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How to Interpret News About Ways to Prevent Cancer

In your quest to be healthy, you may hear about something that is supposed to reduce your risk of cancer -- perhaps a new way you haven't heard about before. It sounds like a good idea, and you may want to try it. But before you try anything new, be sure to ask the right questions as you search for information about ways to prevent cancer.

Can cancer be prevented?

There is no sure way to prevent every cancer. However, it has been estimated that more than 40% of cancer deaths could be prevented if everyone <u>avoided tobacco</u>¹, stayed at a healthy weight, followed a <u>healthy diet</u>², got enough <u>physical activity</u>³, and <u>avoided or limited alcohol</u>⁴. In addition, risk for cancer could be further reduced by <u>protecting the skin</u>⁵ from too much sun exposure, getting vaccines against <u>viruses that cause cancer</u>⁶, and <u>getting screened</u>⁷ for certain cancers.

There are also certain procedures and medicines that can help lower the risk of some cancers. For example, women at increased risk for breast cancer might consider <u>taking</u> <u>medicines</u>⁸ or <u>having surgery</u> (<u>prophylactic surgery</u>)⁹to reduce their risk.

However, there are many other products and methods that are promoted as ways to prevent cancer. Many of these have not been proven to work and, in some situations, might even be harmful. It is important to learn as much as you can about any products and methods before using them.

Where did the information about the new prevention method come from?

It's important to consider where the information is coming from. It is best to find sources that cite research found in medical journals that are reviewed by experts in the field.

Be careful when you find information about cancer prevention methods on social media or <u>online</u>¹⁰. Research has shown that 1 in 3 articles on social media about medical treatment contain incorrect or even harmful information.

Can the news source provide the right context?

Major news sources generally try to provide accurate, unbiased information. They tend to have reporters and journalists who have experience covering health-related issues and who understand what's important. But smaller news sources might not have as much experience and may have a harder time interpreting the research for people.

Are there space limitations?

Even when the news comes from a source you trust, headlines often simplify a complex topic into something short, simple, and catchy. A headline can't convey how complex or uncertain some study findings are. Even full articles can have space limits that might mean key details are left out. Often the whole story can't be told in a short article or a 60-second news clip.

Is the source biased?

Sometimes what looks like a news story is really a press release from a medical journal, medical group, product manufacturer, or other organization. Some groups promoting new findings might have a vested interest in the product that makes is hard for them to be unbiased.

This doesn't always mean the information isn't true. But if you're not familiar with the source of the information, do some research. An online search can reveal a lot about who's in a group and what their goals are. Try to keep their goals in mind as you look at their information to see if they might be emphasizing results that benefit them.

Also watch for promotions from a seller or someone who can benefit from you buying their product. Many companies that sell products online talk about the preventive powers of their products, even though they've never been proven to work in people. Some might use outright lies and fraud to make their websites look official. They might even include fake quotes from doctors. Others might report on studies that were either never done or were misrepresented, claiming that they were done at well-known cancer treatment centers. Learn more about what to watch for in Alternative Medicine¹¹.

Can the original source of the information be traced?

Chain emails, texts, blog posts, and social media are increasingly common sources of information for many people. These posts and emails often spread exciting information and ask people to share them with friends. The original source of the story is often impossible to find, and the actual content can change over time. This type of information needs to be checked against more reliable sources.

Is there research that supports the product?

Getting past the headlines (or article, news story, email, social media post, etc.) to important details isn't always easy. Here are some questions you should ask:

Is the news actually based on new research?

It may be, especially if it's being reported in reliable news media outlets. But sometimes it's not clear where the information actually came from. Rumors passed around in chain emails are a good example of this. If a source is cited, can it be verified? Can you find this same information in trustworthy sources?

Who conducted the research? Who paid for it?

Most cancer studies are done by researchers at universities, medical centers, or government agencies. Some research is done by other groups, such as advocacy organizations. Funding for studies can come from federal or state funds, non-profit groups, or other interests. Finding out where the study was done and who funded it can give you a better idea of how trustworthy the results might be. Be careful about studies funded or done by groups who benefit from certain results.

What kind of research was it?

To see if a cancer prevention method has a proven track record, look at how it was tested. The way <u>clinical trials</u>¹² are set up can affect the outcome, and sometimes can make a prevention method look like it works when it really doesn't.

Cancer prevention studies usually have people do something or take something to see if it lowers their risk of cancer. In these studies, healthy volunteers help doctors study ways to lower the risk of certain types of cancer. Cancer prevention clinical trials are done to answer these questions:

- Does the medicine, supplement, or other cancer prevention method reduce the risk of cancer (or a certain type of cancer)?
- How safe is the study medicine or cancer prevention method?
- Does the cancer prevention method lower the risk of dying from cancer (or from a certain type of cancer)?

Is the study published and peer reviewed?

When research findings are published in a respected, peer-reviewed journal, it means that the methods and results of the study were looked at by other doctors or scientists. When they look at the information, they want to be sure that proper scientific procedures were followed.

Most of the time, doctors give more weight to research published in peer-reviewed journals. Summary reports and guidelines created by experts from government agencies or other respected groups are also typically trusted sources of information. Research reported at a medical conference is often important as well, but it has not undergone the same level of review.

Sometimes you might find news about studies that comes from other sources, such as magazines or journals that are not peer reviewed, or books and letters that are supposed to have been written by experts. Be extra careful basing any decisions on this type of information.

Are they reporting anecdotal information?

If you hear or read about a person who is healthy and feeling great using a particular prevention method, this is called **anecdotal information**. This is a personal report of one person or very few people, but it's not the same as the results of a scientific study. Trustworthy studies about cancer prevention involve looking at a lot of people over time.

Still, if you've been told someone's personal story, can you find out more? Keep in mind that a person may credit an herb or supplement with feeling better, even though there may be other factors involved. And sometimes a person's belief in a method may be enough to make a person feel better for at least a short time.

There are many other ways that people with good intentions can reach the wrong conclusion from a single person's experience, or even the experiences of a group of people. This is why scientists study cancer prevention methods under such careful conditions.

What if there isn't any research data reported?

If you aren't able to find any research data to support a prevention method, it could be that it either has not been put through careful studies, or it was studied and was found not to help prevent cancer.

For instance, you may hear about alternative therapies such as herbs, vitamins, other dietary supplements, health tonics, "body cleansings," or special diets that are supposed to boost the immune system and prevent cancer. In the past, sellers often made these claims even though almost no studies had been done to look at these methods. Researchers are now trying to study more of these in the same careful ways that they study treatments.

If you can't find research data on a prevention method your interested in, ask your doctor, nurse, or pharmacist to help you find more information.

What were the actual study results?

On purpose or not, news reports often end up sounding more promising than the study findings actually are. It's not always easy to correctly convey a new research finding in a short news story. Some people who report the news might not have a scientific or medical background, so they can sometimes have trouble putting the findings into the proper context.

For example, cancer happens much more often in older people. It's pretty rare for younger people to develop cancer, whether or not they use some method to prevent it. This means it's not really too surprising if a large number of younger people haven't developed cancer while using a certain prevention method for a few years. It's also important to understand that prevention studies often take many years to produce any firm conclusions about a method, so early positive results may not hold up over time.

Have other studies of the same method had the same results?

It usually takes more than one study to prove a method works. In fact, it's rare for doctors to recommend a prevention method based on just one study. Most often, recommendations are based on the results of multiple studies. So, if a news report focuses on one research study, look at how many people were studied and whether there have been other studies that had similar results.

Sometimes when multiple studies are done, researchers can get different and sometimes opposite results. Sometimes a treatment looks great in the first study, but

then other studies have different outcomes. This is why it's important to look for information beyond one promising study result.

Other questions about new ways to prevent cancer

Is the method supposed to prevent all cancers?

Since there are many different types of cancer, which often have different causes, it's very unlikely that one method can prevent all of them. Be careful about claims that there's one method that prevents all types of cancer.

Who is offering the procedure, medicine, or supplement?

On social media or online, in conferences or in health food stores, people or groups who sell or promote new ways of preventing cancer may have something to gain by getting you to buy their product. They may cite lab or animal studies showing that the method kills cancer cells or helps them return to normal. Some sellers might refer to studies that are not published in peer-reviewed journals. The studies may be written up in a "natural cures" book or posted on a website. This can leave you with no way to know that the studies were done as they are presented, whether the product or method really does what it's supposed to, and whether it is safe.

Why are most products that are promoted as immune boosters and cancer preventives not approved by the FDA?

There are many <u>dietary supplements</u>¹³ that are promoted as helping to prevent cancer. Unlike medicines (drugs), dietary supplements don't have to be proven to be safe and effective before they're sold. Makers of dietary supplements and other food sources don't have to study them in clinical trials **unless** they want to make claims that their products can help prevent or treat diseases.

Scientists might also study a specific chemical from an herb in the lab to find out if it affects cancer cells. But the effects of a single chemical might be very different from the effects of the whole herb (especially in large doses). This is why researchers have to prove that the chemical is safe before testing it in humans. And this type of study is usually published in scientific literature.

What do the experts say?

Experts at several national and international agencies review the available evidence to

try to determine the cancer-causing potential of different things we are exposed to, as well as possible ways to lower cancer risk. If you see something in the news or on social media, especially if you're unsure of the source, check the claims against what these experts say.

Along with the American Cancer Society, these agencies help provide information about cancer prevention that is based on strong research results.

- Centers for Disease Control and Prevention (CDC)¹⁴: The CDC works to protect Americans by fighting disease through research and providing health information to the public and health care system about threats to health and how to protect yourself.
- <u>National Cancer Institute (NCI)</u>¹⁵: A part of the National Institutes of Health, NCI is the federal agency responsible for advancing knowledge about cancer to help people live longer, healthier lives. They also help spread new information about ways to prevent and manage cancer.
- <u>American Institute for Cancer Research (AICR)</u>¹⁶: AICR funds research about ways to prevent cancer and shares the latest information, including recommendations, about steps people can take to lower their risk.

Check with your doctor before using any unproven ways to prevent cancer

There's no shortage of ideas as to how a person might be able to lower their risk of getting cancer. Some of these have been studied, but many have not. Some methods have been proven safe, but the safety of others is still unknown.

In the meantime, some people might decide to try a cancer prevention method, even if there's no strong evidence that it's helpful. If you decide to try an unproven measure, talk with your doctor, nurse, or pharmacist about it to get their opinion of it. If it's a vitamin, herb, or supplement, see what you can find out about how much proof there is that it works, as well as possible side effects, allergies, and other possible problems. You should also let your doctor or pharmacist know about it in case it might causes problem with any medicines you're taking. Often, studies of "natural remedies" don't collect this sort of information, and it can be hard to find.

We encourage you to learn all you can before taking any new method to try to lower your risk of cancer. You can always call the American Cancer Society. We can help you get more information on almost any treatment or method you're considering.

Hyperlinks

- 1. www.cancer.org/healthy/stay-away-from-tobacco.html
- 2. www.cancer.org/healthy/eat-healthy-get-active/eat-healthy.html
- 3. www.cancer.org/healthy/eat-healthy-get-active/get-active.html
- 4. <u>www.cancer.org/healthy/eat-healthy-get-active/acs-guidelines-nutrition-physical-activity-cancer-prevention/guidelines.html</u>
- 5. <u>www.cancer.org/healthy/be-safe-in-sun.html</u>
- 6. www.cancer.org/cancer/cancer-causes/infectious-agents/infections-that-can-lead-to-cancer/viruses.html
- 7. www.cancer.org/healthy/find-cancer-early.html
- 8. <u>www.cancer.org/cancer/breast-cancer/risk-and-prevention/deciding-whether-to-use-medicine-to-reduce-breast-cancer-risk.html</u>
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- 10. <u>www.cancer.org/treatment/understanding-your-diagnosis/cancer-information-on-the-internet.html</u>
- 11. <u>www.cancer.org/treatment/treatments-and-side-effects/treatment-types/alternative-medicine.html</u>
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Last Revised: September 28, 2021

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