Diet and Nutrition Guide

A publication of the United Ostomy Associations of America, Inc.

"Seize the Opportunity..."
A Message To You...

Ostomy surgery is a lifesaving surgery that enables a person to enjoy a full range of activities, including traveling, sports, family life and work. Thousands of people annually undergo ostomy surgery for various reasons and return to a healthy, functioning lifestyle.

The United Ostomy Associations of America (UOAA) is a volunteer organization dedicated to helping those who have or will have ostomy or other diversionary surgery by providing one-on-one support, local chapter meetings, conferences, and educational material through its website, printed material and The Phoenix magazine.

You have many peers in the UOAA who are ready to answer your questions, provide support and reassure you that you can have a full, productive life after ostomy surgery.

We invite you to join us as we fulfill our mission in helping others.

From the United Ostomy Associations of America
The Diet and Nutrition Guide has been compiled from existing UOA materials:

Ostomy Dietary Guidelines, Anita L. Price, CETN, Lynda Allen Sanders, RN ET; 1995
Ostomy Quarterly magazine articles, Peggy Christ, RNET
Ostomy Quarterly magazine article, Annie Wilde, MS, RD, CNSD
Continent Diversion Network, Margie Reeder, RN Originally Compiled by Bobbie Brewer,
ET, Contributions, Reviewed and Editing by:
Judith Ehlers-Crim, RD CEDC, Private Practice, Atlanta, GA. Reviewed by:
Lynda Allen Sanders, RNET
Peggy Christ, RNET
Helen DuBois, RNET

This guidebook is available for free, in electronic form, from the United Ostomy Associations of America (UOAA). It was originally produced, copyrighted and sold by the United Ostomy Association (UOA), the national US ostomy organization from 1962 to 2005, which released its copyrights on this material.

UOAA may be contacted at:
www.ostomy.org • info@ostomy.org • 800-826-0826
## CONTENTS

### INTRODUCTION
- Overview of Common Ostomy Diversions ............................ 1
- Bowel Diversions ............................................................ 1
- Bladder Diversions ......................................................... 1

### DIETARY GUIDELINES
- Basic Food Groups Chart .................................................. 2
- Digestion ........................................................................... 2
- Absorption ........................................................................ 3
- Metabolism ........................................................................ 4
- Bowel Functions/Output .................................................... 4
- Vitamins and Minerals Absorption Chart ............................. 4
- Super Nutrients Chart ....................................................... 5

### GENERAL GUIDELINES
- Ileostomy & Colostomy ..................................................... 6
- Food Journal Chart ............................................................ 7
- Continent Diversions (bowel surgery) ................................. 8
- Important Tips for Continent Diversions ............................. 8
- Urostomy ........................................................................... 9
- Urine pH Balance .............................................................. 9

### FLUIDS AND ELECTROLYTES
- Electrolyte Balance ............................................................ 10
- Fluid and Electrolyte Problems .......................................... 10
- Preparing and Utilizing Electrolyte Drinks ......................... 11
- Water .............................................................................. 11

### OSTOMATES FOOD REFERENCE CHART ......................... 12

### MEDICATIONS
- Ileostomy Absorption Concerns ......................................... 13
- Medication and the Ostomate Chart .................................... 14

### FREQUENTLY ASKED QUESTIONS ................................. 15

### RESOURCES ................................................................. 16

### GLOSSARY ...................................................................... 17
INTRODUCTION

This guide provides some basic information about the effects ostomy surgery has on digestion and food absorption. After healing is complete and the ostomy is functioning normally, most people with ostomies can return to a normal diet. If you have a special diet because of heart disease, diabetes or other health problems, you should ask your doctor about a diet that will work with both that problem and your ostomy. More detailed information about any special dietary and nutritional needs can be obtained through a registered dietitian (nutrition specialist) and your doctor.

Overview of Common Ostomy Diversions

The following is an overview of common ostomy diversions that will help you better understand their effect on the digestive system. Both fecal and urinary diversions interrupt the normal process of elimination and will have some influence on its function.

Bowel Diversions

Colostomy: A portion of the large intestine is removed or by-passed. The remaining portion of the functioning large intestine (colon) is brought through the abdominal wall, creating a stoma.

Ileostomy: The entire colon, rectum, and anus are removed or by-passed. The small intestine (ileum) is brought through the abdominal wall, creating a stoma.

Continent Ileostomy (abdominal pouch): An internal reservoir with a nipple valve is constructed from a section of small intestine and the valve is brought through the abdominal wall to create a stoma for intubation to empty the reservoir/pouch.

Ileoanal Reservoir/Pelvic Pouch: A pelvic pouch/reservoir is constructed from small intestine, which is brought down and attached to the anus. Evacuation is through the anus.

Bladder Diversions

Urostomy: The bladder is removed or bypassed. A conduit is constructed from a segment of small intestine into which ureters are implanted and brought through the abdominal wall and an external stoma is created.

Continent Urinary Reservoir: The bladder is removed or bypassed. An internal reservoir is constructed from a segment of the small or large intestine into which the ureters are implanted and a stoma is created for intubation to empty the reservoir/pouch.
DIETARY GUIDELINES

BASIC FOOD GROUPS CHART
Nutritional goals for individuals who have had ostomy or related surgeries require some adaptation of dietary information provided for the general public. Specifics of adaptation depend on the type of ostomy and its management. Ostomy nutritional guidelines provide a

<table>
<thead>
<tr>
<th>Complex Carbohydrates</th>
<th>Vegetables</th>
<th>Fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>White bread, rolls, crackers, refined cereal (cream of wheat, cream of rice, oatmeal), white rice.</td>
<td>Soft cooked green beans, carrots, beets, squash and stewed tomatoes. You may need to begin with mashed, boiled or baked potatoes without the skin and other pureed vegetables.</td>
<td>Apples, bananas and canned fruit packed in water or juice. Unsweetened citrus juices.</td>
</tr>
<tr>
<td><strong>6-11 serving per day</strong> One serving equals = 1 slice of bread 1 cup ready-to-eat cereal 1/2 cup cooked cereal, rice or pasta 1/2 bun, bagel or English muffin</td>
<td><strong>3-5 servings each day</strong> One serving equals = 1/2 cup cooked 1/4 cup juice Limit raw celery, mushrooms, green peppers, cabbage, peas, Chinese vegetables, foods with kernels, nuts, and seeds and soy. Remove skins and seeds from fruits and vegetables.</td>
<td><strong>2-4 servings per day</strong> One serving equals = 1 medium size fruit 1/2 cup canned or cooked 1/4 to 1/2 cup juice Include foods that contain soluble fiber such as applesauce and bananas. Limit coconut, pineapple and raisins. Eat small quantities and chew well. Avoid dried fruit.</td>
</tr>
</tbody>
</table>

During the first 6-8 weeks after surgery, limit foods containing insoluble fiber e.g., wheat, bran, corn & nuts. Then add these foods gradually to determine tolerance.

Digestion

Digestion begins in the mouth when food is broken down by chewing and mixed with ptyalin, a digestive enzyme in saliva. In the stomach, food is mixed with gastric juices into a semi-liquid state. The stomach has two valves which help regulate emptying into the small intestine. The small intestine is approximately 21 feet long. Bile and pancreatic enzymes, along with small intestine enzymes, break food down so it can be absorbed and used for energy. The digestion process usually takes two to six hours to complete through the small intestine.

The large intestine, or colon, is five to six feet in length and serves as a storage
base of knowledge for selection of a personalized dietary plan and sound nutritional advice for good eating habits. The American Dietetic Association recommends the following food categories and servings. Consider the following recommendations for a healthy diet for ostomates:

<table>
<thead>
<tr>
<th>Milk, Yogurt, Cheese</th>
<th>Meats, Proteins</th>
<th>Fats, Oils, Sweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk and milk products as tolerated. All cheeses without seeds.</td>
<td>Lean red meat, fish, poultry, dried beans, nuts and eggs.</td>
<td>Broth, bouillon, cream soups made with skim milk and lean meats. Sweets/ desserts such as angel food cake, vanilla wafers, graham crackers, nonfat frozen dessert and frozen yogurt.</td>
</tr>
<tr>
<td><strong>2-3 servings per day</strong></td>
<td><strong>3 servings or average of 10 oz. daily</strong></td>
<td>Use Sparingly</td>
</tr>
<tr>
<td>One serving equals = 1 cup milk or yogurt 1 1/2 oz. natural cheese 2 oz. processed cheese</td>
<td>One serving equals = 2-3 oz. cooked meat (Count 1/2 cup beans, 1 egg, or 2 tsp. peanut butter as 1 oz. of meat.)</td>
<td>Choose low-fat snacks such as pretzels instead of potato chips. Use fat in moderation including that used in food preparation. Note: If you have a fat intolerance, use fat free items. Decrease usage of caffeine.</td>
</tr>
<tr>
<td>Slowly add milk and milk products to your diet. If excessive gas or diarrhea occur, omit from diet for several days and reintroduce in small amounts.</td>
<td>Broil, boil, roast, grill, or cook by light frying (minimal fat is absorbed). Select or prepare meats in their natural juice instead of gravies or sauces.</td>
<td>It can increase acid content of your stomach and increase the transit time of your gastro-intestinal tract.</td>
</tr>
</tbody>
</table>

area for the residues of digestion (wastes). Some water and sodium are absorbed from the stool in the colon. The stool may remain in the colon for 12 to 48 hours.

**Absorption**

Following the mechanical (chewing) and chemical digestion, the nutrients from food are ready for absorption into the blood and lymphatic system via the small intestine. Almost all absorption occurs in the small intestine. For absorption to take place carbohydrates, fats and protein must be completely digested or broken down into simple forms. Vitamins, minerals and water are absorbed in their original form.
DIETARY GUIDELINES cont.

Your gastrointestinal tract is a highly organized, specialized, and segmented filter designed to absorb only those things that the cells in your body want or need, and allowing the residual (stool) to pass unabsorbed, essentially remaining outside of your body. See the Vitamins and Minerals Absorption chart.

Many people with ostomies have no idea what portions of their bowel were removed and what remains. Get the operative reports from each surgery or ask your surgeon about the extent of the surgical procedure(s).

Your nutritional needs will vary based on the bowel you have remaining, the health of the remaining bowel, your overall health and other conditions or diagnoses. All individuals with ostomies have lost a portion of their bowel and will need to compensate by optimizing their diet for the nutrients in question.

Actual changes in your diet may appear minor, it could be that the only one who will notice is you. If minor adjustments do not seem to help, a registered nutrition support dietitian or certified nutrition support nurse with experience with malabsorptive disorders can assist with determining your personal needs.

Metabolism

The utilization by the body of the absorbed nutrition is called metabolism. In a process called oxidation, the food is combined with oxygen and energy is released. Energy is measured in the form of calories.

Bowel Function/Output

Conventional Ileostomy – the stool is liquid to semi-liquid and may contain particles of undigested food residue. The flow cannot be controlled and elimination occurs periodically.

Continent Ileostomy – the stool is semi-liquid to a toothpaste consistency, containing undigested food particles.
**High-Volume Ostomy (Short Bowel Syndrome)** – A condition where sections of the small intestine have been removed or by-passed due to disease, surgical complications or injury. The shortened length of the small intestine can create problems with digestion, absorption and ostomy management. Consult with your physician and/or ostomy nurse for prescribed medications to slow motility if diarrhea is a problem.

---

### SUPER NUTRIENTS CHART

<table>
<thead>
<tr>
<th>Description</th>
<th>Health Effects</th>
<th>Food Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin C (anti-oxidant)</td>
<td>Protects against some cancers and heart disease.</td>
<td>Green &amp; red peppers, oranges, grapefruit, broccoli, strawberries, other fruits and vegetables</td>
</tr>
<tr>
<td>Vitamin B6</td>
<td>Helps immune system &amp; prevents heart disease.</td>
<td>Potatoes, bananas, fish, chicken, pork, beef and avocados</td>
</tr>
<tr>
<td>Potassium (mineral)</td>
<td>Helps lower blood pressure, risk of stroke and helps regulate fluid and salt balance.</td>
<td>Beets, greens, beans, avocados, yogurt, fish and bananas</td>
</tr>
<tr>
<td>Beta Carotene (anti-oxidant)</td>
<td>Aids in bone growth and assists the immune system.</td>
<td>Fruits, green and yellow vegetables</td>
</tr>
<tr>
<td>Selenium (mineral)</td>
<td>May protect against prostate cancer.</td>
<td>Nuts, tuna, oysters, fish, poultry wheat germ, brown rice, oatmeal and eggs</td>
</tr>
<tr>
<td>Zinc (mineral)</td>
<td>Helps wound healing and benefits the immune system.</td>
<td>Oysters, crab, beef, poultry, pork, lamb, nuts, milk products and beans</td>
</tr>
<tr>
<td>Calcium (mineral)</td>
<td>Builds strong bones and teeth. Regulates heart beat and muscle contractions.</td>
<td>Dairy products, sardines, collard greens, salmon, broccoli, beans, nuts and seeds</td>
</tr>
<tr>
<td>Magnesium (mineral)</td>
<td>Reduces risk of heart disease and strengthens bones.</td>
<td>Almonds, spinach, sunflower seeds, fish, tofu, wheat bran, brown rice, avocados and beans</td>
</tr>
<tr>
<td>Folacin - vitamin B</td>
<td>Reduces the risk of birth defects and protects from cancer and heart disease.</td>
<td>Beans, spinach, oatmeal, corn, asparagus, avocado, peas, broccoli and brussel sprouts</td>
</tr>
</tbody>
</table>

Source, Peggy Christ, RNET, Ostomy Quarterly, Vol. 1, No. 37
GENERAL GUIDELINES

Ileostomy & Colostomy (Bowel Surgery)

Individuals who have had ostomy surgery will want to eat a regular balanced diet that includes the necessary vitamins, minerals and calories needed for good health. Usually after surgery you start out with a low-fiber/low-residue diet. The reason is that surgery causes the bowel to swell. This swelling reduces in about six to eight weeks, then a regular diet can be resumed, adding specific foods one at a time to judge their effects. This is where a food journal may be helpful. See Food Journal on page 7.

However, for the first year of recovery from surgery (especially if you had a long history with your disease), you may need to take a multi-vitamin supplement. The vitamins could vary from a one-a-day type to a higher dosage type (stress tab) to replenish the nutrients that were lost or needed to rebuild your nutritional state.

Eat a variety of foods based on the food groups. Each food group provides a combination of key nutrients for optimum bodily function. Follow individual preferences considering food requirements, tolerances and any restrictions. If you are unable to tolerate fruits, vegetables or meats, you may need to take a daily multi-vitamin supplement.

Add new foods gradually to your diet to determine its effect on your ostomy management. Add a new food every three days to have a more accurate check on tolerance points. Keeping a food journal is helpful.

Eat at regular intervals. Skipping meals increases the incidence of watery stools and flatus (gas). Avoid fasting and skipping meals. A few people benefit from eating six smaller meals. The total of the six feedings should equal three regular meals.

Balance dietary fiber. Fiber (roughage) includes all food substances that digestive enzymes cannot break down (indigestible food residue). Fiber adds bulk to the stool. Its purpose is aiding the transportation of stool along the intestinal tract for elimination.

Lactose intolerance is common. If you notice gas, abdominal bloating, increase in liquid output or diarrhea ten minutes to several hours after the ingestion of a dairy product, eliminate it for several days. You may then add milk, one ounce at a time, to determine your tolerance point. You may also change to lactose free milk, soy milk (can cause gas), rice milk or taking lactase tablets for lactose digestion.

Include all the fats. Our bodies do need different types of fats (fatty acids). If you have a fat intolerance, you may need to take some supplements. Check with your doctor or a registered dietitian if you are unsure of your fat tolerance. If you do tolerate fats, try to eat a variety of fats, monounsaturated (olive oil, canola oil, peanut oil), polyunsaturated (corn oil, safflower oil, sunflower oil) and Omega 3 fats (fish oil, flaxseed oil/seeds and walnuts).
Keeping a food journal may be beneficial for some people. If you are having persistent gas, diarrhea or you just do not feel well, a journal may help you see patterns related to how or what you eat and when problems occur. Often you may need to consult a registered dietitian (RD) to review the journal with you. It is important to consult a registered dietitian who has an understanding of gastrointestinal diseases and ostomies. There are many different ways to keep a food journal. Below is a sample journal.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Food - Solid and Liquid</th>
<th>Medications</th>
<th>Physical Symptoms</th>
<th>Cravings</th>
<th>Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Judith Crim-Ehlers, RD, CEDC, 2002
For several months after surgery, the pouch will adapt to its new status. During this time, stool consistency gradually thickens, capacity increases and the number of daily bowel movements will decrease. This is not a steady change. There will be ups and downs. Improvements should become reliable after one year.

Diet and medications help to improve pouch function. Immediately after surgery, eat to slow down the digestive process and allow the pouch to enlarge. This will decrease the number of bowel movements and help prevent peri-anal irritation (ileo-anal reservoir). Food tolerances vary from person to person, so what works for someone else may affect you differently. If you do not tolerate something now, try it again in a few months. Skipping meals does not stop output. Eat to slow it down.

Remember, when you eat is as important as what you eat, so try adjusting the time between meals, or see if your body responds better to a different meal time. Traditional meal patterns cause increased output later in the day. Sleep better by limiting foods and fluids in the evening. Be patient and keep experimenting to find the combinations that give you the results you want.

Note: Review all the information and food charts in this guide. The effects of your diet will generally be the same as indicated for traditional ileostomy and colostomy.

Important Tips for Continent Diversions:

- Eat regularly—don’t skip meals. Empty bowels produce gas.
- When adding new foods to your diet, try a little bit with other foods.
- Small, frequent meals are best—always chew thoroughly.
- Rice, potatoes or pasta once daily may reduce frequency and irritation.
- High potassium foods will help offset the effects of diarrhea.
- Limit foods containing simple sugars— they aggravate diarrhea which include sweets, many desserts and high-sugar beverages such as juices and soda.
- Drink six to eight glasses of fluid each day— but not with meals.

Anal Irritants

- Chinese/oriental vegetables
- Coconut
- Dried fruits (raisins, figs)
- Foods with seeds, nuts
- Raw fruits (oranges, apples)
- Raw vegetables (celery, corn, coleslaw)
- Spicy foods

Limit Simple Sugars

- Sugar
- Candy
- Pastries
- Honey
- Jam, jellies
- Sweetened drinks
Urostomy (Bladder Surgeries)

The urinary system is a simple network with complex functions. It plays a role in fluid balance, electrolyte balance, acid-base balance and excretion of waste. To maintain healthy kidney function, drink sufficient fluids to keep the urine diluted. If urine color is darker than usual, it is an indication of concentrated urine which requires an increase in fluid intake. Certain foods and drugs can discolor the urine or produce a strong odor.

Urine pH Balance

Urine pH is defined as the fluid's degree of acidity or alkalinity. When the food you eat is burned in the body, it yields a mineral residue called “ash.” This ash can be either acidic or basic (alkaline) depending on whether the food that is “burned” contains mostly acidic or basic ions. Most fruits and vegetables actually give an alkalinized ash and tend to alkaline the urine. Meats and cereals will usually produce an acidic ash.

<table>
<thead>
<tr>
<th>Acid Ash Foods</th>
<th>Alkaline Ash Foods</th>
<th>Neutral Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most meats</td>
<td>Milk</td>
<td>Butter</td>
</tr>
<tr>
<td>Breads &amp; cereals</td>
<td>Bananas</td>
<td>Coffee</td>
</tr>
<tr>
<td>Cheese</td>
<td>Beans</td>
<td>Cream</td>
</tr>
<tr>
<td>Corn</td>
<td>Beets</td>
<td>Honey</td>
</tr>
<tr>
<td>Crackers</td>
<td>Greens</td>
<td>Salad oils</td>
</tr>
<tr>
<td>Cranberries</td>
<td>Spinach</td>
<td>Syrups</td>
</tr>
<tr>
<td>Eggs</td>
<td>Most fruits</td>
<td>Tapioca</td>
</tr>
<tr>
<td>Macaroni</td>
<td>(including citrus fruits)</td>
<td>Tea</td>
</tr>
<tr>
<td>Nuts</td>
<td>Most vegetables</td>
<td></td>
</tr>
<tr>
<td>Pasta, Rice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunes, Plums</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unless otherwise indicated, the urine should be maintained in an acid state. To maintain an acid urine state, increase your daily fluid intake to eight to ten (8 oz.) glasses of water. Drink cranberry juice in place of orange juice or other citrus juices which tend to make the urine more alkaline, take vitamin C daily (if okayed by physician) and try to eat an acid ash diet (see above listing).
FLUIDS AND ELECTROLYTES

Electrolyte Balance

Electrolytes refer to the normal chemicals dissolved in body fluids needed to maintain body activity. If electrolytes are out of balance, a person may become weak or ill and may need to take medications by mouth or intravenously.

Electrolyte balance (especially potassium and sodium) is important. When the colon (large intestine) is removed, a greater risk for electrolyte imbalance can occur. Diarrhea, excessive perspiration and vomiting can increase this risk. A person with short bowel syndrome is at high risk. Their electrolytes should be monitored closely. Your diet should include fluids and foods rich in electrolytes. A general rule is to “salt foods to taste.” Do not exclude sodium in the diet.

<table>
<thead>
<tr>
<th>Fluid and Electrolyte Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem</td>
</tr>
<tr>
<td>Dehydration</td>
</tr>
<tr>
<td>Sodium Depletion</td>
</tr>
<tr>
<td>Potassium Depletion</td>
</tr>
</tbody>
</table>

Foods high in potassium: black-eyed peas, bananas, bouillon, chicken, fish, oranges, pinto beans, potatoes, raisins, tomato or vegetable soup, veal, watermelon and yogurt.

Foods high in sodium: broth, buttermilk, canned soups, canned vegetables, cheese, soy sauce, table salt, tomato juice and commercially prepared foods.
Preparing and Utilizing Electrolyte Drinks

Excessive fluid loss of more than one quart of liquid stool in 24 hours can cause dehydration and require medical attention. (Normal ileostomy pouch emptying is five to eight times daily.) Balance intake of fluids with the output from the stoma. Water is an excellent natural beverage; however, over-consumption of water can wash away electrolytes in the body. Drink a combination of water and electrolyte beverages. The glucose ingredients in electrolyte drinks aid in absorption of electrolytes.

Homemade Electrolyte Drink
1 teaspoon salt
1 teaspoon baking soda
1 teaspoon white Karo syrup
1 6-ounce can frozen orange juice
Add water to make one quart, mix well

Or Quick Fix
Orange juice – 4 ounces
Water – 4 ounces
Pinch of salt

Diluted Electrolyte Drinks (Brand Names)
(Improve taste, tolerance, lower calories, and decrease cost)
1/2 quart (500 cc) – commercial electrolyte drinks
1/2 quart (500 cc) - water
1 teaspoon salt substitute (potassium chloride)
Mix well

Brand Name Electrolyte Drinks - 8 oz. serving*

<table>
<thead>
<tr>
<th>Brand/8 oz.*</th>
<th>Sodium</th>
<th>Chloride</th>
<th>Potassium</th>
<th>Glucose</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gatorade/PowerAde</td>
<td>5.2</td>
<td>2.8</td>
<td>.83</td>
<td>14.0</td>
<td>60</td>
</tr>
<tr>
<td>Pedialyte</td>
<td>17.7</td>
<td>15.4</td>
<td>4.0</td>
<td>4.0</td>
<td>24</td>
</tr>
</tbody>
</table>

*Units are per ounce/ML

Water

Water is an essential nutrient needed by every body cell. Water controls body temperature, serves as building material and solvent, and transports nutrients. Thirst is a signal that the body needs fluids. Daily losses must be replaced.

Any liquid containing water (soda, milk, juice, etc.) helps to meet your daily requirement. You can also get water from the food you eat. (e.g., tomatoes have a 94 percent water content). Drinking coffee or tea will interfere with the ability to stay hydrated because they both cause the kidneys to increase urine and salt output. Be sure when drinking coffee or tea to increase your water consumption to counter balance the higher output.

Encourage fluid intake of eight to ten (8 oz.) glasses of liquids each day. Drinking more fluids is helpful in flushing out the kidneys, eliminating impurities in the blood, and helping you to maintain the proper electrolyte balance.
For individuals who have had ostomy surgery, it is important to know the effects of various foods on ileal output. The effects may vary with the remaining portion of functioning bowel.

Listed below are some general guidelines of the effects of foods after ostomy surgery. Use trial and error to determine your individual tolerance. Do not be afraid to try foods that you like, just try small amounts.

<table>
<thead>
<tr>
<th>Gas Producing</th>
<th>Odor Producing</th>
<th>Increased Stools</th>
<th>Stoma Obstructive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcoholic bev.</td>
<td>Asparagus</td>
<td>Alcoholic bev.</td>
<td>Apple peels</td>
</tr>
<tr>
<td>Beans</td>
<td>Baked Beans</td>
<td>Whole grains</td>
<td>Cabbage, raw</td>
</tr>
<tr>
<td>Soy</td>
<td>Broccoli</td>
<td>Bran cereals</td>
<td>Celery</td>
</tr>
<tr>
<td>Cabbage</td>
<td>Cabbage</td>
<td>Cooked cabbage</td>
<td>Chinese vegetables</td>
</tr>
<tr>
<td>Carbonated bev.</td>
<td>Cod liver oil</td>
<td>Fresh fruits</td>
<td>Corn, whole kernel</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>Eggs</td>
<td>Greens, leafy</td>
<td>Coconuts</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>Fish</td>
<td>Milk</td>
<td>Dried fruit</td>
</tr>
<tr>
<td>Dairy products</td>
<td>Garlic</td>
<td>Prunes</td>
<td>Mushrooms</td>
</tr>
<tr>
<td>Chewing gum</td>
<td>Onions</td>
<td>Raisins</td>
<td>Nuts</td>
</tr>
<tr>
<td>Milk</td>
<td>Peanut butter</td>
<td>Raw vegetables</td>
<td>Oranges</td>
</tr>
<tr>
<td>Nuts</td>
<td>Some vitamins</td>
<td>Spices</td>
<td>Pineapple</td>
</tr>
<tr>
<td>Onions</td>
<td>Strong cheese</td>
<td></td>
<td>Popcorn</td>
</tr>
<tr>
<td>Radishes</td>
<td></td>
<td></td>
<td>Seeds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Color Changes</th>
<th>Odor Control</th>
<th>Constipation Relief</th>
<th>Diarrhea Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus</td>
<td>Buttermilk</td>
<td>Coffee, warm/hot</td>
<td>Applesauce</td>
</tr>
<tr>
<td>Beets</td>
<td>Cranberry juice</td>
<td>Cooked fruits</td>
<td>Bananas</td>
</tr>
<tr>
<td>Food colors</td>
<td>Orange juice</td>
<td>Cooked vegetables</td>
<td>Boiled rice</td>
</tr>
<tr>
<td>Iron pills</td>
<td>Parsley</td>
<td>Fresh fruits</td>
<td>Peanut butter</td>
</tr>
<tr>
<td>Licorice</td>
<td>Tomato juice</td>
<td>Fruit juices</td>
<td>Pectin supplement</td>
</tr>
<tr>
<td>Red Jello®</td>
<td>Yogurt</td>
<td>Water</td>
<td>(fiber)</td>
</tr>
<tr>
<td>Strawberries</td>
<td></td>
<td>Any warm or hot beverage</td>
<td>Tapioca</td>
</tr>
<tr>
<td>Tomato sauces</td>
<td></td>
<td></td>
<td>Toast</td>
</tr>
</tbody>
</table>
MEDICATIONS

Ileostomy Absorption Concerns

Due to the absence of the colon and often altered transit time through the small intestine, the type of medication taken must be carefully considered when prescribing for the person with an ileostomy.

Medications in the form of coated tablets or time-release capsules may not be absorbed and no benefit received. A large number of medications are prepared in this way. Before the prescription is completed by the physician, the patient with an ileostomy should inform him of this difficulty. If the medication required is available only in this form and not destroyed by the stomach juices, then the tablet may be crushed between two spoons and taken with water. This often results in an evil-tasting mixture but absorption is ensured.

The best type of medication for the person with an ileostomy is either in the form of uncoated tablets or in liquid form. Although this is not the most palatable mode of treatment, these dosage forms ensure that the medication prescribed is being absorbed. A pharmacist can assist in choosing the form of a medication that will be best absorbed.

After ileostomy surgery, never take laxatives. For a person who has an ileostomy, taking laxatives can cause a severe fluid and electrolyte imbalance.

Transit time varies with individuals. If food passes through undigested, be aware that this may be a sign that the nutrients are not being absorbed properly. Prolonged incidences of decreased absorption may lead to various sub-clinical or clinical nutritional deficiencies.

What’s a body made of?
Sugar and spice and everything nice.

An average 140 pound person’s body weight consist of:
84 pounds water (60%)
28 pounds fat (20%)
29 pounds of a combination of (20%)
protein (up to 25 pounds)
minerals (up to 7 pounds)
carbohydrates (up to 1.4 pounds)
vitamins (trace)
The following information was developed to focus on a person with an ostomy. Absorption may vary with individuals and type of medication. Certain drug problems may arise depending on the type of ostomy you have and the medications you are taking. Make sure all your healthcare providers know the type of ostomy you have and the location of the stoma. This information will help your pharmacist and other healthcare providers monitor your situation.

<table>
<thead>
<tr>
<th>Drug Group</th>
<th>Colostomy</th>
<th>Ileostomy</th>
<th>Urostomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antacids</td>
<td>Products containing aluminum may cause constipation (e.g., Amphogel®, Basalgel®, Maalox®, Fast-Acting Mylanta®).</td>
<td>Products containing magnesium may cause diarrhea (e.g., Maalox®, Fast-Acting Mylanta®, Mylanta® Gelcaps, Mag-Ox 400, Uro-Mag).</td>
<td>Products containing calcium may cause calcium stones (e.g., Children’s Mylanta®, Mylanta® Gelcaps).</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>Caution–May destroy normal flora (may cause diarrhea).</td>
<td>May lead to diarrhea and risk of dehydration (e.g., ampicilin, cephalosporins, sulfonamides, etc).</td>
<td>Usually no problem.</td>
</tr>
<tr>
<td>Birth Control Pills</td>
<td>Usually no problem.</td>
<td>Birth control pills may not be fully absorbed. There may be a possible need to use other forms of birth control.</td>
<td>Usually no problem.</td>
</tr>
<tr>
<td>Corticosteroids (Cortisone)</td>
<td>Sodium retention. Possible fungal infection under face-plate due to suppression of immune system.</td>
<td>Sodium retention. Possible fungal infection under face-plate due to suppression of immune system.</td>
<td>Sodium retention. Possible fungal infection under face-plate due to suppression of immune system.</td>
</tr>
<tr>
<td>Diuretics</td>
<td>Usually no problem.</td>
<td>Caution--may cause electrolyte imbalance.</td>
<td>Will increase urine flow–may cause electrolyte imbalance.</td>
</tr>
<tr>
<td>NSAIDS Nonsteroidal anti-inflammatory agents (e.g., Motrin®, Aleve®, etc.)</td>
<td>May cause bleeding from stomach or duodenum-gastric distress. Do not take on an empty stomach.</td>
<td>May cause bleeding from stomach or duodenum-gastric distress. Do not take on an empty stomach.</td>
<td>May cause bleeding from stomach or duodenum-gastric distress. Do not take on an empty stomach</td>
</tr>
<tr>
<td>Vitamins</td>
<td>Liquid form is best. B complex may cause odor.</td>
<td>Liquid form is best. B complex may cause odor. Vitamin B-12 is best by injection or nasal B-12 spray. Not absorbed well by oral route.</td>
<td>Tablet/Capsule okay. B complex may cause odor.</td>
</tr>
</tbody>
</table>

Source: Melvin F. Baron, PharmD, MPA, 2002
FREQUENTLY ASKED QUESTIONS

**Question:** How soon after ostomy surgery can I return to a normal diet?
Physicians and ostomy nurses suggest that you begin slowly, depending upon your recovery and/or other medical complications. Add back one new food at a time. If you experience any problems, discontinue for a few weeks and try again.

**Question:** In the past, certain foods caused me some trouble with digestion. How will they affect me since my ostomy surgery?
Check them out. You may find that some of those same foods will continue to be troublesome and others may not.

**Question:** Will my ileostomy continue to produce output even if I do not eat?
Yes, the small intestine will continue to produce gas and digestive juices. An empty digestive tract seems to produce excessive gas. Eat small meals to keep something in the gut. Peristalsis happens!

**Question:** After ostomy surgery, I have gained excess weight. What happened? What types of food should I eat?
The relaxation of dietary restrictions, freedom from debilitating illness and malabsorption promotes a rapid gain in weight. Follow the same weight reduction diet as recommended by nutritionists and dietitians. Eating smaller quantities of a well-balanced diet and increasing water/fluid intake will assist with weight reduction.

**Question:** What is meant by “low-residue” diet?
Low-residue refers to a dietary regime which eliminates bulk-forming, hard-to-digest or high-fiber foods.

**Question:** Will spicy foods cause any damage to my stoma?
If you can tolerate spicy foods through your digestive system, the output through your stoma should not cause any harm. The stoma is formed from the lining of the bowel and it is tough and can tolerate those spicy foods.

**Question:** What effects will oral odor control medications have on my ostomy?
Some individuals who have a colostomy report that they experienced some constipation from bismuth products found in oral odor control medications. Individuals who have an ileostomy have more benefits and fewer side effects from oral preparations (chlorophyll tablets, bismuth subgallate and bismuth subcarbonate). Most foods do not effect an individual with a urostomy. A strong urine odor may be an indication of dehydration and the need for increased fluid intake. Check with your doctor or ostomy nurse about any oral preparations and do not exceed the recommended dosage.

**Question:** Can sugar free foods containing mannitol, sorbitol, isomalt or xylitol have a bad effect on my gut?
Yes. The effect is probably the same for people with or without an ostomy. These are sugar alcohols used instead of or in addition to nutra-sweet and saccharin. The sugar alcohols can cause gas, bloating, abdominal pain and/or diarrhea.
FREQUENTLY ASKED QUESTIONS cont.

**Question:** Can the fat substitute Olestra® cause problems?

Maybe. In many people with gut diseases, it may cause severe abdominal cramping, gas, bloating and/or diarrhea.

**Question:** Should I be concerned about vitamin B-12 deficiency?

Vitamin B-12 is absorbed in the last section of the small bowel (terminal ileum). Ileostomy surgery necessitates the removal of some portion of the terminal ileum and some of the absorption abilities for vitamin B-12. Ask your ostomy nurse or physician to check out your B-12 level and prescribe some replacement therapies if needed. There are several therapies available including B-12 injection, B-12 nose spray, and some B-12 pills that absorbs under the tongue.

RESOURCES

**United Ostomy Associations of America**

UOAA is a volunteer-managed non-profit organization whose vision is the creation of a society where people with bowel and urinary diversions are universally accepted socially, in the work place, medically and psychologically. UOAA has a comprehensive website, www.ostomy.org, that includes ostomy information, support group locations and discussion boards so people can connect, ask questions and share advice.

UOAA staffs a national Help Line at 800-826-0826. Call to find the affiliated suptport group in your area or to talk to an ostomy nurse. Another free service offered by UOAA is provided by our advocacy legal specialist. If you experience some form of discrimination as a result of your surgery, call our Help Line and they will put you in touch with our specialist.

The official publication of the UOAA, **The Phoenix** magazine, is America’s leading source for ostomy information, education and inspiration. Subscriptions to the magazine are a major source of funding for the UOAA and are available by calling 800-826-0826 or going online: www.phoenixuoaa.org.

**Wound, Ostomy and Continence Nurses Society (WOCN)**

The WOC(ET) nurse professional is an expert in the care of patients with wound, ostomy and continence problems. The UOAA can refer you to an ostomy nurse in your area. You can also contact the WOCN national office for information and local referrals: 1-888-224-9626 or visit www.wocn.org

**Agencies That May Be Helpful**

– American Dietetic Association, 1-800-877-1600, www.eatright.org
– American Cancer Society, 1-800-ACS-2345 or www.cancer.org.
GLOSSARY

Absorption: the ability of the digestive tract to process nutrients.

Dehydration: loss of water from the body tissues due to diarrhea, vomiting, excessive sweating.

Diarrhea: an abnormal profuse discharge from the intestines.

Electrolytes: products in body cells and solution that, when in balance maintain bodily processes. Included as electrolytes are sodium (Na), potassium (K), magnesium (Mg), calcium (Ca), chlorides (Cl), bicarbonate (HCO3) and others.

Enzymes: an organic compound (chemical) capable of accelerating or initiating a body process, such as the digestion of foods.

Feces: waste products of the digestive system, also referred to as stool, bowel movements, etc.

Food Blockage: a bolus of food residue lodged behind a kink or narrowed segment of bowel that blocks normal flow of fecal contents through the intestine.

Insoluble Fiber: food substances that digestive enzymes cannot break down into a liquid.

Intubation: insertion of a tube into a hollow organ.

Lactose: a sugar present in milk.

Low-Residue Diet: refers to a dietary regime which eliminates bulk-forming foods, hard-to-digest foods, high-fiber foods.

Peristalsis: wave-like contractions occurring in the gastrointestinal tract that propel food substances toward elimination during the digestive process.

pH of Urine: how acid or alkaline urine is.

Reservoir: an anatomic structure that serves as a place to collect or retain fluid.

Soluble Fiber: food substances that can be dissolved into a liquid.

Transit Time: the amount of time it takes food to travel through the alimentary canal from the mouth until eliminated.