications include a number of categories, such as the Tricyclics (that includes Amitryptyline, Imipramine, Nortriptyline, Desipramine) and the Selective Serotonin Reuptake Inhibitors (SSRI’s) (that includes Fluoxetine Prozac, Citalopram Celexa, Sertraline Zoloft, Paroxetine Paxil, and Fluvoxamine Luvox).

Nutritional therapy for an individual on an antidepressant medication includes meal structuring for mood stability throughout the day, healthy eating for nutritional adequacy and minimizing risk of undesired weight gain, encouraging adequate fluid and fiber intake for bowel regularity, and evaluation of caffeine in diet and potential adverse consequences.

One category of antidepressants that a dietitian needs to be aware of are the Monamine Oxidase Inhibitors (MAOI’s) including Parnate and Nardil. These medications may cause a severe reaction to food that causes the blood pressure to rise so high that it is life threatening causing a hypertensive crisis. This scenario is extremely dangerous and has caused death. Common side effects of the MAOI antidepressants are low blood pressure, feeling light-headed, trouble sleeping, sleepiness, dry mouth, drowsiness, fainting, sexual dysfunction, weight gain and reduced tolerance for alcohol. If the patient eats prohibited foods or medications the signs of high blood pressure should be recognized: stiff neck, headache, palpitations, chest pain, nausea or vomiting, flushing or chills, fear, pallor or sweating. These medications require adherence to a low tyramine diet that avoids all aged foods, cheeses (limited amounts of American may be ok), sour cream, yogurt, beef or chicken liver, tenderized meats, game meat, avocados, bananas, figs, raisins, soy sauce, fava beans, and ginseng. MAOI medications react adversely with hundreds of other prescription medications. Make sure your client has a current list of these medications and avoids them.

Information provided by www.SpringHarborHospital.com, Westbrook, Maine
Anti-Anxiety Agents

Benzodiazepines are commonly prescribed for short-term relief of severe, disabling anxiety. They include Valium, Klonopin, Xanax, Versed, and Ativan. Long-term use can be problematic due to development of dependency and tolerance. They have hypnotic, sedative, and muscle relaxant properties.

The dietitian working with individuals with anxiety disorders should assess daily caffeine intake. Look for all sources of caffeine including soda, energy drinks, teas, etc. Realize that caffeine has a half-life of 5 hours and may intensify anxiety. Food intake structure should be evaluated and healthy meal patterning should be encouraged to promote mood stability.

Individuals with anxiety disorders may have either heightened or dampened response to thirst and hunger leading to either overeating or under eating. It is important to assess lifestyle to determine if food and beverages are being either overused or avoided due to anxiety symptoms. Very often not eating throughout the day can heighten anxiety symptoms and healthy meal patterning should be encouraged.

Information provided by www.SpringHarborHospital.com, Westbrook, Maine
Mood Stabilizing Agents

Mood stabilizing agents are prescribed in the treatment of bipolar disease. Common medications that fall in this category include Lithium Carbonate (Lithobid), Carbamazepine (Tegretol), Valproic Acid (Depakote, Gabapentin (Neurontin), Lamotrigine (Lamictal), and Topiramate (Topamax). These medications share some common potential side effects of nausea, diarrhea, and dizziness.

<table>
<thead>
<tr>
<th>Medication Name</th>
<th>Specific Potential Side Effects</th>
<th>Important Nutritional Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium Carbonate</td>
<td>Weight gain, headache, metallic taste. It is important that a consistent blood level be maintained. Over or under hydration may lead to either lithium toxicity or dilution. Concern about renal function with its long-term use.</td>
<td>Important to maintain consistent fluid and sodium intake. Counsel to salt to taste to maintain consistent intake of daily salt and fluid. Encourage good oral hygiene and adequate low calorie fluid intake.</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>Constipation, moderate risk of weight gain</td>
<td>Do not use grapefruit juice with this medication. Encourage adequate fluid intake.</td>
</tr>
<tr>
<td>Valporate Acid</td>
<td>Weight gain, sedation, vomiting, constipation, heartburn</td>
<td>Give with food or milk to decrease GI symptoms.</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>Vomiting, dry mouth, drowsiness</td>
<td>Avoid supplements or teas of chamomile, hops, kava, skullcap and valerian.</td>
</tr>
<tr>
<td>Lamotrigine</td>
<td>Headache, vomiting, anorexia, abdominal pain</td>
<td>Take dose with or after meals to decrease adverse events.</td>
</tr>
<tr>
<td>Topiramate</td>
<td>Anorexia and weight loss, dyspepsia, abdominal pain, constipation, dry mouth. May be prescribed off label to counter appetite increase of other medications such as the atypical antipsychotics.</td>
<td>Take with food. If undesired weight loss encourage high calorie snacks.</td>
</tr>
</tbody>
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Information provided by www.SpringHarborHospital.com, Westbrook, Maine
Substance Abuse
CO-OCCURRING DISORDERS AND DIETARY TREATMENT
Anne S. Hatcher, EdD, RD (ret.), CACIII, NCACII

Individuals who have a diagnosed mental disorder and who also abuse psychoactive substances including alcohol and street drugs are referred to as having a “dual diagnosis” or as having a “co-occurring disorder”. The mental health conditions most often cited as part of co-occurring disorders fall into two categories: preexisting and substance induced. Preexisting mental disorders include thought disorders (psychotic disorders) such as schizophrenia; mood disorders (affective conditions) including major depressive disorders and bipolar disorder; anxiety disorders such as panic disorder, obsessive-compulsive disorder, posttraumatic stress disorder and attention deficit disorder. Substance induced disorders that resemble mental disorders are stimulant-induced psychotic disorders; alcohol-induced mood disorders and marijuana-induced delirium. (Inaba and Cohen, 2004) In addition, PCP and other hallucinogens might induce symptoms of delirium. Having symptoms of mental illness and actually having a major psychiatric disorder are different issues. Severity and persistence of the symptoms is a major factor in deciding whether or not the diagnosis fits the criteria for a major psychiatric disorder.

The standard for establishing psychiatric diagnoses is the Diagnostic and Statistical Manual of Mental Disorders (DSM) which is now in its fourth edition (DSM-IV). A mental disorder is defined as a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is typically accompanied by impairment in one of more important areas of functioning. The DSM-IV defines psychoactive substance abuse as a maladaptive pattern of use not meeting the criteria for dependence that has persisted for a month or longer or has existed over a longer period of time. (SAMHSA 2003)

Persons who abuse psychoactive chemicals often present with symptoms of a personality disorder resulting from the impact of the chemicals on the brain and nervous system. As a person achieves and maintains sobriety, the majority of the symptoms might dissipate unless the mental health problem existed prior to the substance abuse. When the condition was present prior to abuse of chemicals, self-medication of the symptoms is often the reason for substance use/abuse. Thus the time at which mental symptoms occurred in relation to substance abuse is a major factor in deciding the course of treatment.

Inaba and Cohen (2004) noted that the correlation between mental illness and substance use/abuse is greater among persons with specific diagnoses. Sixty-one percent of those diagnosed with bipolar illness and 47% of those with schizophrenia also abused psychoactive substances. Among prison inmates, the correlation between addiction and psychiatric illness was reported to be 81%. Among those who have co-occurring disorders about 23% receive mental health care and nine percent were treated for addiction. As a result, approximately eight percent receive treatment for both conditions and 60% receive no care for either condition.

Untreated clients (hereafter referred to as consumers) with co-occurring disorders are at high risk for additional problems such as symptomatic relapses, increased
hospitalizations, financial problems, family problems and victimization. Of particular note is their risk for exposure to and infection with hepatitis and HIV. The goal of treatment for a consumer with a diagnosis of co-occurring disorder is to assist the person in developing high-quality, satisfying and functional life. Cessation of symptoms is not necessarily equal to recovery in the sense of recovery from addiction. Using the recovery model and philosophy, it is important to recognize that recovery is a process and not an end point. The focus of treatment then, is on hope, personal responsibility, education, self-advocacy and support as the consumer makes necessary alterations to his/her lifestyle and adheres to medical recommendations.

The problems related to severe mental illness and substance use disorders has been recognized by the Substance Abuse and Mental Health Services Administration (SAMHSA) resulting in a number of publications that are available to mental health and medical professionals at no charge. Co-occurring mental and substance abuse disorders affect approximately 4.6 million individuals in the United States. (Join Together Online. June 14, 2006) The authors of SAMSHA publications on this issue state that more than half of all adults with severe mental illness are further impaired by substance use disorders and that integrated treatment that addresses both problems results in better overall results than treating the issues separately.

In some situations, it is the dietitian who discovers that a mental health consumer is also abusing psychoactive chemicals. In the process of taking a dietary history, asking questions about alcohol consumption, medications and use of other chemicals is fairly normal. The consumer might find answering questions about dietary patterns to be less threatening than being asked the same questions by a physician; as a result the information provided might be more accurate than that obtained during medical intake.

Establishing the diagnosis of either chemical dependency or mental illness can become difficult due to the impact of chemical use on behavior. As a result some clinicians have recommended that the individual be psychoactive substance free for six months prior to determining the mental health diagnosis. However, the current thinking is to treat both conditions concurrently. From the dietetic viewpoint, the recognition that some medical conditions that have a nutrition component and nutritional imbalances can also result in symptoms that resemble mental illness is important. The focus of this paper is to describe the following factors:

1. Symptoms of chemical abuse that mimic mental health issues
2. Medical conditions with a nutritional component that have behavioral symptoms
3. Nutritional imbalances that result in altered behavior

Chemical Abuse and Behavior

As a result of substance abuse and/or withdrawal from psychoactive substances, psychiatric problems might develop as a result of the toxic effects of the drugs on brain chemistry. Imbalances in brain chemistry in this situation are often temporary and with abstinence the symptoms of mental illness will disappear over a period of a few weeks or perhaps as long as a year. The prudent clinician addresses all symptoms, but does not make a specific psychiatric diagnosis until sufficient time has elapsed to achieve
sobriety. Substance-induced mental disorders include delirium, dementia, persisting amnesic disorder, psychotic disorder, mood disorder, anxiety disorder, sexual dysfunction, sleep disorders and hallucinogen persisting perception disorder. In persons with a family history of mental illness who had no symptoms of problems prior to substance abuse, chronic mental illness might be present after sobriety is achieved. (Inaba and Cohen, 2004)

Use of stimulant substances including cocaine, methamphetamine, nicotine and caffeine might create symptoms that resemble mental health problems, especially if the substance is used in large amounts. The desired effects resulting in initial and continued use of stimulants are decreased appetite, weight loss, decreased need for sleep, increased energy and ability to focus attention. Physical effects include hyperthermia, cardiovascular over excitation or collapse. Individuals who use large amounts experience brain changes, malnutrition, paranoia, anxiety, mental confusion, and even hallucinations. (Inaba and Cohen, 2004) The effects of cocaine are shorter in duration than those for amphetamine. Crack which is more purified cocaine produces a more rapid and more intense “high” resulting in greater dependence on the drug. (Crumpler, 2006)

Hallucinogens/psychedelics are substances that impact the person’s perceptions, sensations, thinking and emotions. The effects of these psychoactive chemicals are not clearly understood on the basis of body chemistry and CNS alterations. The amount taken, personality, mood, expectations and the setting in which the substance is used all impact the experience. Physical effects include increased heart rate and blood pressure, hyperthermia, sleeplessness, dry mouth, loss of appetite and tremors. The effects of the substance can result in panic, confusion, suspiciousness and a sense of losing control of one’s body and environment. (Crumpler, 2006; Inaba and Cohen, 2004)

Opiates (narcotics) are analgesics commonly used in medical treatment and are also drugs of abuse. The general effects include sedation, slowed reflexes, sluggish movements, decreased respiration, cold skin and possible vomiting. Continued use results in tolerance and creates dependence. The initial reaction of opiate use is euphoria. Abuse of prescription medications, especially narcotics is a major issue in addiction treatment. In addition, over the counter cough syrups containing dextromethorphan (DXM) are used in large quantities to obtain the opiate effects. (Join Together, 2006)

A number of medications and street drugs can produce symptoms of that resemble mental health issues including symptoms of hypomania or mania including amphetamines, antidepressants, decongestants and corticosteroids.

Medical Conditions that Mimic Psychiatric Diagnoses

All consumers of mental health and substance abuse treatment programs deserve a thorough assessment and physical examination. In some situations, the symptoms indicative of mental health problems are actually the result of medical issues that can be treated with medication and/or lifestyle alterations. Psychoactive substances as well as
physical conditions can cause symptoms that might be diagnosed as mental health problems. (See attached lists at the end of this chapter.)

**Nutritional Imbalances and Behavior**

Deficiencies of some nutrients and/or imbalances might result in behavior that resembles that of the persons diagnosed with a co-occurring disorder. When performing a dietary/nutrition assessment and designing the treatment plan, such factors must be kept in mind. Dehydration that might occur as a result of insufficient fluid intake or the diuretic action of alcohol or other psychoactive substances might result in symptoms such as confusion, poor concentration or agitation. Kleiner, 1999) Lack of appetite and depression are common effects of insufficient thiamin intake. Woolsey, 2002; Higdon, 2003; Somer, 1995) Since thiamin deficiency in alcoholics is fairly common due to decreased absorption as a result of the diuretic action of alcohol and the utilization of thiamin in detoxifying alcohol. (Wardlaw, et al., 1994) Organic brain syndrome results from thiamin deficiency as well as brain damage from alcohol.

**Nutritional Symptoms Resulting from Chemical Dependency**

Use/abuse of alcohol and other mind altering substances frequently results in nutritional deficiencies and occasionally in nutritional imbalances in which excess of one nutrient impeded the utilization of another.

**Alcohol Abuse.** Alcoholics can subsist for about four years on a diet almost exclusively of alcohol. Alcohol provides 7 calories per gram so a 12 ounce beer containing 14 grams of alcohol yields approximately 150 calories (100 from alcohol and 50 from congeners). These are empty calories when alcohol is substituted for food. If consumed in addition to food, body weight will probably increase. (Palfai and Jankiewica, 1997)

Numerous nutritional deficiencies result as indicated by many of the symptoms of alcoholism. Alcohol is an irritant to all mucous membranes of the digestive tract resulting in possible ulcers. Its presence disrupts the absorption of all nutrients. Alcoholic hepatitis plus disruption of digestive enzymes from the pancreas decreases the availability of digestive enzymes. The nutritional deficiencies common in heavy drinkers include Vitamins A, D, E, K, C, and B complex, zinc, magnesium, potassium and calcium. Alcohol causes absorption of excessive amounts of iron, which might cause more problems in men than in women since women lose iron in menses. Malabsorption of essential nutrients places the alcoholic at risk for tuberculosis, nutrient deficiency syndromes, glucose intolerance and Wernicke-Korsakoff's syndrome. Higdon (2003) reported that most individuals who have Wernicke/Korsakoff's syndrome are alcoholics though it might also be present in severely malnourished individuals or persons with acquired immune deficiency syndrome (AIDS).

One alcoholic drink has the potential to affect memory. On the average, 5 drinks significantly affect memory. Alcoholic blackout occurs as a result of alcohol abuse; the individual might find it impossible to remember events that took place while intoxicated. Blackouts might last several days, but usually last for shorter periods of time. When blackouts occur, the individual appears to be functioning normally. The blackout is similar to transient global amnesia. (Inaba and Cohen, 2004)
There is strong evidence that 15% of alcohol dependent persons will show signs of alcohol induced brain damage before showing overt signs of alcohol related liver damage. Brain scans of persons in recovery after 15 years of alcohol abuse and free of any other health problems demonstrated reduced levels of brain metabolism in the areas of the brain known to be affected by alcohol. Evidence suggests that improvement in cognitive function is possible in alcoholics who remain abstinent, but this does not mean that every alcoholic who maintains sobriety will achieve complete recovery. Brain damage from alcohol appears to be linked to deficiency and malabsorption of B vitamins, especially thiamin (Wernicke-Korsakoff's syndrome). In certain cases, individual lose virtually all memories after a certain period in their lives. Tardive dyskinesia is usually noted among persons on long term psychoactive medications, especially major tranquilizers; it has also been found among chronic alcohol users with a history of 10-20 years of use.

Other factors to consider when conducting a nutritional assessment include the disruption of blood sugar levels which is common among chronic alcoholics. Research indicates that 45-70% of alcoholics with liver disease are also either glucose intolerant or diabetic. Many heavy drinkers experience episodes of hyperglycemia or hypoglycemia. (Biery et al., 1991) Chronic alcohol use might also interfere with metabolism of fat. When 10% or more of the calories are consumed from alcohol (many chronic alcoholics get half of their calories from alcohol) excess calories are usually stored as fat rather than as glycogen. (Tufts Univ. Ltr., 1992) Lactose intolerance (inability to digest milk sugar) is common among alcoholics. (Seitz and Suter, 1994)

Peripheral neuropathy including feelings of weakness, pain and burning sensations in the extremities is thought to be a result of alcohol disruption of B vitamin utilization. (Somers, 1995) Anxiety disorders are more common in alcohol abusers than in the general population. Of persons diagnosed with generalized anxiety disorder, more than 20% were alcohol dependent.

In addition to evaluation of food patterns, determination of hydration and fluid consumption is essential. The body needs more water than it can produce in the process of digesting foods. Alcohol and caffeine both act as diuretics and deplete body water. The effects of dehydration on mental functioning are not clearly delineated. One study indicated that persons who were dehydrated had reduced ability to perform arithmetic, short-term memory reduction and visuomotor tracking difficulty (all of these symptoms are observed in alcoholics in withdrawal). (Kleiner, 1999)

The simplest way to determine whether or not a person has sufficient water in his/her body is the color of the urine. A well-hydrated person has urine that is light in color. Flavor of beverages has a major impact of whether or not an individual consumes enough fluid. Kleiner (1999) Addicts tend to choose bottled water over tap water due to the perceived taste difference or might refuse any beverage that is not flavored or does not have a psychoactive effect. The energy drinks described elsewhere are frequently consumed by persons in recovery.

When assessing consumers, it is important to distinguish between socially adequate working alcoholic subjects who are likely to consistently consume regular meals which include a variety of foods while also drinking alcohol with those who eat more sporadically. In the first group, obvious signs of malnutrition and physical alterations are

less likely to be found or might be overlooked due to the substance abuse treatment emphasis on lifestyle issues. (Dietary patterns are rarely addressed as a part of lifestyle issues. If nutritional issues are addressed, the emphasis is on the amount of food rather than nutrient intake.) Among the so-called derelict individuals (second group) who frequently have multiple medical issues, signs of malnutrition and specific indications of nutritional deficiencies are more common and thus more easily documented. (Seitz and Suter, 1994) In addition to assessing food intake, dietitians and counselors would be well advised to determine water intake and to design a plan for water consumption. Having non-caffeinated and non-alcoholic beverages readily available encourages consumption. In addition, use of bottled, filtered or flavored water might increase intake.

**Stimulants.** The use of stimulant drugs, especially methamphetamine is currently a major concern in the United States. Cocaine and its derivatives are shorter acting stimulants with similar effects. Drugs of this type are appealing due to their effects of providing increased energy and less need for sleep as well as decreased appetite resulting in weight loss. Persons who abuse methamphetamine are usually malnourished and underweight. More recent studies of this population have found that the loss of teeth is a result of malnutrition and the chemical changes that occur in the body resulting in destruction of bone and tooth structure. Additional symptoms include sores in the skin, non-healing ulcers, liver disease and kidney damage. (Inaba and Cohen, 2004)

Prescription drug abuse is a phenomenon that appears to be increasing. Younger consumers who have grown up with the idea that problems can be “fixed with a pill” are increasingly using medications recreationally and to meet their needs. Stimulants such as those used to treat ADHD are used to help them study for longer periods of time or to be more alert when taking examinations. These medications appear to work by allowing the consumer to focus more intently and to screen out distractions. In addition to the desired effect of increased focus and suppressed appetite, side effects that might impact the consumer diagnosed with a co-occurring disorder include dry mouth and GI upsets.

**Caffeine.** Foods and beverages containing xanthines (caffeine, theophylline and theobromine) are popular in the U. S. due to the work ethic and the emphasis on productivity. In addition to being found in these products, caffeine is found in a number of OTC pain and cold medications, diet pills and stay-awake preparations. The desirable effects include alertness, improved concentration and ability to block distracting stimuli.

Caffeine Psychosis (Caffeinism) is a recognized psychiatric diagnosis. Use of more than 300 milligrams of caffeine daily might cause caffeine intoxication. The symptoms include restlessness, nervousness, excitement, insomnia, flushed face, diuresis, muscle twitching, rambling thoughts and speech, abdominal discomfort and rapid and irregular heartbeat. (Avis, 1999)

When an addict, discontinues use of the drug of choice, the usual reaction is to increase the use of legal psychoactive substances including nicotine, caffeine and herbal products that alter the state of consciousness. When working with individuals with a co-
occurring diagnosis disorder, consideration must be given to the use of energy drinks. The ingredients of these beverages include caffeine, herbs high in caffeine and other stimulants as well as electrolytes and vitamins. Consumers like the effects of these products and think that their health might be improved by using them. Anecdotal reports indicate that persons who have stopped using their drug of choice might use energy drinks and similar products because they think that they provide nutrients found in fruit juice and because they provide stimulation that they like.

Persons who consume caffeine regularly become dependent upon it and might experience lethargy and drowsiness without it. Since drinking coffee and caffeine containing soft drinks is acceptable and expected socially, use of it is a common occurrence. The individual who suddenly stops the use of these products is likely to have headaches for up to two weeks.
Withdrawal from Alcohol and Detoxification.

Definitions that might be helpful to the reader are:

- **Detoxification** – stage during which the body eliminates the psychoactive substance(s) through the normal metabolism of the drugs. Medical intervention might be needed when there is concern about complications such as seizures. Persons withdrawing from a psychoactive substance might be so pre-occupied with the symptoms of withdrawal that they might not be able to care for other health needs. (Ray and Ksir, 2004) p 58

- **Delirium tremens** – an alcohol withdrawal syndrome that includes hallucinations and tremors

The symptoms of withdrawal from a psychoactive substance are typically the opposite of the effects of the substance. Hallucinogen effects are not as predictable as those of stimulants, depressants and alcohol and as a result, the withdrawal symptoms are less predictable. The withdrawal process in this section is divided into that for the depressants alcohol and opiates, for stimulants and hallucinogens.

ASAM (2006) described maintaining fluid and electrolyte balance as of great importance during detoxification. Most consumers can be given fluids orally beginning with juices and progressing to soups. Solid foods are added only after liquids can be tolerated. Consumers who are vomiting or who have severe diarrhea should first be treated with sips of liquids that contain electrolytes. The amount can be increased based on the consumer’s tolerance. Those who are dehydrated should receive IV fluids containing electrolytes, dextrose and thiamine (100 mg. /bottle). Persons withdrawing from alcohol might be dehydrated, but could also be overhydrated. As a rule, low levels of dehydration are better tolerated than overhydration. (ASAM, 2006)

A person withdrawing from sedative substances and/or alcohol will become agitated and have difficulty sleeping while the body adjusts to the absence of the depressant substances. If an alcoholic is well nourished and in good physical condition, withdrawal from alcohol in an outpatient setting is relatively safe. However, an ill alcoholic, one who is malnourished and/or dehydrated is in need of supervised withdrawal. Symptoms relating to alcohol detoxification typically occur 12-72 hours after total cessation of drinking, but can appear whenever the blood alcohol level drops below a certain point. Symptoms usually peak within 24-48 hours. (Hanson et al. 2006) Seizure activity is most likely to occur 24 to 36 hours after the last drink and for most persons the risk is essentially over by 48 hours after the last drink. (Levinthal, 2005)

The abstinence syndrome that develops as a result of discontinued alcohol consumption is medically more severe and more likely to result in death than the withdrawal from most other psychoactive substances. In untreated advanced cases, the mortality rate might be as high as one in seven. Ray and Ksir described the stages of abstinence syndrome as follows:

1. Tremors, excessively rapid heartbeat, hypertension, heavy sweating, loss of appetite and insomnia
2. Hallucinations (auditory, visual and/or tactile. Olfactory signs are rare.
3. Delusions, disorientation, delirium sometimes intermittent and frequently followed by amnesia
4. Seizure activity.

The first issue in detoxification of the alcoholic is to get the individual past the immediate crisis. Respiratory depression from over consumption of alcohol increases the risk of death. Clearing the stomach and supporting respiration can get the individual through the first crisis. The next step is to allow the alcohol to clear the system (detoxification) while preventing convulsions and delirium tremens. IV administration of diazepam or another benzodiazepine sedative is the accepted procedure for controlling these symptoms. Clorazepate (Tranxene®-) which is less sedating that diazepam is typically the medication of choice for this population. The next step is rehydration and increasing blood sugar through feeding. (Ray and Ksir, 2004) pp288-89

Withdrawal from alcohol frequently results in an acute brain syndrome. In 90% of cases, symptoms develop within 4 to 12 hours after the last drink or after a reduction in drinking. In some cases symptoms begin 96 hours after the last drink or reduction in alcohol intake. In extreme cases, withdrawal symptoms do not appear until 10 days after the last drink or reduction in intake. (Inaba and Cohen, 2004)

In mild withdrawal, the consumer might experience only a few symptoms and not progress on to the next level of withdrawal. In more advanced cases, symptoms increase and become more intense over the first 6 to 24 hours. The consumer might begin to experience alcoholic hallucinations (visual and auditory). In extreme cases of withdrawal, symptoms will continue to become more intense over the next 24-48 hours and by the third day symptoms might include fever, incontinence and/ or tremors. Alcohol induced seizures might be seen in persons who do or do not experience hallucinations. Approximately 10% of alcohol dependent persons develop delirium tremens (DTs). The symptoms of DTs include hallucinations, delusional beliefs that one is being followed, fever and irregular heartbeat. In some cases normal fluid levels in the brain are disrupted and the individual might become dehydrated or might retain too much fluid. Such fluid accumulates between the brain and skull causing pressure (wet brain). Long term brain damage resulting from alcohol abuse results in a syndrome referred to as organic brain syndrome (OBS). The cause of this condition is thought to be a combination of brain damage from the toxic effects of the alcohol and thiamine deficiency. Traumatic brain injuries occur in approximately half of the persons injured in traumatic incidences each year; many of these persons test positive for blood alcohol.

Individuals brought to a community detoxification unit usually have not eaten for a period of time and are usually dehydrated due to the diuretic effects of the alcohol consumed. If diarrhea and vomiting have occurred, electrolyte imbalance might also be present. The blood sugar of alcoholics fluctuates as a result of the effects of alcohol as well as sporadic food consumption. Stimulant and depressant addicts usually have not consumed food for a number of days. The focus with these persons has been on acquiring and administering the drug of choice, not on eating. Any money available is typically spent of drugs not meals.

Dietary needs of the detox patient focus on supplying fluid to a person who is more than likely dehydrated, stabilizing blood sugar levels and supplying needed electrolytes.
survey of detoxification units in the metro Denver area found that none of them have specific protocols related to nutritional needs of consumers. The beverage provided is usually one made from a powdered drink mix. The sugar and fluid start the process of rehydration and raising blood sugar. Anecdotal reports indicate that persons in detox who are given an electrolyte-containing beverage such as one of the sports drinks stabilize and appear to be less likely to have seizures.

Meals served to this population usually consist of sandwiches and perhaps soup. As a whole they do not tolerate spicy foods; however, persons of some ethnic groups would prefer food seasoned with green or red chili. In most community detox centers, individuals are discharged as soon as tests indicate that their blood alcohol level is zero. The opportunity to further stabilize them nutritionally is compromised by the short time they are in the facility.

Persons withdrawing from stimulant substances have not slept for long periods and have had little to no appetite. During withdrawal, they sleep for long periods. When food is provided, they consume it in large amounts. When an individual has not eaten for a period of time, any food consumed will cause flatulence. If foods such as legumes, cruciferous vegetables and whole grains are included in the food provided, the problem with flatulence will increase and will result in consumer discomfort. Dietitians are advised to gradually introduce whole grains and legumes into meals. Large amounts of food eaten at one time will also increase the possibility of G.I. distress. As a rule small feedings provided more frequently are better tolerated. For the alcoholic, small frequent feedings help maintain blood sugar levels and improve the likelihood of remaining abstinent.

Opiate withdrawal results in G.I. distress including diarrhea and sometimes nausea or vomiting. Pain experienced is the result of having consumed analgesics for a long period of time. Abdominal cramping, anxiety and insomnia are all common symptoms of opiate withdrawal. (ASAM, 2006) The dietary protocol for these consumers is “diet as tolerated”.

**Medication Interactions**
Professionals attending to the medical needs of consumers must always be aware of the potential interactions between prescribed and over the counter medications with the drug(s) of choice. In addition, the dietitian working with consumers with a co-occurring disorder must be aware of potential interactions of prescribed medications and food.

**Assessment and Treatment.** Treatment programs for co-occurring disorders may or may not include nutritional assessment and nutrition education in spite of the fact that many substance abusers have abnormal dietary patterns. Addicts who may not show physical symptoms of nutritional deficiencies at admission are at risk for developing nutritional health problems. (Gray and Gray, 1989) Varner (1995) describes the coexistence of eating disorders and substance abuse as possibly different expressions of the same underlying issue that is a predisposition to addictive behavior patterns. Food and substances are frequently used to relieve anxiety, dysphoria, tension and depression. Consumers tend to maintain the problem behavior despite adverse consequences. In the past the mode of treatment recommended was to achieve abstinence from the substance and then address the eating disorder. The result is likely
to be the substitution of one addiction for another. Therefore, both disorders need to be addressed simultaneously. (Varner, 1995)

The residential treatment facility for substance abuse provides a greater opportunity for nutritional and medical assessment and treatment than does an outpatient treatment program. In addition to assessment of the nutritional and health status, providing appetizing and varied meals in an attractive and comfortable manner sets an example of optimum meal patterns. Allowing choices of healthy foods along with nutrition counseling is an optimal manner in which to offer nutritional therapy for addicts. Special concerns for persons in residential treatment for 14 to 28 days include changes in appetite, cravings, nausea and vomiting, diarrhea and substituting other mood altering substances for those no longer being used. Increases in consumption of high sugar foods, caffeine containing foods and beverages and increased cigarette smoking are common responses to loss of the drug(s) of choice. (Springs, 1992)

Under managed care health programs, substance abuse clients are typically treated in an outpatient setting where there is less control of the foods consumed and less opportunity for nutritional assessment and treatment. The challenge in this setting is to motivate the consumer to make essential changes and to stimulate interest in improving health through nutrition. Dietitians who have the opportunity to work with substance abuse clients in an outpatient setting often learn more about the substances used than do other health care professionals. Asking about alcohol and drug use is an essential aspect to taking a nutritional and health history.

**Eating Patterns of Addicts During Early Recovery.** Withdrawal from alcohol results in cravings for other substances that impact mood. Increased consumption of caffeine containing beverages, chocolate, candy and other sweets is common. The sweets help counteract depression, fatigue and irritability associated with alcohol withdrawal. Craving sweets might be the result of imbalances in blood chemistry, including blood sugar, serotonin, endorphins, and hormones. (Somer, 1995) Clinical observations of individuals in substance abuse treatment where they are free to choose the food consumed indicates an excessive use of sugar containing foods such as ice cream and other desserts. Of particular note is the large amount of sugar added to beverages and prodigious use of soft drinks. Treatment units in which sugared products are allowed often find that the supply is drained quickly. Clients who report binge eating indicate their foods of choice as being those high in sugar and fat. There have been many speculations as to the cause of this dietary phenomenon, particularly among clients who report minimal sugar use when drinking alcohol. A number of articles have reported this phenomenon and a few studies might partially explain the anecdotal reports. Excessive sweet intake may cause increased insulin response followed by hypoglycemia that activates a stress response and alcohol craving. (Biery, et al., 1991) Braun (1996) noted that addicts and alcoholics appear to be more sensitive to the effects of sugar than do non-addicted persons. Individuals who have stopped drinking alcohol might experience fluctuations in blood sugar more intensely than others might. Clients admitted to treatment for substance abuse might have elevated blood sugar due to increased stress hormones.

During heavy drinking, alcoholics often show mild to moderate hyperglycemia which continued into the early stages of withdrawal. The hyperglycemia has been attributed to reduced glucose tolerance on the basis of endogenous insulin resistance. Acute
alcohol administration to healthy individuals has been reported to increase blood glucose levels by decreasing tissue sensitivity to insulin. (Kaller and Blomquist, 1991) While drinking alcohol and during withdrawal and from some drugs, food intake tends to be inconsistent. Alcohol consumption frequently causes blood glucose fluctuations. The addict craves sugar for energy and to satisfy a psychological need for pleasure. (Braun, 1996)

In one study 38 consecutive non-diabetic, non-cirrhotic male alcoholics with a median age of 43 were studies in an inpatient setting. Alcohol intake had occurred within 48 hours of admission. Biochemical markers changed during the first week of abstinence from alcohol. Differences were more marked after a long than after a short drinking period. Fasting blood glucose was within reference range for all clients. At the first test, 10 clients showed diabetic response after 75 grams of oral glucose load. Median blood glucose increase fell within reference interval, as did the insulin response. (Kaller and Blomquist, 1991)

In a study reported by Yung, et al. (1988), 64 newly sober out patients were interviewed and a 24 hour recall diet history taken. This process was repeated with the same clients eight times over a period of 24 months. Clients were grouped according to periods of sobriety and the diet was analyzed for total calories, carbohydrate content, sucrose content, sugar added to beverages, protein, fat, vitamins and minerals. The subjects who maintained abstinence longer chose a diet containing twice as much sugar added to beverages and greater overall carbohydrate content than those who resumed alcohol use did. The specific connection between sugar consumption and sobriety was not determined. (Yung, et al., 1988)

Somer (1995) describes the use of high sugar foods during withdrawal from smoking as well as from alcohol. Smokers who consumed a high carbohydrate diet as a part of withdrawal were more successful in smoking cessation and did not crave sugar. Those who paid less attention to dietary needs were more likely to rely on sugar to substitute for tobacco, to elevate mood and diminish withdrawal symptoms. Alterations in body chemistry and nerve receptors often occur in substance abuse client; dietary alterations might then result due to decreased sense of taste and smell. Decreased sense of smell and taste are fairly common among alcoholics due to zinc deficiency or head trauma while under the influence of alcohol or drugs of a combination of these factors. NIH estimates that approximately 2 million American adults have altered senses of taste and smell, however, supplementation with zinc will not improve sense of taste and smell unless a zinc deficiency exists. (Mattes and Mela, 1988)

Important goals of nutrition therapy for alcoholic rehabilitation are restoration of metabolic homeostasis, correction nutrient deficiencies and prevention or minimization of craving for alcohol and/or inappropriate foods. To reduce cravings, a well-balanced, high complex carbohydrate, nutrient-dense diet provided in small frequent feedings is recommended. Nutritional supplements are recommended where indicated. Reduction of caffeine and gradual planned reduction of sugar intake can be supported with frequent small meals that assist in normalizing blood glucose levels. Correcting nutrient imbalances and deficiencies enhance a sense of well being and appear to decrease alcohol craving. (Biery, et al., 1991)
Nutritional Therapy and the Addict. The goal in nutritional treatment of the addict is to work with the client in establishing new patterns of behavior related to food and nutrition. Unless there is life threatening illness or fear of loss of usual ability to function, changes in food choices will not be made readily. Nutrition education has little impact on the addict in treatment. Once the need to stop using has been accepted, all emotional, psychological and physical attention is placed on not using. The concept of having to change yet another aspect of life is unthinkable. Addicts will, however, seek a quick fix in the form of medication, nutritional supplements, herbs and other “magic potions”.

In recovery, the addict continues the pattern of liking predictability and quick fixes. If a pill or potion will do the trick, why wait days, weeks or months for a change in lifestyle to provide the needed relief. Recovery from substance abuse is about learning to live a different way and the addict/alcoholic has given up many of the primary support systems that made life work. Discontinuing the use of these substances was and is a major life change. Many addicts think that discontinuing the use of the drug(s) of choice is enough to ask of anyone and will adamantly resist other changes in their lives.

An important part of relapse prevention for the alcoholic is improved nutritional intake. Substituting alcohol for food, as commonly occurs with alcoholics, provides calories, but not other nutrients. Impairment of the digestive tract and liver disrupts digestion, absorption, storage and utilization of nutrients. Even when the alcoholic eats regularly, the effects of alcohol may disrupt the utilization of nutrients to the point of causing nutritional imbalances and deficiencies. Abstinence from alcohol will result in some nutritional improvement, but abstinence alone will not repair damage or change the diet to one that provides all the essential nutrients. (Miller and Gorski, 1982)

Nutritional Treatment of Chemical Dependency. Recovery from substance abuse does not occur in one step. It is a long slow process with slips backward for most recovering persons. A number of addiction specialists have described the recovery stages. The most commonly cited recovery stage model is that of Gorski and Miller (1982). Using this model, the helping professional can identify the changes occurring in the addict’s life at each stage and the appropriate information to offer as well as the support needed for nutritional change. The stages and the suggested nutritional modifications for each are as follows:

- **Stage I: Early Recovery** – Tasks to be accomplished in this stage are emotional and cognitive processing of the fact that alcoholism and drug abuse are destroying his/her life. (Gorski and Miller, 1982) Most recovering persons spend approximately a year in Stage I Recovery. Appropriate changes in nutritional intake during this period revolve primarily around insuring food intake at regular intervals and encouraging use of a wider variety of foods than when the individual was drinking.

- **Stage II: Middle Recovery (Aftercare)** – For most consumers, Stage II occurs after the consumer has made a commitment to long-term treatment and the lifestyle changes essential to maintaining sobriety. The consumer must face self honestly and decide on appropriate changes to support the recovery process. (Gorski and Miller, 1982) At this stage of recovery, the consumer might begin to question the types of foods needed and is more open to learning about and implementing dietary changes which will enhance health and assist in recovery. For most consumers, consumption of foods from the recommended food groups is the primary goal of...
nutritional therapy. For highly motivated consumers, experimentation with new food patterns will be possible. Consumers interested in taking care of the problems resulting from poor nutrition will read books, solicit advertisements and explore the use of nutritional supplements and herbs.

- **Stage III: Late Recovery** – As the consumer becomes more comfortable with the new lifestyle essential to staying alcohol and drug free, assessment of life problems that occurred as a result of alcohol and drug abuse becomes possible. (Gorski and Miller, 1982) Sobriety has become a way of life and modification of fat and sugar intake, appropriate weight control measures and addressing the nutritional health problems resulting from alcohol and drug use are most likely to occur at this point of recovery.

- **Maintenance:** Recovery from substance abuse is a life-long process resulting in continued increase in knowledge and making appropriate changes in lifestyle. (Gorski and Miller, 1982) As recovery becomes more stable and the body changes with growing older, appropriate nutritional changes are needed.

**Nutrient supplementation.** Recovering persons like to share their experiences, especially the things they tried which made them feel better. Individuals in recovery look for quick fixes and tend to be very vulnerable when it comes to having the magic cure, the quick fix or immediate gratification. They want life to be simple; black and white, good and bad, right and wrong are much simpler to comprehend and live by than maybe and possible. Vitamins are considered magic substances because such minute quantities of them are essential for health and even for life itself. When a dietitian refers to them as enzymes or helpers, they lose the magic for some persons and gain more status in the eyes of others. Supplements, purified food substances and herbs since they originated with foods or plants seem safe enough, but in the long run might impede progress rather than enhance it.

**Using Nutritional Supplements Wisely.** Thompson and Pratt, (1992) noted that considerable evidence for occurrence of nutritional deficiencies in chronic alcoholics has been documented. On this basis, nutritional supplementation is justified as an aspect of standard treatment. The timing of nutritional therapy is critical in order to decrease continued brain damage due to nutritional deficits. On the basis of what is currently known about alcoholism, Feinman and Lieber (1992) made the following nutritional therapy suggestions:

- Fifty milligrams of thiamin daily until oral intake can be established followed by oral intake of 50 milligrams daily for weeks until neurological problems are resolved.
- Vitamin B₆ in the usual multivitamin supplement unless neuropathy or pyridoxine responsive anemia has been diagnosed. Large doses must be avoided.
- Vitamin C supplementation of 175 to 500 milligrams for weeks or months to restore normal levels of plasma and urinary ascorbate.
- Modest Vitamin A replacement, especially for those persons who continue to consume alcohol. Vitamin A supplementation should be considered for those who are confirmed as deficient and who can be assured abstinent. Documented fat malabsorption should prompt parenteral Vitamin A replacement.
- Increased intake of Vitamin D₃ in persons with osteomalacia.
- No recommendations for dietary supplementation of Vitamin E or selenium are warranted.
Zinc supplementation for individuals having night blindness if the symptoms have not been resolved with Vitamin A supplementation (both zinc and Vitamin A deficiency might result in night blindness).

Auerhahn (1992) cautioned health care professionals about routinely giving nutritional supplements without a careful history of what the client is already taking. Many alcoholics self-medicate with nutritional supplements, tonics and over the counter health aids with the belief that liver damage will be prevented. The risk of hypervitaminosis exists for the client who continues to use the self-selected supplements plus those recommended by the dietitian. The most common types of hypervitaminosis are from vitamin A and niacin. Fat soluble vitamins, especially Vitamin A or Beta Carotene are poorly absorbed and utilized by persons who have had liver damage. Taking such supplements might result in additional liver damage.

Smokers need more Vitamin C than non-smokers. For most of them, 500 milligrams daily is sufficient. Mega doses of Vitamin C must be detoxified by the body. The body learns to discard the extra and when vitamins might be used as medications, they will not work as effectively as they might otherwise. In addition, large doses of ascorbic acid often interfere with prescription medications or with chemicals being administered to prevent the use of alcohol or drugs (for example, methadone and disulphrim).

B vitamins, especially thiamin act as mild stimulants. Recovering persons usually feel better on a nutritional supplement containing thiamin than without it. However, if they take such supplements regularly for a period of four to six weeks, the body becomes dependent on a consistent supply of thiamin at that dose. When the client does not take the supplements for three or more days, depression will probably result. Depression during the recovery period might provide the justification for “using again”. The recommended level of supplemental B vitamins is one to three times the RDA. At this level of supplementation, the consumer is less likely to develop the dependency described and at the same time is receiving sufficient amounts of the B complex vitamins to meet body needs resulting from malnutrition secondary to alcohol abuse. Three times the RDA for niacin might cause overdose flushes in some clients and not in others. Experimenting with the dose level might be needed to determine what works for a particular client. Larger doses of nutritional supplements (over three times the recommended amount) can no longer be categorized as food; higher doses act as at medications rather than nutrients and need to be monitored by the dietitian.

Mineral supplements particularly important for substance abuse clients include zinc, calcium, magnesium and potassium. Under ideal circumstances adequate amounts of these nutrients can be obtained from food. Supplements of zinc and calcium might be important for some clients who have malabsorption or who will not consume adequate amounts of foods containing them. Potassium can usually be obtained from fruits and vegetables and is not needed in supplement form. Some clients benefit from a supplement providing 100% of the recommended amount of magnesium while others develop diarrhea with that amount. Adjusting the level of supplement to meet the needs of the client is often done by trial and error.
Summary
Addiction recovery is a process, not a goal to be reached and forgotten. The role of the dietitian is to sort out health and nutrition ideas including those from doctors and to help the consumer determine how to implement those concepts in his/her overall health care plan. The dietitian has skills to assist the consumer in working towards balance and continuing progress in recovery through awareness and understanding of her/his dietary and nutritional needs.

The first step for a dietitian working with substance abuse clients is to step out of the dietitian’s role and learn about alcohol and drug abuse. In addition to assessing the consumer and making recommendations, pay attention to:

- What is the person feeling?
- What does he/she need to help maintain sobriety?
- What changes have occurred in her/his life as a result of substance abuse?
- How has substance abuse impacted health?
- What foods are familiar and give a feeling of comfort and safety?
- What drugs have been used and how were food patterns altered as a result of the substance use?
- What current eating habits support good nutritional status and which ones need to be changed?
- Work with the consumer to establish a priority for making changes
- Pay attention to any diagnoses in addition to substance abuse?
- Involve support persons to assist the consumer in making needed changes

Successful nutrition treatment involves a certain amount of adapting to the consumer’s needs and lifestyle. The following principles are suggested:

- Become a counselor who also knows about nutrition and is willing to take one step at a time as the consumer is ready
- Think small; set limited (at the most 2) and achievable goals and focus on making one change at a time.
- Focus on dietary changes that will help maintain sobriety and improve the sense of well-being
- Educate the consumer’s support persons about the nutritional needs and dietary alterations suggested
- Maintain a sense of optimism and humor around the ways of altering food patterns
- Rely on supplements, if necessary, to promote a sense of well being while new dietary patterns are being learned and tried.

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Medical conditions that might have depression as a symptom:

Addison’s disease	Cushing’s disease	Menopause
AIDS	Congestive heart failure	Multiple Sclerosis
Anemia	Hyper or Hypo thyroidism	Hormonal changes
Asthma	Diabetes	Rheumatoid arthritis
Chronic Fatigue Syndrome	Hepatitis	Syphilis
Chronic infection	Cancer	Lupus
Chronic pain	Malnutrition	Uremia
Colitis	(Preston & Johnson, 2000)

Medical conditions that might result in manic symptoms include the following:

Brain tumor	Metabolic changes occurring with dialysis
CNS syphilis	Metastic squamous adenocarcinoma
Delirium from various causes	Multiple Sclerosis
Encephalitis
Influenza	(Preston & Johnson, 2000)

Anxiety reactions might result from the following medical conditions:

Adrenal tumor	Delirium	Meniere’s Disease (early stage)
Alcoholism	Hypoglycemia	Parathyroid disease
CNS degenerative diseases	Hyperthyroidism	Post-concussion syndrome
Coronary insufficiency	PMS	Mitral valve prolapse

Psychotic symptoms might be the result of any of the following conditions:

- Drug-induced psychoses
- Wernicke’s encephalopathy/ Korsakoff’s psychosis
- Heavy metal poisoning
- Kidney and liver failure
- Seizure disorder
- Dementias
- Thyrotoxicosis
- Electrolyte imbalances
- Alcoholic hallucinosis
- Vitamin deficiencies
- Infections and abscesses of the brain
- Neoplasms
- Lowered cardiac output
- Adrenal hyperfunction
- Diabetes mellitus (Bailey, 1998)
- Sleep deprivation
Substance Abuse and Nutrition

Commonly Abused Drugs

The psychoactive substances most often abused resulting in addiction are categorized as:

- Cannabinoids
- Depressants
- Dissociative Anesthetics
- Hallucinogens
- Opioids and Morphine Derivatives
- Stimulants
- Other Compounds – anabolic steroids and inhalants

These chemicals have been classified into schedules in the Controlled Substances Act. The schedule is determined by medical usefulness and potential for addiction.

Schedule I substances have a high potential for abuse and have no recognized medical use in the United States. Use of these substances as medication in other countries might be legal. Schedule I drugs are available for research only. Security for storage of these substances is very high and there are quotas on amount produced.

Schedule II drugs are available only by prescription (no refills) and are tightly controlled. Storage of such substances must be very secure with restricted access.

Schedule III and IV drugs are available by prescription (up to five refills in six months) Schedule V drugs might be available over the counter; the potential for abuse is very low.

Cannabinoids include hashish (hash, hash oil, hemp) and marijuana (dope, ganja, grass, joints, Mary Jane, pot, weed). Indications of use are euphoria, slowed thinking and reaction time, confusion, poor balance and coordination, frequent respiratory irritations, impaired memory and increased heart rate.

Depressants include barbiturates, benzodiazepines (Ativan, Halcion, Librium, Valium, Xanax), flunitrazepam (Rohypnol), gamma hydroxybutyrate (GHB) and methaqualone. Indications of use are drowsiness, depression, slurred speech, gastrointestinal disturbances and coma and death are possible in large doses.

Dissociative Anesthetics include phencyclidine (PCP) and ketamine (Special K, Ketalar, Vitamin K). Intoxication effects include increased heart rate and blood pressure, impaired memory, nausea and vomiting. In addition, PCP is an analgesic so persons under the influence do not feel pain. Some of the actions of the persons using PCP can be better understood when the analgesic properties are considered.

Hallucinogens are substances that produce an altered state of perception and feeling. The drugs in this category are LSD, mescaline and psilocybin as well as plant parts that Result in dissociation and hallucinations. Persons using these substances might Experience increased body temperature, increased blood pressure, suppressed appetite, sleeplessness, weakness and tremors in addition to the dissociative experience.
Opioids and Morphine Derivatives are substances derived from the opium poppy or synthetic substances with similar formulas. Codeine, Fentanyl, Heroin, morphine and opium are in this category. Indications of use are constricted pupils, pain relief, euphoria, drowsiness, respiratory depression, nausea, constipation and unconsciousness.

Stimulants include Adderall, Biphetamine, Dexedrine, cocaine, MDMA (ecstasy), Ritalin and nicotine. Use of these substances allows the individual to go long periods without sleeping or eating. The enhanced concentration and energy results in a feeling of power and control. Overdoses can cause paranoia and impulsive aggressive behavior. Heart damage or a heart attack is entirely possible. Smoking any of these substances, but particularly nicotine containing products increases risk of cancer and heart disease.

Other Compounds include but are not necessarily limited to anabolic steroids and inhalants. Indications of use include stimulation, loss of inhibitions, headache, damage to internal organs, alterations in sperm production and changes in secondary sex characteristics.

References:
Contributed by Anne Hatcher, RD (ret)
Nutrition and Addictive Substances

Malnutrition is a major concern with most substance abusers and every client deserves nutritional evaluation. Money has been spent on drugs rather than on food and the food that was consumed might have been low in nutritional value. Stimulant drugs and opioids suppress the appetite so the user might go long periods without eating. Nutritional assessment of these clients often indicates poor teeth, GI problems, night blindness, muscle tremors, bleeding gums, easy bruising and poor wound healing. Accidents and falls experienced while under the influence of drugs or alcohol might result in head injury and loss of the sense of smell. A person who has not sense of smell does not find eating pleasurable and can only taste sugar and salt. Persons who cannot detect the odor of food rely on mouth feel and texture. They tend to like sweet and salty foods, those with high fat content and those that contain hot peppers. Most persons who have no sense of smell consume large amounts of chocolate. Most substance abuse clients benefit from nutritional supplementation with a one a day vitamin/mineral supplement. Changing the diet of these clients presents a major challenge and often just maintaining blood sugar through eating consistently becomes the obtainable goal. Weight gain, especially for women, is a major concern when food is provided regularly; exercise combined with a regular meal pattern is an essential aspect of treatment and recovery.
CLIENT HANDOUTS

Quick Fixes and Magical Thinking, the first selection in this section is a description of attitudes commonly found among addicts and the ways in which that might impact their nutrition choices. Following that selection are client handouts that can be duplicated and utilized when counseling clients or when leading educational groups for clients and/or their families. Most handouts are two pages in length so that they can easily be duplicated on one sheet of paper. The handouts have been written on the basis of questions asked over many years of experience working with this population.

Anne S. Hatcher, EdD, RD, CACIII, NCACII
April 28, 2004
Quick Fixes and Magical Thinking
Anne S. Hatcher, EdD, RD, CACIII, NCACII

Addicts like quick fixes and predictable results; alcohol and other psychoactive substances fulfilled their needs well. The effects of a psychoactive substance are not always pleasant, but the mind-altering effects are predictable. Interacting with other persons and life in general is not predictable. Therefore, for the alcoholic/addict, using a chemical to insure a predictable reaction and/or mood seems preferable to everyday life.

Recovering persons like to share their experiences; especially the things they tried which made them feel better. From the addict's point of view, the helping professional needs to be ever aware that all of us who are recovering looked for quick fixes and the sure things. On the whole, Americans tend to be very vulnerable when it comes to having the magic cure, the quick fix or immediate gratification. The desire to have life be simple; black and white, good and bad, right and wrong seems easier and more certain than questioning what is read or heard.

Nutritional supplements seem like magic substances because such minute quantities of them are essential for health and even for life itself. When a dietitian refers to them as enzymes, they lose the magic for some of us and gain more status in the eyes of others. Supplements, purified food substances and herbs since they originated with foods or plants seem safe enough, but in the long run might impede our progress rather than enhance it.

Recovery is a process, not a goal or an end in itself - so is life and so is health. Assistance in sorting out health and nutrition ideas including those from doctors will support our new lifestyle. We forget to analyze and determine what makes sense and what sounds too good to be true. The goal is to work towards balance and continued progress in recovery through awareness and understanding.

Evaluating Information
Well-meaning professionals, recovering person and entrepreneurs looking for a market are ready to fulfill the needs of the recovering person or the person who wants a pill to stop the desire for drugs or alcohol. Products recommended to meet the needs of the person who has difficulty stopping, the individual who has problems staying clean, the person struggling with the ups and downs of recovery are to be found around almost any corner. Books, articles in health and popular publications, newspapers, health food store employees, and health professionals have advice for the addict. Such advice often ignores or places little emphasis on the need for lifestyle changes such as sufficient sleep, exercise, and increasing water intake. The focus is on a product or combination of products recommended by or sold by the individual. A visit to any bookstore, health food store or the Internet will provide the customer with one or more publications and/or recommendations for supplements. When evaluating health and nutrition information, it pays to maintain an inquisitive mind and question rather than blindly accepting what is reported. Comparing the reports from a number of sources might provide greater insight into what is really known.

Be wary of any recommendation that research can be done in the neighborhood bookshop; scientific research is published in professional journals, government publications and presented in the form of papers at professional conferences. To assist the reader, a list of recommended references is included in this manual.
For the inexperienced person and sometimes for the health professional seeking answers, an article or book in print might appear to be based on research when it is really based on anecdotal evidence. Often the stories reported by clients or the experiments tried that provide positive results lead to further study and research. At other times, the stories are reported to others and soon there is the assumption that research was conducted. A brief review of the research process will give the reader a basis for evaluating information. Research is a process of gathering information in a systematic way using prescribed methods which produce more or less consistent results and which can be verified by other persons. The research that is considered strongest can be replicated by other individuals. However if only one person has experienced the reported results, the study might be labeled “provisional” because it applied to one specific study under certain conditions. (ATTC, 2003)

**Understanding Research**

Research can be categorized as basic versus evaluation or qualitative versus quantitative. Basic research involves finding the answers to specific questions. The theoretic relationship of one variable to another is tested. For example, which of two or more medications is most effective in preventing the recovering alcoholic to return to drinking alcohol? Evaluation research measures the effectiveness of a specific method of interacting with clients. For example, which of two outpatient treatment program approaches was most effective in reducing the number of persons who relapsed? The outcome of research can be documented as quantitative or qualitative. In quantitative research numbers are assigned to the results and the outcome can be described in numerical values. In qualitative research the important variables are described in narrative form. When comparing the effectiveness of two programs, the stories of clients who have succeeded are compared. (ATTC, 2003)

For many persons in the health care or mental health disciplines, quantitative research is the only acceptable format for conducting and reporting research. If numbers can be assigned to the variables and the outcome, the research is considered more reliable. In addition, replicating the research is easier because those conducting studies have a defined baseline for comparison to their findings. Some of the information reported in books and articles can be defined as qualitative based on careful documentation of what clients reported.

Nutritional intervention in substance abuse treatment might be based on providing education to clients and measuring the Addiction Severity Index (ASI) scores prior to and after providing the nutrition education. Such a study was reported in the Journal of the American Dietetic Association in April 2004. (Grant, et al. 2004) The authors suggested that the protocol of addiction treatment as a long term chronic illness proposed by McLellan (tresearch.org) be followed and that nutrition education in group settings should be a major component of the long-term support program. Based on a study with a small group of persons in treatment, the conclusion was that nutrition education resulted in improved ASI scores while lack of nutrition education resulted in decreased ASI scores. The authors also noted that treatment programs that included group and individual counseling, education and case management provided the most significant changes in client ASI scores and relapse rates. (Grant, et al. 2004)
Research from numerous studies points to recognizing addiction as a long term chronic illness in which the brain is affected in various ways. The brain impact under discussion includes genetic differences resulting in craving and changes in the brain chemistry as a result of life experiences such as trauma and/or by drug use. Proposed nutritional therapies to treat the CNS effects include the use of multivitamin supplements, use of specific vitamin and/or mineral supplements in various quantities and the use of amino acid supplements. The suggested regimen varies on the basis of experience in treatment reported by addiction treatment specialists, physicians, nurses, and nutritionists. A fairly consistent statement in articles and books about nutritional therapy is that the brain has become unable to produce needed brain chemicals naturally. As a result the individual might substitute an addictive substance for the brain chemicals that are lacking or that are present in insufficient amounts. Addiction occurs when the imbalance in the neurochemicals affects the brain’s reward system. On the basis of this information, the person making the report suggests that nutritional supplementation will restore balance and reduce craving and relapse. The doses of nutrients suggested vary widely from moderate amounts suggested in this publication to “mega” doses suggested by a number of authors.

This author suggests a number of considerations when reading and assessing published nutritional recommendations:

1. Remember that the body works on the basis of homeostasis (dynamic balance). Nutrition research conducted over the last 50 years has provided the basis for daily allowance recommendations. Those recommendations were made for individuals who are in good health and who attend to their medical and health needs.

2. The average addict usually has a number of health issues due to lack of attention to health needs, inadequate or imbalanced diet and changes in the body resulting from the substances used. As a result, nutritional intervention is advisable. The person reading nutrition information often thinks that the recommended amounts are low and that the optimum intake is much higher. There is also the supposition that some nutrients are needed in much larger amounts than are others. A factor that is often ignored is the proportion of nutrients in the recommended amounts is basically correct. With additional research, there might be minor changes, but as a general rule of thumb, the proportions are correct.

3. Most individuals reading about nutrients and nutritional approaches to treatment for any health condition assume that if there is a problem, the cause is inadequate amounts of one or more nutrients. The indications of an excess for some nutrients and deficiency symptoms are so similar that one can assume that the problem is deficiency when in fact it is the result of excessive levels. Careful evaluation of the all the supplements being taken, the foods regularly consumed and a review of medications will provide a more accurate picture of the person’s nutritional needs.

4. When nutrients are taken in large amounts and out of proportion, another imbalance might occur and result in additional health problems. Such health problems might not become obvious for months to years as the body adapts to what is being provided.

5. As a result of homeostasis, the body adjusts to the varying amounts of nutrients found in food and over a period of time maintains stability. However, when the
same amount of a nutrient or nutrients is provided in supplements, the body adjusts to expect that amount. If the individual stops taking the nutritional supplements, the body will experience withdrawal with the most likely symptom being depression. Fat soluble vitamins are stored in the body for some months so withdrawal is more gradual and symptoms are not likely to be noticed. However, water-soluble nutrient levels decrease sufficiently to cause withdrawal reactions approximately four days after the last dose.

6. When nutrients are taken in large amounts, they are more medicinal than nutritional in action. With the research being conducted on the use of nutrients as medicine, evidence is mounting to support their use. When an individual has routinely taken large doses, the medicinal effect is reduced. This is not a situation of the body just discarding the extra, it becomes dependent on the dose usually taken.

7. The use of amino acid supplements to treat addiction appears to have potential in decreasing relapse and in restoring body balance. To date the quantitative research that has been replicated is not easily found. As a result, persons wishing to use amino acid therapy are doing so on the basis of anecdotal evidence and a few qualitative studies conducted over a short period of time. While the person reporting the successful use of these products might have worked with clients over a period of time, often individual clients are followed for brief periods. Much of the research in this area has been reported by individuals or companies who sell amino acid supplements. Some of the research has been found to be lacking in evidence, but that fact has not been widely reported in the books found in bookstores.

As a result of these facts, the author suggests careful evaluation of nutritional supplementation, taking smaller doses at first and increasing doses if the amount seems to be inadequate. Consultation with a health care professional who knows about nutrient balance and health, especially the impact of addiction is recommended.

When reading research, magazine articles or books, evaluate the information on several points including the following:

1. What are the qualifications of the individual reporting the research or suggesting the nutrition regimen?
2. Does the individual also sell the product recommended and suggest that other brands or sources will not be effective?
3. When was the information published? There is research from 50 years ago that is still valid and is the basis for current research. It has been validated by being repeated in various settings and by various research specialists. If information is described as being current, it was usually reported within the last five years.
4. Are certain nutrients recommended in proportions that vary widely from that recommended? If so, is a particular reason given for the amount being out of proportion?
5. Can the nutrients recommended be obtained by altering the diet and/or food preparation method?
6. Was the research quantitative or qualitative? If it is qualitative, how many clients were studied and for what period of time? It takes a period of years to determine the effectiveness of nutritional modifications. Some results might be apparent in a short time, but what really determines the effectiveness of the treatment is what
occurs over a period of time and whether or not relapse rates decrease in the long run.
7. Research information might be discarded due to further work that indicates that what was previously accepted as fact is untrue. Continued awareness of research and its findings is important.
8. Reports of results may or may not describe follow up and documentation of continued response to treatment. The most reliable information would be based on following the same persons over a period of years and monitoring them on a regular basis. Such studies are time consuming and difficult to conduct because of the mobility of many addicts.

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THE WEIGHT GAME

Weight gain is a real concern for persons in recovery, especially women. When persons who skipped meals to get high faster begin eating regularly, the result is gaining weight. The temptation is to go on the latest diet and a new addiction becomes a fact of life. Since we like sure and fast results there is always the possibility of just not eating or using laxatives to decrease the calories absorbed.

When we use the quick weight loss programs, our bodies change and become more efficient at using calories. The end result is that when we get to the weight we want and begin eating different foods, the weight we lost plus ten to fifteen pounds comes back. Dietitians refer to the fast weight loss programs as the yo yo syndrome. The weight loss and gain is stressful to the body and in the long run causes damage in addition to that caused by abusing drugs or alcohol.

Eating regular food in smaller amounts does not give us the conversation piece that the latest fad diet does. In fact, some people consider eating well and exercising to be a boring routine. Taking life one day at a time in our diet routine is as important as it is in staying away from our drug of choice. The foods recommended for health and for maintaining weight are

- Fruits and vegetables 5 servings daily
- Dairy foods 2-5 servings daily depending on calcium needs
- Whole grain foods 4-5 servings daily
- Meat, fish, poultry, eggs 2-3 servings daily to meet protein needs
- Salad dressings, butter, oil and sugars to season foods
- Water 6-8 glasses daily

Some persons eat food to get needed water and find they are consuming a lot of extra calories. If you think you are hungry and have recently eaten, try drinking a glass of water and waiting half an hour before deciding if you really needed that snack. Drinking the suggested amount of water is important and a new pattern of behavior for lots of folks. Don’t try to start drinking six to eight glasses a day immediately. Increase the amount you are drinking gradually and let your body become accustomed to the change. Remember that caffeine-containing beverages are also diuretics and cause
the body to lose needed water. Juices contain calories and may or may not fit into your dietary plan if you are trying to lose weight or maintain your present weight.

Exercise on a regular basis causes the body to burn calories faster 24 hours a day, not just while we are doing it. Engaging in 20 to 45 minutes of exercise that increases the heart rate at least five days a week helps keep the weight in check, gives us energy and helps us keep a balance in our lives.

Consult your physician or a dietitian for specific dietary guidelines to fit your needs and to help you maintain a healthy recovery program.
A NEW ADDICTION??
Anne S. Hatcher, EdD, RD, CACIII, NCACII

"My buddies are all drinking this stuff all day long. I tried it and it makes me feel real good!" The beverages being consumed by recovering addicts are often described this way. What better way to get fruits than from a fruit drink that "makes one feel good"? Natural "fruit drinks" must contain 10% fruit juice; most consumers think that they are 100% juice. Advertising has taken advantage of the public's interest in healthy foods and put out fruit flavored beverages that contain nutrients and herbs.

The ingredients might include carbonated water, high fructose corn syrup, citric acid, taurine, grape juice concentrate (color), sodium citrate, natural flavor, inositol, ascorbic acid (vitamin C), caffeine, carmel color, fruit extract (color), monopotassium phosphate, creatine monohydrate, grape seed extract, L-carnitine, panax ginseng root extract, L-Arginine hydrochloride, zinc, L-methionine, soy protein isolate and rice flour, guarana (Paullina cupana) seed extract, pyridoxine hydrochloride, selenium, folic acid, cyanocobalamin. Depending on the caffeine content, the consumer might gain various degrees of energy. Recovering people are frequently concerned about sexual performance and energy level. In addition, many of them like the stimulant effect of coffee and nicotine. In the interest of health, they might see "juice beverages" that provide the desired stimulant effect as well as acting as an aphrodisiac.

Such beverages contain a number of substances that act as stimulants.

- Caffeine is easily recognized as the active ingredient in coffee, tea, sodas and other food products. It is used for its stimulant effect to enhance concentration, to improve work performance, and to decrease drowsiness.
- Carnitine is recommended to improve memory and normal brain function as well as to treat senile depression and Alzheimer's disease. (1)
- Creatine may enhance performance in a limited number of high-intensity short-term physical activities. Adequate safety data are lacking. Caffeine appears to interfere with any beneficial effects of creatine supplementation.
- Guarana (Paulinia Cupana), a woody evergreen perennial vine is harvested for its stimulant effect from caffeine (3.6-5.8%) and small amounts of theophylline and theobromine. The Herbal PDR describes its effects as a short-term diuretic, increased release of catecholamines, vasodilation in the body and vasoconstriction in the brain and cardiac stimulant.
- Panax Ginseng is usually considered an aphrodisiac. The Herbal PDR also describes it as a tonic for invigoration and fortification in times of fatigue and poor concentration. Overdoses can cause sleeplessness, hypertonia and edema.
- Grape seed extract has an antioxidant and anti-inflammatory properties. There are claims of anti-cancer activity. (PDR for Nutritional Supplements)
- Green tea extract has antioxidant activity and is thought to prevent some forms of cancer. (PDR for Nutritional Supplements; Fragakis, 2003)
- L-Arginine is thought to enhance verbal memory in the aged and cognitive enhancement among persons who have abused alcohol according to the PDR for Nutritional Supplements. Websites for companies selling Arginine supplements recommend their product to increase growth hormone, aid

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cardiovascular health, stimulate libido (as a substitute for Viagra) because it improves blood flow to the genital area in both men and women. (2, 3) Arginine is said to neutralize ammonia, aid in liver detoxification and regeneration, wound healing and connective tissue issues. (1) Gastelu and Hatfield (1997) stated that arginine is most famous for its role in stimulating the release of human growth hormone resulting in decreased body fat, enhanced healing and muscle recovery as well as increasing muscle mass. Arginine is a precursor in creatine production thus increasing performance in athletic competition. The third role for arginine is ammonia detoxification. Consumption of large amounts of protein and exercise, according to these authors, increases ammonia content of urea so the use of arginine to lower the ammonia levels would be beneficial.

- L-Methionine is a sulfur containing amino acid said to prevent disorders of the hair, skin and nails while lowering cholesterol levels. (1)
- Taurine is thought to stabilize the excitability of membranes, retard aging and treat hypertension, arteriosclerosis, cardiac arrhythmias, anxiety and hyperactivity. (1)

In summary, when deciding on healthy snacks, read labels; beverages that appear to be juices, but that provide a stimulant effect are not that healthy and might interfere with recovery.

REFERENCES:

Websites

Books


PDR for Herbal Medicines. 1st Ed. Medical Economics Co. Montvale, NY.

PDR for Nutritional Supplements. 1st Ed. Medical Economics Co. Montvale, NY.
ABOUT HEALTHY SHOPPING

The diagram on the opposite side of this page shows a new method of planning the amounts to buy from each food group by turning the food pyramid upside down. Enjoy grains in many different forms and plan to keep a lot of them on hand. Fruits and vegetables are the group most often overlooked. Incorporate them into meals in casseroles as well as salads and side dishes. Enjoy the many colors and flavors from this group. Choose at least one dark colored fruit or vegetable each day and two fresh (raw) ones. Protein comes from dairy products as well as meat, fish and poultry. Dairy foods also contain calcium that is essential for strong bones and teeth.

The group liked the best and from which we need the least is the bottom one, fats and sweets. The foods in this group are considered staples in many households while the more important foods are ignored. Try substituting fruits for sweets and decrease the amounts of fatty food in your diet. Trying to change everything at once, especially if you have recently given up alcohol or drugs is probably too much to ask of your mind and body. Make changes slowly by altering one meal. Stay with that plan for a few weeks before trying something else new.

Plan to use fresh foods within a few days of purchase and use frozen or canned foods later in the week. Store foods properly for good quality. Have designated food storage places they are not overly hot or cold.

Practice food safety in purchasing and storing foods.

- Wash your hands thoroughly before handling food. Be especially careful about washing after handling raw meat, poultry, fish or eggs.
- Separate raw, cooked and ready to eat foods during shopping, storage and preparation to minimize contamination from bacteria.
- Cook to a safe temperature to destroy harmful bacterial
- Chill perishable foods right away. Keep hot foods hot and cold food cold and no perishable foods at room temperature for more than 2 hours.

Get plenty of water; drink it instead of pop, fruit drinks and other sweet beverages.
# PLAN YOUR SHOPPING TO GET FOODS IN THESE PROPORTIONS

## BREAD, CEREAL, RICE & PASTA
- Bagels
- Barley
- Cakes
- Cereals
- Muffins
- Pasta
- Rolls
- Noodles
- Rice
- Tacos
- Breads
- Wraps
- Couscous
- Crackers
- Oatmeal

## VEGETABLES, FRUITS
- Beans
- Broccoli
- Brussels Sprouts
- Fruit juices
- Grapes
- Kiwis
- Green beans
- Herbs
- Lettuces
- Pineapple
- Peaches
- Pears
- Raisins
- Apples
- Applesauce
- Bananas
- Carrots
- Cauliflower
- Tomatoes
- Melons
- Oranges
- Orange juice
- Potatoes
- Squashes
- Onions

## PROTEIN
- Hard cheese
- Soft cheese
- Milk
- Yogurt
- Lamb
- Beef
- Chicken
- Fish
- Frankfurters
- Lunch meat
- Pork
- Turkey
- Shellfish
- Eggs
- Tofu

## FATS, SWEETS
- Butter/margarine
- Candies
- Canola oil
- Cookies
- Jelly
- Olive oil
- Peanut butter
- Salad dressing
- Snacks
- Spreads
- Mayonnaise
- Sugar
- Lunch meat
- Tofu

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GET A MOVE ON ANY WAY YOU ARE ABLE!

The diagram on the following page was adapted from an article in Remedy (Sept./Oct., 2000) when you are not in the habit of exercising, getting started can be difficult. If you try to make major lifestyle changes all at once, there is a strong chance that you will give up altogether. Keeping it simple (KISS) and doing one step at a time is more likely to make your program a success. The pyramid scheme gives you a place to start and goals to work towards.

Jan Norstrom who developed the Exercise Pyramid concept wanted to get across that any activity, indoors, outdoors, vigorous or not counts. People who hate exercise might really enjoy planting flowers in the yard or even in a flower box. Waxing the car, walking the dog or playing catch all count. Build exercise into everyday activities such as taking the stairs instead of the elevator; take something upstairs now instead of accumulating a pile and taking it all at once. Take a 10-minute walk outdoors during your lunch break. The latest fitness research suggests that 10 minutes of activity three times a day is all you need to benefit.

References:


For additional information go to www.healthscout.com/af/phys and search under “exercise” or “fitness”
**THE EXERCISE PYRAMID**

**CUT DOWN**
- Watching TV
- Computer Games
- Sitting for more than 30 minutes at a time

**TWO TO THREE TIMES WEEKLY**

**LEISURE ACTIVITIES**
- Golf
- Bowling
- Yard work

**FLEXIBILITY AND STRENGTH TRAINING**
- Stretching/Yoga
- Push-ups/Curl-ups
- Weight Lifting

**THREE TO FIVE TIMES WEEKLY**

**AEROBIC EXERCISE**
- (20+ minutes)
  - Brisk Walking
  - Cross-country Skiing
  - Bicycling

**RECREATIONAL**
- (30+ minutes)
  - Soccer
  - Hiking
  - Basketball
  - Tennis
  - Martial arts
  - Dancing

**EVERYDAY**
- (As Much as Possible)
  - Walk the Dog
  - Walk to the Store or the Mailbox
  - Take longer routes
  - Take the Stairs instead Of the Elevator
  - Work in the Garden
  - Park the Car Farther Away
ADRENALINE, STRESS AND WORKAHOLISM

"Oh, life is a toil, and love is a trouble
Beauty will fade and riches will flee
Pleasures they dwindle and prices they double
And nothing is as I would wish it to be"

American Folksong

Not having things as we would wish them to be causes stress or more accurately distress that changes body chemistry, causes muscle tension and pain and is frequently experienced as worry or anxiety. Stress is big business today and products are widely advertised to relieve it or to cover up the uncomfortable aspects of it. For relaxation, we find ads for cigarettes, alcohol, coffee, herbs, soft drinks, high calorie treats and various types of entertainment. Pain medications, antacids, sedatives, tranquilizers and stimulants will cover up the symptoms so we can continue our present lifestyle and not have to take responsibility for making changes.

Modern life has many stressors including changing relationships, unemployment, economic pressures, changing roles, diseases for which treatment is not always effective, increased use of lifestyle drugs (alcohol, nicotine, caffeine) and time pressures. The push is to produce more in less time or to produce it more efficiently. Perfection is expected and allowances are often not made for human error or for just being less than perfect. The expectation is that the body will respond like a machine and can be treated as such.

Many addicts began their drinking or drugging in response to emotional stress and to avoid dealing with it. Using chemicals disrupted interpersonal relationships and perhaps also played havoc with holding down a job. The likely response was to use more, creating more stress and thus the cycle continued on and on.

At the opposite extreme is the person who eats to excess when under stress. Part of the overeating pattern is based on habit, particularly if the way parents or primary caretakers dealt with any crisis was to give cookies or ice cream or some other treat. In this situation, the person involved is feeding the hurt, anger or otherwise stressed out kid who needs to get love. Frequently the only way seen to get the caring needed is to provide yourself with comfort foods. Eating is a familiar activity in which many people find satisfying and which temporarily gives a sense of relief.

One of the characteristics of recovering persons is that we like excitement. An earmark of our lives is constant change and trying to do as much as we can in a short period of time or doing several things at once. If we are not holding down two jobs to make up for all the time we lost while we were drinking, we are super efficient at the one job we hold. Recovering persons, who are adrenaline junkies, think they should be able to talk on the phone, file and greet the postman coming in the door at the same time. We love romantic adventures, late night meetings, sports such as hang gliding or skydiving. In business, we thrive on imaginative, risky deals or doing thing in innovative and unproven ways, which might or might not give the desired results. We change relationships frequently so that the excitement of getting to know a new person and the need to make adaptation is constantly present. Changing jobs or participating in volunteer work is yet another means of maintaining excitement or crisis.
Living in this way necessitates the presence of a hormone that will insure that kind of energy. The hormone is adrenaline and those of us who are addicts can easily get addicted to it. Adrenaline produces a sense of well being, or being high or euphoric, efficient, sharp, alert, and one of the most appealing and addicting aspects is that fewer mistakes are made. It is almost like being slightly drunk and in this situation, the person is drunk on his own body hormones. As a tolerance for adrenaline and the excitement it maintains is developed, going against accepted standards or practice or discussing confidential material might increase the ante. Adrenaline addicts are frequently extremely attractive, athletic, dynamic persons with athletic builds who lift weights or run. Because they appear and act healthy, this addiction can often reach the advanced stage before being detected.

If something happens to break this pattern and adrenaline is not being used, there is extreme fatigue and a desire to do nothing but sleep for long periods. One counselor reported seeing clients who did almost nothing but sleep for 2 months as they rebounded from running on adrenaline. Once a person makes a commitment to learn not to rely on adrenaline constantly, there is emotional as well as physical withdrawal. For those who continue to work while not relying on adrenaline, withdrawal can take months or perhaps even years. Unless the process is understood and support for the new pattern is available, the frustration level of not being able to do as much may build to what seems an unbearable level. Life seems boring, ordinary, not at all what was wanted and yet somehow a little more satisfying if you can just get used to it.

Guidelines for nutritional changes that will help you cope with stress are

- Establish regular meal times and adhere to them.
- Set aside a minimum of thirty minutes for each meal and utilize the entire period of time.
- Eliminate patterns such as eating while driving, watching TV, working or reading.
- Eat consciously and be aware of what you are eating.
- Take time to chew food slowly or hold a bite of food in the mouth and savoring the flavor in order to slow down while eating so that both physical and emotional needs are met.

Learning to live without relying on your own adrenaline is as great or perhaps more of a challenge for the addictive person than is living without alcohol or drugs. The difference is that this substance is in your body and readily available. In some situations, your survival depends on its use so it cannot be eliminated entirely. Slowing down to enjoy and experience life at a different pace establishes a different lifestyle pattern which fits with the overall goals of a recovery program, including physical, emotional and spiritual enhancement and learning to be who you truly are.
AVOIDING THE TIME, ENERGY AND MONEY CRUNCH

Grocery stores are laid out to encourage the consumer to purchase the high profit items and to ignore or buy minimal amounts of the less processed and thus lower profit items. Marketing techniques involve having large amounts of processed and fabricated food items available. These items are prominently displayed and placed in the store in such a way that we must by pass them to obtain basic items. Since we are more likely to buy on impulse when we first enter the store, the displays are designed to attract our attention. The longer we stay in the store, the more likely that we will spend larger amounts of money. Laying out a store so that the average customer spends more than 30 minutes shopping increases sales.

Super markets are laid out according to the neighborhood in which they are found. In a neighborhood where people have the funds to purchase prepared meals or where working people need to get a quick lunch, a deli is usually near the entrance of the store. A neighborhood where there are a lot of families with small children will also mean a candy and snack counter close to the entrance and readily accessible. A pharmacy to service the needs of the elderly will be near the front of a store in an area where many senior citizens reside.

The items we all use are placed near the back of the store so we will pass the high profit items on the way to get them. These are also the items that are included in the basic food groups that make up a good diet. The average supermarket is laid out so that once the shopper is down to purchasing food for preparation at home, the first department entered will be produce. Fresh fruits and vegetables are perishable and there is a need to sell them quickly. The displays are attractive and if we like those foods, there is the temptation to purchase large amounts. Sales of produce are doubled when customers go to that department first rather than last. Potted plants are frequently in the produce department or close to it because they are most frequently purchased on impulse and are high profit items.

Milk, cheese, butter, margarine, eggs, meat, poultry, fish and bakery items which make up the rest of the basic food groups are placed at the back of the store. Since most of us have those on our grocery list, we will have to pass the prepared foods and special displays to get to them. Long, continuous aisles make it necessary for us to pass many items and increase the likelihood of getting us to purchase on impulse.

Shopping the periphery of the store and choosing carefully which aisles we will go down saves time and money. Ninety per cent of the basic food products are around the sides and across the back of the store. Emphasizing fresh foods without added ingredients means there are fewer labels to read and compare.

Other tricks of the trade in food marketing include combining items that are frequently used together, featuring specials, and placing at eye level. Feature displays ("Specials") are placed in the middle or at the end of an aisle. These items are usually not a bargain; they are simply high priced items that need to be sold. Displays frequently jut out into aisle space to attract attention; the more an item is exposed, the greater the rate of sales. Up to 20% of the sales in a store may be from special displays.
Sales improve by over 70% when an item is moved from floor to eye level and by over 60% when they are raised from waist to eye level. A wary shopper can save 10% by looking above and below eye level. Being aware of such marketing techniques allows us to save money and to make better choices nutritionally.

Other tricks of the trade include marking items as specials, odd cents pricing and multiple pricing. Customers frequently do not know the usual cost of an item and thus are persuaded to purchase an item marked special even if the price is higher than usual. Twenty-nine cents does not seem nearly as high as 30 cents. Pricing items at odd prices increases the probability of making a sale. Customers assume that if something is marked 2 for a dollar, they must buy 2. Somehow it never occurs to them that they could purchase 1 for 50 cents. Customers are also likely to buy on impulse at the check out stand. Items placed there are high profit items that catch the eye of the persons standing in line.

Being aware of the hype used can help us to choose more wisely. A good advertising campaign uses familiar language and refers to prevalent social values. Thus the factors emphasized are ease of preparation, flavor, image of the person serving this food, and low calorie. "Natural foods" have been of interest in the last few years because of the interest in whole grains and fiber. Concern about the chemicals in our foods has led consumers to seek foods that are less contaminated and thus safer. Packaging has been designed to suggest old fashion or natural, thus the emphasis on yellow and brown. A processed food that is labeled "natural" must contain at least 10% natural ingredients. Reading the list of ingredients lets us know that the food might not be what we expected.
DRY DRUNK, THE URGE TO USE AGAIN

Among alcoholics, the period known as dry drunk refers to feeling as if one had been drinking. The dry drunk periods are the most likely times for relapse. Such events usually occur approximately six weeks into recovery and again at approximately nine months. The feelings are so similar to those experienced when drunk that the attitude is “I might as well drink if I am going to feel this way!”

For approximately 60% of the clients with whom the following has been tried there has been success in maintaining sobriety and fewer ups and downs during the dry drunk period. The regimen is:

- Break low potency B complex vitamin tablets into quarters
- Take one quarter of a tablet every two hours during the waking period up to 5 hours before bedtime
- Continue this process for at least one week or until dry drunk symptoms decrease
- Gradually decrease the number of quarter tablets taken by taking them every 4 hours for 4 days
- Decrease the dose again by taking quarter tablets every 6 hours for 4 days
- Return to taking supplements once a day, preferably shortly after the first meal of the day

Maintain blood sugar by eating three full meals and at least two snacks. Be aware of stress and sleep time. Being tired or feeling stressed will increase the potential for dry drunk. The acronym used in AA is HALT (hungry, angry, lonely or tired) Relapse is more likely if any of the factors appear.
GETTING IT TOGETHER

There is an art to living the recovery process that involves maintaining your balance and most of all keeping it simple. Good nutrition is but one aspect of the recovery process and it is up to each of us to chart a path that fulfills our needs physically, emotionally and spiritually.

Priority number one is maintaining sobriety. If that means daily support groups and counseling twice a week while holding down two jobs to pay off the bills accumulated during drinking days, there is not much time left for anything else. Our attitude is likely to be "So what if I skip meals or pick them up at the nearest fast food place, all these other activities take precedence.

What we eat is, of course, affected by our attitude and we might find ourselves feeling guilty about relying on convenience foods rather than cooking everything from scratch. We are, after all, perfectionists and in looking for the magic bullet to insure recovery, nutrition might look like a crucial step. Consider the fact that in this situation, how you feel about yourself and your recovery is the attitude to be stressed. As your first nutritional priority, make sure that you eat regularly and maintain your blood sugar levels.

Those who have done research about factors relating to health have stated that one can live fairly healthily on junk foods if the body is reasonably healthy and exercise is a part of the daily routine. Do not take this to mean running 5 miles a day; being compulsive never helped anyone in the long run. Twenty minutes of aerobic exercise on an almost everyday basis is the goal to strive for. For some of us who barely lifted a finger during our drinking days, 20 minutes seems like an eternity. There is nothing wrong with starting our exercise routine with 2 to 5 minutes a day. Maybe all we can do is to walk to the end of the block and back. Our pace might seem like a stroll when compared to that of the neighbor who runs regularly. However, the important factor is that we are doing it and that we are consistent. Exercising only when we feel guilty or when we have to report in to our sponsor or doctor is not quite the idea.

The next nutrition priority is to meet needs for nutrients other than calories. If fruits and vegetables have been low on the priority list to the point of almost not being there, the next step is to add them. Start out by adding the vegetables most often encountered in eating out or in social situations. Order a salad bar at your favorite eatery and try small amounts of 2 or 3 vegetables. With a salad dressing you like, vegetables become at least tolerable if not enjoyable. Add fruits by purchasing only one of something in the supermarket and using it as dessert or as a snack. If eating it plain is unthinkable, mix it with a small amount of vanilla ice cream or frozen yogurt.
Perhaps fruits and vegetables are not an issue, but you cannot imagine eating whole grain breads and cereals. Try adding them gradually while getting accustomed to the texture and flavor of whole grains. Remember that if your mainstay has been white bread, white rice and mashed potatoes, your body is not accustomed to fiber. The first reaction is intestinal discomfort from gas. Adding fiber slowly will give the body a chance to adjust and the discomfort will not be as great. Once the adjustment is made, you might begin to wonder why you did not eat this way long ago.

Among most recovering persons, meat, fish and poultry and other protein sources are not an issue. We seem to overdose on these foods when we eat. The priorities in recovery, then, is to reduce the amount eaten and learn to rely on grain, fruits and vegetables for most of our calories rather than protein and the fat which always accompanies meat, poultry, cheese and some types of fish.

No matter where we turn whether we are purchasing food in a restaurant or supermarket or dining at someone's home, we might feel that there is food everywhere and yet not a bite to eat. If we are aware of the amount of sugar, salt and fat in prepared foods, plus the preservatives and additives, we might feel that none of it is safe. An important factor to remember is that life is to be enjoyed and eating food is a part of the enjoyment as well as being a source of nutrients. The trick is to choose food vitamins and minerals while still having foods we like. Eating something that really turns us off just because it is good for us does nothing to maintain the positive attitude, which is essential to recovery.

The suggestions made here will not agree with the idea that recovery will be easier or that we will never again desire a drink if we follow a specific dietary plan. Our experience is that the only way to insure compliance with a rigid diet plan is to put our clients on a locked hospital ward and allow no visitors. If we insist on clients following a certain diet with no deviations when they are living in the "real world", the results are likely to be one of the following:
- Compliance, but a feeling of resentment because there is not control of my own life.
- Reporting to the counselor or physician that the diet is being followed when in fact, the person is eating anything but what is on the diet plan
- Out front defiance of the diet order and refusal to even consider following it.

In recovery, you must chart your own course and take responsibility for the results of your decisions whether it relates to overextending yourself physically or eating a poor diet. As has been pointed out earlier, we tend to want to stop all our addictive behaviors at once and become perfect. We believe that there is a nirvana or a "happily ever after". If following a specific diet will get us there, we will put our all into it. The problem is that there is no perfect plan for everyone and even with all of our knowledge about how the body works, we do not have THE PERFECT PLAN.

So far, this has been written with the assumption that the person reading it is or has eaten poorly. There are those who enter the recovery process with good to excellent nutritional habits. Their physical recovery is likely to be several steps ahead of that of the person who rarely ate and who relies on fast food restaurants or convenience foods. For these persons, learning about nutrition and the recovery process is a step in refining their ability to take care of themselves. Their concentration might, therefore be
more on the other aspects of recovery while simply implementing the needed dietary changes.

Getting in touch with your body and its needs involves first of all thinking about what is needed; feelings about what we are doing are important and not to be discounted. However, there is something to be said for "Faking it until we make it". In the area of nutrition, this involves continuing to make dietary changes on faith that we will learn to like and even enjoy the new way. Feeling better physically somehow alters attitudes too.

One caution for recovering persons is that authors of cookbooks that emphasize low fat recipes often use alternative ingredients for extra flavoring. Wine or other alcoholic ingredients might be suggested. There are indications that more alcohol remains in cooked foods than was previously thought. Even for foods that are cooked long enough that the alcohol “should” be cooked off leaving only the flavor, some recovering persons might have problems with the dish. Most of the recipes are equally as good without the alcohol.
HEALTHY COOKING

The emphasis today is on low fat, low sugar diets with lots of fruits and vegetables. For the recovering person this is a major change from the quick burger and fries routine. When we first get clean, we want sugar - lots of sugar. Our sponsor might even encourage special chocolate treats as a reward for not using. If we look at the recommended food list and think about trying to make that change all at once, it is overwhelming. Take this like recovery "one day at a time".

The first step in changing your diet is to eat regularly. Eating something every few hours keeps us feeling comfortable with sobriety. The next step is to try new foods and more variety. The second step is where healthy cooking enters into the picture. Preparing foods at home costs far less than eating out. Begin to stock your fridge and cabinets with health foods that take little preparation. Crackers, peanut butter, bananas and raisins are a good start. Carrots keep for a period of time in the refrigerator and provide a number of vitamins. Cheese and cracked wheat bread along with some mustard and lettuce provide greater variety to a limited diet.

When you are ready to prepare a meal, think about your favorite foods and then determine one way to reduce the fat content. Perhaps it is using a spray on coating rather than butter or margarine or maybe you could try reducing the oil content by one third. Once you have prepared this dish several times and really like the way it tastes, reduce the sugar called for in the recipe by one fourth. Think of spices that might change the flavor and make it even more appealing.

Salad dressings are a major source of calories for persons who try to cut calories by eating lots of fresh foods. Rather than trying to find the latest diet dressing, reduce the amount you usually use by one third. Try adding flavored vinegar to salads along with a little oil. Use honey or all fruit jam on bread rather than butter.

The first impression when we emphasize ingredients rather than prepared foods is that we must spend a lot more time in preparing food. Most of us feel that we have a lot more important things to do than cook. Hours in the kitchen are not our idea of fun or productivity. We would rather sacrifice nutritional value and have time for outside activities like writing books or making lesson plans. With some careful planning, we can decrease the amount of time spent in the kitchen and still have foods high in food value.

Some appliances decrease the effort and time spent in food preparation. For example, a crock-pot will safely cook our meal and have it ready for us when we come
home from work. Cooking meat or legumes in this way saves time. Adding frozen vegetables at the last minute or spending half an hour cooking fresh vegetables and making a salad insures having a nutrient dense meal. Using a food processor can decrease preparation time for fresh vegetables. Microwave ovens cook food in a much shorter period of time than conventional stoves and make it possible to have a complete meal ready in approximately half an hour.

For those of us who live alone or who have irregular schedules, preparing our own TV dinners is another way of eating well while not spending a lot of time cooking. Cooking in this way requires setting aside 2 or 3 hours twice a month to cook and clean up the kitchen. During that time, we can prepare 4 casseroles or main dishes for 8 persons. Food can then be divided into individual portions and frozen in plastic containers or aluminum pie plates. Nutritious meals can be prepared in a very short period of time by heating one of these meals, cooking the amount of frozen vegetable (from a bag) needed and making a salad. With fresh fruit for dessert, we have a well-balanced, nutrient dense meal. Persons who use this method usually find that the amount of time set aside for cooking is well worth the effort. The food is fresher and seasoned as they like it; the variety of meals available is greater than those available in the frozen food section. Since we have very few dishes to wash when eating this way, the amount of time spent in the kitchen is minimized.

Recovery is, after all, a process of learning to love and accept ourselves and to take care of our needs. Taking care of our own physical, emotional and spiritual needs is the goal whether we do it by becoming involved in creative writing and insuring good nutritional intake in the quickest way possible or by spending hours in food preparation. Awareness of our nutritional needs and our need to relax, letting go of stress and developing spiritually must all be balanced to create the best possible plan for us.
LEARNING TO LIVE AGAIN ON MY OWN

Some persons in recovery find themselves adrift and needing to learn how to prepare their own food instead of relying on a spouse or parent. Having the right equipment will make learning to cook easier. Cooking classes are offered through recreation centers, “free universities”, the USDA Extension Service and other programs.

For the person equipping a kitchen for one, the following are items most of us use frequently and feel are basic in any kitchen:
- Small and medium sized mixing bowls, preferably the kind with a spout and handle.
- Measuring cups (liquid and dry) and spoons
- One or 2 mixing spoons, a rubber or plastic spatula
- A spatula for turning food over
- Ladle and perhaps a slotted spoon
- Rolling pin
- A peeler, 2 paring knives, 1 chopping knife and 1 medium sized knife for trimming vegetables and meats.
- Can opener and bottle opener
- Funnel
- Grater
- Two small and at least 1 medium sized (1 quart) sauce pan with lids
- Collapsible steaming rack to fit saucepans.
- A double boiler
- A heavy skillet or Dutch oven.
- A cookie sheet with sides, 1 loaf pan, 1 muffin tin, 1 cake pan, 1 cooling rack, 1 pie tin.
- One or 2 casserole containers (Corning ware doubles as sauce pan and casserole).
- Tea and/or coffee pot
- Containers for flour, sugar, pasta, etc.
- Small containers for storing left-overs or for carrying items in a brown bag lunch
- Strainers and/or a colander
- A slow cooker, blender, toaster, pressure sauce pan
- Dish pan, drainer and mat, sponge, plastic scouring pad, waste basket and a container for garbage.

A basic cookbook or two makes a lot of difference when we are learning to prepare our own food. Jane Brody’s Good Food Cookbook and The Joy of Cooking contain good recipes and some preparation helpful hints.
WOMEN, RECOVERY AND NUTRITION

Women have nutritional needs that are different from men and especially during recovery from alcohol or drug abuse. This handout provides a brief overview of the nutritional needs of women at different stages of life. For more detailed information, consult your physician and a dietitian.

Women who have menstrual periods lose about 28 milligrams of iron each time they bleed. It is important to replace the iron through diet. Red meat, dark meat of poultry, egg yolks, lentils, dried apricots and some whole grains are the best dietary sources. Some individuals find that they cannot eat enough of these foods to get the needed iron so they rely on supplements. Iron is best absorbed when acid is present so swallowing your iron tablet with orange juice or taking your vitamin C at the same time is a good plan.

With all the ads on TV, women should be aware that calcium is important to prevent osteoporosis. However, many women ignore these messages, think they are immune or that they can take care of that problem later. Osteoporosis must be prevented. Once it is present, there is no cure. Some medications help the body deposit more calcium in bone, but they do not cure the problem. Our bodies are most efficient at absorbing calcium and putting it where it belongs when we are young so getting enough at all ages is important. An average serving of dairy foods (milk, yogurt or cheese) contains close to 300 milligrams of calcium. We need 800 milligrams daily and more during pregnancy and when breast-feeding. Women who have difficulty with these foods (allergies, flatulence, constipation) are encouraged to use calcium supplements to get their needs met.

Women seem to worry about calories more than men do. Society expects us to be thin! One of the concerns during treatment, for women, is being attractive as well as healthy. Quick weight loss diets might take the weight down fast, but we also gain it back in a short time. If we consume all the foods recommended in the food pyramid and do not add a lot of fat or sugar, the caloric level is 1200 to 1500 calories. The salad dressings, desserts and pop add the calories that increase weight. Consult a dietitian for guidelines.
Pregnancy is a special time and it affects our nutritional needs. In general, the nutrient needs increase by 150%. Prenatal vitamins contain the vitamins and minerals found necessary for a healthy pregnancy. Taking prenatal vitamins do not fulfill calcium needs so more milk products are important. Increasing fruit and vegetable intake plus eating whole grain breads and cereals provide fiber to decrease potential problems with constipation. Consult your physician or a dietitian for additional hints.

Breast-feeding is good for the baby and mom. Making the milk takes an extra 1000 calories each day so losing weight is easier if you watch your calorie intake. While watching your calories, be sure that you do not cut down so much that you are not taking care of yourself or the baby. The recommended intake of dairy foods goes up again when breast-feeding. Fluid intake, especially water is very important to maintain milk production and to meet the needs of your body.

During menopause the familiar patterns change. In addition to stopping the monthly periods, hormone changes frequently result in decreased activity of the thyroid gland. Weight gain is a part of menopause even when we cut down on calories. Body weight shifts from the upper body to the hips and thighs. To reduce the risk of osteoporosis, calcium intake is important.

Some women find that they no longer tolerate milk and have all the symptoms of lactose intolerance. They might use lactose free milk or take tablets with meals so they can eat foods containing milk. Lactose intolerant individuals can usually eat cheese and sometimes yogurt with few problems. Menopausal women need 1200 to 1500 milligrams of calcium daily which translates into five services of dairy foods. Rather than consuming that many calories from dairy foods, some women choose nutritional supplements. Taking calcium supplements several times each day rather than all at once helps absorption rate.
NUTRITION SUPPLEMENTS FOR RECOVERY

Recovering persons like to share their experiences, especially the things they tried which made them feel better. Be ever aware that all of us who are recovering looked for quick fixes and the sure things. We tend to be very vulnerable when it comes to having the magic cure, the quick fix or immediate gratification. We want life to be simple; black and white, good and bad, right and wrong. These concepts are easier to comprehend and follow than “maybe” and “it depends”. When we are evaluating health and nutrition information, it pays to keep our wits about us and question rather than blindly accepting what we are told.

Vitamins seem like magic substances because such minute quantities of them are essential for health and even for life itself. When a dietitian refers to them as enzymes, they lose the magic for some of us and gain more status in the eyes of others. Nutritional supplements, purified food substances and herbs came from plants and seem safe enough. In the long run these products might cause problems if they interact with medications or have side effects in the recovering person’s body.

The best source of vitamins and minerals is food. From a realistic standpoint, recovering people have a lot more on their minds than food. For a recovering person who is unwilling or unable to consume a varied diet, a one a day vitamin/mineral supplement is a good idea. Such a supplement should provide 100% but not more than 300% of the recommended daily requirement. Nutritional supplements do not substitute for eating regularly; they do not provide needed protein or calories.

In the early stages of recovery and probably for the first year of recovery, even the person who eats well is advised to obtain extra amounts of the B vitamins, Vitamin C and zinc from supplements. This recommendation is made on the assumption that a varied diet that includes dark green or yellow fruits and vegetables, Vitamin D fortified milk and raw fruits and vegetables along with moderate amounts of meat, fish, poultry, eggs and whole grains. Amounts of nutrients recommended are based on the changes that occur in the body of an alcoholic. Levels that are adequate and safe for the recovering person are:
B1 (thiamin) 1.5-5 mg.
B2 (riboflavin) 1.7-5 mg.
Niacin 15-50 mg.
B6 (pyridoxine) 2-6 mg.
B12 3-10 mcg.
Folate 200-400 mcg.
Vitamin C 100 mg to as high as 500 mg. for smokers
Zinc 15-30 mg.
Magnesium 350-500 mg.
Persons who cannot drink milk need 800-1000 mg. of calcium from a supplement

Some cautions about supplements are in order. For individuals who have liver damage as a result of alcohol or other drug abuse, Beta-carotene or Vitamin A supplements can cause problems. A damaged liver cannot process these supplements properly and the individual might have more liver damage as a result of taking them. Too much niacin can cause a flushing reaction that is uncomfortable. Reducing the dose remedies the situation. Magnesium taken at the higher dose listed above might cause diarrhea in some persons. Reducing the amount eliminates the problem. Many Americans think that there is no problem with taking large amounts of nutritional supplements, especially the water-soluble nutrients. Their thinking is that any that is not needed is eliminated in the urine. In fact, the body must process the extra before eliminating the extra and it learns to depend on the higher amount. When the person does not take the supplement(s) for three or more days, withdrawal symptoms occur. These symptoms are primarily psychological in nature and usually are experienced as depression. Depression during the recovery period can be a trigger for relapse. Balance is important; the proportions listed above have been shown by many years of nutrition study to provide the best balance. A supplement that provides the same amount of each nutrient creates an imbalance in the body. When nutrients are used as medical treatment, the physician is aware of the balance and monitors problems that might occur as a result of imbalance between nutrients.

Learn about nutrition from people in the know (see suggested reading list). Imbalance between nutrients can cause symptoms that look like deficiency. For example, too much calcium and not enough magnesium can result in muscle tremors and cramps. Too much calcium can cause leg cramps, but so can too little calcium. A thorough evaluation of diet and supplements can give a more accurate picture of what is happening in the body.

Using nutritional supplements helps us as we adjust to a new lifestyle without alcohol and drugs and learn to take care of ourselves. Supplements are not the total answer to successful recovery; they are an acceptable adjunct. Vitamin pills might ease physical recovery, but they do not substitute for making needed changes in our diet and health habits.

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Many persons in recovery wonder if this “About as Good as It Gets”

After all the ups and downs and mood changes that go with abuse of alcohol and drugs, being clean and sober seems “boring”. The usual response is cross addiction or switching to another mind-altering substance OR to a mind-altering activity. Increased intake of caffeine containing beverages, smoking more cigarettes or use of nutritional or herbal supplements helps the recovering person alter mood. Many recovering persons use sugar-containing foods in large amounts to keep from using again. Risk taking behavior including skydiving; wind surfing, drag racing, and bodybuilding, running marathons, compulsive gambling, fighting and other activities that increase adrenaline levels are typical. Some of the behaviors listed, help for a short period of time. Learning new ways of addressing frustration, anger, memories, etc. can then be substituted for high-risk behaviors.

Cross-Addiction; The Answer?

Switching addictions is a means of substituting a legal chemical for an illegal one or a non-intoxicating beverage for alcohol is the most common response for the individual trying to cope with being clean and sober. Coffee and cigarettes are the mind-altering substances usually chosen with chocolate running a close second. A high percentage of individuals who drink alcohol to excess also smoke tobacco and drink caffeine-containing beverages. When alcohol is eliminated, the use of these two substances typically increases. Both caffeine and nicotine have the potential to cause additional health problems. At the same time, discontinuing the use of all three substances at the same time is too difficult for most persons. Rather than feel overwhelmed and run the risk of relapse, healthy persons can increase the amount of coffee and caffeine containing pop and/or smoke extra cigarettes. After recovery becomes more stable, reducing the amount of caffeine and nicotine used is advised. Chocolate contains sugar and fat, both of which have a pleasant flavor and mouth feel. In addition, chocolate contains caffeine and theobromine (another mild stimulant). Some recovering persons think of chocolate as an essential nutrient.

Smoking extra cigarettes relaxes the recovering person and provides an acceptable mind altering substance. Due to health concerns, the recovering person is encouraged to reduce the number of cigarettes smoked and work towards smoking cessation.
I WANT TO SLEEP LIKE I DID BEFORE

One of the most frustrating parts of recovery is insomnia. Many recovering persons go to sleep but then wake up and cannot get back to sleep, others have problems falling asleep. In frustration, we look for the right pill to fix the problem and there are many products on the market for us to choose from. Some of those potions are potentially addicting and thus not the ideal choice for someone trying to live without mind altering chemicals. With regular use, sleeping pills become less and less effective.

In order to understand the sleep disruption, we need to know some basic facts about sleep. When a person is asleep, he/she is usually lying down, usually closes his/her eyes, doesn’t pay attention to sounds unless the sound is very loud, breathes in a slow, rhythmic pattern, relaxes muscles and will rearrange her/his body approximately every hour. (Brain, 2003)

Most adults seem to need seven to nine hours of sleep every 24 hours. For many persons, the amount of sleep needed decreases with age. Newborn babies might sleep 20 hours a day and by age four, a child’s sleep needs decrease to 12 hours daily. At periods of rapid growth, sleep needs increase. (Brain, 2003)

Sleep gives the body a chance to repair muscles and other tissues, replace aging or dead cells, gives the brain a chance to organize and archive memories and appears to allow the brain to solve problems. Organizing memories and solving problems are thought to occur during the dreaming state. (Brain, 2003)

Many addicts try to make up for lost time by working overtime. Missing sleep to make more time for work or play might be dangerous to health. Lack of sleeps affects hormones, possibly harms neurons, depletes the immune system and promotes deposition of fat instead of muscle tissue. Sleep deprivation might also speed up the aging process. Insufficient sleep results in increased brain levels of cortisol and decreased levels of human growth hormone and prolactin, which build muscle and oversee the immune system. Cortisol levels decline at night as the body prepares for sleep and increase in the morning upon awakening. Persons deprived of sleep have increased cortisol levels in the evening. Memory is impaired by lack of sleep. Persons who take longer to fall asleep have fewer natural killer cells in the immune system. ATP is made in body cells and serves as energy for these cells. When ATP is used as fuel, the byproduct is adenosine. When adenosine levels rise, the message to the brain is to slow down while more ATP is made. Adenosine promotes sleepiness. Sleep deprivation forces the brain to struggle along on less energy and judgment ability decreases. Caffeine keeps people awake by preventing adenosine from attaching to...
the cholinergic receptors. Reduced REM time interferes with the brain’s ability to adjust to the day’s events, but too much REM sleep reduces deep sleep. Persons with excessive REM sleep have a higher risk of depression. Most antidepressant medications work in part by resetting the sleep cycle to a more normal pattern. (Kotulak, 1998)

A person who misses sleep can experience a number of problems including

- Relying on adrenalin or stimulants such as caffeine to get through a day
- Poor concentration
- Decreased attention span
- More mistakes
- If sleep is missed for several days or the individual sleeps only a few hours each day, hallucinations typically result. Losing touch with reality might result in accidents or unexplained and seemingly unreasonable anger and violence.

Through animal studies, researchers know that death occurs if the animal is forced to stay awake. Sleep is essential and adapting activities to promote healthy sleep is an important part of recovery.

For the person in recovery, it is important to understand that abusing mind-altering substances disrupted the sleep cycle for a period of time. The body adapted to the presence of the drug(s) of choice. When the drugs are gone, the body takes a period of time (sometimes more than a year) to adjust to the idea that the drug is not coming back. Once it decides it will have to develop new ways of interacting and meeting physical needs, there is another period of time while it tries to figure out what to do now.

Based on the work of Gregg Jacob, PhD, there are some basic steps essential to addressing sleep problems. He describes them as follows:

- Attitudes and beliefs about sleep interfere with the ability to fall asleep and stay asleep
- Inadequate exercise decreases ability to sleep and stay asleep
- Insufficient exposure to sunlight disrupts sleep
- Going to bed too early, sleeping too late and sleeping longer than needed all disrupt sleep in the period following
- Trying to control sleep actually makes things worse
- Stress and worry about not being able to sleep, disrupts sleep more

Sleep occurs in five stages:

1. Relaxed wakefulness when the person has drifting thoughts and muscle relaxation.
2. Stage 1 sleep, a drowsy, relaxed state between waking and sleeping. Muscle tension decreases, heart and breathing slow. Individuals might feel that they are daydreaming
3. Stage 2 sleep is a light stage because the sleeper is easily wakened
4. Profound sleep when brain wave patterns slow, respiration, oxygen consumption, heart rate and blood pressure decrease
5. Stage 2 sleep returns and the dreaming stage (REM) begins
Mind altering chemicals have a negative effect of REM sleep. In recovery, dreams might seem to be excessive as the body tries to make up for lost time. REM sleep actually is a problem-solving period and without it we do not feel entirely rested. The deep sleep (profound) stage is essential to the strengthening of the immune system. When sleep is missed, the body attempts to have more time in deep sleep. Body temperature changes during stages of sleep and wakefulness and of course depending on what substance was used, there were alterations in body temperature. The temperature is lowest in the early morning hours, rises just before sunrise and continues to increases until a mid afternoon drop and rises again about 6 pm. When the temperature begins to decrease again, drowsiness occurs and the person falls sleep. The fluctuations in body temperature occur even when one did not sleep well so it is possible to still feel more alert during certain parts of the day.

In recovery, there is a tendency to consume more of the legal mind altering chemicals including caffeine. Caffeine increases dopamine levels in the same way that amphetamines, cocaine and other stimulants do. When an individual is drowsy due to lack of sleep, caffeine blocks adenosine reception and increases alertness, increases adrenalin and manipulates dopamine to enhance good feelings. The half-life of caffeine is approximately six hours. When it is consumed within six hours of bedtime, the individual might be able to fall asleep, the body will have less deep sleep. The result is a need for caffeine earlier in the day to “jump start”. The deficit adds up fast and the long-term result is dependence on caffeine. (Brain, 2003)

Can Nutrition Help?
B vitamins, especially thiamine increases energy and supplements containing them taken in the late afternoon or evening might interfere with sleep or keep the individual up later than desirable. Calcium and magnesium supplements tend to encourage relaxation and might help the client fall asleep. Foods high in tryptophan have long been known to increase serotonin levels and shorten the time to fall asleep. Turkey and milk are both good sources of tryptophan. When combined with high carbohydrate foods, the effect is more pronounced. Some clients find that a small turkey sandwich and glass of milk promote relaxation and ease of falling asleep.

For additional information, the book, Say Good Night to Insomnia by Gregg D. Jacobs is an excellent reference and a very readable book. Dr. Jacobs makes the point that sleeping pills do not cure insomnia because they do not treat the causes. In his book, there are self-assessments and more detailed descriptions of problems with various sleep aids.
REFERENCE LIST:


SUGAR AND RECOVERY

A number of publications have claimed that sugar is bad for health. One of the major concerns is that sugar is addicting. Scientific research indicates that human beings really like sugars and sweet tasting foods. For persons who stop drinking alcohol and using drugs, sugar becomes almost an obsession. A few of them have even tried to convince doctors and dietitians that chocolate and candy are one of the major food groups to be consumed daily.

When treatment for alcoholism and drug addiction began, the sponsors and counselors encouraged clients to eat a lot of sugar. Eating the sugar decreased the possibility of drinking or using. A few years later, counselors decided that sugar was addicting and that recovering persons should not be allowed to have any sugar. Treatment centers used foods containing sugar substitutes and offered fruits and juices instead of cookies, candy and pop.

The answer seems to lie somewhere in between the extremes; there is research to show that persons who substitute sugar containing foods for alcohol and drugs are less likely to relapse. Based on many years of working with addicts in recovery the best recommendation is moderation and changes over a period of time. Therefore, the following is a recovery diet plan:

**First six weeks**
- Eat regularly (3 meals and 2 or 3 snacks) each day
- Do not skip breakfast; if you don’t like food early in the day, drink juice or have half a bagel
- Drink at least 4 glasses of water daily
- Used high sugar foods to ease withdrawal as needed
- Keep number of cups of coffee or cans of caffeinated pop to no more than 5 each day
Second six weeks
- Eat regularly
- Experiment with new foods and increase the variety in your diet
- Eat a larger breakfast and a smaller evening meal
- Drink at least 4 glasses of water daily
- Reduce the number of high sugar foods by one-third and substitute fruit
- Keep the intake of cups of coffee or cans of caffeinated pop to no more than 3 each day

Months four to twelve
- Eat regularly
- Increase the variety in your meals
- Drink at least 5 glasses of water daily
- Reduce the number of high sugar foods by one-half and substitute fruit

At the end of the first year of sobriety, have a special treat including a rich dessert if you like and pledge to eat high sugar foods no more than once a day as a part of a healthy diet.
TABLE FOR ONE

Advertising affects many of our food choices, especially when we are alone. The temptation is to pick up something quick at a fast food restaurant, rely on frozen meals or snack instead of preparing a meal for ourselves. Since the introduction of drive through restaurants, food patterns have been forever altered. Advertising plus convenience increases the appeal of these ever-present establishments. If you had a meal while drinking or drugging, it was probably a quick meal at the neighborhood burger stand.

Fast food restaurants are designed using the latest in technology that means they appeal to Americans in a big way. The employees are taught to prepare the food in a specific way using the company’s “special” ingredients in order to produce a consistent product. Whether you have that particular brand of food in Paris, Moscow or Cincinnati, it will be the same. There is never a doubt as to its appearance and flavor.

In addition, the foods from fast food restaurants can easily be eaten on the run. Most are designed to be held in the hand or to be eaten with a minimum of utensils. There is little to no clean up time needed and you have only to find a dumpster to get rid of the containers - no dishwashing! The fast food movement has even moved into the supermarket. For the busy consumer, whole meals can be purchased at the deli. Some supermarket chains are considering drive-through windows to make purchasing even easier.

When we eat alone, there is the temptation to live primarily on fast food restaurants or convenience foods from the supermarket. There are several brands of frozen dinners, pizzas, canned ravioli, spaghetti, etc. readily available in the supermarket. Aside from the fact that these foods cost more than those prepared at home, there is a question about the nutritional value. You cannot assume that the company that produced this item used the same type of ingredients you would choose or the ingredients you associate with this particular food.

Purchasing food for only one has tricks all its own. Many persons who live alone or who have no one with whom they can share meals tend to ignore fresh vegetables because they cannot eat all of them before they spoil. Purchase only the amount you can use in a week or less. Some supermarkets will cut vegetables such as cabbage and cauliflower so those smaller amounts can be purchased. Taking what you really need rather than purchasing a whole bunch of broccoli is acceptable; you pay for it by the pound, not by the bunch. Canned fruits and vegetables are more expensive in small cans, but there is less waste and in the long run money is saved. Whenever possible, purchase frozen fruits and vegetables in the bags so that only the amount needed can be prepared. Some single persons purchase vegetables already cut up at the salad bar and take them home to be cooked or for a salad with the meal.
Some persons find snacks of fruits and vegetables keep them from bingeing on sugary snacks. Meals, then are composed of grains and meat or cheese. Whatever your choice as to which foods will be included at each meal, it is important to get all the basic food groups in most days (85 to 90% of the time). Maintaining your blood sugar levels by eating small amounts more frequently is a good idea especially in the early stages of recovery.

When all is said and done, there is a lot to be said for preparing at least some of your own food. Planning ahead and keeping some basic ingredients on hand will simplify matters. Stock the kitchen with foods which are high in nutrient content and which keep well. For example:

- Carrots, celery, green pepper, cabbage, broccoli, cauliflower, apples and oranges keep in the refrigerator for up to 2 weeks without spoiling or losing significant amounts of nutrients.
- Yogurt keeps longer than milk and can be used on cereal along with fruit. If milk spoils before you can use it all, order it as a beverage when eating out or get it from a vending machine between meals.
- Whole grain cereals such as shredded wheat and Grapenuts keep long periods of time and can be used with yogurt, frozen fruit juice concentrate and/or fruit as a snack as well as for breakfast.
- Whole grain hot cereals such as oatmeal take only 5 to 10 minutes to prepare and when eaten with milk or yogurt they provide a high protein breakfast.
- Cheese keeps longer than milk and is a good source of calcium. Choose low fat cheese to decrease the calories and the amount of saturated fat in the diet.
- Keep small cans of pinto beans, garbanzos, black beans, chicken, tuna, turkey, and salmon on hand to make a quick casserole or sandwich.
- Whole grain crackers keep longer than bread and are ways of adding variety to meals as well as a source of grain.
- Frozen fruit juice keeps indefinitely and is fortified with Vitamin C if it is not naturally from a good source.
- Pasta and rice also keep for long periods and can be cooked in short periods of time.
- Popcorn is a quick snack that is high in nutritive value and if air popped provides only 25 calories per cup.
- Dried fruits can be added to whole grain hot cereals to add sweetness or they can be used for snacks. These are concentrated foods and thus high in calories.
- Nuts, sunflower seeds and pumpkin seeds make good snacks or additions to regular meals. If kept in the refrigerator, they do not spoil. The calorie content is high so use them sparingly.

If you have friends who also live alone or find themselves eating alone frequently, plan and cook meals for each other. Somehow cooking a meal for someone else makes it special. We are more likely to put forth a little extra effort to make it unusual or more attractive than we would if we were just cooking for ourselves. When we prepare food for others, we also tend to try new foods that we think our friend would enjoy and in turn we have a wider variety also.

Learning to take care of ourselves by meeting our physical needs including nutritional ones is a hands on experience in the recovery process. Often we get so involved in meetings and the other aspects of recovery that this part gets overlooked and perhaps even discounted. Until we feel terrible we might be tempted to ignore the importance of eating nutritious meals. Once we feel the symptoms, the problems have existed for a long time and correcting them might also take a long time. In the long run, being aware of our needs and making plans for meeting them makes a lot of sense.
The Nutrition Care Process
Nutrition Care Process

The Nutrition Care Process is a systematic, problem-solving method that dietetics professionals use to critically think and make decisions to address nutrition related problems and to provide safe and effective quality nutrition care. The four steps of the Nutrition Care Process (NCP) are:

1. Nutrition Assessment
2. Nutrition Diagnosis
3. Nutrition Intervention
4. Nutrition Monitoring

Providing nutrition care using the Nutrition Care Process begins when a patient has been identified at nutrition risk and needs further assistance to achieve or maintain nutrition and health goals. The Nutrition Care Process cycles through the steps of assessment, diagnosis, intervention, and monitoring and evaluation. Nutrition care can involve one or more cycles and ends, ideally, when nutrition goals have been achieved. Using professional judgment, the dietetics professional may discharge the patient when it is determined that no further progress is likely.

Nutrition Assessment

Nutrition Assessment is the first step of the Nutrition Care Process and is a systematic process of obtaining, verifying, and interpreting data in order to make decisions about the nature and cause of nutrition-related problems. The process of Nutrition Assessment consists of collecting data regarding the adequacy of the client’s intake, health status including biochemical and anthropometric measurements, physical and clinical conditions, and functional and behavioral status such as social and cognitive function, psychological and emotional factors, quality-of-life measures, change readiness. Nutrition assessment is an ongoing, dynamic process that involves not only initial data collection, but also continual reassessment and analysis of client needs.

Nutrition Diagnosis

Nutrition Diagnosis is the critical step between assessment and intervention. The nutrition diagnosis is the identification and labeling that describes an actual occurrence, risk of, or potential for developing a nutritional problem that dietetics professionals are responsible for treating independently. The Nutrition Diagnosis is made up of 3 distinct components: the problem, the etiology, and the signs and symptoms.

Nutrition Intervention

Nutrition interventions are purposefully planned actions designed with the intent of changing a nutrition-related behavior, risk factor, environmental condition, or aspect of health status for an individual. This step involves a) selecting, b) planning, and c) implementing appropriate actions to meet the client’s nutrition needs.
**Nutrition Monitoring and Evaluation**

Nutrition Monitoring and Evaluation is the fourth step of the Nutrition Care Process. Monitoring specifically refers to the review and measurement of the client’s status at a scheduled (preplanned) follow-up point with regard to the nutrition diagnosis, intervention plans/goals, and outcomes, whereas Evaluation is the systematic comparison of current findings with previous status, intervention goals, or a reference standard. The purpose of monitoring and evaluation is to determine the degree to which progress is being made and goals or desired outcomes of nutrition care are being met.

Reference:


Sample Nutrition Assessment Tools
### Assessment of Eating Behaviors For Patients with Acute Mental Illness

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#### COGNITIVE

- Decreased Awareness of need to eat
- Unaware of satiety signals
- Unaware of hunger signals
- Cannot identify food
- Voices/ internal stimuli determine food consumption
- Easily distracted/ can not focus on meals
- Paranoid about food
- Delusional
- Can not express preferences

#### EATING BEHAVIORS

- Eats non-food items
- Eats too fast for safe intake
- Bites too large for safe swallow
- Preference for one food or liquid, refuses others
- Eats others’ food
- Hoards Food
- Ritualistic Behavior before eating
- Exhibits Polydipsia
- Stares does not eat

#### ORAL BEHAVIORS

- Holds Food in mouth
- Does not chew before swallowing
- Spits out food
- Ruminates
- Pronged chewing without swallowing
- Pockets Food

#### SOCIAL DINING BEHAVIOR

- Leaves table without eating
- Plays with Food
- Demanding Behavior in dining room
- Will not go to the dining Room
- Disruptive with table mates
- Refuses to use eating utensils
- Requests significantly more food than needed

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**NUTRITION RISK ASSESSMENT**

**NAME:**

**INSTRUCTIONS:** (CHECK ALL THAT APPLY)

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<tr>
<td>No Recent weight Changes</td>
<td>BMI 30.0-39.9</td>
<td>BMI &lt;18.5 WITH LOW ALBUMIN</td>
</tr>
<tr>
<td>BMI 25.0 – 29.9 WITH no CoMorbid Diagnoses</td>
<td>BMI &lt;18.5</td>
<td>Unintended Weight Loss of 5%/1 Mo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintended Weight Loss of 7.5%/3 Mo</td>
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<tr>
<td></td>
<td></td>
<td>Unintended Weight Loss of 10%/6 Mo</td>
</tr>
<tr>
<td><strong>ORAL FOOD AND FLUID INTAKE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Fluid Intake 76-100%</td>
<td>Food &amp; Fluid Intake 25-75%</td>
<td>Food &amp; Fluid Intake 0-24%</td>
</tr>
<tr>
<td>OMITS 1 Food Group</td>
<td>Refusing Fluids</td>
<td>Requires Nutritional Supplement</td>
</tr>
<tr>
<td>Multiple Food Allergies</td>
<td>Requires Tube Feeding for Nourishment</td>
<td></td>
</tr>
<tr>
<td>Requires Nutritional Supplement</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICAL AND MENTAL FUNCTIONING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Diner</td>
<td>Agitation (tremors, pacing, etc)</td>
<td>Dependent Diner</td>
</tr>
<tr>
<td>Alert</td>
<td>Needs Some Assistance At Meals</td>
<td>Choking/Aspiration Risk</td>
</tr>
<tr>
<td>No Chewing/Swallowing Problems</td>
<td>Supervision At Meals Necessary</td>
<td>Coughing At Meals</td>
</tr>
<tr>
<td>Natural Dentition in Good Condition</td>
<td>Behavioral Feeding Problems</td>
<td>Texture Altered Diet</td>
</tr>
<tr>
<td>Full Dentures</td>
<td>Poor Fitting Dentures</td>
<td>Viscosity Altered Fluids</td>
</tr>
<tr>
<td>Edentulous</td>
<td>Teeth In Poor Repair</td>
<td></td>
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<tr>
<td>Taste or Sensory Changes</td>
<td>Mouth Pain</td>
<td></td>
</tr>
<tr>
<td>Requires Adaptive Feeding Equipment</td>
<td></td>
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<tr>
<td><strong>SKIN CONDITION</strong></td>
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<tr>
<td>Intact</td>
<td>Stage I or II Pressure Sore</td>
<td>Stage III or IV Pressure Sore</td>
</tr>
<tr>
<td>Skin Tears Not Healing</td>
<td>Multiple Impaired Areas</td>
<td></td>
</tr>
<tr>
<td>History of Pressure Sores</td>
<td></td>
<td></td>
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<tr>
<td><strong>MEDICATIONS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Medications</td>
<td>1-4 Medications</td>
<td>5+ Medications</td>
</tr>
<tr>
<td>INH; MAOI; Lithium; atypical antipsychotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LAB VALUES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition Related Labs WNL</td>
<td>1-2 Abnormal Nutrition Related Labs</td>
<td>3+ Abnormal Nutrition Related Labs</td>
</tr>
<tr>
<td>Serum Albumin 3.0-3.4</td>
<td>Serum Albumin &lt;3.0</td>
<td></td>
</tr>
<tr>
<td><strong>Diet Order</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular Diet</td>
<td>Modified Diet</td>
<td>Multiple Diet Modifications</td>
</tr>
<tr>
<td><strong>TOTAL LOW RISK POINTS</strong></td>
<td><strong>TOTAL MODERATE RISK POINTS</strong></td>
<td><strong>TOTAL HIGH RISK POINTS</strong></td>
</tr>
<tr>
<td>(Number of Checks x 0)</td>
<td>(Number of Checks x 1)</td>
<td>(Number of Checks x 2)</td>
</tr>
</tbody>
</table>

OVERALL NUTRITION RISK CATEGORY: CIRCLE ONE: LOW = 0 POINTS MODERATE = 1-4 POINTS HIGH = 5+ POINTS

SIGNATURE: ___________________________ DATE: ______________________

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**Initial Nutrition Evaluation p.1/2**

<table>
<thead>
<tr>
<th>S/O:</th>
<th>Referred by</th>
<th>Dx:</th>
</tr>
</thead>
</table>

- **Age:**
  - yo  M  F
- **Ht.:** / cm  th %ile  BMI:
- **Wt.:** / kg  th %ile  Desired Wt.:

Pt.’s stated reason to be here:

Weight Hx/Hx of Current Dx:

Parent Concerns:

Food allergies:

Food restrictions:

Internal Cues:

Binges:

Vomiting:

Laxatives:

Exercise:

Medical Hx:

Current Medications:

Past Medications:

Supplements:

Menstrual hx:

Previously seen a dietitian?
<table>
<thead>
<tr>
<th>Patient:</th>
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<tbody>
<tr>
<td>Birthdate:</td>
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<tr>
<td>Date:</td>
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</tbody>
</table>

**Initial Nutrition Evaluation p.2/2**

Typical Intake:

Educated pt. re:

A: Est. Daily Intake:
   Est. Energy Needs:
   Est. Healthy Wt. Range:
   Impression:

Recommendations for Intake:

Goal:

Other Recommendations:

P: Follow-up

---

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<table>
<thead>
<tr>
<th>Patient:</th>
<th>Date of evaluation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition Follow-up</td>
<td></td>
</tr>
<tr>
<td><strong>S/O:</strong></td>
<td></td>
</tr>
<tr>
<td>Last Visit:</td>
<td></td>
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<tr>
<td>Medical Update:</td>
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<tr>
<td><strong>Eating Update:</strong></td>
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<td><strong>Progress:</strong></td>
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<td><strong>Recommendations:</strong></td>
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<td><strong>Follow-up</strong></td>
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<tr>
<td>Patient:</td>
<td>Birthdate:</td>
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**Infant Child Nutrition Assessment**

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<th>S/O:</th>
<th>Referred by:</th>
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<th>Dx:</th>
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<table>
<thead>
<tr>
<th>Age:</th>
<th>mo M F</th>
<th>Gestational Age:</th>
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<tr>
<th>Ht.:</th>
<th>/ cm</th>
<th>th %ile</th>
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<th>/ kg</th>
<th>th %ile</th>
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</table>

**Reason for evaluation:**

**Eating/Growth History:**

**Food Allergies:**

**Food Restrictions:**

**Feeding Schedule/Typical Intake:**

**Current Medications:**

**Supplements:**

<table>
<thead>
<tr>
<th>A/P:</th>
<th>Est. Energy Needs:</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Est. Daily Intake:</th>
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<tbody>
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</table>

**Impression:**

**Recommendations for Intake:**

**Goal:**

**Other Recommendations:**

**Follow-up**

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<table>
<thead>
<tr>
<th>Patient:</th>
<th>Birthdate:</th>
<th>Date:</th>
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</thead>
<tbody>
<tr>
<td>Infant/Child Nutrition Follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S/O:</td>
<td>Last visit:</td>
<td></td>
</tr>
<tr>
<td>Medical Update:</td>
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<tr>
<td>Feeding Update:</td>
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<tr>
<td>Age:</td>
<td>mo M F</td>
<td>Gestational Age:</td>
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<td>th %ile</td>
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<tr>
<td>Current Medications:</td>
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<tr>
<td>Supplements:</td>
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<tr>
<td>A/P:</td>
<td>Est. Energy Needs:</td>
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<tr>
<td>Est. Daily Intake:</td>
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<td>Impression:</td>
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<tr>
<td>Other Recommendations:</td>
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<tr>
<td>Follow-up</td>
<td></td>
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</tbody>
</table>
Patient: ___________________ MPI ____________________

Chart review:
• Diagnosis Associated with Dysphagia. ___________________________
• Patient’s ability to assist with the evaluation. _____________________
• Past medical or surgical history which may affect swallowing? _______
  ___________________________________________________________
• Previous laboratory tests related to swallowing. ___________________
• Lab tests which indicate nutritional status.
  • Ht: ____.  Wt: ______  BMI = ______
• Weight History (% of weight change). __________________________
• Medications which may affect patient’s ability to swallow. _______
  ___________________________________________________________

Questions to ask patient.
1. Have you had swallowing problems in the past?  Yes   No
2. Is it difficult for you to initiate a swallow?     Yes     No
3. Is food getting stuck?  Yes   No
   If yes, Where? ___________________
4. Which types of foods are problematic?
   Solids?    Pureed?    Liquids?
5. Is the difficulty getting progressively worse or does it happen
   intermittently? ____________________
6. Are you avoiding certain foods? _______________________________
7. Have you lost weight unintentionally? __________________________
8. What is your UBW? __________
9. Do you cough or choke when trying to swallow? _________________
10. How long have you been having problems swallowing? __________
11. How long does it take to finish your meals?____________________
12. Do you have a history of reflux or heartburn? __________________

Signs of Dysphagia or Aspiration. (Chart, Patient &/or Observation)

Oral Phase
• Drooling, Excessive secretions
• Pocketing of food in checks or under tongue
• Spitting out food
• Poor control of tongue movements
• Excessive tongue movements
• Unable to move tongue in all plans
• Poor lip closure
• Slowed oral transit time
• Decreased oral sensation
• Slurred speech

Pharyngeal phase
• Coughing before, during, or after swallowing food or liquid
• Choking
• Nasal regurgitation
• Wet “gurgly” voice after swallowing foods or liquids
• Hoarse or breathy voice
• Absent swallow reflex
• Delayed or absence of laryngeal elevation
**Esophageal phase**
- Complaints of food getting "stuck"

**Other**
- Poor control of head/body position
- Inadequate food and fluid intake
- Prolonged meal time
- Refusal to eat

_______________________  __________
Signature        Date

E. Tobias, MA, RD/Dietitian 5/02
Adapted from Developmental Issue, Volume 19, No. 1 A publication of Dietetics in Development & Psychiatric Disorders. A practice group of The American Dietetic Association.
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Diet Information
GREATER BRIDGEPORT COMMUNITY MENTAL HEALTH CENTER
GUIDE TO ORDERING DIETS

Regular Diet
The Regular Diet contains all nutrients necessary to maintain adequate nutrition based on the USRDA. This diet provides approximately 2400 calories and 100 grams of protein. Patients are encouraged to choose from the selective menu. The calories provide by the regular diet may exceed most patient’s calorie expenditure.

Detox
This diet is similar to the Regular diet, but allows for additional calories and protein. This diet provides the minimum of 2800 calories and 120 grams of protein a day, and may be too high in calories and protein for extended use. The use peppery or spicy foods are limited to help decrease the signs & symptoms of nausea & vomiting, but consumers are allowed to choose a spicy entrée, if desired. A generous nighttime snack is offered containing sufficient calories & protein to be considered a fourth meal. Residents should be encouraged to choose from the selective menu. Residents requiring a therapeutic diet (i.e. NCS, NAS, Low Cholesterol/low fat, Renal) will receive the calorie level appropriate for that diet modification. All patient’s admitted to ASATU & prescribed a Regular Diet will receive a minimum of 2800 calories & 100 grams of protein.

Vegetarian
A Lacto-Ovovegetarian meal plan is provided to the resident who desires a vegetarian meal. This diet is nutritionally adequate, and includes all foods except meat, poultry and fish. Milk & eggs are allowed. Soymilk is offered to those residents who will not consume cows milk. If a resident does not consume milk or eggs, dietary will need to be informed. A Nutrition Consult may be necessary, especially if a resident requests a Vegan diet.

Dental Soft
The dental soft diet follows the regular diet. This diet is for the resident with poor dentition and is able to chew most foods. This diet does not modify aromas or spices. The Dental Soft diet modifies fiber & texture only, and must be individualized for each patient. A Registered Dietitian consult is suggested when ordering this diet, as the majority of the patient’s are able to chew raw lettuce and tomatoes. The Medical Doctor should order a Nutrition Assessment. Until the RD performs a nutrition assessment, the patient will receive all foods except for raw carrots, raw celery, raw apples, raw pears, corn-on-the-cob and nuts (whole, chopped & ground).
Mechanically Altered

The Mechanically Altered Diet is designed to minimize the amount of chewing necessary to ingest food. This diet is used for residents who have limited chewing ability but can tolerate a greater variety and texture of foods than a blenderized or pureed diet offers. This diet includes food modified in texture, such as blended, chopped, ground and pureed foods, to promote ease of mastication. Gravies & sauces are liberally used in preparing this diet. The foods are generally moist and require minimal chewing before swallowing. Residents with severe dental problems, anatomical esophageal strictures, or are an aspiration risk may benefit from this diet. This diet can be prescribed when a patient has lost their dentures. Long-term use of some psychological drugs may necessitate the use of this diet. A Nutrition Consult should be requested when ordering this diet.

No Added Salt

A No Added Salt diet is a liberal sodium restriction of approximately 3 to 4 grams a day (3000 to 4000 mg), and is suggested for individuals who are diagnosed with hypertension, or are sodium sensitive. The NAS meal plan limits the amount of sodium added to the meals, and limits foods high in sodium. A sodium restriction is also suggested for individuals with Impaired liver function, other cardiovascular diseases, renal disease or obesity.

If a resident requires a therapeutically sodium restriction less than 3 grams of sodium, the Registered Dietitian should be consulted. It is suggested, that if the resident is overweight, a NCS diet should also be ordered. Weight loss has been proven to be an important step to achieving better blood pressure control. If a resident requires a sodium restriction, the Registered Dietitian should be consulted to provide nutrition education.

No Concentrated Sweets

A meal plan providing approximately 1800 to 2000 calories a day. Actual caloric level reflects the main entrée chosen. The NCS diet can be used for a resident requiring a Diabetic Diet, as well as the resident who requires weight reduction, and/or has elevated triglycerides. To help manage the multi-medical needs of this resident, high fiber and low sodium foods are encouraged. A referral to the Registered Dietitian is suggested. The Registered Dietitian will assess the resident’s need for nutrition education and will individualize the diet. This diet is similar to the Diabetic Diet, but the word “Diabetic” are not used on a patient’s tray card, as the use of the word “Diabetic” is a diagnostic label. To help to manage blood sugar levels, carbohydrate counting is utilized in menu planning. Carbohydrate amounts are four at breakfast, lunch & dinner, and two at the evening snack.
Low Cholesterol
A diet to manage elevated cholesterol and/or triglycerides levels, and to reduce the risk of CAD. This diet follows the NCEP (National Cholesterol Education Program) guidelines for Step-I Diet. This diet is moderate in fiber, and low in sodium. The calorie level is similar to a NCS diet. It is suggested that a NCS Diet be ordered when a Low fat/low cholesterol diet is ordered, since weight control is an important component to reducing CAD risk. A Registered Dietitian consult should be ordered when requesting this diet.

Low Fat
A diet to manage elevated cholesterol and triglycerides levels, and to reduce the risk of CAD. This diet follows the NCEP (National Cholesterol Education Program) guidelines for Step-I Diet. This diet is moderate in fiber, and low in sodium. The calorie level is similar to a NCS diet. It is suggested that a NCS Diet be ordered when a Low fat/low cholesterol diet is ordered, since weight control is an important component to reducing CAD risk. A Registered Dietitian consult should be ordered when requesting this diet.

Low Lactose
Designed to restrict lactose (milk sugar) to less than 16 grams a day. This diet is designed for the individuals with primary or secondary lactase deficiency. Most residents, who are lactose intolerant, can tolerate small amounts of lactose. This diet follows the Regular Diet. Lactose reduced milk is offered, and milk products that are low in lactose are permitted. Yogurt is available per request. A Diet Free of Lactose (Lactose Free Diet) is usually not indicated, and should not be ordered. (Note: This diet is not to be used by a resident with a diagnosis of rare congenital lactase deficiency, or cows milk allergy.) A Nutrition Consult is suggested.

High Fiber
A High Fiber Diet is a general diet with an emphasis on fiber-rich food sources including fruits, legumes, vegetables, whole-grain breads and cereals. A High Fiber diet can be used in the prevention or treatment of a number of gastrointestinal, cardiovascular, and metabolic diseases including diverticular disease, constipation, irritable bowel syndrome, Crohn’s disease, hypercholesterolemia, and obesity. Ideally, a High Fiber diet should contain 20-35 grams of fiber. To achieve this number, the resident must be able to consume high fiber foods offered by dietary. Adequate fluid, preferably water should be encouraged. A resident with poor dentition, or on a Dental Soft, or a Mechanically Altered Diet may not be able to consume the suggested level of fiber. If a resident requires a High Fiber Diet, a Registered Dietitian consult should be ordered. (Note: patient’s prescribed a high fiber diet will automatically receive Raison Bran or Bran Flakes with their morning breakfast.) A Nutrition Consult is suggested.

ADDITIONAL DIETS ARE AVAILABLE. PLEASE CONSULT THE REGISTERED DIETITIAN.


Ellen M. Tobias, M.A., R.D., Dietitian 2, 4/01, REVISED 8/03, 5/05. & 6/06. Reprinted with Permission

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Tyramine Controlled Diets for Use with MAOIs

PURPOSE

The tyramine controlled diet is used to prevent the adverse reactions associated with consuming foods containing tyramine and other amines while receiving monoamine oxidase inhibitor (MAOI) therapy.

USE

This diet is used for persons receiving MAOIs for treatment of anxiety and depression.

MODIFICATIONS

This diet can be a general diet or any other appropriate therapeutic diet with the omission of foods high in tyramine or other pressor amines such as dopamine and histidine. Foods high in tyramine should be avoided; foods with a moderate to low tyramine content should be used with caution in limited amounts that do not exceed 5 mg of tyramine per day. Other foods that may interact with high levels of tyramine to produce an adverse effect are also eliminated or restricted. Counseling should begin before the initiation of drug therapy, and adherence to a low tyramine diet should continue for 4 weeks after the drug is discontinued.

As a general rule, all protein rich foods that have been aged, dried, fermented, pickled, smoked, cured, or bacterially contaminated should be eliminated from the diet. Prolonged storage and food spoilage will increase the tyramine content of foods. Because fresh foods stored under refrigeration can ferment, perishable refrigerated items should be consumed within 48 hours of purchase. Since heat does not destroy tyramine, all foods should be fresh, fresh frozen, or canned, as well as handled, prepared, stored, and served to maximize freshness.
## GUIDELINES FOR SELECTING FOODS FOR A TYRAMINE CONTROLLED DIET

<table>
<thead>
<tr>
<th>FOODS HIGH IN TYRAMINE OR OTHER AMINES (Avoid while taking MAOIs)</th>
<th>FOODS MODERATE TO LOW IN TYRAMINE OR OTHER AMINES (Use in limited amounts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All aged and mature cheeses, cheese spreads, cheese casseroles, or any product made with aged cheese such as salad dressings (tyramine content is higher near the rind and closer to fermentation holes)</td>
<td>Cultured dairy products including buttermilk, yogurt, sour cream (Allowed cheeses include farmer, cottage, ricotta, and processed cheese slices)</td>
</tr>
<tr>
<td>Aged, dried, fermented, salted, smoked, and pickled meats and fish, including processed meats (bacon, sausage, liverwurst, hot dogs), and luncheon meats (corned beef, pepperoni, salami, bologna, ham)</td>
<td>Fish roe (caviar) and paté (1 oz.)</td>
</tr>
<tr>
<td>Fermented soybean products (miso, some tofu products), soy sauce</td>
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</tr>
<tr>
<td>Fava or broad bean pods, including Italian beans and Chinese pea pods (may contain high levels of dopamine)</td>
<td>Caffeine in coffee, tea, and soft drinks (limit: two 8 z. servings)†</td>
</tr>
<tr>
<td>Overripe and spoiled fruits, banana peel</td>
<td>*Fruits including bananas, avocados, canned figs, raisins, red plums, raspberries</td>
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<tr>
<td>Sauerkraut</td>
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<tr>
<td>*Some alcoholic beverages, including Chianti, burgundy, sherry, vermouth, beer, ale</td>
<td>White wine, port wine, distilled spirits</td>
</tr>
<tr>
<td>Sourdough and fresh, homemade yeast-leavened breads (may contain high levels of histidine)</td>
<td>*Chocolate and products made with chocolate (chocolate milk, ice cream, pudding, cake, cookies)</td>
</tr>
<tr>
<td>Yeast extracts and meat extracts‡</td>
<td>Teriyaki sauce (1/4 cup)</td>
</tr>
</tbody>
</table>

*These items are not necessarily high in tyramine but may be high in other amines such as dopamine or histidine and may provoke an adverse reaction. Tolerance should be determined on an individual basis.

†Caffeine and monosodium glutamate do not contain tyramine but may aggravate symptoms of headache and hypertension in some persons.

‡Both yeast and meat extracts may be found in dry-packed and canned soup mixes, instant soup powders and bases, and bouillon cubes. Meat extracts are also found in meat tenderizers. Yeast extracts may be found in liquid and powdered dietary protein supplements. Concentrated soups and sauces prepared for individual use should be avoided.

Patient Education Resources
NUTRITION LESSON PLANS

These lessons are designed to give you ready to use lesson plans for the registered nurse or psychiatric technician running nutrition groups with patients from children to adolescents to adults. The following principles should be conveyed in every nutrition group:

- Variety is a necessary part of having a nutritious diet.
- Moderation helps to increase variety in one’s diet.
- The more naturally occurring colors in one’s diet the more nutritious!
- Always work on adding healthy foods to one’s diet rather than emphasizing foods to avoid.

In particular if you are working with children please emphasize:

- Inherent in the lesson plans is the understanding of the growth and development occurring during childhood with the need for nutrition to fuel this growth and development.
- One’s own appetite and sense of satiety should guide how much one should eat.
- Snacks are an important component of a child’s eating habits.
- Limiting sweets and high calorie low nutrient foods is important to ensure the child obtains the foods necessary for growth and development.
- When and what a child eats can impact their ability to control their emotions and behavior.

The following power point presentations have been included on the Psychiatric Nutrition Therapy compact disk. They may be used with a variety of the lesson plans included in the next section.

- Adolescent Nutrition Group Power Point Presentation
- Adult Nutrition Group Power Point Presentation
- Child Nutrition Group Power Point Presentation
- Omega-3 Fatty Acid Food Sources Power Point Presentation
- Foods and Moods Power Point Presentation
Nutrition Group: Healthy Lifestyle Solutions: Guide to Weight Management

PURPOSE:
To identify specific changes in one’s eating habits to help promote weight control.

GENERAL COMMENTS:
Psychiatric medications may stimulate increased appetite as a side effect, which may lead to weight gain. Healthy lifestyle changes early can help minimize potential weight gain, as well as promote long-term weight management.

POSSIBLE ACTIVITIES:
Start with an icebreaker of having everyone say their first name and any experience that they have had with weight control.

Have participants write out their average daily eating routine and/or have a volunteer write theirs on the white board.

Show the video Healthy Lifestyle Solutions: Guide to Weight Management produced by Eli Lilley.

Discuss the principles outlined in the video and methods to improve the sample meal plan on the white board such as:

- Reducing or eliminating soda or juice intake. Great way to cut back on excess calories, a 20 ounce bottle of soda 220 calories and a 4 oz serving of orange juice is 60 calories. It takes an excess of 3500 calories to equal one pound of weight gain.
- Beverage options instead of regular soda or juice, such as flavored waters, tonics, diet sodas, crystal light, etc. If someone does not like the soda they drink now in the sugar-free version, how about trying a totally different type of sugar-free soda? Such as a Pepsi drinker switching to sugar-free 7-UP?
- The thirst mechanism and how we often eat when we are really thirsty. Promote ways to increase water consumption to 8-10 cups per day.
- Boredom/emotional eating and signs to identify non-physical hunger. Discuss options to deal with such.
- Importance of recognizing our emotions and feelings, rather than using food to cover them.
- Importance of exercise and daily activity in our lives. Emphasize need to establish exercise routine and commitment to regular exercise.
- Importance of recognizing early gains such as 5 or 10 pounds. This is when small changes can have a significant impact.
- Refer any specific questions about caloric levels or individualized needs to the registered dietitian.

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Five Common Nutrition Mistakes

As the demands of home, work and family crowd a person’s life, we may take shortcuts that can be detrimental to her nutritional health. Here are five common mistakes that we may make when trying to watch our weight in a hectic life.

- **Routinely Skipping Breakfast**
  Do you grab a cup of coffee laden with cream before you leave the house, with no plans for breakfast? Breakfast can easily be the most nutritious meal of the day. Choose a bowl of high-fiber cereal, add fruit for interest and sweetness, and cover with skim milk.

- **Selecting a Tossed Salad and Diet Soda for Lunch**
  Well, you do get veggies with lots of vitamins, antioxidants and fiber, but salad dressings are often full of fat. There is no way this lunch will get you through until dinner. You'll be hungry enough to eat the cat when you get home.

  Instead, choose a satisfying lunch -- preferably one low in fat and high in protein -- such as a turkey sandwich with lettuce and tomato on whole wheat bread. Protein takes longer to digest and keeps your blood sugar steady for hours. Or, if you must have a salad, you can add some protein with tuna, grilled chicken, low-fat cottage cheese or chickpeas. Have some juice or fruit, and add a low-fat yogurt as dessert for your second dairy serving of the day.

- **Not Planning for Lunch or Snacks**
  Get in the habit of having a food bag with you. Keep it in the car, desk or refrigerator at work. You need to be prepared, because hunger can strike at any time -- such as 11:30 a.m., when you can't leave for lunch until 1 p.m., or in the late afternoon. Without your food bag as protection, you are a victim of the high-fat environment -- the candy machine down the hall, the cheese and cracker snack packs, or the stale doughnuts in the break room. If you are prepared, you can reach into your food bag and grab a box of raisins, an apple, some pretzels, a granola bar or energy bar, baby carrots, a yogurt, or a package of hot chocolate or hot cereal.

- **Eating Too Fast, in Too Large a Quantity, While Doing Something Else**
  Women get very good at doing two or more things at once. But when you eat too fast, you don't register the food enjoyment or the sense of fullness, and you tend to eat too much or go back for seconds. You are unaware of how much you really ate because your attention is partially focused on the other things you are doing or thinking while eating. Sit down, pay attention to your food, eat slowly and enjoy. Take a real break -- get away from your desk and out of your office at lunch.

- **Portion Distortion**
  We find that our portions continue to increase not only in fast food, but also in common foods. The sizes of our cereal bowls are larger. Our glasses typically hold 16-20 ounces as opposed to 8 ounces. Our coffee beverages can have up to 800 calories in one serving. What are we to do? When reading labels look at the portion size the information is based on. Estimate what size portion you are consuming. Can you split high calorie items with a friend? Can you serve things in smaller portions? These type of steps will help you in winning the portion distortion battle!
Nutrition Group: Food and Moods

PURPOSE:
To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:
This handout focuses on the timing of our eating, as well as, the nutritive value of the foods we eat. It takes, on average, 30-60 days of actively making a change in our eating patterns for a habit to be formed.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food.

Have participants write out their average daily eating routine and/or have a volunteer write theirs on the white board.

Distribute handout and refer to diet on the white board at each point below:

- Discuss importance of timing when we eat:
  General rules: No more than 15 hours overnight without eating and no more than 5 hours while awake.

- Discuss fallacy of not eating breakfast to promote weight loss; most folks end up eating much more at night if they don’t eat breakfast. Breakfast helps to boost our metabolism.

- Breakfast doesn’t have to be when we first wake up, but rather within the first 2-3 hours of waking up.

- Discuss the food pyramid.

- Discuss the importance of balanced diet approach in our eating to help prolong satiety.

- Discuss importance of fiber in bowel regulation, constipation is a common side effect of psychiatric medications.

- Discuss the importance of Omega III fats in our nervous system and in neurotransmitter synthesis. Americans are eating between ¼ to 1/20th of the amount of Omega III fat we should eat. Our typical American diet is high in fat making it harder for the Omega III fat to make it to our brains.

- Discuss caffeine’s effect on anxiety and half-life of 5 hours, which may interfere with sleep.

- Discuss importance of sleep in healthy eating. Folks who don’t sleep well tend to turn to food more for energy.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
FOODS AND MOODS

• *Have a morning meal -* We think clearer if we have fuel in us.

• *Go no longer than 5 hours without eating while awake.* Not eating affects our moods and ability to handle stress, as well as our energy level.

• *Find out what you are eating and how you are feeling.* Keep a food diary for a day and record what you eat, when and how you feel. Look at it to see if there are trends, such as feeling tired 1 hour after drinking soda or anxious after 3 cups of coffee, etc.

• *Choose foods close to the healthy eating pyramid striving for moderation and variety.* Above all what you eat must give you the nutrients you need.

• *Choose foods that will last you while you are working.* Foods heavily processed digest quickly and won’t keep you going as long as having foods that take time to digest, such as foods containing protein and fiber.

• *Choose foods with nutrient density* – meaning the most nutrients in the smallest amount of calories, such as fruits & vegetables.

• *Increase healthy fats and lower artery clogging fats in your eating.* Omega3 fats found in fish, seeds, nuts, canola oil, flaxseeds, and soy.

• *Use caffeine to help you, not hurt you.* Caffeine can rev you up, but relying on it as the sole source of energy can get you into a negative cycle. Use it to compliment your eating. Limit it to 2 cups per day.

• *Get adequate rest.* We can’t rely on eating only to give us energy, we need to rest our bodies. Most people need 7-8 hours of sleep per night.
Nutrition Group: Weight Control

PURPOSE:

To identify specific changes in one’s eating habits to help promote weight control.

GENERAL COMMENTS:

Psychiatric medications may stimulate increased appetite as a side effect, which may lead to weight gain. Dry mouth is also a common side effect. Choices of what we eat and drink are very important in controlling one’s weight.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food.

Have participants write out their average daily eating routine and/or have a volunteer write theirs on the white board.

Distribute handout from Lilley on Weight Control & Psychotropic Medications and refer to diet on the white board at each point below:

- Discuss the principle of balance using the food pyramid format. We need low calorie foods such as fruits and vegetables to balance the high calorie foods such as fried foods, desserts, chips, etc.
- Discuss the caloric density of fats, oils, alcohol and sweets. Example a pat of butter has 45 calories, a T of salad dressing 100 calories, a 20 ounce bottle of soda 220 calories. It takes an excess of 3500 calories to equal one pound of weight gain.
- Discuss importance of water and fiber in bowel regulation; constipation is common side effect of many psychiatric medications.
- Discuss beverage options instead of regular soda or juice, such as flavored waters, tonics, diet sodas, crystal light, etc. If someone does not like the soda they drink now in the sugar-free version, how about trying a totally different type of sugar-free soda? Such as a Pepsi drinker switching to sugar-free 7-UP?
- Discuss the thirst mechanism and how we often eat when we are really thirsty. Promote ways to increase water consumption to 8-10 cups per day.
- Discuss boredom/emotional eating and signs to identify non-physical hunger. Discuss options to deal with such.
- Discuss importance of recognizing our emotions and feelings, rather than using food to cover them.
- Discuss importance of exercise and daily activity in our lives. Emphasize need to establish exercise routine and commitment to regular exercise.

Refer any specific questions about caloric levels or individualized needs to the registered dietitian.
Eating Well for Losing Weight

The following tips can help you lose weight and improve your health:
♦ Increase your intake of fruits and vegetables to 5 servings/day.
♦ Try having a piece of fresh fruit for a snack.
♦ If affordable try buying ready to eat fresh vegetables like peeled carrots, salads in a bag, etc.
♦ Carry healthy snacks with you to reduce impulse to buy high fat vending machine snacks.
♦ Don’t skip meals.
♦ Don’t go more than 5 hours when awake without eating.
♦ Eliminate regular soda, excess calories we don’t need. By drinking water instead of 1 can of soda a day and keep the rest of your diet the same you will lose 10 pounds in 1 year.
♦ Try to limit teaspoons of margarine/butter to 3/day.
♦ Avoid fried foods.
♦ Get in touch with your hunger cycle by asking the following before you eat:
  ♦ Are you hungry?
  ♦ Are you eating for another reason? Boredom? Emotions?
  ♦ Are you thirsty?
  ♦ What do I really want to eat right now?
♦ Keep a food record for three days and compare to the food pyramid for nutritional adequacy. The food record should have the following information:
  ♦ Time you eat
  ♦ What you eat
  ♦ How much you eat
  ♦ Rating of your hunger on the 1-10 scale
  ♦ Rating of your mood/emotion you are feeling
♦ Find a way to increase your physical activity in a way you enjoy.
  ♦ Try parking further from the store
  ♦ Try walking the mall
  ♦ Join a friend for a daily walk
♦ Take time; it will take 30-60 days to change your eating habits.
♦ Get support, be it therapist, family, friends or a group like TOPS or Weight Watchers.
Strategies for Binge Eating

Binge eating is a common problem in today’s society. Food is a tool that has been abused and sought after for many people, both men and women, of all ages.

Binge eating knows no specific group of people, although it is more common amongst girls & women, than boys & men.

What is Binge Eating?

Occasionally, we all overeat. However, for some, food is an important method of coping with life’s stressors. Binge eating can be defined by the following criteria:

- Eating excessive amounts of high calorie foods in a short period of time.
  
  Or

- Eating high calorie foods, especially starches over a longer period of time (this is called grazing).

When a person binges, he or she usually will not stop until they are physically sick, or ready to go to sleep. Often times, there is no middle ground. Sadly, there is never enough food to satisfy the binge eater.

What can I do about it?

There are methods of dealing with this issue if in fact you are a binge eater:

1. Begin to become aware of your eating habits. Keep a diary of everything you put into your mouth. Note the date and time of day you eat. More importantly, get in touch with your mood at the time of eating. Are you angry? Sad? Depressed? Unhappy with some person, place, thing, or situation in your life? Journal honestly for a week.

2. With this journal, you will probably begin to see a pattern with your binge eating. Often binge eaters will eat because of emotional issues. By being aware of how you feel at the time of your binge, you can begin to try to develop other coping mechanisms for that particular feeling. Think about the problem before turning to the food.

3. Make a list of things you can do when you experience these feelings before picking up the food. Such as: talk to a friend, take a walk, write a letter, etc. Stop what you are doing and do something nice for yourself: buy yourself some flowers or take a bubble bath to celebrate you as a special human being! Be kind to yourself! Try to remember that there is no one quite like you on this earth. You are unique.
4. Be gentle with you. If we start to eat, often times we will be mean and proverbially ‘beat ourselves up’. You are a human being. Humans make mistakes. Learn from the mistake: *eating does not make things get better.*

5. Join a support group with other binge eaters to talk about life issues. A good program is Overeater’s Anonymous that is a 12-step program with no fees. Food is addressed as a symptom. If you are interested ask the dietitian for a list of meetings.

6. Think, think, think. Think before you take that first bite. Leave inspirational notes around your house that you know you will see. Most importantly, remember that this is a process. Old behavior patterns will not disappear as quickly as we hope. Be patient; it takes time to try a new way of living.
Nutrition Group: Questions

PURPOSE:

To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:

For a person to make a meaningful change in their eating habits they need to make a specific plan outlining the steps to achieve the change.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food.

Have participants write out their average daily eating routine and/or have a volunteer write theirs on the white board.

Cut questions up and have each person take one question out of the bowl. Refer to diet on the white board at each point below:

In turn read the question and as a group brainstorm ideas on the item.

Have each person identify a specific goal they can make to improve their own diet, as well as possible suggestions for the diet on the board.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
Questions Activity

What’s your favorite snack? And why do you think snacks are important?

How do you feel if you don’t eat all day long?

How do you feel if you go out to a buffet and overeat?

How do you feel if you drink a pot of coffee?

Name a food that we as Americans don’t eat enough of.

If you don’t eat all day long how do you feel in the evening?

Why should we eat in the morning or within the first 2-3 hours of being awake?

Cutting back on regular soda and juice can help control weight. How can I do this?

How can eating healthier improve my health?

What is one thing I can do to improve my eating habits?

What’s your favorite meal to cook?

Name something healthy that you would order at McDonald’s.

How can you make sure you eat breakfast in the morning?

Name the most recent new food you have tried? Would you eat it again?
Improving your nutrition does not have to be difficult. A good way to start is with one of these suggestions.

- **Keep a bowl of fresh fruit available.** Place a bowl or basket of fruit on your counter at home and/or on your desk at work. Availability is everything. If it's there, you're more likely to eat it.

- **Eat breakfast.** After an overnight fast, your brain needs fuel to perform well. Skipping breakfast probably won't save you any calories, either. It usually just makes you more hungry for lunch or a midmorning snack. Spreading your food intake over the day (starting with breakfast) is the best way to burn calories most efficiently.

- **Plan ahead for routine meals and snacks.** People who eat regular meals get a more balanced, healthier diet and are closer to their goal weights. Planning will also save you time.

- **Pack your lunch the night before.** If you don't eat breakfast or pack a lunch because you rush too much in the morning, set everything up the night before. Create a routine that you don't have to think about in the morning.

- **Buy a healthy cookbook or food magazine.** If you like to cook, this can help inspire you to cook healthier foods and meals.
## Caffeine chart

<table>
<thead>
<tr>
<th>Product</th>
<th>Serving Size</th>
<th>Caffeine (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OTC Drugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NoDoz, maximum strength; Vivarin</td>
<td>1 tablet</td>
<td>200</td>
</tr>
<tr>
<td>Excedrin</td>
<td>2 tablets</td>
<td>130</td>
</tr>
<tr>
<td>NoDoz, regular strength</td>
<td>1 tablet</td>
<td>100</td>
</tr>
<tr>
<td>Anacin</td>
<td>2 tablets</td>
<td>64</td>
</tr>
<tr>
<td><strong>Coffees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee, brewed</td>
<td>8 ounces</td>
<td>135</td>
</tr>
<tr>
<td>Coffee, instant</td>
<td>8 ounces</td>
<td>95</td>
</tr>
<tr>
<td>Starbucks, Coffee Grande</td>
<td>16 ounces</td>
<td>259</td>
</tr>
<tr>
<td>General Foods International Coffee, Cafe Vienna</td>
<td>8 ounces</td>
<td>90</td>
</tr>
<tr>
<td>Maxwell House Cappuccino</td>
<td>8 ounces</td>
<td>45-65</td>
</tr>
<tr>
<td>Espresso</td>
<td>Per ounce</td>
<td>30-50</td>
</tr>
<tr>
<td>Coffee, decaffeinated</td>
<td>8 ounces</td>
<td>5</td>
</tr>
<tr>
<td><strong>Teas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Celestial Seasonings Iced Lemon Ginseng Tea</td>
<td>16-ounce bottle</td>
<td>100</td>
</tr>
<tr>
<td>Bigelow Raspberry Royale Tea</td>
<td>8 ounces</td>
<td>83</td>
</tr>
<tr>
<td>Tea, leaf or bag</td>
<td>8 ounces</td>
<td>50</td>
</tr>
<tr>
<td>Snapple Iced Tea, all varieties</td>
<td>16-ounce bottle</td>
<td>48</td>
</tr>
<tr>
<td>Tea, green</td>
<td>8 ounces</td>
<td>30</td>
</tr>
<tr>
<td>Arizona Iced Tea, assorted varieties</td>
<td>16-ounce bottle</td>
<td>15-30</td>
</tr>
<tr>
<td>Tea, instant</td>
<td>8 ounces</td>
<td>15</td>
</tr>
<tr>
<td><strong>Soft Drinks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain Dew</td>
<td>12 ounces</td>
<td>55</td>
</tr>
<tr>
<td>Diet Coke</td>
<td>12 ounces</td>
<td>47</td>
</tr>
<tr>
<td>Coca-Cola</td>
<td>12 ounces</td>
<td>45</td>
</tr>
<tr>
<td>Barqs Root Beer</td>
<td>12 ounces</td>
<td>23</td>
</tr>
<tr>
<td>7-UP or Diet 7-UP/Bargs Diet Root Beer</td>
<td>12 ounces</td>
<td>0</td>
</tr>
<tr>
<td><strong>Sports/Energy Drinks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Bull</td>
<td>8.5 ounces</td>
<td>80</td>
</tr>
<tr>
<td>SoBe No Fear</td>
<td>16 ounces</td>
<td>158</td>
</tr>
<tr>
<td><strong>Caffeinated Waters</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java Water</td>
<td>1/2 liter</td>
<td>125</td>
</tr>
<tr>
<td>Krank 20</td>
<td>1/2 liter</td>
<td>100</td>
</tr>
<tr>
<td>Aqua Blast</td>
<td>1/2 liter</td>
<td>90</td>
</tr>
<tr>
<td>Water Joe</td>
<td>1/2 liter</td>
<td>60-70</td>
</tr>
<tr>
<td>Aqua Java</td>
<td>1/2 liter</td>
<td>50-60</td>
</tr>
</tbody>
</table>
Frozen Desserts

<table>
<thead>
<tr>
<th>Item</th>
<th>Size</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben &amp; Jerry's No Fat Coffee Fudge Frozen Yogurt</td>
<td>1 cup</td>
<td>85</td>
</tr>
<tr>
<td>Starbucks Coffee Ice Cream, assorted flavors</td>
<td>1 cup</td>
<td>40-60</td>
</tr>
<tr>
<td>Häagen-Dazs Coffee Ice Cream</td>
<td>1 cup</td>
<td>58</td>
</tr>
<tr>
<td>Häagen-Dazs Coffee Frozen Yogurt, fat-free</td>
<td>1 cup</td>
<td>40</td>
</tr>
<tr>
<td>Häagen-Dazs Coffee Fudge Ice Cream, low-fat</td>
<td>1 cup</td>
<td>30</td>
</tr>
<tr>
<td>Starbucks Frappuccino Bar</td>
<td>1 bar (2.5 ounces)</td>
<td>15</td>
</tr>
<tr>
<td>Healthy Choice Cappuccino Chocolate Chunk or Cappuccino Mocha Fudge Ice Cream</td>
<td>1 cup</td>
<td>8</td>
</tr>
</tbody>
</table>

Yogurts, one container

<table>
<thead>
<tr>
<th>Yogurt</th>
<th>Size</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dannon Coffee Yogurt</td>
<td>8 ounces</td>
<td>45</td>
</tr>
<tr>
<td>Yoplait Cafe Au Lait Yogurt</td>
<td>6 ounces</td>
<td>5</td>
</tr>
<tr>
<td>Dannon Light Cappuccino Yogurt</td>
<td>8 ounces</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Stonyfield Farm Cappuccino Yogurt</td>
<td>8 ounces</td>
<td>0</td>
</tr>
</tbody>
</table>

Chocolates or Candies

<table>
<thead>
<tr>
<th>Item</th>
<th>Size</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hershey's Special Dark Chocolate Bar</td>
<td>1 bar (1.5 ounces)</td>
<td>31</td>
</tr>
<tr>
<td>Hershey Bar (milk chocolate)</td>
<td>1 bar (1.5 ounces)</td>
<td>10</td>
</tr>
<tr>
<td>Coffee Nips (hard candy)</td>
<td>2 pieces</td>
<td>6</td>
</tr>
<tr>
<td>Cocoa or Hot Chocolate</td>
<td>8 ounces</td>
<td>5</td>
</tr>
</tbody>
</table>

- Current recommendations are for no more than 3 cups of coffee per day (250mg).
A sound weight gain program combines exercise to boost muscle development along with a balanced diet to provide nutrients for energy and muscle growth. To gain one pound per week, you need to consistently take in at least 500 calories above your usual daily caloric intake. This number may vary because of activity level and genetic makeup.

**WHAT IS A BALANCED DIET?**
A well-balanced diet includes daily selections from each of the following groups: grains, fruits, vegetables, dairy, meat and/or plant proteins. Eat foods from each group daily to assure an adequate intake of essential nutrients.

**WHAT'S THE BEST WAY TO INCREASE CALORIES?**

- eat larger than usual meals
- include extra snacks throughout the day or before bed
- eat higher calorie foods
- include high-calorie beverages in your daily intake

The following foods can help you boost your calorie intake:

<table>
<thead>
<tr>
<th>Grains: Choose heavy, thick-sliced breads, such as whole wheat, pumpernickel, and cracked wheat. Dense cereals such as grape nuts, granola, and raisin bran are higher calorie choices than lighter flaked or puffed cereals. Top with nuts, sunflower seeds or dried fruit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit: Bananas, pineapples, raisins, dates, and other dried fruits are higher calorie choices than grapefruit, strawberries or other &quot;watery&quot; fruits. Including fruit juices in your diet can also increase your calories.</td>
</tr>
<tr>
<td>Milk: To boost calories, add instant breakfast or 1/4 cup powdered milk to 1 cup of low-fat milk. Cheese and yogurt can also be good sources of calories.</td>
</tr>
<tr>
<td>Vegetables: Peas, corn, carrots, winter squash, and baked potatoes are higher calorie vegetables. Eat a variety of vegetables, however, for adequate nutrition.</td>
</tr>
<tr>
<td>Snacks: Healthful snacks include yogurt, cheese and crackers, peanuts, bagels, sandwiches, instant breakfast drinks, bran muffins and dried fruit.</td>
</tr>
</tbody>
</table>

**Calorie boosters:**

| 2 slices heavy bread | 200 |
| 2 tbsp. jelly | 100 |
| 2 tbsp. peanut butter | 202 |
| **Total** | **500** |
1/4 cup peanuts   212
1/4 cup raisins   104
1/2 cup granola   252
Total           528

8 oz. grapefruit  240
1 bagel          200
1 slice mozzarella cheese  80
Total           520

### Hi-Cal Shake

<table>
<thead>
<tr>
<th>Item</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup ice milk</td>
<td>185</td>
</tr>
<tr>
<td>1/4 cup 2% milk</td>
<td>30</td>
</tr>
<tr>
<td>3 tbsp. chocolate drink mix</td>
<td>90</td>
</tr>
<tr>
<td>2 tbsp dry skim milk</td>
<td>55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>360</strong></td>
</tr>
</tbody>
</table>

**MAKE YOUR BEVERAGES HIGH-CALORIE!**

Drinking high-calorie fluids during the day and with meals is an easy way to increase your total calories. Choosing beverages that are also high in nutrients helps your diet to be nutritionally complete.

<table>
<thead>
<tr>
<th>Beverage (1 cup)</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carnation Instant Breakfast/2% milk</td>
<td>250</td>
</tr>
<tr>
<td>Cranapple juice</td>
<td>164</td>
</tr>
<tr>
<td>Grape juice</td>
<td>155</td>
</tr>
<tr>
<td>Cranberry juice cocktail</td>
<td>146</td>
</tr>
<tr>
<td>Pineapple juice</td>
<td>140</td>
</tr>
<tr>
<td>Apricot nectar</td>
<td>140</td>
</tr>
<tr>
<td>2% milk</td>
<td>120</td>
</tr>
</tbody>
</table>

**FAST SIDE DISHES TO ADD CALORIES TO YOUR MEALS:**

<table>
<thead>
<tr>
<th>Food item</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bean with bacon soup (2 cups)</td>
<td>347</td>
</tr>
<tr>
<td>Long-grain rice (1 cup)</td>
<td>265</td>
</tr>
<tr>
<td>Baked beans (1 cup)</td>
<td>236</td>
</tr>
<tr>
<td>Macaroni and cheese (1 cup)</td>
<td>230</td>
</tr>
<tr>
<td>Low-fat fruit yogurt (1 cup)</td>
<td>230</td>
</tr>
<tr>
<td>Creamed corn (1 cup)</td>
<td>185</td>
</tr>
</tbody>
</table>
The American Heart Association recommends two servings of fatty fish per week for heart health. The fattier fishes have two types of Omega 3 fats known as EPA and DHA. The serving size of the fish is 3 ounces cooked. Aim for 2 to 3 servings per week.

<table>
<thead>
<tr>
<th>FISH</th>
<th>Amount</th>
<th>Omega 3 Fats (mg)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmon - Atlantic</td>
<td>3 ounces</td>
<td>1850</td>
</tr>
<tr>
<td>Sardines in sardine oil</td>
<td>3 ounces</td>
<td>1400</td>
</tr>
<tr>
<td>Salmon, Coho</td>
<td>3 ounces</td>
<td>1100</td>
</tr>
<tr>
<td>Trout</td>
<td>3 ounces</td>
<td>1000</td>
</tr>
<tr>
<td>Herring</td>
<td>3 ounces</td>
<td>900</td>
</tr>
<tr>
<td>Sardines, tomato sauce</td>
<td>3 ounces</td>
<td>700</td>
</tr>
<tr>
<td>Oysters</td>
<td>3 ounces</td>
<td>550</td>
</tr>
<tr>
<td>Mackerel</td>
<td>3 ounces</td>
<td>500</td>
</tr>
<tr>
<td>Halibut</td>
<td>3 ounces</td>
<td>400</td>
</tr>
<tr>
<td>Tuna, white, 3 oz can</td>
<td>3 ounces</td>
<td>350</td>
</tr>
<tr>
<td>Omega Pro Eggs</td>
<td>¼ cup</td>
<td>500</td>
</tr>
<tr>
<td>1% milk with DHA</td>
<td>1 cup</td>
<td>30</td>
</tr>
</tbody>
</table>

Other Sources of Omega 3

Flax Seed (2 tbsp per day), canola oil, soybean oil, and walnuts are all good sources of Omega 3 fats. They are weaker sources of omega 3 fats since they are mainly ALA, but still are an important component of a healthy diet.

<table>
<thead>
<tr>
<th>FOOD</th>
<th>Amount</th>
<th>Omega 3 (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flax seed, ground</td>
<td>2 tbsp</td>
<td>3600 (ALA)</td>
</tr>
<tr>
<td>Canola oil</td>
<td>1 tsp</td>
<td>530 (ALA)</td>
</tr>
<tr>
<td>Soybean oil</td>
<td>1 tsp</td>
<td>330 (ALA)</td>
</tr>
<tr>
<td>Walnuts</td>
<td>4 halves</td>
<td>700 (ALA)</td>
</tr>
<tr>
<td>Omega 3 eggs</td>
<td>1</td>
<td>400 (ALA)</td>
</tr>
<tr>
<td>Fortified soy beverage</td>
<td>1 cup</td>
<td>400 (ALA)</td>
</tr>
</tbody>
</table>
Potassium Content of Foods

Potassium is an essential mineral. More potassium is found in our body’s cells than any other mineral. It is for this reason we should always try to eat foods rich in potassium.

How Potassium helps you
- Needed for normal muscle tone and function
- Helps to keep heart rhythm regular
- Important for a healthy nervous system
- Helps maintain blood pressure at normal level
- Helps dispose of body wastes
- Aids in regulating the transfer of nutrients to the cells

Symptoms of deficiency may include:
Fatigue, nausea, muscle weakness, muscle cramping, acne, rapid heartbeat

Natural sources of potassium rich foods:
Dairy products – except cheese as potassium is lost in the whey, green leafy vegetables, fish, meat, poultry, apricots, legumes, avocados, whole grains, brown rice, bananas, blackstrap molasses, dried fruit, dates figs, potatoes, nuts

<table>
<thead>
<tr>
<th>Very Good Sources</th>
<th>About 400 milligrams or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana</td>
<td>1 medium banana</td>
</tr>
<tr>
<td>Cantaloupe</td>
<td>8 oz. (1 cup)</td>
</tr>
<tr>
<td>Orange juice</td>
<td>8 oz. (1 cup)</td>
</tr>
<tr>
<td>Baked potato</td>
<td>1 medium potato</td>
</tr>
<tr>
<td>Tomato juice</td>
<td>8 oz. (1 cup)</td>
</tr>
<tr>
<td>Honeydew melon</td>
<td>8 oz. (1 cup)</td>
</tr>
<tr>
<td>Nectarine</td>
<td>1 large nectarine</td>
</tr>
<tr>
<td>Dates</td>
<td>4 oz. (1/2 cup)</td>
</tr>
<tr>
<td>Dried beans</td>
<td>8 oz. (1 cup) cooked</td>
</tr>
<tr>
<td>Winter squash</td>
<td>4 oz. (1/2 cup) cooked</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good Sources</th>
<th>Approximately 200-400 milligrams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collard greens</td>
<td>4 oz. (1/2 cup)</td>
</tr>
<tr>
<td>Milk</td>
<td>8 oz. (1 cup)</td>
</tr>
<tr>
<td>Spinach</td>
<td>4 oz. (1/2 cup), frozen or boiled</td>
</tr>
<tr>
<td>Broccoli</td>
<td>4 oz. (1/2 cup)</td>
</tr>
<tr>
<td>Raw tomato</td>
<td>1 medium tomato</td>
</tr>
<tr>
<td>Cooked tomatoes</td>
<td>4 oz. (1/2 cup)</td>
</tr>
<tr>
<td>Avocado</td>
<td>1/2 avocado</td>
</tr>
<tr>
<td>Prunes</td>
<td>4 prunes</td>
</tr>
</tbody>
</table>

By eating five to nine servings of fruits and vegetables per day, you can get enough potassium to help lower your blood pressure and decrease your risk of cancer.
The Role of Nutrition in Controlling Mental Illness

How does a registered, licensed dietitian teach nutrition?
- Individualized nutrition assessment
- Individualized goal development and monitoring as needed
- Facilitated Group Discussions on ways to improve our eating habits – so peers are teaching peers
- Understanding anatomy and physiology in particular the nervous system
- Blood sugar regulation and role in anxiety and mood disorders
- Use of adequate nutrition and therapeutic diets for optimal physical health
- Use of nutrition in decreasing adverse medication side effects (such as weight gain, constipation, etc)
- Recognition of disordered eating & assistance in normalizing eating behavior

How does having a structured eating plan help a person with mental illness?
- Increases medication compliance
- Increases healthy lifestyle habits
- Helps regulate mood stability
- Planning can decrease anxiety
- Helps prevent the “not eating…more tired…more depressed” cycle
- Increases self caring
- Having structured eating increases structure living and meeting daily goals of gaining and maintaining employment
## Adult Nutrition Jeopardy

<table>
<thead>
<tr>
<th>FUN</th>
<th>FOOD PYRAMID</th>
<th>NUTRITION FOR HEALTH</th>
<th>FOOD &amp; MOOD</th>
<th>CALORIE CHALLENGE</th>
<th>NON DIET EATING</th>
<th>NAME THAT FOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sing/hum the Brady Bunch theme song</td>
<td>1. What food group does yogurt belong to?</td>
<td>If you don’t drink milk what can happen to your bones?</td>
<td>How can skipping a meal affect your mood?</td>
<td>How many calories are in a 12 ounce can of soda? A. 50 B. 150 C. 250</td>
<td>How do you know when you are hungry?</td>
<td>I am high in Vitamin C &amp; grown in Florida</td>
</tr>
<tr>
<td>2. Name the maid from the Brady Bunch</td>
<td>2. What food group does a kiwi belong to?</td>
<td>What can you do if you are fixing a sandwich to prevent yourself from getting sick?</td>
<td>How can not having breakfast affect your ability to concentrate in school?</td>
<td>How many calories are in diet soda?</td>
<td>How do you know when you are full?</td>
<td>I am a great source of iron, used in spaghetti sauce, tacos, shepherd’s pie…</td>
</tr>
<tr>
<td>3. What was the Brady’s dad’s job?</td>
<td>3. What food group does salad dressing belong to?</td>
<td>What can you do if you are helping with supper to prevent others from getting your cold?</td>
<td>How can you make sure you start your day with breakfast if you are a late riser?</td>
<td>How many calories are in a McDonald’s Cheeseburger? A. 220 B. 320 C. 450</td>
<td>Name a way you can slow down your eating</td>
<td>I am a whole grain food that is round with a hole in the middle</td>
</tr>
<tr>
<td>4. Name a place the Brady family went on vacation</td>
<td>4. What food group does peanut butter belong to?</td>
<td>If someone is cutting raw steak on a cutting board, then goes to make a salad on the same cutting board what should you do?</td>
<td>Nate, is a track runner who is pressed for time and has only 20 minutes for lunch then has practice right after school, what would you recommend for him to eat?</td>
<td>How many grams of fat are in a Filet of Fish at McDonalds? A. 15 B. 20 C. 26</td>
<td>You find yourself always thirsty and find that you drink 2 liters of soda/day. You are worried about weight gain, name one thing you can do to prevent unwanted weight gain.</td>
<td>I am popular in Europe and am gaining popularity in the US. I am rich in calcium and have good bacteria.</td>
</tr>
<tr>
<td>5. Name the 3 Brady boys names</td>
<td>5. What food group does baked beans belong to?</td>
<td>What should you do if the expiration date on milk was 2 days ago?</td>
<td>What is the maximum amount of time you should go during the day without eating?</td>
<td>How many calories in a Big Mac, reg fries &amp; 16 oz soda? 800 1000 1200</td>
<td>How can you control your weight beyond looking at what you eat?</td>
<td>I grow on the ground, but taste sweet. I am a good source of vitamin A and potassium.</td>
</tr>
<tr>
<td>6. Name the 3 Brady girl names</td>
<td>6. What food group does tomato belong to?</td>
<td>How do you know if the hamburger in the fridge is still good</td>
<td>How does caffeine affect your mood?</td>
<td>How many calories in 3 pieces of KFC’s extra crispy chicken is: 400 cal, 600 cal, 1000 cal</td>
<td>What is a safe level of weight loss/gain?</td>
<td>I am low in fat, live in the sea, and a symbol of Maine.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>FUN</th>
<th>FOOD PYRAMID</th>
<th>NUTRITION FOR HEALTH</th>
<th>FOOD &amp; MOOD</th>
<th>CALORIE CHALLENGE</th>
<th>NON DIET EATING</th>
<th>NAME THAT FOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sing/hum the Wizard of Oz theme song</td>
<td>1. What food groups do pizza represent?</td>
<td>Name 2 risk factors for heart disease you can change</td>
<td>How can a meal with no protein like a salad or a diet soda make you feel?</td>
<td>How many calories are in a 12 ounce can of soda? A. 50 B. 150 C. 250</td>
<td>How do you know when you are hungry?</td>
<td>Name a food high in iron</td>
</tr>
<tr>
<td>2. What was the first name of the good witch in the Wizard of Oz?</td>
<td>2. What food groups does a beef and bean taco represent?</td>
<td>Name one thing you can do to decrease cavities and gum disease</td>
<td>How can not having breakfast affect your ability to concentrate in school?</td>
<td>How many calories are in diet soda?</td>
<td>How do you know when you are full?</td>
<td>Name a food rich in folic acid</td>
</tr>
<tr>
<td>3. Who didn’t have a heart in the Wizard of Oz?</td>
<td>3. What food groups does a cheese quesadilla represent?</td>
<td>Name a nutrient you need for healing on your skin</td>
<td>How can you make sure you start your day with breakfast if you are a late riser?</td>
<td>How many calories are in a McDonald’s Cheeseburger? A. 220 B. 320 C. 450</td>
<td>Name a way you can slow down your eating</td>
<td>Name a food that is a good source of the B vitamins such as thiamin, riboflavin, niacin, etc.</td>
</tr>
<tr>
<td>4. What was Dorothy’s dog’s name in the Wizard of Oz?</td>
<td>4. What food groups does a banana split represent?</td>
<td>Name a nutrient and food source you need for your immune system</td>
<td>Nate, is a track runner who is pressed for time and has only 20 minutes for lunch then has practice right after school, what would you recommend for him to eat?</td>
<td>How many grams of fat are in a Filet of Fish at McDonalds? A. 15 B. 20 C. 26</td>
<td>You find yourself always thirsty and find that you drink 2 liters of soda/day. You are worried about weight gain, name one thing you can do to prevent unwanted weight gain.</td>
<td>Name a food that you can eat with a spoon that is a good source of calcium</td>
</tr>
<tr>
<td>5. Who didn’t have bravery in the Wizard of Oz?</td>
<td>5. What food groups does an egg McMuffin represent?</td>
<td>Name a food you can eat to decrease your risk of cancer</td>
<td>What is the maximum amount of time you should go during the day without eating?</td>
<td>How many calories in a Big Mac, reg fries &amp; 16 oz soda? 800 1000. 1200</td>
<td>How can you control your weight beyond looking at what you eat?</td>
<td>Name a drink that is a good source of calcium</td>
</tr>
<tr>
<td>6. What color was the Road in the Wizard of Oz?</td>
<td>6. What food groups does a spaghetti dinner with a salad represent?</td>
<td>Name a food you can eat to decrease your risk of osteoporosis.</td>
<td>How does caffeine affect your mood?</td>
<td>3 pieces of KFC’s extra crispy chicken is: 400 cal, 600 cal, 1000 cal</td>
<td>What is a safe level of weight loss/gain?</td>
<td>Name food that is a good source of zinc</td>
</tr>
</tbody>
</table>
Adolescent’s Nutrition Group: 5 Nutrition Mistakes American Teens Make

PURPOSE:

To increase awareness of common teen eating habits that could be detrimental to not only their nutritional health, but also their mental health, particularly in ability to control and manage their moods.

GENERAL COMMENTS:

Establishing routines that promote healthy lifestyles is essential in maintaining physical and emotional regulation throughout the day. When teens actively work on an achievable goal of establishing healthy eating pattern improvement in their overall diet, as well as mental health often accompanies it.

POSSIBLE ACTIVITIES:

Start with an icebreaker with each child saying their first name and one eating habit they would like to change as you go around the circle.

On the white board have one volunteer write down what they eat on a typical day.

Distribute hand-outs.

Read and discuss each of the five nutrition mistakes and options for correcting the mistake.

Refer to the diet on the white board and brainstorm options for improving the diet – discussing how to realistically make those specific changes.

Refer questions about individual nutrition requirements to the registered dietitian.
5 Nutrition Mistakes American Teens Make

As the demands of home, work and family crowd our lives, we may take shortcuts that can be detrimental to our nutritional health. Here are five common mistakes that many Americans make when trying to watch their weight in a hectic life.

• Routinely Skipping Breakfast
  Do you grab a cup of coffee laden with cream before you leave the house, with no plans for breakfast? Breakfast can easily be the most nutritious meal of the day. Choose a bowl of high-fiber cereal, add fruit for interest and sweetness, and cover with skim milk.

  If you don't take the time to pop a multivitamin and you know your nutrition is shaky, pick a fortified cereal, such as Total, or a hot instant cereal, such as Cream of Wheat. You can even keep instant oatmeal in your desk at work in case you miss breakfast at home.

  Whole-grain cereals give you fiber, B vitamins and carbohydrates for energy, while milk provides calcium, protein and potassium. Skip this meal and you are already behind the nutritional eight ball. Worse yet, the caffeine in that cup of coffee makes your blood sugar drop about mid-morning so you get ravenous and might be tempted to eat a fat-filled snack. Breakfast also increases your metabolism by as much as 8 percent -- and that gets your body burning calories.

• Selecting a Tossed Salad and Diet Soda for Lunch
  Well, you do get veggies with lots of vitamins, antioxidants and fiber, but salad dressings are often full of fat. There is no way this lunch will get you through until dinner. You'll be hungry enough to eat the cat when you get home.

  Instead, choose a satisfying lunch -- preferably one low in fat and high in protein -- such as a turkey sandwich with lettuce and tomato on whole wheat bread. Protein takes longer to digest and keeps your blood sugar steady for hours. Or, if you must have a salad, you can add some protein with tuna, grilled chicken, low-fat cottage cheese or chickpeas. Have some juice or fruit, and add a low-fat yogurt as dessert for your second dairy serving of the day.
• **Not Planning for Lunch or Snacks**  
Get in the habit of having a food bag with you. Keep it in the car, desk or refrigerator at work. You need to be prepared, because hunger can strike at any time -- such as 11:30 a.m., when you can't leave for lunch until 1 p.m., or in the late afternoon. Without your food bag as protection, you are a victim of the high-fat environment -- the candy machine down the hall, the cheese and cracker snack packs, or the stale doughnuts in the break room. If you are prepared, you can reach into your food bag and grab a box of raisins, an apple, some pretzels, a granola bar or energy bar, baby carrots, a yogurt, or a package of hot chocolate or hot cereal.

• **Eating Too Fast, in Too Large a Quantity, While Doing Something Else**  
We all want to multitask by doing two or more things at once. But when you eat too fast, you don't register the food enjoyment or the sense of fullness, and you tend to eat too much or go back for seconds. You are unaware of how much you really ate because your attention is partially focused on the other things you are doing or thinking while eating. Sit down, pay attention to your food, eat slowly and enjoy. Take a real break -- get away from your desk and out of your office at lunch. Try not to eat in front of the TV at night.

• **Drinking High Calorie Beverages**  
We all know that soda is empty calories, just sugar and no nutrients for our bodies. Did you know that soda can actually take some nutrients out of your body? Drinking sodas can give you extra phosphorus that causes your body to lose calcium. For each can of soda you drink you should have an extra cup of milk above the three cups of milk we all need everyday. Juice is better than soda, Right? Juice still has as many calories, you can get all your nutrients from juice in one 4 ounce serving per day. So think your drink.

Consider taking better nutritional care of yourself. To be better focused on what you are doing you need to avoid excessive hunger as well as feeling overstuffed. Eating right every day gives you the mental sharpness and physical stamina to make it!
ADOLESCENT NUTRITION

Teenagers need extra nutrients to support the adolescent growth spurt, which begins with girls at ages 10-11, reaches its peak at age 12 and is usually completed by age 15. In boys it begins at 12-13 years of age, peaks at 14 and ends at 19. It is important to look at not only meals, but snacks as important in contributing the right nutritional mix to support growth and development. During adolescence there is a dramatic increase in height, as well as hormonal changes affecting every body organ, including the brain. The following is a list of specific nutritional requirements during adolescence:

**Calories:**
- Girls 2200 calories
- Boys 2800 calories

It is interesting to note that in the past decade obesity has replaced growth retardation, anemia, and dental caries as the most prevalent nutritional problem for America's young people. Sedentary lifestyles have lowered the amount of calories we burn. High fat and high sugar foods have excess calories we don't need.

**Protein:**
- Girls 44 grams
- Boys 49 grams
  (milk has 8 grams/cup, meat 7 grams/ounce)

**Iron:**
- Girls 15 mg
- Boys 12 mg

**Calcium:**
- Girls and Boys 1200 mg
  (equivalent to 4 cups of milk)

Not only are nutritional needs at their peak during this time, but the act of taking on habits that will last a lifetime occurring during adolescence. Breakfast is important for the following reasons:

- Enhanced school performance
- More energy after eating breakfast
- Higher nutrient intake over the course of the day
Adolescent’s Nutrition Group: Body Image

PURPOSE:

To promote healthy body image and prevent disordered eating.

GENERAL COMMENTS:

Various psychosocial factors that distort views on what constitutes a healthy look and weight are impressed upon young adults. It is important to explore the dynamics of body image and the issues involved in eating disorders.

POSSIBLE ACTIVITIES:

Icebreaker with each child stating their name.

Show video on Body Image for Boys or Girls dependent upon gender of population you are addressing. Or if no video available introduce topic of fashion and what our society expects us to look like and how that shapes our self image. Discuss changes in fashion over time, as well as role of disordered eating in relation to changes in our society (Early 1900’s when plump was in style versus the onset of Twiggy)

Discuss impressions about the video.

Go around the circle and have each person identify an ad in print or on tv that emphasizes distorted body image.

Discuss the risk factors for an eating disorder.

Discuss ways of approaching a friend to seek help for an eating disorder.

Refer any specific questions about caloric levels or individualized needs to the registered dietitian.
Adolescent’s Nutrition Group: Healthy Eating for Teens

PURPOSE:

To improve one’s eating habits for better health and overall well-being.

GENERAL COMMENTS:

Healthy eating habits are essential for achieving a healthy body. Common obstacles that adolescents face include skipping meals, lack of food preparation skills, excess sugar intake, lack of connection to their body and impaired self-image.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food or a food the color red.

Have a volunteer write on the dry erase board what they eat on a typical weekday outside of the hospital.

Distribute handouts. Review guidelines outlined on the handout. Refer to diet on the white board at each point below:

- Are there any missing meals? Will the person feel hungry if they don’t eat? Will they have difficulty concentrating or using a positive coping skill if they do not eat?
- What can each person fix on their own for a meal? How can they select a healthy meal in a fast food restaurant?
- How can someone cut back on sugar? How can they encourage water drinking?
- Do they know the signs of hunger? Of satiety?
- How can you avoid the diet mentality?

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
Adolescent’s Nutrition Group: Jeopardy

PURPOSE:

To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:

Sound nutrition principles are important in making healthy food choices. Nutrition Jeopardy will provide an overview of nutrition principles for adolescents to use to improve their eating habits.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say his or her first name and his or her favorite food or a food the color orange.

Divide the group into two teams and have each team choose their own food name.

Have the Jeopardy board set with questions in each slot.

The team with the food name closest to A goes first.

The first person on the team will select a category and an amount, then roll the die. If the die lands on the number they had selected or a 6 the value of the question is doubled.

Ask the question and give a minute for the team to respond, if the response is incorrect throw the question over to the other team.

Rotate questions between the two teams.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
Adolescent’s Nutrition Group: Food Pyramid

PURPOSE:

To promote healthy eating habits emphasizing moderation and variety in their eating style.

GENERAL COMMENTS:

Healthy eating and exercise are important for all Americans, but particularly for adolescents. My Pyramid was released in April, 2005 to emphasize a personal approach to eating. Visit www.mypyramid.gov for detailed information based on the adolescent’s caloric level requirements (average calories for an adolescent female is 2200 and adolescent male 2800).

POSSIBLE ACTIVITIES:

Have participants write out their average daily eating routine and/or have a volunteer (could be a staff member) write theirs on the white board.

Distribute Anatomy of MyPyramid handout. Refer to the diet on the white board at each point below:

Discuss the principle of proportionally using the food pyramid format. Emphasizing the need for all food groups. We need low calorie foods such as fruits and vegetables to balance the high calorie foods such as fried foods, desserts, chips, etc. Discuss portion control.

Discuss the caloric density of fats, oils, alcohol and sweets. Example a pat of butter has 45 calories, a T of salad dressing 100 calories, a 20 ounce bottle of soda 220 calories. It takes an excess of 3500 calories to equal one pound of weight gain.

Discuss importance of water and fiber in bowel regulation; constipation is common side effect of many psychiatric medications.

Discuss beverage options instead of regular soda or juice, such as flavored waters, tonics, diet sodas, crystal light, etc. If someone does not like the soda they drink now in the sugar-free version, how about trying a totally different type of sugar-free soda? Such as a Pepsi drinker switching to sugar-free 7-UP?

Have each participant establish one realistic goal they can actively do over the next 30 days to improve their own eating habits.

Refer any specific questions about caloric levels or individualized needs to the registered dietitian.
Adolescent’s Nutrition Group: Questions

PURPOSE:
To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:
For a person to make a meaningful change in their eating habits they need to make a specific plan outlining the steps to achieve the change.

POSSIBLE ACTIVITIES:
Start with an icebreaker of having everyone say their first name and their favorite food or a food the color green.

Cut Questions and place them in a bowl before group. Have each person take one question out of the bowl. Refer to diet on the white board at each point below:

In turn read the question and as a group brainstorm ideas on the item.

Each child should be able to state a change they can make to improve their own diet.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
Adolescent’s Nutrition Group: Role Playing

PURPOSE:
To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:
For a person to make a meaningful change in their eating habits they need to make a specific plan outlining the steps to achieve the change.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food or a food the color red.

Cut role playing scenarios and have each person take one question out of the bowl. Refer to diet on the white board at each point below:

- In turn read the scenario and as a group brainstorm ideas on the item.
- Each child should be able to state a change they can make to improve their own diet.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
Adolescent Role Playing

Your friend is very pretty and popular, but all she ever eats is salads and diet sodas. She says most other foods are “fattening”. What would you say to her?

You are home alone with all a fridge full of foods what would you have for supper?

Your friend thinks she is too fat so she decides to go on a diet she found in a fashion magazine. She wants you to go on the diet too. How would you handle the situation?

You notice that in the early evening you are cranky. You ate breakfast, but no lunch. What would you do if supper was another 2 hours away?

You notice that you have gained 10 pounds in the past month since you were put on an antidepressant medication. What would you do?

You find that you are drinking 5-6 cans of soda a day and are having times where you have lots of energy and times when you are very irritable. What changes would you make to help manage your mood?

Your friend never eats breakfast and appears to have hard time in class, what would you say to her?

What is your favorite food thing to make and why?

How do your eating habits different in the summer?

If your sports team always goes to McDonald’s after practice, how can you add variety and improve your diet?
What is your favorite spice?

If your friend always add salt to his food when he first sits down, what would you say to him? And why?

You are visiting your grandmother who always wants you to eat more! You are not hungry – what do you do?

Your friend is a vegetarian and eats things like tofu and hummus, foods you have never tried before. When you are invited to eat at their house what would you do?

You have soccer practice after school and usually grab a can of soda and a bag of chips, but you find that you are puckering out in practice before the other players. How can you change your pre-practice eating to improve your performance?
Children’s Nutrition Group: 5 A Day

PURPOSE:
To identify methods to increase intake of fruits and vegetables for better overall health.

GENERAL COMMENTS:
Fruits and vegetables provide not only healthy nutrients for growing bodies, but also color and tastes sensations. New foods are scary to children, but encouraging them to try a new food while here at the facility can help increase the variety of their diets.

POSSIBLE ACTIVITIES:
Start with an icebreaker with each child saying their first name and their favorite fruit or vegetable around the circle.

Show the 5 a day video or explain what fruits & vegetables are and how your body benefits from having them as part of the foods you eat.

Discuss options for fruits and vegetables in the cafeteria/on their trays.

Have each child name a fruit or vegetable they could have as a snack at home. Discuss options to increase their families’ intake of fruits and vegetables.

Refer questions about individual nutrition requirements to the registered dietitian.
Children’s Nutrition Group: Charades

PURPOSE:

To comprehend the steps needed to prepare foods and food related activities.

GENERAL COMMENTS:

The object of food charades is to act out preparing a food or recipe. Either the leader can act out the activity and the children can guess, or the children can do the charades. Here are some suggestions for charades:

1. Making a Salad
2. Making a Sandwich
3. Popping Corn
4. Cleaning an Oven
5. Setting a Table
6. Peeling a Banana
7. Stuffing a Turkey
8. Washing Dishes
9. Baking a cake
10. Making bread
11. Making a pie
12. Baking a cake
13. Blending a smoothie
Children’s Nutrition Group: Jeopardy

PURPOSE:

To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:

Sound nutrition principles are important in making healthy food choices. Nutrition Jeopardy will provide an overview of nutrition principles for children to use to improve their eating habits.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food or a food the color orange.

Divide the group into two teams and have each team choose their own food name.

Have the Jeopardy board set with questions in each slot.

The team with the food name closest to A goes first.

The first person on the team will select a category and an amount, then roll the die. If the die lands on the number they had selected or a 6 the value of the question is doubled. Dice is not necessary for jeopardy – just adds another “game” type dimension.

Ask the question and give a minute for the team to respond, if the response is incorrect throw the question over to the other team.

Rotate questions between the two teams.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
# Children's Nutrition Jeopardy

<table>
<thead>
<tr>
<th>FUN</th>
<th>FOOD PYRAMID</th>
<th>NUTRITION FOR HEALTH</th>
<th>FOOD &amp; MOOD</th>
<th>NON DIET EATING</th>
<th>NAME THAT FOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How does Shaggy call Scooby?</td>
<td>1. What food group does cereal belong to?</td>
<td>If you don’t drink milk what can happen to your bones?</td>
<td>How can skipping a meal affect your mood?</td>
<td>How do you know when you are hungry?</td>
<td>I am high in Vitamin C &amp; grown in Florida</td>
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<tr>
<td>2. What type of car did Shaggy drive in Scooby Doo?</td>
<td>2. What food group does a kiwi belong to?</td>
<td>Name something you can do to keep yourself healthy</td>
<td>How can not having breakfast affect your ability to concentrate in school?</td>
<td>How do you know when you are full?</td>
<td>I am a great source of iron, used in spaghetti sauce, tacos, shepherd’s pie, cheeseburgers, what am I?</td>
</tr>
<tr>
<td>3. What is Scooby’s nephew’s name?</td>
<td>3. What food group does yogurt belong to?</td>
<td>What can you do if you are helping with supper to prevent others from getting your cold?</td>
<td>How can you make sure you start your day with breakfast if you are a late riser?</td>
<td>Name a way you can slow down your eating</td>
<td>I am a whole grain food that is round with a hole in the middle</td>
</tr>
<tr>
<td>4. What does Velma always wear?</td>
<td>4. What food group does peanut butter belong to?</td>
<td>How can you prevent getting cavities?</td>
<td>Nate, is a track runner who is pressed for time and has only 20 minutes for lunch then has practice right after school, what would you recommend for him to eat?</td>
<td>You find yourself always thirsty and find that you drink 2 liters of soda/day. You are worried about weight gain, name one thing you can do to prevent unwanted weight gain.</td>
<td>I am popular in Europe and am gaining popularity in the US. I am rich in calcium and have good bacteria.</td>
</tr>
<tr>
<td>5. What color does Daphne always wear?</td>
<td>5. What food group does baked beans belong to?</td>
<td>What should you do if the expiration date on milk was 2 days ago?</td>
<td>Why should you eat snacks during the day?</td>
<td>How can you control your weight beyond looking at what you eat?</td>
<td>I grow in fields and people use me to make bread, cereal, and pasta with, what am I?</td>
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Information provided by [www.SpringHarborHospital.com](http://www.SpringHarborHospital.com), Westbrook, Maine
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<table>
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<th><strong>NUTRITION FOR HEALTH</strong></th>
<th><strong>FOOD &amp; MOOD</strong></th>
<th><strong>CALORIE CHALLENGE</strong></th>
<th><strong>NON DIET EATING</strong></th>
<th><strong>NAME THAT FOOD</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sing/hum the Wizard of Oz theme song</td>
<td>1. What food groups do pizza represent?</td>
<td>Name 2 risk factors for heart disease you can change</td>
<td>How can a meal with no protein like a salad and diet soda make you feel?</td>
<td>How many calories are in a 12 ounce can of soda? A. 50 B. 150 C. 250</td>
<td>How do you know when you are hungry?</td>
<td>Name a food high in iron</td>
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<tr>
<td>2. What was the first name of the good witch in the Wizard of Oz?</td>
<td>2. What food groups does a beef and bean taco represent?</td>
<td>Name one thing you can do to decrease cavities and gum disease</td>
<td>How can not having breakfast affect your ability to concentrate in school?</td>
<td>How many calories are in diet soda?</td>
<td>How do you know when you are full?</td>
<td>Name a food rich in folic acid</td>
</tr>
<tr>
<td>3. Who didn’t have a heart in the Wizard of Oz?</td>
<td>3. What food groups does a cheese quesadilla represent?</td>
<td>Name a nutrient you need for healing on your skin</td>
<td>How can you make sure you start your day with breakfast if you are a late riser?</td>
<td>How many calories are in a McDonald’s Cheeseburger? A. 220 B. 320 C. 450</td>
<td>Name a way you can slow down your eating</td>
<td>Name a food that is a good source of the B vitamins such as thiamin, riboflavin, niacin, etc.</td>
</tr>
<tr>
<td>4. What was Dorothy’s dog’s name in the Wizard of Oz?</td>
<td>4. What food groups does a banana split represent?</td>
<td>Name a nutrient and food source you need for your immune system</td>
<td>Nate, is a track runner who is pressed for time and has only 20 minutes for lunch then has practice right after school, what would you recommend for him to eat?</td>
<td>How many grams of fat are in a Filet of Fish at McDonalds? A. 15 B. 20 C. 26</td>
<td>You find yourself always thirsty and find that you drink 2 liters of soda/day. You are worried about weight gain, name one thing you can do to prevent unwanted weight gain.</td>
<td>Name a food that you can eat with a spoon that is a good source of calcium</td>
</tr>
<tr>
<td>5. Who didn’t have bravery in the Wizard of Oz?</td>
<td>5. What food groups does an egg McMuffin represent?</td>
<td>Name a food you can eat to decrease your risk of cancer</td>
<td>What is the maximum amount of time you should go during the day without eating?</td>
<td>How many calories in a Big Mac, reg fries &amp; 16 oz soda? 800 1000. 1200</td>
<td>How can you control your weight beyond looking at what you eat?</td>
<td>Name a drink that is a good source of calcium</td>
</tr>
<tr>
<td>6. What color was the Road in the Wizard of Oz?</td>
<td>6. What food groups does a spaghetti dinner with a salad represent?</td>
<td>Name a food you can eat to decrease your risk of osteoporosis.</td>
<td>How does caffeine affect your mood?</td>
<td>3 pieces of KFC’s extra crispy chicken is: 400 cal, 600 cal, 1000 cal</td>
<td>What is a safe level of weight loss/gain?</td>
<td>Name food that is a good source of zinc</td>
</tr>
</tbody>
</table>

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Children’s Nutrition Group: Role Playing

PURPOSE:
To identify specific changes in one’s eating habits to help them live a healthier lifestyle.

GENERAL COMMENTS:
For a person to make a meaningful change in their eating habits they need to make a specific plan outlining the steps to achieve the change.

POSSIBLE ACTIVITIES:

Start with an icebreaker of having everyone say their first name and their favorite food or a food the color red.

Cut role playing scenarios and have each person take one question out of the bowl. Refer to diet on the white board at each point below:

In turn read the scenario and as a group brainstorm ideas on the item.

Each child should be able to state a change they can make to improve their own diet.

Refer any specific questions about a person’s individualized nutritional requirements to the registered dietitian.
Children’s Role Playing

Your big sister is very pretty and popular, but all she ever eats is salads and diet sodas. She says most other foods are “fattening”. What would you say to her?

You want to try to exercise to increase your energy and help get some frustration out. How can you get started?

You are home alone with all a fridge full of foods what would you have for supper?

Your friend thinks she is too fat so she decides to go on a diet she found in a fashion magazine. She wants you to go on the diet too. How would you handle the situation?

You notice that in the early evening you are cranky. You ate breakfast, but no lunch. What would you do if supper were another 2 hours away?

You sleep in late and run to get the bus. What can you do to make sure you get some food in you in the morning?

You notice that you have gained 10 pounds in the past month since you were put on a different medication. What would you do?

You find that you are drinking 5-6 cans of soda a day and are having times where you have lots of energy and times when you are very irritable. What changes would you make to help manage your mood?

You are helping with supper. You help make meatballs, and then need to prepare a salad. What steps can you take to make sure no one gets sick from the food you are cooking?
You want to improve your eating habits everyday. You find that you eat at McDonald’s about once a week. What good choices can you make at McDonald’s? How about at Wendy’s?

You are concerned about gaining too much weight while you are here at Spring Harbor Hospital. You go to the cafeteria and select fried chicken with French fries, cake for dessert and soda to drink. What other choices could you make that would be healthier?

Your friend always adds salt to his food when he first sits down. Why is not a good idea? What would you say to him?

Your dad packs your lunch with carrot sticks and fresh fruit everyday that you like, but some of the kids call you “vegetable head”. How could you respond to these comments?

You are at a friend’s house and they are serving eggplant parmesan. You have never tried it, what would you do? What would you say?
Children’s Nutrition Group: Build a Sandwich

PURPOSE:
To be able to choose meal selections that provides foods from all foods.

GENERAL COMMENTS:
The food pyramid is used as the framework to ensure variety in our eating.

POSSIBLE ACTIVITIES:
Draw the food pyramid on the white board or utilize a copy of the food pyramid to review the food groups.

Distribute the sandwich handout asking each child to build their own sandwich using foods from all the food groups.

Using a blank food pyramid shape on the white board obtain each child’s choice for each food group.

Emphasize the importance of starting the foundation with whole grain bread.

If a child does not eat vegetables can they incorporate more fruits into their eating habits, and vice versa if they do not eat fruits.

Discuss the importance of dairy products in the children’s growth and development.

Emphasize other protein options beyond meat and poultry, such as tuna fish, eggs, peanut butter, and even hummus.

Emphasize the importance of using fats, oils and sweets sparingly with examples.

Refer questions about individual nutrition requirements to the registered dietitian.
TOP 6 REASONS TO LIMIT OR AVOID CAFFEINE

1. You can have more medication side effects.
   Caffeine interacts with medications and may increase side effects like irritability, trouble sleeping, and possibly seizures or heart rhythm changes.

2. You can become anxious.
   Caffeine is a stimulant that increases anxiety and can start a panic attack.

3. You can become addicted.
   You will keep using caffeine despite the problems it causes, feel unable to cut down, experience withdrawal symptoms if you quit, and need more and more to get the same effect.

4. You can have poor sleep.
   Caffeine delays getting to sleep, reduces sleep time, and decreases the quality of sleep.

5. You can have heartburn.
   Caffeine causes upset stomach.

6. You can become dehydrated.
   Caffeine is a diuretic, like a “water pill” that takes fluid out of your body.

HOW MUCH CAFFEINE IS TOO MUCH?

200 mg or more can cause anxiety, panic attacks, poor sleep, and other effects.
More than 1 cup, can, or 20 oz bottle per day is too much!

<table>
<thead>
<tr>
<th>Item</th>
<th>Caffeine Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drip-brewed coffee – 5 oz cup (about ½ mug)</td>
<td>110-150 mg</td>
</tr>
<tr>
<td>Tea – 5 minute brew</td>
<td>20-50 mg</td>
</tr>
<tr>
<td>Iced Tea – 12 oz glass</td>
<td>22-36 mg</td>
</tr>
<tr>
<td>Mountain Dew – 1 20-oz bottle</td>
<td>92 mg</td>
</tr>
<tr>
<td>Red Bull – 8.3 oz can</td>
<td>80 mg</td>
</tr>
<tr>
<td>Coke, Dr. Pepper – 1 20-oz bottle</td>
<td>72 mg</td>
</tr>
<tr>
<td>Barq’s Root Beer – 1 20-oz bottle</td>
<td>33 mg</td>
</tr>
<tr>
<td>Milk chocolate – 1 oz</td>
<td>1-15 mg</td>
</tr>
<tr>
<td>Dark chocolate – 1 oz</td>
<td>5-35 mg</td>
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<tr>
<td>Hot chocolate – 5 oz cup</td>
<td>2-15 mg</td>
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<tr>
<td>Chocolate milk – 1 cup</td>
<td>8 mg</td>
</tr>
<tr>
<td>Chocolate pudding – 5 oz can</td>
<td>7 mg</td>
</tr>
<tr>
<td>Chocolate ice cream – ½ cup</td>
<td>2 mg</td>
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</tbody>
</table>

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Tips for Decreasing Caffeine Comfortably

1. Keep a log of your coffee/tea or pop intake for a few days to see when and how much you drink.

2. Decrease intake **gradually** over a week or two.

3. Eliminate ½ cup of coffee/tea or 1 cup pop (about 2/3 of a can or ½ of a 20 oz bottle) each day.

4. First, start eliminating the coffee/tea/pop that you drink in the afternoon or evening to help with restoring restful sleep. **You will have more energy during the day and feel less need for caffeine if you are getting proper sleep.**

5. Have a substitute beverage instead of the coffee/tea/pop: water, hot grain beverage (Postum), herbal tea, sugar-free lemonade or fruit drink, a small glass of juice or milk.

6. Exercise/be active during times that you used to drink coffee/tea/pop: go for a walk, play outdoors with children or a pet, garden or do yard work, clean the house, dance to your favorite CD, etc. **You will have more energy and feel less need for caffeine if you are getting adequate activity.**

7. Improve your nutrition. Many people drink coffee/tea/pop instead of eating. Eat a meal with carbohydrate and protein 3 times a day, such eggs & toast, turkey sandwich, spaghetti with meat sauce, etc. **You will have more energy and feel less need for caffeine if you are getting proper nutrition.**
References


Good nutrition provides the foundation for a good mood and is an important complement to medication and behavioral therapy in the treatment of depression.

**How You Can Use Nutrition to Help in Your Recovery**

- Try frequent small meals and snacks until appetite improves.

- Eat meals and snacks containing **protein** (meat, poultry, fish, cheese, eggs, legumes, nuts) and **carbohydrate** (milk, fruit, bread, cereal, pasta, potatoes, rice) at regular intervals each day.

- Choose comforting foods as a way of self-nurturing.

- Include foods from all food groups, including:
  - Dairy and meat for iron and B₁₂
  - Grains and greens for thiamine, vitamin B₆ and folic acid
  - Tuna or salmon for omega-3 fatty acids.

- Use a daily multivitamin if you are unable to eat adequately from all food groups.

- Drink nutritional supplement beverages such as Ensure, Boost, or Resource as a temporary source of nutrients if food seems unappealing.
Nutrition and Mental Health

How Nutrients Help with Brain Health

- The body uses certain **proteins** as raw materials to make the neurotransmitters that regulate a person’s mood.
- **Carbohydrate** increases the transport of beneficial proteins into the brain.
- Certain **fats** (omega-3 fatty acids from fish) become part of the membranes of brain cells and control many processes.

Poor nutrition can contribute to depression by limiting the availability of these nutrients, although many other factors influence brain chemistry, too.

How Nutrient Deficiencies Hurt

- **Thiamine** (vitamin **B1**): Deficiency leads to poor appetite, weakness, irritability, and depression. Alcohol abuse is the most common cause of thiamine deficiency.
- **Iron**: Deficiency causes symptoms of poor mood and difficulty paying attention.
- **Vitamin B12**: Deficiency causes mental status changes and depression.
- **Vitamin B6**: Deficiency may cause depression and other psychological issues.
- **Folate**: Deficiency results in depression, apathy, fatigue, poor sleep and poor concentration.

Nutrient deficiencies that are this severe are rare. No research studies support taking large amounts of vitamin supplements to prevent or treat depression.

Eating Patterns Can Make a Difference

- Moderate dieting in women lowers certain proteins enough to reduce the manufacturing of neurotransmitters in the brain.
- Food restriction promotes binge eating, bigger emotional responses, poor concentration, higher stress levels, and an overall lower sense of well-being.
- Depression very frequently develops in people with disordered eating who either continuously or frequently restrict food.
- Eating patterns such as skipping meals may contribute to mood swings by causing fluctuations in blood sugar levels.
References


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PSYCHIATRIC NUTRITION THERAPY
A RESOURCE GUIDE FOR DIETETICS PROFESSIONALS PRACTICING BEHAVIORAL HEALTH CARE
Evaluation Form

To help the Dietetics in Developmental and Psychiatric Disorders (DDPD) practice group improve future editions of this resource guide, please answer the following questions.

Please check the box below that best describes the usefulness to you of each of the following sections of the resource guide:

1. Introduction to Behavioral Health

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<th>Not very useful</th>
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2. Psychiatric Medications

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3. Substance Abuse

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4. The Nutrition Care Process

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5. Diet, Assessment, and Education Resources

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6. Please check which of the following best describes your usual practice setting:

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7. What would you change, or add to the second edition of this resource guide?

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Your Name (optional) ________________________________________
Your Address/e-mail    ________________________________________

Thank you for your help. Please return the completed evaluation form before December 1, 2006 to:
Sharon Wojnaroski
PO Box 722
Farmington, MI 48332