



## ***Cancer Connections Online Monthly Forum 2007 Archive Presentation***

May 2007: Nutrition Before and After Cancer Treatment, by Natalie Bucher,  
Registered Dietician, Great Falls Clinic Cancer Care

Greetings & Welcome to all!

My name is Natalie Bucher. I am a registered dietitian employed at Clinic Cancer Care in Great Falls, Montana. Through out the next five days I will be providing some helpful information on the reasoning and importance of avoiding weight loss during treatment. Discussion topics will also include helpful tips and suggestions that may reduce side effects such as nausea, vomiting, taste alterations, dry mouth, thick saliva and/or sores in the mouth or throat caused by your therapy. All of these side effects can lead to lack of appetite and unintentional weight loss.

### **Reasoning & Importance of Avoiding Weight Loss**

Maintaining your weight during treatment increases your immunity. This positively decreases your risk of infection and related complications. A healthy weight increases tissue and wound healing time, and can decrease unscheduled hospital admissions. Some individuals may think that losing weight during treatment is okay or even beneficial. You or someone you know may even recall a statement similar to this; "I have a few extra pounds to lose anyway".

Unfortunately, during treatment this is generally not correct. When one is malnourished and is experiencing unintended weight loss, the energy to fuel our body is provided by breaking down our skeletal muscle and other protein containing tissues; not our fat stores. This results in muscle wasting/depletion.

Weight loss during cancer therapy can interfere with your response to your treatment plan. If too much weight is lost it can impair ones strength and functional status and can result in a decreased quality of life. Too much weight loss can decrease survival. Weight loss or not being able to gain weight is a common problem. It can also result in a great deal of frustration. If you lose greater than 5% of your usual weight, it is time to focus on your daily food intake. You should consider seeking nutritional advice from a registered dietitian. We can provide you with nutritional recommendation and goals. With your participation we can develop an individualized meal plan that can maximize your daily caloric intake.

It is also important to know what your ideal body weight is. A general guide to assist you in determining your ideal body weight follows:

For Men: Determine your height. The first 5 feet are equivalent to 106 pounds. Add 6 pounds for every inch over 5 feet. For example, an ideal body weight for a male who is 5 feet 6 inches in height is 142 pounds. If need be, add or subtract 10 pounds for variation in bone or muscle structure.

For Women: Determine your height. The first 5 feet are equivalent to 105 pounds. Add 5 pounds for every inch over 5 feet. For example, an ideal body weight for a female who is 5 feet 6 inches in height is 135 pounds. If need be, add or subtract 10 pounds for variation in bone or muscle structure.

It is important to know how many calories you should try to consume each day to assist with maintaining your weight or support weight gain if you are under weight. It is best if you have a registered dietitian determine your calorie needs, as many different factors can influence your individual nutritional requirements. One's overall health and nutritional status strongly influences calorie needs. For example, activity may be decreased during chemotherapy or radiation, however, one's calorie needs may remain high because extra energy is needed to promote healing to damaged body tissue. A general guide that can assist adults living with cancer in determining how many calories they should aim for is by considering approximately 14-16 calories per pound of body weight or 30-35 calories per kilogram body weight. For example, if one's usual body weight is 140 pounds then this individual should try to consume around 1900-2200 calories each day (140 pounds x 14 calories = 1960 or 140 pounds x 16 calories = 2240). If you are experiencing weight loss, or trying to maintain or gain weight it is suggested that you keep a daily diary of all the foods you eat and drink for a few days. Add your calories using a calorie tracking book or ask your registered dietitian to determine how many calories you are eating. Remember to note the portion size of what you eat. For example ¼ cup of cottage cheese or ½ cup of refried beans.

Please remember that during treatment you may need to choose high calorie foods that otherwise you would try to avoid (foods not typically recognized as the best choice for health). For example, drinking whole milk over skim milk or choosing butter instead of margarine is often recommended during treatment. This is because there are more calories in these foods and you need more calories to promote good health throughout your treatment.

During chemotherapy or radiation treatment many experience a lack of appetite. The next topic of discussion will be addressing this. I will be providing helpful hints for increasing your appetite and making the most out of the foods you are able to eat during these difficult times.

### [Experiencing a Lack of Appetite](#)

Many individuals report a diminished appetite during chemotherapy or radiation treatment. Unfortunately, some individuals experience a lack of appetite even before their treatment begins. As expected a poor appetite can occur from a long illness, but a poor appetite can also develop from the anxiety of being ill or undergoing treatment. Experiencing bouts of nausea and/or vomiting or the fear of becoming nauseous also can decrease one's interest in eating or drinking. Constipation can occur with some chemotherapy options and pain medications. Experiencing constipation or the fear of becoming constipated can also decrease one's interest in eating. The above mentioned reasons for experiencing a lack of appetite are the more obvious ones. But there are some not so obvious side effects of treatment that one can experience and not attribute

to a decrease in their food consumption. For example, radiation therapy to the head or neck areas can thicken or reduce the amount of saliva production in your mouth. A dry mouth (xerostomia) makes it difficult to chew and swallow. When an individual has to put more effort into chewing and swallowing this can become a deterrent to eating and can definitely decrease ones appetite. Taste alterations and mouth blindness (dysgeusia) has a huge impact on what one is willing to eat or willing to try and eat. After radiation and some forms of chemotherapy, foods will often not taste like they did before therapy.

Cancer and its therapy can make some foods such as meat, coffee and chocolate taste offensive. A sore mouth (mucositis) and sore throat (esophagitis) can occur from some chemotherapy or radiation treatments as well. The tenderness experienced and the sores developed can become so painful that it makes it extremely difficult to eat. Sometimes a pain medication can be prescribed to alleviate some of these sensations. Tips for decreasing nausea and vomiting: For many individuals eating small frequent meals through out the day can increase the amount of calories consumed more so than trying to eat more at only one or two meals a day. This can also decrease the likelihood of an episode of nausea or vomiting. Eating slowly and ingesting small amounts of easily digested foods such as soda crackers and jello can also help. Activity after eating can induce vomiting. For most people lying down and resting after a meal is helpful. Lying down on your right side can help the stomach empty faster and reduce the chance of vomiting as well. Assess your current eating pattern to see if any of these tips may benefit you. High fat foods take the longest to empty from the stomach, so it is best to avoid fried or rich foods when feeling nauseous. Odors of foods can become offensive as well. Eating cold foods at room temperature can decrease odors. Covering drinkable beverages with a lid and using a straw can also cut down on smells that may trigger nausea. Opening windows before cooking and turning on a fan to increase air flow while cooking can also decrease odors. Many individuals say that mixing hot and cold foods during the same meal can trigger vomiting. Lemonade and salty chips (baked, low fat) may decrease the intensity or duration of a bout of nausea. Dry toast, saltines, pretzels, plain noodles, unsweetened cold cereals and lightly sweetened or unsweetened iced beverages or slushies can also avoid an occurrence of nausea or vomiting. Avoid fried eggs, fried meat and fried fish to decrease your chances of becoming nauseated. For many, thick cream soups, french fries, and rich pastries and desserts trigger nausea and vomiting. Going on a brief walk can help stimulate your appetite. If nothing sounds good, take a trip to the grocery store with a friend or family member. While going up and down the aisles, something appealing will most likely catch your eye. It is important to aim for a variety of different tastes and textures daily. This will decrease the likelihood of becoming “bored” with the foods you are able to eat. Remember to avoid eating your favorite foods when nauseated. This will prevent the chance of no longer liking your favorite foods. Reaching your calorie recommendations as best you can each day will assist in weight gain or help avoid weight loss. Selecting and preparing foods that are more concentrated sources of calories are a great choice. Many people experience early satiety, or feeling full just after only a few bites of food. Your food choices can make all the difference in if you will reach your calorie recommendations for the day or not. The next topic of discussion will be on increasing the calorie content of the food amounts you are able to eat.

### Today's Topic: Early Satiety

Feeling full after eating only a small portion of food is the definition for “early satiety.” Many people describe it as feeling “stuffed” or as if they had just finished a special holiday meal. Early satiety can occur from going a long time with very little food resulting in a small stomach capacity. Early satiety can also occur from chemotherapy or radiation treatment. Learning to recognize if this is occurring with you and addressing early satiety is important. A key to decreasing early satiety is eating small and frequent meals through out the day, rather than 3 large meals each day is encouraged. Your goal should be to increase your food volume a little each day or so, aiming for your nutritional recommendations calculated by your registered dietitian. Drinking fluids can decrease the time in which you begin to experience the feeling of fullness and so it is best to drink your fluids between your meals or after your meals rather than with your meals. Going on a walk after a meal helps stimulate the stomach to empty at a more regular interval and can be great for increasing your appetite for you next meal. The key to increasing your calorie intake without increasing the volume or amount of food you eat at each setting is to ask yourself, “What could I add into or onto this food to make it have more calories?” Many food suggestions follow.

If you are interested in eating a soup, choose a cream based soup over a broth based soup. If a canned soup calls for water, substitute with 2% milk. Creamed vegetables such as creamed corn will provide you with more calories than regular corn. If you drink milk, try drinking whole milk or half and half rather skim milk. Consider purchasing powdered milk or a protein powder and sprinkling or mixing a teaspoon or two into you milk, soup, or casseroles. The addition of powdered milk or protein powder for the most part will not alter the taste or texture of your food product. It will however, provide additional protein and calories for you.

Other food items that are high in protein and calories include eggs, cheese and pasteurized yogurt, milkshakes (made with whole milk and a scoop of powdered milk), peanut butter, sauces with pastas and gravies with meat or bread stuffing, and tuna fish with mayonnaise and crackers. Fruits such as Avocados, bananas and papaya are much more calorie dense than fruits such as apples and pears or vegetables such as celery or cucumbers.

Remember to aim for a variety of foods each day. Try to not become too discouraged if foods you used to like do not appeal to you the following week. A food that tastes “off” one day may taste normal the next week. Keep trying!

After radiation or some types of chemotherapy, taste alterations or mouth blindness can occur. The next topic of discussion will be addressing this. Helpful hints and food suggestions to enhance your taste perception of some foods and decrease the tastes of other foods will be provided.

## Dysgeusia

Taste alterations (dysgeusia) and the loss of taste (mouth blindness) are common side effects after radiation to the head or neck areas or during chemotherapy. Some antibiotics and painkillers can also change the taste of familiar foods. There are a few helpful hints that may increase the taste of some of your familiar tasting foods or help you discover new tastes that you haven't experienced before. Patients can often experience a bitter or metallic taste during some types of cancer therapy. Switching over to plastic utensils when dining out or eating at home can decrease this metallic taste. It is also suggested that lemon or lime juice added to soups, dressings or fruits can reduce this metallic taste. If a metallic taste is not present, the taste of acidic foods such as lemon or lime juice added to your foods does have a benefit in that it can enhance the flavor of foods and make eating more pleasurable. Lemon or lime juices nicely accent the flavor of chicken or fish. Too jazz up cooked or steamed vegetables, drizzle lemon butter over the vegetables. Please note that if sores in the mouth or throat are present that you should avoid citrus products due to pain and aggravation to the sore(s). Experimenting with different herbs such as basil, thyme, rosemary, anise, or fresh grated ginger root is encouraged. If a food seems to be too sweet or too acidic, a dash of salt can help tone this down. Also, a little sugar can tone down a food item tasting too salty or acidic.

To add flavor to green beans, corn or soups try adding fresh, crisp bacon bits. Strongly flavored dipping sauces such as barbeque sauce, A1, catsup, salsas, flavored or spicy mustards or hot sauce can make bland foods such as eggs more appealing. Adding onion or an herb with gravy for mashed potatoes can also greatly enhance the flavor of foods as well as your dining experience. As mentioned earlier, if you do experience taste alterations during or after your treatment, know that your ability to taste usually returns with time. Until your taste returns, it is important to try and maintain your weight and consume the calorie recommendations calculated by your dietitian. Experimenting with different foods, flavors and textures can increase the likelihood of reaching your daily calorie goals. Until your normal taste returns also try to stimulate your appetite with aromas, food presentation, room atmosphere and exercise.

Some forms of chemotherapy or radiation involving the mouth or swallowing tissues can cause sores in the mouth and throat. These sores can become extremely painful and make it very difficult to chew or swallow. This next topic will be on addressing this. Helpful hints and food suggestions while experiencing mouth sores will be provided.

Natalie Bucher, RD  
Clinic Cancer Care  
Great Falls, MT

## Sore Mouth (mucositis) & Throat (esophagitis)

Some forms of chemotherapy or radiation to the mouth and surrounding tissue can result in sores in the mouth or throat. For those who are struggling with sores in the mouth, it is best to avoid

foods that are spicy, rough and acidic to help decrease irritation to the affected areas. Even salty items can sting or burn. What is tolerable varies between each individual. A bland diet that has a soft texture is better accepted during these times.

Some bland yet calorie dense food suggestions that you may want to consider trying include scrambled eggs, cream cheese, cottage cheese, yogurt, cheesecake, custards or puddings, plain cooked noodles, instant breakfast drinks or nutritional supplements such as Boost or Ensure. Dry cereals such as Cheerios soaked in milk or hot cereal with milk can also provide a good amount of calories.

Various fruits and vegetables can also provide many calories. For example, ½ of an avocado provides approximately 160 calories. Mashed potatoes, squash, cucumbers and baby foods (pureed if need be), are also good sources of bland foods. Foods that should be avoided when mouth sores are present include tomatoes and tomato juice, lemonade, orange juice, and grapefruit juice. Citrus fruits and bananas should be avoided as well. Spicy meals such as tacos, pizza and other spicy seasoned meats can cause extreme discomfort. There are also many nonfood items products you should discontinue the use of until your sores are healed. For example, rinsing your mouth with one of the many commercial mouthwashes can dry and irritate your mouth lining because of the alcohol in the rinse. Even cold syrup can contain a slight amount of alcohol as well. To ease the discomfort caused by your mouth sores it is often recommended that you rinse your mouth with a diluted, warm salt water solution. Remember not to swallow the solution. A simple salt water solution you can make at home follows: 4 cups of water, ½ - ¾ level teaspoon of salt and 1 teaspoon to 1 tablespoon of baking soda.

Oral hygiene is always important, but even more so during your chemotherapy or radiation treatments. Keeping your teeth and gums clean and free of plaque reduces bacteria growth in your mouth and can decrease your chance of an infection or other illness. This concludes this week's discussion on the important role nutrition plays during your treatments. I welcome all questions and am looking forward to connecting with all of you next week!

May you find this information useful for you or yours.

Sincerely,  
Natalie Bucher, RD  
Clinic Cancer Care  
Great Falls, MT