

Circle Of LifeSM: Cancer Education and Wellness for American Indian and Alaska Native Communities



American Cancer Society Circle Of LifeSM
Cancer Education and Wellness for American Indian and Alaska Native Communities

Wellness Along the Cancer Journey:
Cancer Types
Revised October 2015
Chapter 1: Module Overview



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Module Overview

Cancer is the leading cause of death among American Indians and Alaska Natives. In the United States, over a million people of all races and ages get cancer each year. About one out of every two American men and one out of every three American women will have some type of cancer at some time in their life.

Anyone can get cancer at any age; but about 3 out of 4 of all cancers are found in people age 55 and older. Cancer can be found in all racial and ethnic groups. But, the number of people who get certain types of cancer in each group (called the incidence rate) is often different.

Today, millions of people are living with cancer or have had cancer. Now there are ways to reduce the risk of getting many types of cancer by changing lifestyles. Quitting smoking, exercising, and eating better are three ways to reduce risk.

Finding it early is another important way to fight cancer. Often, the sooner a cancer is found and treated, the better the chances of living for many years.

This module offers information about what cancer is and how it is found. We will talk about the most common types of cancer, and what may increase a person's risk for certain types of cancer.

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Cancer Overview

Group Discussion		True	False	Not Sure
1.	Cancer can be a long term disease like high blood pressure.			
2.	It is possible to “catch” cancer from someone who has it.			
3.	There are some cancers that are found more often in native communities.			

How Cancer Starts

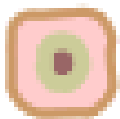
Cells are the basic building blocks of the body, each one too tiny to see. Cancer begins when cells in a part of the body start to making new cells (dividing) too quickly. There are many kinds of cancer, but they all start because abnormal cells grow out of control.

Normal body cells divide to make new cells, do their jobs, and then die in an orderly fashion. During the early years of life, normal cells divide faster to allow the person to grow. After a person becomes an adult, most cells divide only to replace worn-out or dying cells or to repair injuries.

Because cancer cells keep on dividing, they are different from normal cells. Instead of dying, cancer cells outlive normal cells and keep forming new abnormal cells.

Another difference between cancer cells and normal cells is that cancer cells can grow into other organs and tissues. Being able to grow out of control and to invade other tissues is what makes a cell a cancer cell.

Cell becomes abnormal



Cells Grow



Cancer Cells



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Cells become cancer cells because of damage to DNA. DNA is in every cell and directs all its actions. Most of the time, when DNA gets damaged the cell can fix it, but if the damage can't be repaired, the cell dies. In cancer cells the damaged DNA is not repaired, but the cell does not die like it should. Instead, this cell goes on making new cells even though the body does not need them. These new cells will all have the same DNA damage as the first cell does.

People can inherit damaged DNA from their parents, but most of the time DNA damage is caused by something we are exposed to in our environment. Sometimes the cause of the DNA damage is something obvious, like cigarette smoke. But many times no clear cause is found.

A cancer cell has many mistakes in its DNA -- having damage in just one spot does not cause cancer. Even when someone inherits damaged DNA, more mistakes in their DNA must happen before a cancer will develop. Staying away from things that are known to damage DNA (like smoking) as a part of a healthy life style lowers the chance that more DNA damage will take place. This can reduce the risk of cancer -- even in people who have cancer in their families.

In most cases the cancer cells form a mass or lump of tissue called a tumor. Some cancers, like leukemia, do not form tumors. Instead, these cancer cells involve the blood and blood-forming organs. They circulate through other tissues where they grow. But sometimes the extra cells in these blood cancers may also form a tumor.

Not all tumors are cancer. Tumors that are not cancerous are called benign. Benign tumors can cause problems -- they can grow very large and press on healthy organs and tissues. But they cannot grow into other tissues or spread to other parts of the body.

Cancer cells often travel to other parts of the body, where they begin to grow and replace normal tissue. This process is called metastasis. It can happen when cancer cells get into the bloodstream or lymph vessels of our body.

But no matter where a cancer may spread, it is always named for the place where it started (its primary site). For example, breast cancer that has spread to the liver is still called breast cancer, not liver cancer. Prostate cancer that has spread to the bone is metastatic prostate cancer, not bone cancer.

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There are many types of cancer, and different types of cancer can behave very differently. For example, lung cancer and breast cancer are very different diseases. They grow at different rates and respond to different treatments. People with cancer need treatment that is aimed at that kind of cancer.

Some Causes of Cancer

Smoking and drinking alcohol can cause certain types of cancer. All cancers caused by cigarette smoking and alcohol could be prevented completely. The best thing is to never use tobacco at all except in traditional ceremonial ways. Commercial cigarettes, cigars, pipes and smokeless tobacco all cause cancer and should not be used. People who already smoke should try to quit – people who quit smoking have less risk of cancer than people who keep smoking.

More than 3.5 million people each year are found to have skin cancer. Many of them could be prevented by protecting the skin from the sun's rays and avoiding indoor tanning. The chances of getting skin cancer can be lowered by staying in the shade as much as possible, wearing a hat and shirt when in the sun, and using sunscreen. People with darker skin can still get skin cancer.

About one third of cancer deaths each year are linked to being overweight or obese, poor nutrition, and lack of physical activity. Many of these cancers could also be prevented. We know that what we eat is linked to some types of cancer, but the exact reasons are not yet clear. The best advice:

- Eat healthy foods, with most of them coming from plant sources.
- Choose foods and drinks in amounts that help you get to and stay at a healthy weight.
- Pay attention to standard serving sizes and read food labels to find out the actual number of servings you eat.
- Eat 2 ½ cups of fresh fruits and vegetables each day; include them at every meal and snack.
- Eat a variety of vegetables and fruits each day.
- Limit French fries, snack chips, and other fried vegetable products.

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- Choose 100% juice if you drink vegetable or fruit juices.
- Eat smaller portions of high-calorie foods. Be aware that "low-fat" or "nonfat" does not mean "low-calorie" and that low-fat cakes, low-fat cookies, and other low-fat foods are often high in calories.
- Switch to vegetables, fruits, and other low-calorie foods and drinks to replace high-calorie foods and drinks such as French fries, cheeseburgers, pizza, ice cream, doughnuts and other sweets, and regular sodas.
- When you eat away from home, choose food low in calories, fat, and sugar, and avoid large portion sizes.
- Limit intake of refined carbohydrates (starches), such as pastries, sweetened cereals, and other high-sugar foods.
- Choose whole grain rice, bread, pasta, and cereals.
- Limit intake of processed meats (like bacon, hot dogs, sausage, ham, and luncheon meats) and red meats. Choose fish, poultry, peas or beans instead of beef, pork, and lamb.
- When you eat meat, choose lean cuts and eat smaller portions.
- Prepare meat by baking, broiling, or poaching, rather than by frying or charbroiling.
- If you drink alcohol at all, limit alcohol intake to 2 drinks or less per day for men, and 1 drink or less for women.

It is important to get to and stay at a healthy weight. Adults should get at least 150 minutes of moderate intensity activity or 75 minutes of vigorous intensity activity each week. Children and teens should be encouraged to be active at moderate and vigorous intensities at least an hour a day, every day.

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Certain cancers are related to infectious diseases, such as Hepatitis B Virus (HBV), Human Papilloma Virus (HPV), Human Immunodeficiency Virus (HIV), Helicobacter pylori (H. pylori), and others. Many of these could be prevented through behavioral changes, vaccines, or antibiotics. These topics are discussed in more detail in the Healthy Habits Module.

There is no way to prevent many cancers. The best plan is to avoid risks that can be controlled and make healthy lifestyle choices.

How Cancer Is Found

There are tests, called screening tests, for some types of cancer. Some screening tests can actually prevent cancers of the cervix, colon, and rectum by allowing health care providers to take out pre-cancers before they become cancers. Adults should have these tests in order to find cancers at early stages or even before they start. Most cancers are easier to treat when found early. The age screening tests should start depends on the cancer the test is looking for.

There are also ways to find cancers of the breast, prostate, mouth, and skin at early stages. Most cancers are easier to treat when found early. Finding cancer early often means it can be treated while it is still small, and before it has spread to other parts of the body. For many cancers, finding cancer early reduces the number of deaths caused by cancer.

Cancers that can be prevented or found early by screening account for at least half of all new cancer cases.

Some Signs and Symptoms of Cancer

Cancer is a group of more than 100 diseases that may 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. If a cancer has spread (metastasized), signs or symptoms may appear in different parts of the body. In many cases, signs and symptoms alone do not give the health care provider enough clues to figure out the cause of an illness. Then medical tests, such as x-rays, blood tests, or a biopsy may be needed.

Sometimes people ignore symptoms. They may not know that symptoms could mean something is wrong. Or they may be frightened by what the symptoms might mean and don't want to get medical help. Signs and symptoms related to

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certain cancers will be discussed in the next section. Here are a few of the general signs and symptoms of cancer:

Unexplained Weight Loss: Most people with cancer will lose weight at some point. An unexplained weight loss of 10 pounds or more (when a person is not trying to lose weight) may be the first sign of cancer. This happens most often with cancers of the pancreas (the organ that makes insulin), stomach, esophagus (swallowing tube), or lung.

Fever: Fever is very common with cancer, but it more often happens after cancer has spread from where it started. Almost all people with cancer will have fever at some time, especially when the cancer or its treatment affects the immune system. This makes it harder for the body to fight infection. Less often, fever may be an early sign of cancer, such as blood cancers like leukemia or lymphoma.

Fatigue: Fatigue is extreme tiredness that does not get better with rest. It may be an important symptom as cancer grows. It may happen early, though, in cancers like leukemia. Some colon or stomach cancers can cause blood loss. This is another way cancer can cause fatigue

Pain: Pain may be an early symptom with some cancers like bone cancers or testicular cancer. A headache that does not go away or get better with treatment may be a symptom of a brain tumor. Back pain can be a symptom of cancer of the colon, rectum, or ovary. Most often, pain due to cancer is a symptom of cancer that has already spread from where it started.

Skin Changes: Along with cancers of the skin, some cancers can cause skin symptoms or signs that can be seen. These signs and symptoms include:

- Darker looking skin (hyperpigmentation)
- Yellowish skin and eyes (jaundice)
- Reddened skin
- Itching
- Excessive hair growth

We will talk more about signs of certain other cancers later. But remember, having any of these does not mean that a person has cancer – many other things also cause these signs and symptoms. Still, if a person has signs or symptoms that

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they cannot explain, then they should see a health care provider to be sure nothing is wrong.

How Health Care Providers Learn Whether Someone Has Cancer

A person's signs and symptoms are not enough to know whether or not cancer is present. If a health care provider suspects cancer more tests will be needed, such as x-rays, scans, blood tests, or a biopsy. (A biopsy involves taking a tissue sample to look for cancer cells.) In most cases a biopsy is the only way to be sure whether or not a person has cancer.

To do a biopsy a piece of the lump or abnormal area is taken out and sent to the lab. There, it is looked at by a pathologist, a health care provider who specializes in diagnosing diseases. The pathologist prepares the tissue and looks at it under a microscope to see if it contains cancer cells. If there are cancer cells, the pathologist will try to figure out exactly what type of cancer it is and whether it is likely to grow slowly or more quickly.

Scans may be used to measure the size of the cancer and learn whether it has spread to nearby tissues. Blood tests can tell doctors about a person's overall health, show how well their organs are working, and about blood cancers.

Cancer Staging

Staging is the process of finding out how much cancer there is in the body and whether it has spread. Staging gives a health care provider an idea of how much the cancer has grown. The cancer's stage, along with the cancer type, are key in choosing a person's best treatment choices.

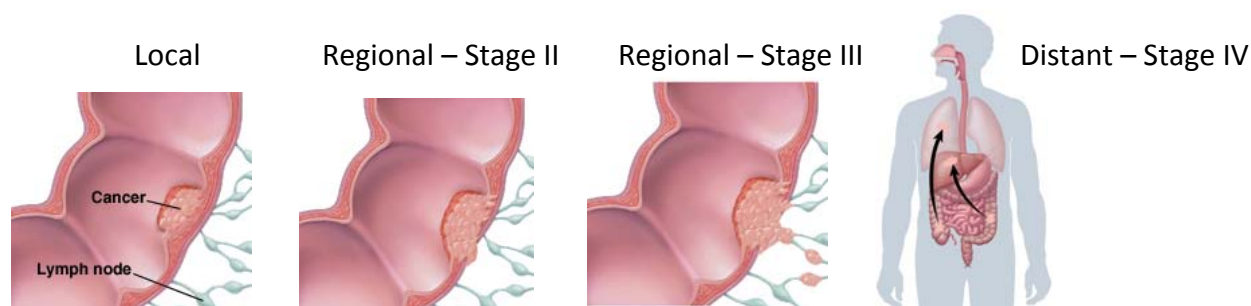
There are four basic cancer stages: in situ, local, regional, and distant. Keep in mind that these are only general descriptions of solid tumor stages. Staging often varies from one type of cancer to another, but lower numbers always mean less invasive cancers than higher numbers:

- In situ cancers are very early stage cancers (Stage 0). An in situ cancer is only found in the tissue where it started and has not spread to other layers.
- In general, local cancers (Stage I) are found in only one organ and have not spread to the surrounding areas.

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- Regional cancers may have spread from the organ where they started into the tissues, organs, and lymph nodes nearby. This would be stage II or III, depending on tumor size and how far it has spread.
- Distant cancers (Stage IV) have spread beyond the organ and nearby tissues to other organs in the body.

Cancers that are found at in situ or local stages are easier to treat and have the best chances for survival.



Staging can take time, and people often want to start treatment right away. Do not worry that the staging process is taking up treatment time. Staging the cancer is very important to help the person and their health care team know which treatments are likely to work best.

Cancer Treatments

The number of treatment choices a person has mostly depends on the type of cancer and the stage of the cancer. Other factors such as age, health status, and personal wishes may also affect a person's options.

The four main types of treatment for cancer are surgery, radiation, chemotherapy, and other drugs to help fight the cancer. Depending on the type and stage of the cancer, two or more of these types of treatment may be used at the same time or used after one another.

If a person is found to have cancer they should talk with their health care providers about which treatment choices are best for them. They should make sure they understand their options, and not be afraid to ask questions. Sometimes people with cancer feel like they have to hurry to make choices about

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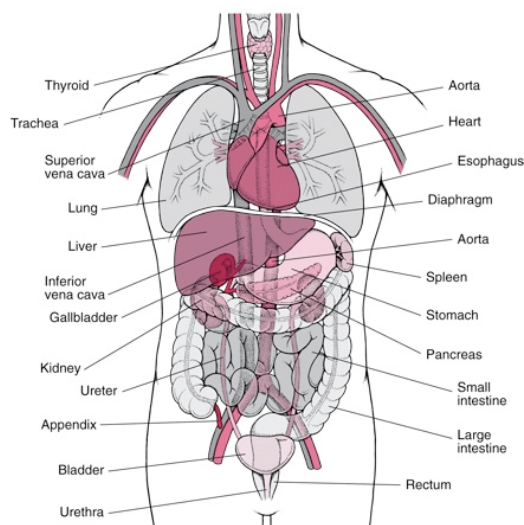
treatment and services. But take time to look at all the options and find out what you need to know.

In thinking over treatment options it is often a good idea to get a second opinion if you can. This may give a person more information and help them feel more certain about the treatment plan they choose. It also helps to know that a person's chances for having the best outcome are highest in the hands of a medical team that is experienced in treating the type of cancer they have.

Appendix A lists some key questions and things to think about when talking with a health care provider about cancer and treatment options.

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Leading Types of Cancer in the United States



The most common type of cancer is skin cancer. More than 3,500,000 US cases of skin cancer are found each year in the US. Most skin cancers (other than melanoma) are easy to treat. Skin cancers are not tracked in cancer reports and statistics, but an estimated 2,000 people per year die from them in the US. (This doesn't count melanoma, a rarer and more serious skin cancer.)

Other than skin cancer, the most common cancer in men is prostate cancer and in women, breast cancer. More than 220,000 cases of prostate cancer are found each year. It causes around 30,000 deaths. More than 230,000 breast cancer cases are found each year. It causes over 40,000 deaths.

Lung cancer is the second most common type of cancer among both men and women with more than 200,000 cases diagnosed each year. Even though it's the second most common cancer type, it's the leading cause of cancer death. More than 150,000 people die each year from lung cancer.

The third most common type of cancer in both men and women is colorectal cancer with around 140,000 new cases each year. Colorectal cancer is the second leading cause of cancer deaths in both men and women. It causes about 50,000 deaths each year.

The next most common type of cancer is bladder cancer, with about 75,000 cases and more than 15,000 deaths each year. Melanoma, a rarer and more serious type of skin cancer, makes up more than 70,000 cases and causes about 10,000 deaths. These are followed by non-Hodgkin's lymphoma, then kidney, thyroid, endometrial, and pancreatic cancer; and the leukemias.

The data above is not specific to native communities.

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Activity

Please check the box which best describes your belief or attitude about each statement. There are no right or wrong answers. The purpose of this exercise is to help you identify some of your basic beliefs about health and the cancer experience.

	Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
1. It is better not to talk about having cancer.					
2. Whether or not a person gets better is mostly a matter of luck.					
3. The more I know about cancer, the better I will be able to handle it.					
4. I'll never understand medical terms.					
5. I believe there are things people can do to improve their chances of recovery.					
6. It is wrong to bother the health care provider with a lot of questions.					
7. If a person has a positive attitude, he or she will get well.					
8. If others know about my cancer, they will feel sorry for me.					
9. I can only do what the health care provider tells me to do.					
10. I could learn to communicate better with health team members and friends about my situation.					

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Story of Hope

“I spent countless hours reading information and asking questions. It’s really important to advocate for yourself and be sure that the treatment you are getting is the best treatment for you. I got a second opinion, which can be tough to do. We are inclined to not question our doctors and to trust them implicitly. That being said, the second opinion I got was the right one for me, so I would encourage people to seek more opinions. Ask the tough questions, get a second opinion, take good care of yourself, surround yourself with family and friends, and do whatever it takes to keep hope alive. I believe that unity is strength, knowledge is power, and attitude is everything – and that is true for every person affected by cancer.” – Lance Armstrong, Survivor

(Silver, J.K. (Ed.), (2009). *What Helped Me Get Through: Cancer Survivors Share Wisdom and Hope*. Atlanta: American Cancer Society.)

Key Messages

- Cancer is a term that describes a group of more than 100 different diseases. They are all marked by uncontrolled growth and spread of abnormal cells.
- There are more than 14 million cancer survivors in the United States.
- Cancer is the leading cause of death for American Indians and Alaska Natives.
- 3 out of 4 cancers are found in people over the age of 55.
- Using tobacco and alcohol, lack of physical activity, being overweight or obese, and poor nutrition account for about 2/3 of cancer risk (Colditz, 2009; Colditz, Sellers, & Trapido, 2006).
- A healthy life style can reduce the risk of cancer even in people with cancer in their families.
- Treatment choices for cancer will depend on the type of cancer and the stage of the cancer. Other factors such as a person’s age, health status, and personal values also affect treatment choice.