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## Questions People Ask About Cancer

There are a lot of rumors and myths about cancer that make it hard for people to know what's true about this disease. Here we address some of the common questions people ask about cancer. If you want to know more about how cancer starts and spreads, see [What Is Cancer?](#)<sup>1</sup> If you have questions that aren't answered here, please call one of our Cancer Information Specialists at 1-800-227-2345.

### How common is cancer?

**About one-third of all people in the US will develop cancer during their lifetimes.**

If you want to know how many men and women have the 10 most common types of cancers, see [Cancer Prevalence: How Many People Have Cancer?](#)<sup>2</sup>

To learn more about the chances of being diagnosed with cancer, see [Lifetime Risk of Developing Cancer](#)<sup>3</sup>.

The risk of developing most types of cancer can be reduced by changes in a person's lifestyle, for instance, by [staying away from tobacco](#)<sup>4</sup>, [avoiding alcohol](#)<sup>5</sup>, [limiting time in the sun](#)<sup>6</sup>, and [being physically active and eating healthy foods](#)<sup>7</sup>.

There are also [screening tests that can be done for some types of cancers](#)<sup>8</sup> so they can be found as early as possible – while they are small and before they have spread. In general, the earlier a cancer is found and treated, the better the chances are for living for many years.

### Who gets cancer?

Over one and a half million new cancer cases are diagnosed each year. **Anyone can**

**get cancer at any age, but the risk goes up with age.** Nearly 9 out of 10 cancers are diagnosed in people ages 50 and older. Cancer can be found in people of all racial and ethnic groups, but the rate of cancer occurrence (called the *incidence rate*) varies from group to group.

## How many people alive today have ever had cancer?

**Today, almost 17 million people alive in the United States have had some type of cancer.** Some of these people are cancer-free; others still have it.

Years ago, most people who had cancer did not live very long. That's not the case anymore. Every year more and more people survive cancer. This is especially true of children with cancer and those whose cancers were found early, before they spread.

The survival rates are different for people with different types of cancers. Some types of cancer grow very slowly. Some respond to treatment very well. Others grow and spread faster and are harder to treat. If you know someone who has cancer, keep in mind that what happens to them could be very different from what happens to someone else with cancer.

## What causes cancer?

### Things people do

Some cancers are caused by things people do or expose themselves to. For example, [tobacco use can cause cancer](#)<sup>9</sup> of the lungs, mouth, throat, bladder, kidneys, and many other organs. Of course, not everyone who uses tobacco will get cancer, but it greatly increases a person's risk. It increases their chance of developing heart and blood vessel disease, too.

Spending a lot of [time in the sun without protection can cause skin cancer](#)<sup>10</sup>. [Melanoma](#)<sup>11</sup> is a very serious form of skin cancer linked to UV light from the sun and tanning beds.

### Other things people are exposed to

[Radiation can cause cancer](#)<sup>12</sup>. For instance, people exposed to nuclear fallout have a higher cancer risk than those who were not exposed. Sometimes, [radiation treatment for one type of cancer can cause another cancer](#)<sup>13</sup> to grow many years later. This is why doctors and dentists use the lowest possible doses of radiation for x-rays and scans

(much lower than the doses used for cancer treatment).

Certain chemicals have been linked to cancer, too. Being exposed to or working with them can increase a person's risk of cancer. Call us to learn more about the carcinogens (substances that cause cancer) that may be around you, or see the [What Causes Cancer?](#)<sup>14</sup> section of our website.

### Genes that run in families

About 5% to 10% of all cancers are linked to [genes that are inherited from parents](#)<sup>15</sup>.

### Bottom line

**No one knows the exact cause of most cases of cancer.** We know that certain changes in our cells can cause cancer to start, but we don't yet know exactly how it all happens. Scientists are studying this problem and learning more about the many steps it takes for cancers to form and grow. See the "[What Causes Cancer?](#)<sup>16</sup>" section of our website to learn more about the things that have been linked to this disease.

If you are interested in taking steps to help reduce your cancer risk, see the section below called "Can cancer be prevented?"

### Can injuries cause cancer?

It's a common myth that injuries can cause cancer. **But the fact is that falls, bruises, broken bones, or other such injuries have not been linked to cancer.** Sometimes a person might visit a health care provider for what's thought to be an injury and cancer is found at that time. But the injury did not cause the cancer; the cancer was already there. It also sometimes happens that a person will remember an injury that happened long ago in the place cancer was found.

Rarely, burn scars can be the site of cancer many years after the burn has healed. Most often, skin cancer is the type that starts in a burn scar.

### Can stress cause cancer?

Researchers have done many studies to see if there's a link between personality, attitude, stress, and cancer. **No scientific evidence has shown that a person's personality or outlook affects their cancer risk.**

There are many factors to look at in the relationship between stress and cancer. It's known that stress affects the immune system, but so do many other things. Despite many studies, a link between psychological stress and cancer has not been found.

## What are the risk factors for cancer?

**A risk factor is anything that increases your chance of getting a disease, such as cancer.** Different cancers have different risk factors. For instance, exposing skin to strong sunlight is a risk factor for skin cancer, but it's not linked to colon cancer. Some risk factors can actually cause cancer, while others may simply be more common in people who get cancer. For example, old age by itself doesn't cause cancer, but it is a risk factor.

Still, risk factors don't tell us everything. Having one risk factor, or even many, does not mean that someone will get cancer. Some people with one or more risk factors never develop the disease, while others who do develop cancer have no known risk factors. Even when a person who has a risk factor is diagnosed with cancer, there's no way to prove that the risk factor actually caused the cancer.

There are different kinds of risk factors. Some, like a person's age or race, can't be changed. Others are linked to cancer-causing factors in the environment. Still others are related to personal actions, such as smoking. Some factors influence risk more than others, and a person's risk for cancer can change over time, due to factors such as aging or lifestyle.

### Some of the major cancer risk factors that can be controlled:

- Tobacco use
- Diet
- Physical activity
- Weight
- Alcohol use
- Sun exposure
- Environmental exposures, such as radon, lead, and asbestos
- Exposure to infections such as hepatitis, HPV, and HIV

Overall, about 1 out of 5 cancers diagnosed in the US are related to excess body weight, physical inactivity, alcohol consumption, and/or poor nutrition, and could be prevented.

## Is cancer contagious?

In the past, people often stayed away from someone who had cancer. They were afraid they might “catch” the disease. But cancer isn’t like the flu or a cold. **You can’t catch cancer from someone who has it.** You won’t get cancer by being around or touching someone with cancer. Don’t be afraid to visit someone with cancer. They need the support of their family and friends.

You can get more details on this in [Is Cancer Contagious?](#)<sup>17</sup>

## Can cancer be prevented?

**There’s no sure way to prevent cancer, but there are things you can do to help reduce your chances of getting it.**

### Tobacco

Many cancers might be prevented if people didn’t use tobacco.

**Smoking damages nearly every organ in the human body and accounts for about 1 out of 3 cancer deaths in the US.** Cigarettes, cigars, pipes, and oral (smokeless) tobacco products cause cancer and should not be used. People who use tobacco should try to quit. Studies clearly show that ex-smokers have less cancer risk than people who continue to smoke. When you quit smoking, it also reduces exposure to secondhand smoke for those around you.

It’s best to never use tobacco at all and to stay away from secondhand smoke, which also causes cancer – even in non-smokers.

See [Stay Away from Tobacco](#)<sup>18</sup> for more on this.

### Alcohol

Drinking alcohol is linked to a higher risk of certain types of cancer.

Some people think that certain types of alcohol are safer than others. But ethanol is the type of alcohol found in all alcoholic drinks, whether they are beers, wines, or liquors (distilled spirits). Overall, it’s the amount of alcohol that’s drunk over time, not the type of drink, which seems to be the most important factor in raising cancer risk.

**It's best not to drink alcohol. If you do drink, have no more than 2 drinks per day**

**for men and 1 drink a day for women.** This may help curb your cancer risk. You can find out more in [Alcohol Use and Cancer](#)<sup>19</sup>.

### ***Drinking and smoking***

The combined use of alcohol and tobacco raises the risk of mouth, throat, voice box, and esophagus cancer far more than the effects of either one alone.

### **Ultraviolet (UV) rays and sunlight**

You can lower your chances of getting skin cancer by

- Staying out of the sun between the hours of 10 a.m. and 4 p.m.
- Wearing a hat, shirt, and sunglasses when you are in the sun
- Using broad-spectrum sunscreen with a sun protection factor (SPF) of at least 30
- Not using tanning beds or sun lamps

See [Ultraviolet \(UV\) Radiation](#)<sup>20</sup> to learn more about the link between UV exposure and skin cancer and to learn how to protect yourself and the people you care about from UV skin damage.

### **Diet**

We know that our diet (what we eat or don't eat) is linked to some types of cancer, but the exact reasons are not yet clear. The best information we have suggests a lower cancer risk for people who follow a healthy eating pattern which includes:

- Foods that are high in nutrients in amounts that help you get to and stay at a healthy body weight
- A variety of vegetables – dark green, red and orange, fiber-rich legumes (beans and peas), and others
- Fruits, especially whole fruits with a variety of colors
- Whole grains

It also limits or does not include:

- Red and processed meats
- Sugar-sweetened beverages
- Highly processed foods and refined grain products

We have a lot of information on how [diet and physical activity can affect cancer risk](#)<sup>21</sup>. Call us or visit our website to learn more.

### ***Does sugar feed cancer?***

**Sugar intake has not been shown to directly increase the risk of getting cancer, having cancer spread, or having it get worse (progress).** Still, sugars and sugar-sweetened drinks add a lot of calories to the diet and can cause weight gain, which is linked to cancer.

### **Vaccines that help reduce cancer risk**

**We now know that [some cancers are caused by infections](#)<sup>22</sup>, mostly viruses.** One virus that's clearly linked to cancer is the [human papillomavirus \(HPV\)](#)<sup>23</sup>. It's been linked to cervical cancer, anal cancer, many genital cancers, and even head and neck cancers. (See [HPV and Cancer](#)<sup>24</sup> for more details.)

There is a vaccine series to help protect against HPV infection and the six types of cancer it can cause. Young people who are not yet sexually active can have a risk for certain cancers later in life if they get the HPV vaccine before they're exposed to the virus. The American Cancer Society recommends the vaccine for girls and boys between age 9 and 12. Children and young adults age 13 to 26 who have not been vaccinated, or who haven't gotten all their doses, should get the vaccine as soon as possible. To learn more, see [HPV Vaccines](#)<sup>25</sup>.

### **Early detection**

To find cancer early, while it's small and before it has spread, adults should have regular tests called *cancer screening tests*. These tests help health care providers find common cancers before they cause symptoms. For example, regular screening can find cancers of the breast, colon, rectum, cervix, mouth, and skin early. If cancer is found early, it can be easier to treat. Survival also tends to be longer for those with early cancer. Talk to a health care provider about which screening tests might be right for you.

You can learn more about things you can do to help find cancer early in [American Cancer Society Guidelines for the Early Detection of Cancer](#)<sup>26</sup>.

### **How is cancer diagnosed?**

A person's signs and symptoms are not enough to know whether they have cancer. (See [Signs and Symptoms of Cancer](#)<sup>27</sup> for more on this.) **If your health care provider suspects cancer you will need more tests, such as x-rays, blood tests, or a biopsy.** In most cases a biopsy is the only way to be sure whether cancer is present.

To do a biopsy a piece of the lump (tumor) or abnormal area is taken out and sent to the lab. There, a doctor who specializes in diagnosing diseases (called a pathologist) looks at the cells under a microscope to see if cancer cells are present. If there are cancer cells, the doctor tries to figure out what type of cancer it is and how fast it's likely to grow.

Imaging tests can measure the size of the cancer and can often show if it has spread to nearby tissues. Blood tests can tell providers about your overall health, show how well your organs are working, and give information about blood cancers.

## How is cancer treated?

**Surgery, chemotherapy, and radiation are the 3 main types of cancer treatment.** A person with cancer may have any or all of these treatments. In choosing a treatment plan, the most important factors are generally the type of cancer and the stage (amount) of the cancer. Other factors to consider include the person's overall health, the likely side effects of the treatment, and the probability of curing the cancer, controlling it to extend life, or easing symptoms.

### Surgery

Surgery is often the first treatment used if the cancer can be taken out of the body. Sometimes only part of the cancer can be removed. And, sometimes there may be risks to doing surgery for a cancer diagnosis. Radiation or chemotherapy might be used to shrink the cancer before or after surgery.

For more about surgery to treat cancer, see [Cancer Surgery](#)<sup>28</sup> and [Risks of Cancer Surgery](#)<sup>29</sup>.

### Chemotherapy

Doctors use chemotherapy or "chemo" drugs to kill cancer cells. Usually, the drugs are given intravenously (IV or into a vein) or taken as a pill by mouth. Chemo drugs travel throughout the body in the bloodstream. They can reach cancer cells that may have spread away from the tumor.

See [Chemotherapy](#)<sup>30</sup> to learn more about chemo and its effects.

## Radiation therapy

Radiation therapy is treatment with high energy rays (such as x-rays) to kill or shrink cancer cells. The radiation may come from outside the body, called *external radiation*, or from radioactive materials placed right into the tumor (*internal or implant radiation*). Getting external radiation is a lot like getting an x-ray.

See [Radiation Therapy](#)<sup>31</sup> to learn more.

## Other types of cancer treatment

Other kinds of treatment you might hear about include [targeted therapy](#)<sup>32</sup>, [stem cell or bone marrow transplant](#)<sup>33</sup>, and [immunotherapy](#)<sup>34</sup>. Hormone therapy is another type of treatment that's sometimes used to treat certain kinds of cancer.

## Clinical trials

[Clinical trials](#)<sup>35</sup> are studies in which people volunteer to test new drugs or other treatments. In cancer treatment, clinical trials may be used to learn whether a new treatment works better than the treatments used today. For instance, clinical trials are used to see if adding a new drug to the standard therapy makes it work better. In studies like this, some patients get the standard drug(s) (which are the best available at the time) and the new one being tested, while other patients get the standard drug(s).

Clinical trials are one way to get “cutting-edge” cancer treatment. Contact us and talk to your cancer care team to learn more about clinical trials and whether one might be right for you.

## How do doctors decide how to treat cancer?

Doctors consider each patient as an individual with personal preferences, and then make recommendations based on things like their own personal experience, current research, the goal of treatment (cure or control), and current cancer treatment guidelines .

One source of guidelines is the National Comprehensive Cancer Network (NCCN), an alliance of leading cancer centers around the world. Panels of experts from these centers sort through the research evidence and combine that with their own knowledge

and experience to come up with the best available treatment options for each cancer, and usually for each stage and characteristic of a person's particular cancer.

These findings are published in NCCN Clinical Practice Guidelines in Oncology, which provide a standard for care in the field of oncology. The guidelines address cancer treatment, cancer detection, risk assessment and reduction, and supportive care. They are updated on a regular basis.

The NCCN guidelines help patients and cancer care providers make the best choices about cancer care. They aren't perfect, and they don't apply in every case. But they do offer a roadmap to making sometimes difficult and increasingly complicated decisions.

NCCN Patient Treatment Guidelines are available at [www.nccn.com](http://www.nccn.com)<sup>36</sup>, a website devoted to patients, caregivers, and their families.

## What are the side effects of cancer treatment?

Each type of cancer treatment has different side effects. **It's hard to predict what side effects a person will have**; even when people get the same treatment they can have different side effects. Some can be severe and others fairly mild. It's true that some people have a tough time with cancer treatment, but many others manage quite well. And most cancer treatment side effects can be treated.

### Chemo side effects

Short-term (and often treatable) [side effects](#)<sup>37</sup> of chemo can include things like nausea and vomiting, appetite loss, hair loss, and mouth sores. Because chemo can damage the blood-making cells in the bone marrow, patients may have low blood cell counts. This can lead to:

- Higher risk of infection (from a shortage of white blood cells)
- Bleeding or bruising after minor cuts or injuries (from a shortage of blood platelets)
- Anemia (from low red blood cell counts), which can cause tiredness, shortness of breath, pale skin, and other symptoms

(See [Understanding Your Lab Test Results](#)<sup>38</sup> for more details in blood counts and what they mean.)

Cancer care teams work carefully with patients to manage the side effects of chemo. Most chemo side effects go away after treatment ends. For example, hair lost during

treatment usually grows back after treatment is over.

## Radiation side effects

Radiation treatments are much like x-rays and are not painful. The most [common side effects](#)<sup>39</sup> are skin irritation in the treatment area and fatigue. Fatigue is a feeling of extreme tiredness and low energy that doesn't get better with rest. It often lasts for many weeks after treatment ends. Other side effects can happen, too, depending on what part of the body is being treated.

## Is cancer treatment worse than cancer?

This is a belief that can be dangerous to many people when it affects whether they decide to get cancer treatment. **People who think treatment is worse than cancer might not get the treatments that can save their lives.**

A person who is thinking of refusing cancer treatment due to fear of side effects or other concerns should talk with a health care provider to clearly understand the likely outcomes of both treatment and non-treatment before making a decision.

If cancer is allowed to progress without treatment, symptoms get worse and new symptoms build up over time. Symptoms differ based on the type of cancer and where it is. Later in the course of cancer, when more serious symptoms start, curative treatment may not be an option. Cancer kills by invading key organs (like the intestines, lungs, brain, liver, and kidneys) and interfering with body functions that are necessary to live. Untreated cancer commonly causes death.

In contrast, cancer treatment often saves lives – especially when cancer is found and treated early. Even when it can't cure the cancer, treatment can often help people live longer. And medical care can always be used to help a person feel better by [reducing pain](#)<sup>40</sup> and other symptoms ([palliative care](#)<sup>41</sup>). It's important that a person knows the goal of each course of treatment, and makes informed decisions throughout the cancer experience.

There are times when every person being treated for cancer questions their commitment to the difficulties that come with treatment and its side effects. Sometimes they get discouraged by the uncertainty of treatment and wonder if it's worth it. This is normal. It may help to know that doctors are always learning better ways to work with patients to control side effects. And remember, each year brings advances in cancer treatments, too.

## What is remission?

Some people think that remission means the cancer has been cured, but this isn't always the case. **Remission is a period of time when the cancer is responding to treatment or is under control.**

In a *complete remission*, all the signs and symptoms of cancer go away and cancer cells can't be detected by any of the tests available for that cancer.

It's also possible for a patient to have a *partial remission*. This is when the cancer shrinks but doesn't completely disappear.

Remissions can last anywhere from several weeks to many years. Complete remissions may go on for years and over time the cancer may be considered cured. If the cancer returns (recurs), another remission may be possible with more treatment.

## Can cancer be cured?

**Many cancers can be cured, but not all of them and not always.**

Cure means that treatment has made the cancer go away, and there's no chance that it will come back. It's rare that a doctor can be sure that cancer will never come back. In most cases it takes time, and the longer a person is cancer free, the better the chance that the cancer will not come back.

## Hyperlinks

1. [www.cancer.org/cancer/cancer-basics/what-is-cancer.html](http://www.cancer.org/cancer/cancer-basics/what-is-cancer.html)
2. [www.cancer.org/cancer/cancer-basics/cancer-prevalence.html](http://www.cancer.org/cancer/cancer-basics/cancer-prevalence.html)
3. [www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html](http://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html)
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5. [www.cancer.org/cancer/cancer-causes/diet-physical-activity/alcohol-use-and-cancer.html](http://www.cancer.org/cancer/cancer-causes/diet-physical-activity/alcohol-use-and-cancer.html)
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Last Medical Review: November 30, 2016 Last Revised: July 8, 2020

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Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

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