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Cancer Committee
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Food for Life

Nutrition's Role in Preventing and Overcoming Cancer

A cancer diagnosis often means the loss, temporary or otherwise, of many things. Time, weight, hair, strength, independence and control are common casualties of the cancer treatment process. Feelings of victimization and powerlessness are common. But cancer isn't always random, and there are steps everyone can take to prevent and overcome the disease by making a commitment to positive nutritional change.

Prevention

Although a genetic predisposition cannot be altered, the likelihood and severity of cancer can be reduced by making healthy choices in diet and lifestyle. "Approximately 60-70% of all cancer cases could be prevented by sensible diet choices, maintaining healthy weight, being physically active and not smoking," explains Joy Tetreault, a Registered Dietitian on staff at Sturdy Memorial Hospital. This is an empowering fact, particularly for those with a family history of certain cancers. Everyone has the option to strive for a reduction in risk.

Achieving and maintaining a healthy weight through proper diet and exercise reduces the risk of cancer and other comorbidities such as diabetes and cardiopulmonary disease that make cancer treatment more difficult. High-fat foods, particularly those with high

saturated fat content such as red meat, actually create a hospitable environment for tumor growth. "Tumors require fatty acids to grow," says Tetreault, who encourages patients to deny cancer cells that ammunition by adopting a low-fat plant-based diet rich in vitamins, fiber and lean protein.

Fruits and vegetables contain vitamins and phytochemical (plant-derived) compounds that help fortify the body against attack from cancer.



Antioxidants, such as Vitamin C, Vitamin E, selenium and carotenoids, help minimize cellular damage that occurs during normal metabolism. Color is a surprisingly accurate indicator of nutritional value; brightly colored fruits and vegetables such as blueberries and tomatoes pack the strongest antioxidant punch. Folic acid is another important nutrient found in fruits and vegetables that may help prevent cancers of the colon, rectum and breast. Choose nutrient-retaining cooking methods like steaming instead of boiling to get the most out of your meal.

Another beneficial aspect of a plant-based diet is high fiber content. "On average, Americans get less than half the daily fiber recommended for a

balanced diet,” explains Tetreault. Fiber, found in abundance in whole grains and vegetables, is associated with weight maintenance because fiber simply creates a lasting feeling of “fullness.” Some research also touts fiber’s possible role in preventing colorectal cancers. At the very least, fiber is enormously helpful in weight control, supporting overall wellness and preventing a significant cancer risk factor.

Protein is an essential component of a balanced diet. Lean protein sources, such as fish, poultry and legumes, are necessary for strengthening the body. High-fat meats should be avoided and all foods should be carefully portioned to maintain nutritional balance.

Preparation methods are also important, with braising, steaming, stewing and poaching among the healthier ways to cook. Frying is an obvious “no-no”, many people are unaware of the dangers of high-heat grilling. When meat is cooked over flame or high heat, its proteins can become denatured and form carcinogenic chemical compounds. To avoid this risk, experts recommend grilling on lower settings and using aluminum foil as a barrier between meat and flames.

What *not* to consume is important to note. High sodium foods are out; they’re linked to stomach, nasopharyngeal and throat cancers. Alcohol in more-than-moderate amounts increases the likelihood of mouth, pharynx, larynx, esophagus, liver and breast cancers. Vitamin and mineral supplements should be used at the direction of your physician or dietitian, since they have not been proven to provide preventive benefits of compounds found naturally in foods. According to the National Cancer Institute, there is no scientific evidence that dietary supplements or herbal remedies can cure cancer or stop it from

coming back. Talk with your primary care provider about reducing your cancer and overall health risks through positive diet choices.

During Treatment

Dietary guidelines during cancer treatment focus on the patient’s most pressings needs to successfully handle the stress of therapy and build on the nutritional stores necessary for recovery. That means maintaining weight and protein levels despite a host of symptoms and side effects that can make eating difficult. “Keeping strength up with diet is critically important,” explains Sturdy Memorial oncology nurse Katie Donohue, RN, BSN, OCN. According to Donohue, weight loss and malnutrition can lead to weakness and poor tolerance of chemotherapy, forcing patients to delay or miss scheduled treatments, a significant threat to overall recovery. To help patients avoid this and improve quality of life during treatment, oncology nurses conduct nutritional screening assessments and devise strategies to keep patients on the right track.

Each oncology patient presents with a unique set of pre-existing conditions and symptoms, and treatment plans vary widely. During each patient’s initial visit, oncology nurses at Sturdy Memorial conduct a Subjective Global Assessment of Nutritional Status (SGA) to address any special dietary needs or complications and determine how best to help the patient cope with the proposed treatment regimen. Those with complex medical problems such as diabetes or kidney disease will need special dietary planning before treatment begins. Often patients with advanced cancers or cancers of the lung or GI tract may already show signs of malnutrition, anorexia or cachexia. Steps must be taken to improve their

health before they can withstand cancer treatments. Others present in fairly good physical condition, but must be monitored for changes throughout their regimen.

Cancer therapies are often very powerful; they are meant to disable or kill cancer cells. Fatigue, nausea, vomiting, loss of appetite, changes in taste, sensitivity to odor, digestion difficulties and mouth sores are some of the side effects of various cancers and their treatments. They all present significant challenges to weight maintenance.

To combat this, a range of appetite stimulants and anti-nausea medications are prescribed when possible. Dr. Paula McBrine, an oncologist on staff at Sturdy Memorial, uses many therapeutic combinations to help her patients maintain weight and strength. “Certain medications have a very high success rate,” says Dr. McBrine. “Some, like the stimulant Megestrol, even mimic the body’s natural appetite-increasing hormones, keeping side effects to a minimum.” Often vigilance is the most important “medicine” agree Donohue and McBrine, who each weigh and counsel patients at every visit. “There is no substitute for monitoring, educating and motivating each patient,” summarizes Donohue.

In terms of dietary content during treatment, dietitians and oncologists recommend a temporary relaxation in the normal “rules” of nutrition. “Protein is required to rebuild healthy cells during treatment and recovery,” explains Joy Tetreault. For this reason an increase in dairy products and lean proteins is recommended. Caloric impact is also a key factor in food choices. When a patient’s ability to eat is limited, high-protein or calorie dense foods are good choices for maintaining strength. Oncologists and nutritionists also understand odor and taste changes

can affect a patient’s ability to eat many foods. Variety and balance, concedes Tetreault, are not as imperative during treatment. “Guidelines during treatment focus on nutritional strategies that let patients maintain weight,” Tetreault clarifies. “Basically, if something works, go with it. Care plans must be individually tailored to be effective. If a patient finds one protein source, such as cheese or eggs, that is well-tolerated and good for strength, it’s okay to stick with it during treatment.”

Tips for Coping during Treatment

- Try whole milk, a great source of calories and protein that can be served in a variety of ways (chocolate milk, shakes, etc.)
- Add commercial supplements, such as nutritional shakes, to your diet. Mix with fresh fruit or ice cream to improve taste and increase caloric impact.
- Stay hydrated with water, juice, milk, popsicles, sorbet and gelatin.
- Lemon drops and mints, along with plastic utensil use, can help get rid of lingering metallic tastes.
- If odors become bothersome, try drinking through a straw from a lidded cup. Serving foods cold with also reduce odors.
- Avoid fatty, greasy foods that may aggravate nausea and diarrhea.
- Eat small amounts more often.
- Determine your best tolerated meal, often breakfast, and bulk it up.
- If cleared by your physician, mild exercise like walking can increase strength and appetite.

Discuss changes and concerns with your oncologist and/or dietitian—they will work with you to find a successful diet.

Survivorship: Transitioning from Recovery to a Healthy Life

Life after cancer presents special health challenges. Some side effects from treatment may be temporary; others can cause lifelong changes in medical and nutritional needs. Survivors must deal with the possibility of recurrence and face the uncertain prospect of future bouts of physically draining treatment. However, the cancer experience can also provide incredible motivation for survivors to take control of their bodies and attain an even higher level of fitness than before their cancer diagnosis.

Of the many post-treatment issues, according to Dr. McBrine, the most prevalent and treatable is osteoporosis. Cancer therapy can deplete calcium stores. Malabsorption issues can also arise with the body processing calcium and Vitamin D ineffectively. For these reasons, bone density and Vitamin D levels should be checked. Supplements are commonly recommended to boost levels post-treatment, while dietary sources are also encouraged. Since fatigue and inactivity that often accompany treatment can exacerbate osteoporosis, weight-bearing exercise is recommended to strengthen muscles and bones during and after recovery.

After treatment, health care provider support is essential. “It can take 2-3 months for appetite and weight to return to normal,” says Dr. McBrine. “Preparation and patience are very important.” Treatment can take a toll on the body and survivors should not be discouraged by a seemingly slow return to robust health. At the same time, recovery requires effort. Survivors

must take the initiative to gradually build strength by returning to proper diet and appropriate exercise. Dr. McBrine recommends joining exercise groups for support and stress release, checking in with health care providers for monitoring and never “going it alone.”

While a plant-based balanced diet is recommended for all, those with a history of certain cancers must be particularly discriminating in terms of diet. For example, recurrence of breast cancer rises markedly with a high-fat diet, making food choices and weight maintenance especially important for survivors. Limiting animal fats is key to warding off recurrence of prostate cancer and emerging information suggests possible benefits of certain nutrients such as lycopene and selenium in reducing risk. Other positive choices like limiting alcohol, not smoking and weight management yield colossal health benefits for survivors. Speak with your oncologist about tailoring your diet to prevent recurrence.

“In addition to the hope of achieving a sustained remission, half the satisfaction of being an oncologist,” confides Dr. McBrine, “is seeing patients return to a happy and healthy lifestyle.” Motivation and dedication are the key ingredients to successful and sustained lifestyle change, and for many, cancer survivorship provides the spark. Dr. McBrine sums up her hopes for all survivors: “Cancer is a devastating disease, but it can have a silver lining for many patients. Survivors have a unique opportunity to reshape their lives and build a positive, healthy future.”

