NUTRITION AFTER CANCER SURGERY

After surgery, your body often needs additional nutrition. As you contemplate what your overall goals are at discharge, consider that eating well not only provides you with a source of energy, but also can promote faster healing (especially if the surgery involves the abdominal area). As resumption of daily routine is often first and foremost, it is important to make your nutritional status a priority.

The guidelines are simple. A well balanced diet is encouraged as consumption of a variety of foods will reduce the onset of a vitamin or mineral deficiency. Increasing protein is also important, as protein helps enhance tissue repair. If weight gain is of concern, be sure to choose lean/high biological value (HBV) protein sources, i.e. egg whites, fish, tuna packed in water, non-fat/low-fat dairy, lean meats, poultry without the skin, or soy. Consider purchasing a basic inexpensive scale, if you do not already have one, for tracking daily weights, as weight status is an easy outcome marker. Keep in mind that if you are taking diuretics, your weight may fluctuate.

Sometimes after a long hospitalization, you may experience other side effects. For example, a poor appetite, in some patients only happens for just a couple of days; however, for others, it is an ongoing concern. It is also not unusual to feel easily fatigued. Some other nutritionally related issues you may encounter as you recover from surgery include antibiotic related diarrhea (if you received antibiotics during your hospital stay), or constipation if you are taking strong pain medications. Listed below are some nutrition tips to help combat some of these aforementioned side effects.

**Decrease in Appetite**
- Avoid large meals.
- Eat several small meals or snacks throughout the day.
- Keep snacks easily available so you can have something whenever you feel like it.
- Take advantage of times when you feel like eating -many people have a better appetite first thing in the morning.
- Select nutrient dense foods such as shakes, smoothies, commercial oral supplements, peanut butter, or cheese and crackers.
- Regular exercise or activity may help your appetite. Check with your doctor regarding activity level after surgery.

**Weight Loss**
- Increase caloric intake (takes an additional 3500 calories per week or 500 additional calories per day to gain one pound per week).
- Choose high calorie foods – avoid low calorie or diet foods.
- Eat high calorie items on your plate first.
- Eat a bedtime snack.
Add cheese to your vegetables, select cream soups, add extra margarine and sour cream to mashed potatoes, or snack on dried fruit/nuts or granola.

**Fatigue**
Avoid skipping meals- try several smaller meals throughout the day.
Eat at your best time of the day (i.e. if you fatigue later in the day, try having a hearty breakfast).
Make every bite count- choose high calorie, high protein foods or beverages.
At times when you have more energy, prepare foods and store in the refrigerator or freezer for later use.
Use a stool in the kitchen to conserve your energy.
Accept offers from family or friends to cook for you.

**Constipation**
Drink plenty of fluids (unless you are on a fluid restriction).
Try snacking on dried prunes or prune juice.
Increase fiber in your diet. Foods high in fiber include fresh fruits and vegetables, whole grain cereals and breads, and beans.
If the above recommendations are not effective, you may need a stool softener or laxative.
Check with your doctor first.

**High Calorie Shakes**

**Sherbet Shake**
¾ cup milk
1 cup sherbet, any flavor
Put ingredients into blender and blend until smooth.
360 calories, 8 gm protein (when made with 2% milk)

**Milk Shake**
¾ cup milk
1 cup ice cream
Put all ingredients into a blender and blend until smooth.
360 calories, 10 gm protein.

Flavoring ideas: 1 to 2 Tbsp chocolate syrup
½ mashed banana
1 to 2 Tbsp strawberry syrup
1 to 2 Tbsp butterscotch topping
¼ to ½ cup fresh or frozen strawberries
1 to 2 Tbsp peanut butter
Peach Shake
½ cup cut-up peaches
½ cup ice cream
¾ cup milk
2 to 3 drops of almond extract (if desired)
Put all ingredients into a blender and blend until smooth.
290 calories, 9 gm protein

Lemon Shake
1 cup lemonade
½ cup vanilla ice cream
1 cup lime sherbet*
¼ cup egg substitute
Put all ingredients into a blender and blend until smooth.
575 calories, 7 gm protein

Examples of Commercially Available Supplements

<table>
<thead>
<tr>
<th>NAME (serving size)</th>
<th>CALORIES</th>
<th>PROTEIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure</td>
<td>250</td>
<td>9gms</td>
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<tr>
<td>Ensure Plus</td>
<td>350</td>
<td>13gms</td>
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<tr>
<td>Glucerna Shake</td>
<td>140</td>
<td>7gms</td>
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<tr>
<td>Boost</td>
<td>240</td>
<td>10gms</td>
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<tr>
<td>Enlive</td>
<td>250</td>
<td>9gms</td>
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<tr>
<td>Carnation Instant Breakfast</td>
<td>250</td>
<td>14gms</td>
</tr>
<tr>
<td>(Ready to drink)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carnation Instant Breakfast</td>
<td>250</td>
<td>13gms</td>
</tr>
<tr>
<td>(powder mixed with 2% low fat milk)</td>
<td></td>
<td></td>
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</tbody>
</table>
Your Nutritional Goals:

Diet: ____________________________

___________________________

Calories: _______________________
Protein: _______________________

Other: __________________________

___________________________

___________________________

___________________________

Nutritionist____________________