The Importance of Good Nutrition:

Dena McDowell, MS, RD, CD (dedicated clinical dietitian for the pancreatic cancer program at Froedtert & Medical College of Wisconsin)

Pancreatic cancer may cause significant nutrition challenges. Upon diagnosis, patients should seek the expertise of a Registered Dietitian (RD) to provide a nutritional assessment and meal planning goals. It is important that patients understand the importance of consuming a diet rich in protein, calories, vitamins and minerals. Hydration is also an important component of any nutrition plan.

Goal setting based on the patient may include weight management (either to regain weight loss or maintain current weight), symptom management, nutrition education and meal planning. Empowering the patient with nutrition knowledge is vitally important to meeting the nutrition goals set forth.

Common nutrition side effects that patients may experience as a result of pancreatic cancer:

- Early satiety
- Poor appetite
- Nausea and/or vomiting
- Gas, bloating, or cramping
- Diarrhea including foal smelling oily stools
- Weight loss
- Diabetes

Working with your medical team, it is important to create effective tools to combat these side effects. Often times, eating lower fat small meals (5-6 meals) throughout the day will be better tolerated. Medications may be prescribed to help with appetite, loose stools and nausea. Pancreatic enzymes are also helpful if malabsorption is noted.

Nutrition Planning for Treatment

Whether you will be undergoing surgery, chemotherapy or radiation therapy, each treatment presents unique nutritional challenges. It is important to monitor your weight, calorie intake, and bowel function, and inform your healthcare team if changes occur from normal. Often nutrition intervention may help alleviate these side effects.

Supplements, Vitamins and Minerals

If you are currently taking or are interested in taking vitamin, mineral or herbal supplements please discuss this with your healthcare team. Your doctor may want to do blood work to determine if any vitamin or mineral deficiencies are present and will prescribe supplements based on need. In most cases, a standard multivitamin, which meets, but does not exceed 100% of the daily value, is well tolerated.

Diet While in the Hospital

Following surgery, you will not eat solid food for usually four to six days. A feeding tube (J-tube) may be placed in your small bowel (jejunum) during your surgery to ensure good nutrition to help your body heal.

After your bowel function returns, you will be started on a low fat and low fiber diet. You may also need a lactose restriction for your diet. Once eating, most patients require enzyme replacement which must be taken with meals and snacks.

Diet at Home after Surgery

You will be discharged from the hospital on a low fat, low fiber diet, eating small meals and snacks throughout the day. If you are unable to tolerate the diet you may also need to rely on a feeding tube in your small intestine (called a jejunostomy tube or J-tube) to help meet your nutritional needs. As you are able to eat better you will be able to wean off the nutrition support and eventually the feeding tube will be removed.

It is important to monitor your weight when you are home from the hospital. Most people lose weight after surgery and need to increase calorie and protein intake to promote weight gain. The dietitian along with the rest of your healthcare team will assist in setting nutrition goals and monitoring your progress in regaining the weight lost. The dietitian will also help you troubleshoot food intolerances due to surgery and will recommend foods to help alleviate side effects such as nausea, bloating, cramping and diarrhea.

Commonly Asked Questions:

- Q: If I am struggling to maintain my weight, what should I do?
 A: The dietitian can help assess how well you are eating by estimating current calorie intake. This amount will be compared to how many calories, grams of protein, grams of carbohydrates and grams of fat that are needed to maintain or gain weight. The dietitian will then create a meal plan with goals of small frequent
 - meals, calorie rich beverages and incremental calorie increases as oral intake improves. If a patient still struggles to meet caloric needs with the adjusted meal plan, the use of appetite stimulants may be warranted.
- 2. Q: If I am already overweight, should I still consume additional calories? A: Making sure you are well nourished before surgery is an important component of the pre-surgery assessment. Research shows that people who are better nourished have a lower rate of complications and a quicker recovery time after surgery. If you are overweight it is not recommended that you loose weight. Eating a healthy diet rich in complex carbohydrates, protein, fruits and vegetables will help ensure that you are meeting your dietary requirements. The dietitian can help assess your diet and provide recommendations for healthy food choices.

Q: What is the role of exercise during chemotherapy or radiation therapy?
 A: Light to moderate exercise is recommended during both chemotherapy and radiation therapy. Daily exercise can help reduce fatigue, may help stimulate your appetite and may also help bowel regularity if constipated. Check with your healthcare team for specific recommendations for you.

4. Q: Can I drink a glass of wine or have a beer while under treatment?

A: Drinking an occasional glass of wine or a beer is usually tolerated well while under treatment. Limit consumption to no more than one glass of wine (4 ounces) or one beer (12 ounces) per day. Check with your healthcare team to make sure there are no drug or alcohol interactions before choosing to drink alcohol.

5. Q: Recently every time I drink milk I get cramps and a lot of gas. Is this common?

A: Often people who have pancreatic cancer find that they may develop lactose intolerance. If you are intolerant of the milk sugar present in dairy products you can still get calcium and vitamin D from fortified soy or rice milk, Lactaid® milk, cheese, kefir, cottage cheese and yogurt. If you are unable to tolerate any dairy products, a calcium supplement with vitamin D will be recommended.

6. Q: How do I know if I am not digesting my food correctly and what can I do about it?

A: Malabsorption is a common side effect of pancreatic cancer. This is due to the lack of digestive enzymes secreted from the pancreas. Patients may notice a sense of urgency to have a bowel movement after eating foods that contain fat. Often times, excessive gas, bloating, and loose stools will be noted. Oily stools and a foul smell may also be present. Taking pancreatic enzymes will help alleviate these symptoms. This medication is taken with food to help aid in digestion. The dietitian will help educate how many capsules (creon) or tablets (viokase) to take based on the foods that you typically eat at meal times.