

Cancer Prevention & Early Detection Kit



Research for a Cure

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What is Cancer?

Cancer develops when the body's normal control mechanism stops working. Under healthy conditions, new cells form and replace old cells that wear out or have become damaged. Cancer begins to form when old cells do not die and instead grow out of control, forming new, abnormal cells, that overwhelm the healthy ones.



Cancer is the second most common cause of death in the U.S. It accounts for nearly 1 in 4 deaths. Although not all cancers are preventable, many of them are, through simple lifestyle changes. Additionally, with early detection, many cancers can be successfully treated.

Most Common Types of Cancer

1. **Non-Melanoma skin cancer.** Skin cancer can form in the skin cells on any part of the body. The different types of skin cancers include Squamous cell, which is found on flat cells on the top of the skin, and Basal cell, which is found in the round cells deeper inside the skin's outer layer.
2. **Lung cancer.** Lung cancer strikes the cells inside the lining of the lungs. The two primary types of lung cancer are small cell lung cancer and non-small cell lung cancer.
3. **Breast cancer.** This is a cancer that develops in the breast cells and progresses in stages. It is by far the most common cancer in women. However, about 1,900 cases are diagnosed in men each year.
4. **Prostate cancer.** This type of cancer develops in the tissues inside the prostate gland. The prostate gland is a part of the reproductive system in men and is found at the base of the bladder, near the rectum. Prostate cancer commonly affects men, mostly over the age of 50.
5. **Colorectal cancer.** Colorectal cancer begins in the last part of the digestive tract, the colon. The colon is part of the large intestine, which helps break down and digest food.

Most Common Types of Cancer

6. **Bladder cancer.** The bladder can be affected by cancer cells that develop within its tissues. The most common type is transitional cell carcinoma.
7. **Melanoma.** This is a type of skin cancer. It forms in the skin's melanocyte cells which produce brown pigment melanin and it frequently begins in moles. It may also be found in other parts of the body such as the intestines or the eyes.
8. **Non-Hodgkin Lymphoma.** This cancer involves white blood cells, or lymphocytes. There are many different types of non-Hodgkin lymphoma that affect different cells and parts of the body.
9. **Kidney cancer.** The kidneys are the organs that help to excrete waste from the body in the form of urine. Cancer can form inside the tissues or ducts of the kidneys.
10. **Leukemia.** Leukemia forms inside the bone marrow or other cells and tissues that form blood cells, and is known as blood cancer. Leukemia results in overproduction of certain kinds of white blood cells, which then circulate in the bloodstream.

Symptoms You Shouldn't Ignore

Cancer is a group of diseases that can cause almost any sign or symptom. The signs and symptoms will depend on where the cancer is, how big it is, and how much it affects the organs or tissues.

Below are some symptoms related to common cancers types that should not be ignored.

- Change in bowel or bladder habits
- A sore that does not heal
- Unusual bleeding or discharge
- Thickening or lumps in breast or elsewhere
- Indigestion or difficulty in swallowing
- Obvious change in wart or mole
- Nagging cough or hoarseness
- Persistent pain lasting more than 1-2 weeks

Note: These symptoms do not indicate that a person has cancer. Rather, the appearance of these symptoms should act as a guide dictating when a person should consult their physician, as part of preventative care.

Lower Your Risk of Cancer

Cancer is the #1 leading cause of death worldwide and about 1 in 3 people in the United States will be diagnosed with cancer during their lifetime.

Although not all cancer is preventable, researchers have come to know factors in one's lifestyle that may contribute to an increased risk of cancer.

Leading a healthier lifestyle and being self-aware is an important step in cancer prevention. By arming yourself with this knowledge you can help protect yourself and your loved ones.



#1. Stay Away Tobacco

Here's What We Know...

Smoking tobacco is the number one risk factor for [lung cancer](#)—the deadliest cancer type. The use of tobacco products in general can also contribute to other cancers, such as that of the larynx (voice box), mouth, esophagus, throat, bladder, kidney, liver, stomach, pancreas, colon and rectum, cervix and acute myeloid leukemia.

Second-hand smoke also increases one's risk of developing lung cancer. Even if you have never been a smoker, but are frequently exposed to smoke—you are increasing your risk of cancer by 20-30%.

Here's What You Can Do...

If you use tobacco products, quit now! For tools and resources to help you quit, visit www.cdc.gov/quit. If you have a loved one using tobacco products, let them know your desire for them to quit. Remember their use of tobacco not only affects their health but may affect you and your loved ones as well.



#2. Limit Your Alcohol

Here's What We Know...

Alcohol is associated with an increased risk of liver, head and neck, esophageal, breast, and colon cancers. The risk rises with the amount of alcohol that is consumed. It's estimated that 5.5% of all newly diagnosed cancers and 5.8% of cancer deaths worldwide are attributed to alcohol consumption.

Here's What You Can Do...

If you want to reduce your cancer risk, reduce the amount of alcohol you are drinking. And if you don't drink, don't start! It is recommended that men should consume no more than one alcoholic drink per day, and that women should have no more than three alcoholic drinks per week. If you or someone you love has a problem with alcohol, please seek help immediately. Visit www.cdc.gov/alcohol for helpful tools and resources.



#3. Exercise Regularly

Here's What We Know...

Studies show that people who are physically active and exercise regularly have a lower risk of developing cancer, especially colon and breast cancer. And, cancer patients are less likely to have a recurrence of the cancer, when physically active. In addition, exercising helps reduce overall obesity, which has been linked to 13 different kinds of cancer.

Here's What You Can Do...

Make a commitment to your physical fitness and set daily routines to follow. Wondering what type of exercise is best for lowering your cancer risk? Surprisingly, a recent study found that [strength training](#) twice a week may be best. The study found that strength training reduced the likelihood of dying from cancer by 31%. Read more about this study and easy ways to stay active, on NCFR's cancer-fighting lifestyle's [blog](#).



#4. Eat a Healthy Diet

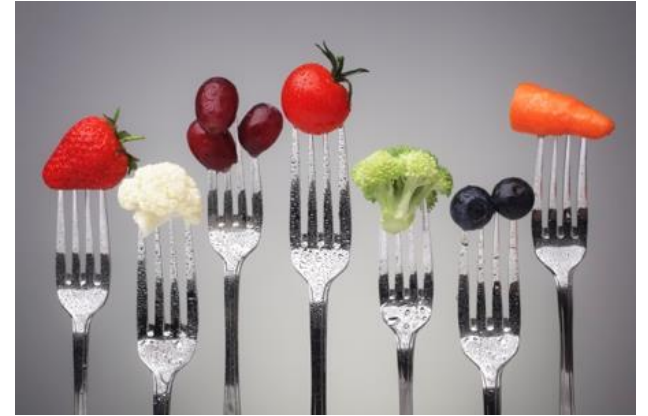
Here's What We Know...

High consumption of saturated fat and red meat, may increase the risk of colon cancer and a more aggressive form of prostate cancer. A healthy diet also reduces the likelihood of obesity—a major risk factor for several kinds of cancers includes breast, kidney, head and neck, esophagus, pancreas, prostate, gallbladder and thyroid.

Here's What You Can Do...

Make healthier food choices by increasing your fruit and vegetable intake and limiting your consumption of red meat. For adults, it's recommended to eat 2.5 cups of fruits and vegetables each day. Reduce your red meat consumption to less than two servings per week. A typical plate of food should be 50 percent vegetables and fruits, 25 percent lean proteins, and 25 percent whole grains.

Visit NCFR's [blog](#) for more healthy eating tips and a list of [cancer-fighting foods](#).



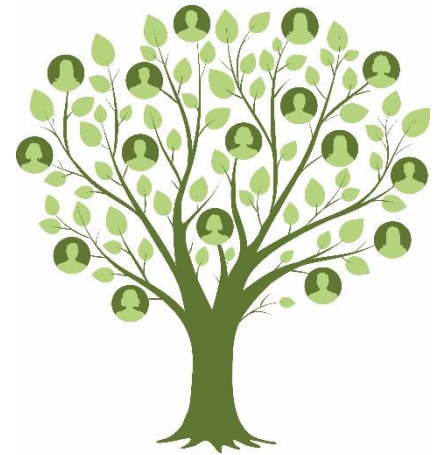
#5. Know Your Family Medical History

Here's What We Know...

Although most cancers are not hereditary, there are a few inherited genetic risks for developing certain cancer types—particularly [breast cancer](#). The most common cancer types associated with a familial gene include breast, ovarian, colorectal, and prostate cancer.

Here's What You Can Do...

First and foremost take the time to understand your family medical history. Do either or your parents or grandparents have a history of cancer? If so, which type? Having these conversations with your family members, can literally be lifesaving for you and your loved ones. If you do discover a family history of cancer, discuss it with your doctor. He or she can determine your risk level and what if any preventative measures you can take, like more frequent cancer screenings.



#6. Protect Yourself From The Sun

Here's What We Know...

[Skin cancer](#) is the most common type of cancer and yet, the most easily prevented cancer-type. It's estimated that 1 in 5 people will be diagnosed with skin cancer in their lifetime. UV, or ultraviolet, light emitted from the sun and other devices, damages DNA in our cells, and is the agent most responsible for skin cancer cases.

Here's What You Can Do...

Keep yourself and your loved one's skin protected from the sun's UV rays by wearing daily [sunscreen](#) of at least SPF 30, year round. Dangerous levels of UV can be detected even on cloudy days or during cold winter months. UV light is also emitted from other devices, such as artificial tanning beds, so simply put, don't use them!

Lastly, taking part in regular skin cancer screenings is essential. Individuals with a family history of melanoma or other skin cancers should have a full-body exam at least once a year. Monthly skin self-exams to check for new or changing moles is another good idea. Approximately half of melanomas are self-detected.



#7. Get Vaccinated

Here's What We Know...

While there are not many vaccines available to help prevent cancer, there are two that have great success rates. One of the vaccines is for the human papillomavirus (HPV), which is the greatest risk factor for developing [cervical cancer](#). The other vaccine is for hepatitis B, which can cause liver cancer. Both vaccines have been proven safe and highly effective.

Here's What You Can Do...

Because HPV can be transmitted through sexual contact, the HPV vaccine is recommended for both boys and girls between the ages 11-12, before being sexually active. Although only women can develop cervical cancer, HPV can cause an increased risk in men for other cancer types, and men can aid in transmitting the virus to women. The vaccine also remains an option for adults—although not typically recommended for people over the age of 26.

The hepatitis B vaccine is recommended for adults at high risk, such as those who are sexually active with multiple partners or with infected persons, people with sexually transmitted diseases, people who use intravenous drugs, household contacts of infected persons, homosexual men, hemodialysis patients, infants born to infected mothers, and health care or public safety workers who might be exposed to infected blood or bodily fluids. Determine your risk with your doctor.



#8. Avoid Common Carcinogens

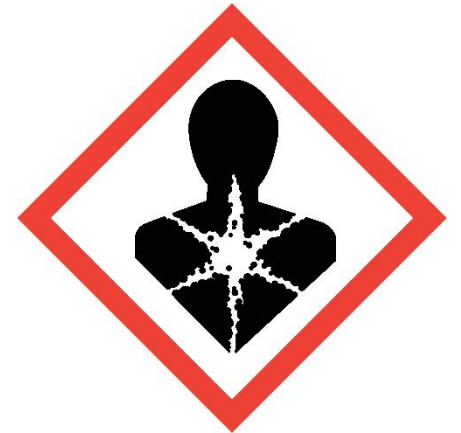
Here's What We Know...

Carcinogen is the name given to substances that cause cancer. Although there are many things that are labeled carcinogens, that doesn't necessarily mean that exposure to them will give you cancer. Rather, it means that you should be aware and when possible, limit your exposure. Here are a few of the common carcinogens:

- **Tobacco**- use of tobacco products and exposure to second-hand smoke dramatically increases your risk of [lung cancer](#) and other cancer types.
- **Radon**- found in residential homes, Radon is a radioactive gas released from the normal decay of elements. High volumes of exposure to radon is linked to lung cancer. Because it is odorless and tasteless, radon detection requires testing.
- **Asbestos**- fibers that were often used in the building and construction industry have long exposed people to danger in their homes and workplaces. When products containing asbestos breakdown, fibers are released into the air and breathed in, leading to serious health issues including mesothelioma (cancer of the thin membranes that line the chest and abdomen).

Here's What You Can Do...

Arm yourself with knowledge and be aware of possible carcinogens that you or your family may be exposed to. Once you're aware make efforts to remove or limit your exposure to these carcinogens. You can find more information on home radon testing [here](#).



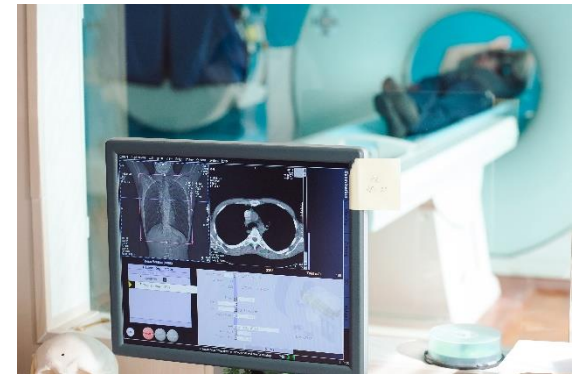
#9. Take Part in Cancer Screening

Here's What We Know...

Cancer screening tests can be helpful in detecting cancer at an early stage, increasing the chances of successful treatment. Cancer screening should be part of preventative measures and screenings are typically done prior to disease symptoms.

Here's What You Can Do...

Understand what screening tests are available and any associated risks with screening options. Discuss with your doctor what cancer screenings you should take part in—risk factors like your age, weight, lifestyle and overall health may affect your screening recommendations. As a helpful resource in planning your cancer screenings, NFCR has provided you with its Cancer Detection Guidelines on the next page.



Cancer Detection Guidelines

Increase your chances of early diagnosis by scheduling regular exams with your doctor.

AGE	FREQUENCY	FEMALES	MALES
18-20	One Time	Complete health exam ¹	Complete health exam ¹
	Monthly	Skin self-exam	Skin self-exam, testes self-exam
21-39	Every 3 Years	Complete health exam ¹ , clinical breast exam, Pap test ²	Complete health exam ¹
	Yearly	Endometrial biopsy ³	
	Monthly	Skin self-exam, breast self-exam	Skin self-exam, testes self-exam
40-49	Every 5-10 Years	Colonoscopy, CT Colonography or flexible sigmoidoscopy	Colonoscopy, CT Colonography or flexible sigmoidoscopy
	Every 3 Years	Complete health exam ¹ , Pap test ² , Multi-targeted stool DNA test (MT-sDNA) ⁵	Complete health exam ¹ , prostate-specific antigen (PSA) blood test ⁴ , Multi-targeted stool DNA test (MT-sDNA) ⁵
	Yearly	Clinical breast exam, mammogram, digital rectal exam, endometrial biopsy ³ , guaiac-based fecal occult blood test (gFOBT) or fecal immunochemical test (FIT) ⁵	Digital rectal exam, guaiac-based fecal occult blood test (gFOBT) or fecal immunochemical test (FIT) ⁵
	Monthly	Skin self-exam, breast self-exam	Skin self-exam, testes self-exam
50-65	Every 5-10 Years	Colonoscopy, CT Colonography or flexible sigmoidoscopy, HPV and Pap co test ²	Colonoscopy, CT Colonography or flexible sigmoidoscopy
	Every 3 Years	Pap test ² , Multi-targeted stool DNA test (MT-sDNA) ⁵	Multi-targeted stool DNA test (MT-sDNA) ⁵
	Yearly	Complete health exam ¹ , clinical breast exam, mammogram, endometrial biopsy ³ , digital rectal exam, guaiac-based fecal occult blood test (gFOBT) or fecal immunochemical test (FIT) ⁵ , low dose helical CT (LDCT) ⁶	Complete health exam ¹ , prostate-specific antigen (PSA) blood test ⁴ , digital rectal exam, guaiac-based fecal occult blood test (gFOBT) or fecal immunochemical test (FIT) ⁵ , low dose helical CT (LDCT) ⁶
	Monthly	Skin self-exam, breast self-exam	Skin self-exam, testes self-exam
66+	Every 5-10 Years	Colonoscopy, CT Colonography or flexible sigmoidoscopy	Colonoscopy, CT Colonography or flexible sigmoidoscopy
	Every 3 Years	Multi-targeted stool DNA test (MT-sDNA) ⁵	Multi-targeted stool DNA test (MT-sDNA) ⁵
	Yearly	Complete health exam ¹ , clinical breast exam, mammogram, endometrial biopsy ³ , digital rectal exam, guaiac-based fecal occult blood test (gFOBT) or fecal immunochemical test (FIT) ⁵ , low dose helical CT (LDCT) ⁶	Complete health exam ¹ , prostate-specific antigen (PSA) blood test ⁴ , digital rectal exam, guaiac-based fecal occult blood test (gFOBT) or fecal immunochemical test (FIT) ⁵ , low dose helical CT (LDCT) ⁶
	Monthly	Skin self-exam, breast self-exam	Skin self-exam, testes self-exam



- At minimum, includes medical/lifestyle history and physical exam. Blood/urine tests and chest x-ray may also be included, at physician's discretion.
- Women 21-29 should have a Pap test every 3 years, even if vaccinated for HPV. Women 30-65 should have HPV and Pap co-testing every 5 years or Pap test alone every 3 years. Women ages 66+ should stop cervical cancer screening if they have had ≥3 consecutive negative Pap tests or ≥2 consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring in the past 5 years; or have had a total hysterectomy.
- Beginning at age 35, for women at high risk for endometrial cancer only. This especially includes women with genetic mutations associated with hereditary nonpolyposis colon cancer (HNPCC). Women with HNPCC who have finished having children may choose to have a hysterectomy.
- Research has not yet proven whether the benefits of prostate cancer screening outweigh the harms of testing and treatment. All men should talk with their doctor to decide if testing is right for them, beginning at age 50 for men at average risk, age 45 for African American men and high risk men, and age 40 for those with family history at a young age.
- Beginning at age 45, men and women should take one of the following examinations: Colonoscopy (every 10 years), CT Colonography (every 5 years), MT-sDNA (every 3 years), or gFOBT or FIT, with at least 50% test sensitivity for cancer (yearly). Screening with the MT-sDNA, FOBT and FIT is done at home. Screening should continue to age 75. Your doctor may suggest screening up to age 85.
- Lung cancer screening should only be considered for persons who meet all of the following criteria: Aged 55-74, in fairly good health, have a 30 pack-year smoking history, and either still smoke or quit within the past 15 years. Screening should only be done at facilities that have experience in LDCT for lung cancer screening. Discuss risks and benefits with your physician to decide if screening is right for you. Screening should not be viewed as an alternative to smoking cessation.

Note: Your doctor may suggest a different testing schedule depending on your risk of developing a specific type of cancer. Discuss with your doctor to develop a screening schedule that is tailored to your own situation: your age, family medical history, lifestyle, and occupation are important factors that you and your doctor should consider.

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How is NFCR Combating Cancer?

The [National Foundation for Cancer Research](#) (NFCR) founded in 1973 is a 501(c)(3) nonprofit organization that provides scientists in the lab the funding they need to make game-changing discoveries in cancer treatments, detection, prevention and ultimately, a cure.

In order to fully conquer this devastating disease, we fund [world-renowned scientists](#) and laboratories worldwide to study cancer at both the basic and translational level, swiftly moving [research projects](#) from laboratory to bedside.

Our work would not be possible without the support of millions of individual donors across the United States and around the world. With continued support, we will put an end to cancer—ALL CANCERS. If you'd like to help support our cancer-fighting efforts, please consider [making a donation](#) today.

Learn more at [NFCR.org](#).

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