Motivational Tip
Throughout your lifespan, there are many opportunities to make changes that may help prevent cancer.

While environment, family history, and genetics influence our risk of developing cancer, our lifestyle, in terms of what we eat, how we live, and the choices we make, also play a significant role.

What Is Cancer?
The American Cancer Society (ACS, 2020) states, “Cancer can start any place in the body. It starts when cells grow out of control and crowd out normal cells. This makes it hard for the body to work the way it should.”

According to the Centers for Disease Control and Prevention (CDC, 2018, 2019), cancer is the second leading cause of death in the United States and Pennsylvania. Each year, over 80,000 Pennsylvanians are diagnosed with cancer, and 28,000 die from their diagnosis (Pennsylvania Department of Health [PDOH], 2019). But there is good news—over 42 percent of new cases of cancer are related to modifiable lifestyle choices (ACS, 2019). While cancer is often thought to be inevitable, we have many opportunities to reduce our individual cancer risk by making healthier choices.

Don’t Smoke
Lung cancer is the second most common and, by far, the deadliest cancer in Pennsylvania (PDOH, 2019). Smoking, the most significant risk factor for lung cancer, is linked to 80–90 percent of all lung cancer deaths (CDC, 2021b). Cigarettes, cigars, pipes, and vaping devices contain nicotine and cancer-causing chemicals and contribute to increasing one's risk of lung cancer. Not only does tobacco use increase your risk of lung cancer, but it has also been associated with cancers of the mouth, throat, esophagus, stomach, colon, rectum, liver, pancreas, trachea, kidney, bladder, and cervix. As little as one cigarette a day may increase your risk of cancer, and the more you smoke, the higher your risk.

Secondhand smoke refers to the smoke that non-smokers, including children and infants, inhale when they are in the presence of an active smoker. This type of exposure also increases the risk of developing lung cancer later in life. To learn more about how to reduce or quit smoking, call 1-800-QUIT-NOW (1-800-784-8669), or check out “Quit Smoking” on the Centers for Disease Control and Prevention's web page: http://www.cdc.gov/tobacco/quit_smoking.

Get Moving
Maintaining a healthy weight through physical activity can reduce your cancer risk. In contrast, a lack of physical activity and a sedentary lifestyle, such as sitting in front of the television or the computer for hours, contribute to weight gain and increases your cancer risk. According to the CDC (2020a, 2020b), getting enough physical activity has the potential to prevent one in eight cases of breast cancer and colorectal cancer. While any amount of physical activity can improve your health, adults should aim for at least 150 minutes of moderate-intensity activity each week, such as brisk walking, biking, or dancing. If you have not been active, begin by taking regular breaks to stand up and walk. Build physical activity into your daily routine, such as walking short distances instead of driving whenever possible.

Create a Healthy Eating Routine
An eating plan based on a variety of fruits, vegetables, grains, protein foods, and dairy or fortified soy alternatives is important at every stage of life (U.S. Department of Agriculture [USDA], n.d.). Choose options that are full of nutrients and limited in added sugars, saturated fat, and sodium.

The American Institute for Cancer Research (AICR, 2021b) suggests a healthy eating plan should include vegetables, fruits, whole grains, beans, peas, and lentils. Filling at least two-thirds of your plate with these foods, which tend to be low in calories and
high in fiber, helps us maintain a healthy weight. They are also packed with vitamins, minerals, and phytochemicals (naturally occurring plant chemicals), known to protect cells in our body against cancer.

Fast foods and processed foods that contain high amounts of saturated fat, added sugars, and calories are associated with weight gain and cancer (AICR, 2021a). According to the AICR (2021c), eating more than 12–18 ounces of red meat (beef, goat, lamb, pork, and game meat) every week can increase one’s risk of colorectal cancer. Any amount of processed meat eaten regularly can increase the risk of colorectal cancer. Processed meats are those that have been preserved by curing, salting, smoking, drying, canning, or fermenting. Speak with your healthcare provider or a registered dietitian, or access MyPlate.gov for more recommendations on healthy eating.

### Common Processed Meats

- Bacon
- Canned meat
- Corned beef
- Ham
- Hot dogs
- Jerky
- Lunch meat
- Pepperoni
- Sausage
- Salami

### Alternatives to Processed Meats

- Beans, peas, and lentils
- Dairy products, low-fat or fat-free
- Nuts (almonds, cashews, pistachios, and walnuts)
- Poultry, skinless
- Red meats, lean
- Seafood
- Seeds (chia, flax, pumpkin, sesame, and sunflower)
- Soy products

### Limit Unhealthy Drinks

Sugar-sweetened beverages (SSBs) are any liquids sweetened with any form of added sugar. SSBs can cause weight gain and obesity, which can increase the risk of cancer (AICR, 2021d). Beverages with added sugars include soda, fruit drinks, sports, and energy drinks, but also certain waters, tea, coffee, and creamers.

Alcoholic beverages have been associated with an increased risk of cancer. Whether it is red or white wine, beer, cocktails, or liquor, alcohol can raise your risk of many types of cancers, including oropharyngeal (throat), larynx, esophagus, colorectal, liver, and breast (CDC, 2019b).

If you choose to drink alcohol, do so in moderation. Moderation is defined as no more than one drink a day for women and no more than two drinks each day for men.

These are a few examples of one alcoholic drink equivalent:

- 12 fluid ounces of regular beer (5 percent alcohol)
- 5 fluid ounces of wine (12 percent alcohol)
- 1.5 fluid ounces of 80 proof distilled spirits (40 percent alcohol).

*Note: Visit Health.gov for more information on drink equivalencies.

### Be Careful with Dietary Supplements and Multivitamins

There is no evidence that dietary supplements or multivitamins are useful for cancer prevention (AICR, 2021e). On the contrary, self-medicating with supplements, including some vitamins, can be dangerous. For example, high-dose beta carotene has been linked to an increased risk of lung cancer in current and former smokers (Brasky et al., 2017). If you have a question about a specific dietary supplement, talk to your healthcare provider or registered dietitian.

### Stay Safe in the Sun

Spending time outdoors is a great way to increase your physical activity and improve your health. Moderate sun exposure is necessary for vitamin D production, which may result in various health benefits, including stronger bones. Another benefit is sunlight can have a positive effect on our mood and mental health. However, too much ultraviolet (UV) light, through sun exposure, is the primary risk factor for skin cancer, the most common cancer in the United States. UV rays produced by the sun, tanning beds, and sun lamps cause sunburn and damage to skin cells’ DNA, our genetic material, and can lead to skin cancer. While anyone can develop skin cancer, those at higher risk include individuals with fair skin, blue or green eyes, blonde or red hair, and/or who are prone to freckles. Each time you expose yourself to UV rays, you may increase your risk for skin cancer (CDC, 2021b).

When you’re outdoors in the sun, make sure to use sunscreen to protect your skin. Dermatologists recommend using a sun protection factor (SPF) of at least 30.

### Try Breastfeeding

Breastfeeding has been shown to lower the risk of breast and ovarian cancer by reducing a mother's lifetime exposure to estrogens, which are hormones linked to breast and ovarian cancer. In addition, babies receiving breast milk may be at a lower risk of obesity later in life, which could reduce their risk of developing cancer as adults (CDC, 2021h).

### Consider Vaccination

Some types of cancer are initially triggered by preventable infections. This is the case for cervical and liver cancer.

The human papillomavirus (HPV) is the most common sexually transmitted infection, affecting as many as 79 million Americans (CDC, 2021a). There are several types of HPV viruses. The high-risk types of HPV turn normal cells into abnormal cells which can, over time, lead to cancer. These HPV types are responsible for over 90 percent of cervical and anal cancers (CDC, 2021c). They are also associated with other cancers such as vulva, vagina, penis, and oropharynx (mouth and throat). Having teens and young adults vaccinated to prevent HPV is a safe and effective way to reduce their cancer risk (CDC, 2021e).

While liver cancer is often associated with alcohol consumption, it can also be caused by chronic hepatitis B virus (HBV) (CDC, 2021d). Infection with HBV is transmitted sexually, through blood and other bodily fluids and specifically targets the liver cells. This can happen at birth from the mother to the baby, through open cuts and sores, and by sharing toothbrushes, razors, syringes, and other personal items. While there is currently
no treatment available for HBV, most of these infections will quickly resolve. Unfortunately, some will become chronic hepatitis (inflammation of the liver) and progress to cirrhosis (chronic liver disease) and cancer. Being diagnosed with HBV at a younger age carries a greater risk of developing a chronic infection. As many as 90 percent of infected infants will develop the chronic infection. The HBV vaccine is safe and can even be given at birth (CDC, 2020c). Consider discussing these options with your healthcare provider.

What’s the Bottom Line?

There are many ways to lower the risk of cancer for you and your loved ones. There is no one-size-fits-all approach to reduce your cancer risk. For example, if you cannot breastfeed or prefer to use formula, there are many other things you can do to reduce your and your family members’ cancer risk. Start by choosing a recommendation you can easily implement to make small, gradual changes that can lower your cancer risk. Preventing cancer starts early—involve the whole family when deciding which healthy steps to take.

Tips

• Try a new plant-based recipe to reduce your consumption of red and processed meats. You can find additional information in the Penn State Extension Creating Health fact sheet titled Plant-Based Diets.

• Keep a glass or bottle of water on hand to drink more water each day. Consume sugar-sweetened beverages and alcoholic drinks only during special occasions. Learn more about the benefits of water and how to increase your water intake in the Penn State Extension Creating Health fact sheet titled Water Water Everywhere.

• Commit to stop smoking by making an appointment with your healthcare provider to explore available treatment and support options.

• Play it safe in the sun (CDC, 2021f). Limit your sun exposure, especially during the midday hours from 10 a.m. to 4 p.m. Always wear a hat and sunglasses and cover your arms and legs with appropriate clothing. Apply sunscreen in thick layers and reapply every two hours and after swimming or sweating. Lastly, avoid indoor tanning.

• If you are planning to breastfeed, seek help and support from your obstetrician, pediatrician, or lactation consultant.

• Make an appointment today with your healthcare provider to discuss HPV and HBV vaccinations for you and your children.

My Goal (What will I do differently?):

Resources

If you would like to learn more about this topic, you can use these resources:

American Cancer Society https://www.cancer.org
American Institute for Cancer Research https://www.aicr.org/cancer-prevention/
Centers for Disease Control and Prevention https://www.cdc.gov/cancer/dcpc/prevention/index.htm
Penn State Extension https://extension.psu.edu/

References


Written by María Luisa Tejada de Rivero, MD MPH, Extension Educator, Food, Families, and Health.