

### Say Yes to Cancer Prevention

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In the United States, cancer is the second leading cause of death each year. Fortunately, cancer prevention and treatments are improving in order to fight the high number of cancer cases.

#### What is cancer?

Cancer is when damaged cells grow and divide uncontrollably in the body. These cancer cells can then spread to other parts of the body. These cells are unhealthy and they take over normal cells, making it hard for our body to function normally. Cancer is a word used to refer to several different, but related diseases. Usually cancer is named by what organ it

affects first. For example, if cancer is found first in the lungs, it is called lung cancer.

It is important to remember that cancer cannot be spread like the flu or a cold, this is called a communicable disease. You cannot catch "cancer" from someone who has it – because it is not contagious.

# How many different types of cancer are there?

Doctors and researchers have discovered over 100 types of cancer. Cancers have similar characteristics, but they may differ in where they start in the body and how they grow. The top five most common types of cancers are: breast, lung, prostate, colon, and skin. Some cancers are more closely linked to being overweight or obese than others. Being overweight or obese increases the risk of developing cancer in the digestive tract, kidney, pancreas, and breast.

#### What causes cancer?

Although there are several types of cancer, the underlying cause of all cancers is a change to our DNA – the instructions found in every cell that tells our body how it functions and what it will look like. Specifically, the DNA that controls how cells grow and divide is damaged. This results in unregulated cell growth that requires lots of energy and begins to make normal cells unhealthy. We now know that many different factors can damage the DNA in our cells. These include:

- Inheriting mutations in our DNA from our parents or grandparents
- 2. Mutations that naturally occur over time that we cannot prevent



- 3. Exposure to certain environmental contaminants
- 4. Poor lifestyle choices that can change our DNA that we can prevent
- 5. A combination of factors

### How will you know you have cancer?

Because cancer can affect any part of the body, there are many different symptoms that someone could have. Also, many symptoms of cancer are most likely the result of other less serious health problems. Any symptoms that last for at least two weeks should be checked out by a doctor. It is also important to remember that early on cancer does not cause pain. If something is bothering you, do not wait until you or your loved one begin to feel pain before visiting the doctor. Below is a list of symptoms associated with cancer:

- Lump or bump under the skin
- Being very weak and tired
- Changes in eating habits
- Weight gain or loss for no reason
- Stomach pains
- Changes in how a breast looks or feels
- New mole or changes to one you already had
- · Hard to heal cuts and sores
- · Pain when peeing

- Changes in bowel habits
- Coughing or sore throat that will not go away
- Blood in stool or urine

# Are certain people more likely to get cancer than others?

We may not fully understand why some people are more likely to develop cancer than others. But years of research have identified certain factors that contribute to risk of cancer at all ages. These include:

#### **Cannot control:**

- Getting older
- Have a close family member diagnosed like a parent or grandparent

#### **Can control:**

- Being around chemicals that have been shown to cause cancer
- Sun exposure/tanning
- High alcohol and tobacco use
- Diet high in processed meats (lunch meat, bacon, sausage, etc.), unhealthy fats/sugar, and low in fiber
- Overweight/obesity

# Why is nutrition important in cancer prevention?

Eating certain foods frequently have been linked to increased cancer risk. These include processed meats, like hot-

dogs and lunch meat, red meat, and sugary foods and beverages, such as ice cream, cookies, and sugar-sweetened beverages. It is important to note that it is difficult for researchers to determine what foods actually cause cancer. More research needs to be done. As a general rule, choose healthy foods that make it easier for your body to work and function the right way. Replace unhealthy foods with highly nutritious foods like fruits, vegetables, and whole grains.

When healthy foods replace unhealthy foods in the diet, our bodies receive several helpful nutrients that can fight off the development of cancer. Antioxidants are a nutrient that can help keep our DNA healthy and keep cell growth and division controlled. Usually antioxidants are the reason that fruits and vegetables have bright colors. For example, blueberries are a great source of antioxidants. Other healthy antioxidants found in fruits and vegetables can help fight inflammation and reduce how hard our body has to work to function.

Finally, a healthy diet is an important part of maintaining a healthy weight. As previously mentioned, being overweight or obese increases the risk of certain cancers. Choosing healthy foods and being a healthy weight for your height, age, and

gender is a great step in the right direction toward cancer prevention.

# Why is nutrition important for people who have cancer?

Not only is nutrition important for preventing cancer, but it is very important in the fight against and treatment of cancer. Maintaining a healthy weight and eating a well-balanced, nutritious diet will help the body have enough energy to fight the disease. Also, eating a variety of foods will ensure the body receives the important nutrients it needs like vitamins and minerals.

Cancer can change food preferences, eating habits, and how the body uses energy and nutrients. In addition, some medications that fight cancer can change how food tastes or make it difficult to eat. It is very important that a person being treated for cancer is also receiving information and help with their nutrition from a registered dietitian (RDN).

### What can you do to prevent cancer?

Many of the previously discussed causes of cancer are things that we can control. Like other chronic diseases, there are simple actions you and your family can take each day that



could reduce your risk of cancer. Here are a few tips:

#### Maintain a healthy weight.

It is important that you and your family know what a healthy weight is for your specific height. Everyone is different and a healthy weight for one person may be very different from another. A great step in the right direction of a healthy weight is to choose foods loaded with nutrients over highcalorie, low-nutrient foods. For example, a handful of blueberries is a naturally sweet, high nutrient food that could take the place of an unhealthy snack, like potato chips. Another way to reach and maintain a healthy weight is to include physical activity into your daily routine.

**Steer clear of unhealthy habits**. One of the easiest ways to reduce cancer risk is to avoid

tobacco and alcohol use. The risk of developing cancer increases the more you smoke, use tobacco products, or drink alcohol. Cancer risk is even greater for people who use both.

Get screened. A cancer screening is when a doctor checks for a disease before any symptoms occur. It is never too early to learn about the right age for certain cancer screenings, especially if you or your family member have several risk factors. It is important to know that screenings may not be necessary until later in life or needed earlier if other health factors put you at increased risk. Have conversations with your doctor or healthcare provider and encourage your family members to do the same. Examples of common screenings and ages are listed below:

- Cervical cancer women ages 21-65
- Breast cancer women ages 40-74
- Colorectal cancer all ages 50-75

Protect your skin. Skin cancer is the most common type of cancer. Some of the best ways to prevent skin cancer is to use sunscreen, limit time in the sun, and stay away from tanning beds.

# If my family member has cancer, how can I help them make healthy lifestyle choices?

- Encourage them to talk to their doctor or a registered dietitian about their food choices and how to get the best nutrition for their body.
- Be open to trying new, healthy foods and preparing meals together at home.
- Inspire them to quit unhealthy habits like smoking or using tobacco products.
- Provide emotional support for your family member or encourage them to join a support group.

#### References

American Cancer Society. ACS
Guidelines on Nutrition and
Physical Activity for Cancer
Prevention. Last modified
April 13, 2017. Accessed
July 6, 2017 from https://
www.cancer.org/healthy/
eat-healthy-get-active/
acs-guidelines-nutritionphysical-activity-cancerprevention/guidelines.html.

National Cancer Institute.
Causes and Prevention:
Diet. Last modified April 29,
2015. Accessed July 6, 2017
from https://www.cancer.
gov/about-cancer/causesprevention/risk/diet.

National Cancer Institute. Eating Hints: Before, During, and After Cancer Treatment. Last modified January 2011. Accessed July 6, 2017 from https://www.cancer.gov/publications/patienteducation/eating-hints.

World Health Organization.
Links between processed
meat and colorectal cancer.
Last modified October 29,
2015. Accessed February
9, 2018 from http://www.
who.int/mediacentre/news/
statements/2015/processedmeat-cancer/en/.

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