Nutritional Supplements

Nutrition and Health

2013
Factors that lead to Nutritional Deficiencies

• Loss of smell or sense of taste
• Loss of teeth making chewing difficult
• Reduced salivary function may cause a preference for softer foods
• Gastric acidity changes can cause decreased iron absorption
• Dietary deficiencies lack of protein, fruits or vegetables. High fiber foods may lead to malabsorption of essential nutrients.
Types and the best source of nutrients

Three Major functions of Nutrients

❖ Supply heat and energy to the body

❖ Build and repair body tissues

❖ Regulate body processes

Carbohydrates - sugars and starches

Fats - butter, oils, meat, fats, cheeses

Proteins - milk, meats, eggs

Vitamins - vegetables, meats, fruits, milk, eggs

Minerals - milk, cheese, eggs, meats, vegetables

Water - Contained in all food and fluid
## Common Nutritional Disorders Treated by Medications

<table>
<thead>
<tr>
<th>Pernicious anemia</th>
<th>Iron deficiency anemia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cause:</strong> low iron level in the blood due to inability of stomach lining to absorb vitamin B</td>
<td><strong>Cause:</strong> low iron level in the blood due to inadequate diet or blood loss.</td>
</tr>
<tr>
<td><strong>Symptoms:</strong> low red blood cell count, fatigue, inflammation of the mouth</td>
<td><strong>Symptoms:</strong> low hemoglobin level, pale, fatigue</td>
</tr>
<tr>
<td><strong>Treatment:</strong> lifelong use of vitamin B12</td>
<td><strong>Treatment:</strong> oral iron and vitamin supplements</td>
</tr>
</tbody>
</table>
Common Nutritional Disorders Treated by Medications

**Osteoporosis**

**Cause:** body is deficient in calcium, phosphorus and Vitamin D

**Symptoms:** bowed legs, easily broken bones in the elderly

**Treatment:** increased intake of vitamin D, calcium, and phosphorus.

*overdoses of vitamin D can be dangerous*

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**Hypokalemia**

**Cause:** frequently a side effect of diuretics; potassium is not absorbed by the body.

**Symptoms:** irregular heartbeat, flu-like symptoms, leg cramps.

**Treatment:** diet (bananas, milk, cereals, meat); potassium replacement medications.
Common Nutritional Disorders Treated by Medications

Dehydration

**Causes:** inadequate fluid intake, diseases such as diabetes, diuretics, vomiting, diarrhea, fever.

**Symptoms:** poor skin turgor, constipation, fever, decreased urinary output, increased pulse.

**Treatment:** encourage fluids, clear liquid diets maybe ordered for a short period of time. May require IV fluids

* Water is essential for all body functions
Effects of the Aging Process on Nutrition

- Food often becomes less attractive to the elderly. Loss of teeth or ill-fitting dentures.
- Loss of their sense of taste and smell.
- Specific groups can place persons at a greater risk: chronic illness, disabilities such as arthritis.
- Depression - remember not only do our elderly population suffer from depression at RSH.
- Dementia
- If a client loses unplanned weight they should be accessed by nurse, MD and dietitian.
<table>
<thead>
<tr>
<th>Vitamin Supplement name</th>
<th>Action</th>
<th>Use</th>
<th>Adverse effects</th>
<th>Nursing considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiamine HCL Vitamin B1</td>
<td>Necessary for carbohydrate metabolism.</td>
<td>Treat alcoholism, gastrointestinal disease, cirrhosis</td>
<td>Hypotension, nausea, sweating, diarrhea, restlessness and anaphylactic reaction</td>
<td>Store in air tight light resistant, non-metal container.</td>
</tr>
<tr>
<td>Pyridoxine HCL Vitamin B6</td>
<td>Required for amino acid metabolism</td>
<td>Combined with INH therapy, which causes B6 deficiency</td>
<td>Drowsiness</td>
<td>Do not give to a client receiving Levadopa.</td>
</tr>
<tr>
<td>Ascorbic Acid Vitamin C</td>
<td>Necessary for collagen formation and tissue repair</td>
<td>Treat burns, increased healing of fractures' and wounds, may assist in treating viral infections</td>
<td>Diarrhea, renal stones</td>
<td>Store in light resistant container</td>
</tr>
<tr>
<td>Folic Acid Vitamin B9</td>
<td>Necessary for normal formation and production of erythrocytes</td>
<td>Treat liver disease, alcoholism</td>
<td>Rash, malaise, bronchospasms as an allergic reaction.</td>
<td>Protect medication from light and heat</td>
</tr>
<tr>
<td>Niacinamide Vitamin B3, Niacin</td>
<td>Necessary for fat metabolism</td>
<td>Lowers cholesterol, treat Meniere’s Disease, vasodilator</td>
<td>Headache, facial flushing, itching, jaundice, postural hypotension</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Multivitamins

contain a combination of vitamins and minerals

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</thead>
<tbody>
<tr>
<td>Thera- without minerals</td>
<td>Source of vitamins</td>
<td>Supplement diet; often ordered to</td>
<td>Itching, diarrhea, nausea</td>
<td>Administer with food</td>
</tr>
<tr>
<td>Thera M- with minerals</td>
<td></td>
<td>promote wound healing.</td>
<td></td>
<td></td>
</tr>
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</table>
## Minerals

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<tbody>
<tr>
<td>Iron products: Ferrous sulfate, (feosol, Slow Fe)</td>
<td>Replaces iron</td>
<td>Treat iron deficiency anemia</td>
<td>Nausea, insomnia, constipation, diarrhea</td>
<td>Dilute liquid preparations in juice or water. May cause black, tarry stools. Chart color and amount of stools. <strong>Do not administer with antacids.</strong></td>
</tr>
<tr>
<td>Potassium: Micro-K, Kaochlor, Klor-Con, Slow-K, K-tab, K-Lor, K-Lyte</td>
<td>Replaces and maintains potassium levels.</td>
<td>Treat potassium deficiency</td>
<td>Listlessness, mental confusion, cardiac arrhythmias, GI irritation</td>
<td>Administer during or after a meal with a full glass of water or juice. Completely dissolve powders. <strong>Do not crush solid forms of medication.</strong></td>
</tr>
<tr>
<td>Calcium: Tums, Os cal</td>
<td>Reduces acid load in the GI tract, replaces calcium.</td>
<td>Treatment of osteoporosis and dyspepsia.</td>
<td>Calcium deposits form in joints.</td>
<td>Do not give with milk or milk products.</td>
</tr>
</tbody>
</table>
You have completed the inservice Nutritional Supplements 2013

Please sign and date below.
Send to Staff Development
Attn: Diane Mustard

Signature: ____________________________________________

Printed name: ________________________________________

Date: ________________________________________________