



## The Clear & Transparent Facts On Radiation



Radiation can be dangerous, but it can also save lives. How can that be? Harnessed properly, radiation can help diagnose and even treat disease. So when you're faced with a medical test that uses radiation, don't let fear get in your way. Learn about the risks and benefits, and know what questions to ask. If medical radiation is really needed, take steps to ensure that it's done as safely as possible.

### What Is Radiation?

Radiation, simply put, is the transfer of energy through space. The energy may be in the form of invisible particles or waves. Radiation is all around us—and has been throughout our evolution—so our bodies are designed to deal with the low levels we're exposed to every day. Excess radiation, however, can damage tissues and lead to serious problems.

Why is radiation used in medicine? Radiation allows radiologists and other physicians to see internal parts of the body that they aren't able to see directly with their eyes or through other physical examination measures. Techniques like X-rays and CT scans send controlled amounts of radiation through the body and create images based on what comes through the other side. Another imaging method called nuclear medicine uses compounds that emit radiation, which can then be detected outside the body. Injected or swallowed, these compounds can target a specific area and reveal internal problems. Or they can be used to track how well internal organs are working.

With these advanced imaging tools, doctors can detect disease early, when it's easier to treat. As a result, use of medical radiation has been rising. But with these benefits come some risks.

### The Risks of Radiation

One of the main risks of being exposed to radiation is the possibility of developing a cancer. Cancer takes years to develop, so it's nearly impossible to tell exactly what causes any given cancer. As a result, it's hard for researchers to gauge exactly how much risk a given amount of radiation poses.

Children's growing bodies are even more susceptible to radiation damage than those of adults. Children have a long lifetime ahead. Any damage caused by radiation has a longer period of time to show itself.

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# Better Safe!



WELCOA'S ONLINE BULLETIN FOR YOUR FAMILY'S SAFETY

## The Clear & Transparent Facts On Radiation

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### What You Need To Know About Radiation

Earlier this year, a worrisome report linked childhood CT scans to two types of cancer later in life: leukemia and brain cancer. A National Institutes of Health-funded study looked at more than 175,000 children and young adults. Depending on the radiation dose, those who'd received two or more scans had a small boost in cancer risk. Because these cancers are rare, the benefits of CT scans likely outweigh the risks, the researchers concluded. Still, they suggest that doctors consider alternatives to CT scans or use the lowest possible radiation doses.

Strangely enough, radiation can also be used to treat cancer. Focused doses of high-energy radiation can kill cancer cells and shrink tumors. Medical imaging tests, in contrast, use much lower doses. In fact most imaging and radiation procedures all deliver generally low doses. In some cases, depending on your disease, it's potentially riskier to not get the scan or nuclear medicine procedure than to get it.

### What You Can Do

If a doctor recommends a test that uses radiation, ask about its risks and benefits. If the test is truly needed, do some research into the imaging facilities. Find one that monitors the doses they're giving patients and takes pride in low doses. Doses can vary not only between facilities, but at the same facility based on the time of day and who's conducting the test.

### ASK ABOUT YOUR IMAGING TEST

If you're considering an imaging test, here are some questions to ask:

- What are we hoping to learn from the test?
- How is it going to help me?
- Will the test results change how my disease is managed?
- Do I need the test now, or can I wait?
- Is there another test I can use instead? If so, what are the benefits and risks of each?
- How can I be sure the test will be done in the safest way possible?
- Can you make sure to use the lowest radiation dose for what you need to know?
- For children: Is the facility using pediatric protocols for the test?



# Why You Need To Be In The **Now**



Enjoy every moment.  
Life is short.

## The Benefits of Mindfulness

At some point in your life, someone probably told you: “Enjoy every moment. Life is short.” Maybe you’ve smiled and rolled your eyes at this well-intentioned relative or co-worker. But the fact is, there’s something to it. Trying to enjoy each moment may actually be good for your health.

The idea is called mindfulness. This ancient practice is about being completely aware of what’s happening in the present—of all that’s going on inside and all that’s happening around you. It means not living your life on “autopilot.” Instead, you experience life as it unfolds moment to moment, good and bad, and without judgment or preconceived notions.

### Why Mindfulness Matters

Studies suggest that mindfulness practices may help people manage stress, cope better with serious illness and reduce anxiety and depression. Many people who practice mindfulness report an increased ability to relax, a greater enthusiasm for life and improved self-esteem.

One National Institutes of Health (NIH)-supported study found a link between mindfulness meditation and measurable changes in the brain regions involved in memory, learning and emotion. Another NIH-funded researcher reported that mindfulness practices may reduce anxiety and hostility among urban youth and lead to reduced stress, fewer fights and better relationships.

A major benefit of mindfulness is that it encourages you to pay attention to your thoughts, your actions and your body. For example, studies have shown that mindfulness can help people achieve and maintain a healthy weight. Experts note that with mindful eating, you eat when you’re hungry, focus on each bite, enjoy your food more and stop when you’re full.

Of course, finding time for mindfulness in our culture can be a challenge. We tend to place great value on how much we can do at once and how fast. Still, being more mindful is within anyone’s reach.

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# DAY IN DAY OUT

WELCOA'S ONLINE BULLETIN FOR YOUR LIFESTYLE

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## Why You Need To Be In The Now

### How to Be Mindful

You can practice mindfulness throughout the day, even while answering e-mails, sitting in traffic or waiting in line. All you have to do is become more aware—of your breath, of your feet on the ground, of your fingers typing, of the people and voices around you.

The concept of mindfulness is simple, but becoming a more mindful person requires commitment and practice. Here are some tips to help you get started:

- Take some deep breaths. Breathe in through your nose to a count of 4, hold for 1 second and then exhale through the mouth to a count of 5. Repeat often.
- Enjoy a stroll. As you walk, notice your breath and the sights and sounds around you. As thoughts and worries enter your mind, note them but then return to the present.
- Practice mindful eating. Be aware of taste, textures and flavors in each bite, and listen to your body when you are hungry and full.
- Find mindfulness resources in your local community, including yoga and meditation classes, mindfulness-based stress reduction programs and books.



# Safety

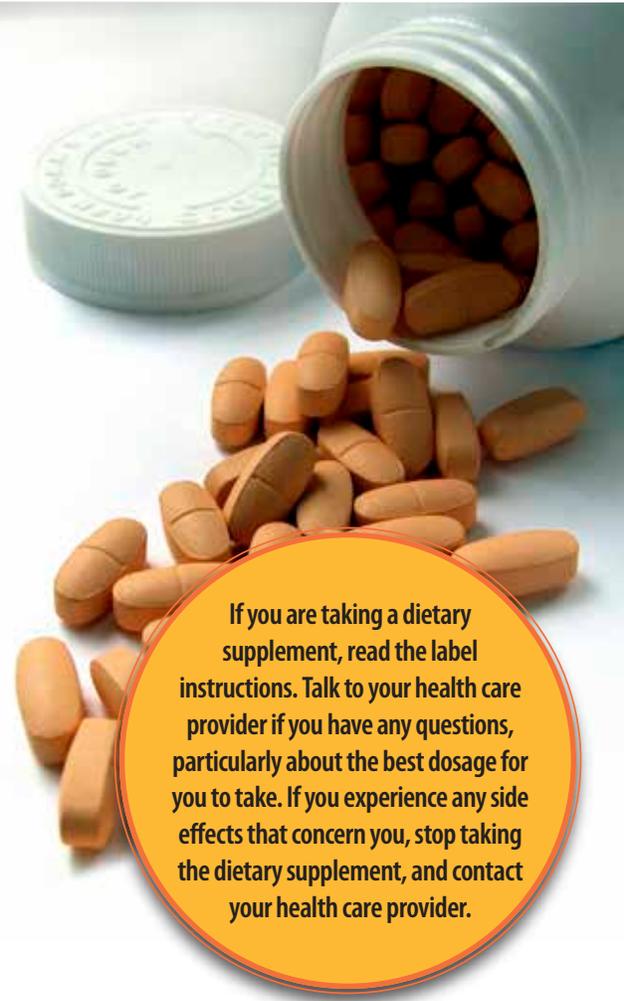
## Considerations

### FOR DIETARY SUPPLEMENTS

If you are thinking about or are using a dietary supplement, here are some points to keep in mind.

Tell your health care providers about any complementary and alternative practices you use, including dietary supplements. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care. It is especially important to talk to your health care provider if you are:

- Thinking about replacing your regular medication with one or more dietary supplements.
- Taking any medications (whether prescription or over-the-counter), as some dietary supplements have been found to interact with medications.
- Planning to have surgery. Certain dietary supplements may increase the risk of bleeding or affect the response to anesthesia.
- Pregnant or nursing a baby, or are considering giving a child a dietary supplement. Most dietary supplements have not been tested in pregnant women, nursing mothers, or children.



**If you are taking a dietary supplement, read the label instructions. Talk to your health care provider if you have any questions, particularly about the best dosage for you to take. If you experience any side effects that concern you, stop taking the dietary supplement, and contact your health care provider.**

### A Note on "Natural" Supplements

Keep in mind that although many dietary supplements (and some prescription drugs) come from natural sources, "natural" does not always mean "safe." For example, the herbs comfrey and kava can cause serious harm to the liver. Also, a manufacturer's use of the term "standardized" (or "verified" or "certified") does not necessarily guarantee product quality or consistency.

Be aware that an herbal supplement may contain dozens of compounds and that its active ingredients may not be known. Researchers are studying many

of these products in an effort to identify active ingredients and understand their effects in the body. Also consider the possibility that what's on the label may not be what's in the bottle. Analyses of dietary supplements sometimes find differences between labeled and actual ingredients. For example:

- A herbal supplement may not contain the correct plant species.
- The amount of the active ingredient may be lower or higher than the

label states. That means you may be taking less—or more—of the dietary supplement than you realize.

- The dietary supplement may be contaminated with other herbs, pesticides, or metals, or even adulterated with unlabeled ingredients such as prescription drugs.

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## Safety

### Considerations

#### FOR DIETARY SUPPLEMENTS

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The Federal Government regulates dietary supplements through the U.S. Food and Drug Administration (FDA). The regulations for dietary supplements are not the same as those for prescription or over-the-counter drugs. *In general, the regulations for dietary supplements are less strict.*

- A manufacturer does not have to prove the safety and effectiveness of a dietary supplement before it is marketed.
- A manufacturer is permitted to say that a dietary supplement addresses a nutrient deficiency, supports health, or is linked to a particular body function (e.g., immunity), if there is research to support the claim. Such a claim must be followed by the words “This statement has not been evaluated by the U.S. Food and Drug Administration (FDA). This product is not intended to diagnose, treat, cure, or prevent any disease.”
- Manufacturers are expected to follow certain “good manufacturing practices” (GMPs) to ensure that dietary supplements are processed consistently and meet quality standards.
- Once a dietary supplement is on the market, the FDA monitors safety. If it finds a product to be unsafe, it can take action against the manufacturer and/or distributor, and may issue a warning or require that the product be removed from the marketplace.

Also, once a dietary supplement is on the market, the FDA monitors product information, such as label claims and package inserts. The Federal Trade Commission (FTC) is responsible for regulating product advertising; it requires that all information be truthful and not misleading.

The Federal Government has taken legal action against a number of dietary supplement promoters or Web sites that promote or sell dietary supplements because they have made false or deceptive statements about their products or because marketed products have proven to be unsafe.

### What's Considered A Supplement?

The Dietary Supplement Health and Education Act (DSHEA) is a federal law that defines dietary supplements and sets product-labeling standards and health claim limits. DSHEA defines supplements and outlines quality, safety, and efficacy regulations that are different from those for drugs. According to DSHEA, a dietary supplement is a product that:

- Is intended to supplement the diet
- Contains one or more dietary ingredients (including vitamins, minerals, herbs or other botanicals)
- A plant or part of a plant used for its flavor, scent, or potential therapeutic properties.
- Includes flowers, leaves, bark, fruit, seeds, stems, and roots, amino acids, and certain other substances or their constituents
- Is intended to be taken by mouth, in forms such as tablet, capsule, powder, softgel, gelcap or liquid
- Is labeled as being a dietary supplement





# To Your HEALTH



WELCOA'S ONLINE GENERAL WELLNESS BULLETIN

## Mind Your Mouth



If you have it, you're not alone. Many adults nationwide have some form of gum disease. It can simply cause swollen gums or give you bad breath. It can also ruin your smile or even make you lose your teeth. The good news is that gum disease can be prevented with daily dental care.

The problem begins with bacteria. Our mouths are packed with these tiny microbes. They combine with mucus and other particles to form a sticky, colorless film—called plaque—on our teeth. Brushing and flossing can get rid of some plaque. But any that remains can harden and form tartar, a yellowish deposit that can become rock-hard.

Plaque and tartar buildup can lead to gum disease—technically known as periodontal disease. The most common and mild type of gum disease is called gingivitis. The gums become red and swollen, and they can bleed easily. Daily brushing and flossing and regular cleanings by dental professionals can usually clear up gingivitis.

If gingivitis is not treated, it can become a more severe type of gum disease called periodontitis.

### Symptoms Of Gum Disease

Symptoms of gum disease or periodontitis include:

- ▶ Bad breath that won't go away
- ▶ Gums that are red, swollen, tender or bleeding
- ▶ Painful chewing
- ▶ Loose or sensitive teeth

Periodontitis, the gums pull away from the teeth and form “pockets” that become infected. Bacterial toxins and your body's natural response to infection start to break down the bone and soft tissues that hold teeth in place. If not treated, the tissues will be destroyed. Your teeth may eventually become loose and have to be removed. If you have periodontitis, your dentist may recommend a deep-cleaning method called scaling and root planing. In more severe cases, you may need surgery.



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# To Your HEALTH



WELCOA'S ONLINE GENERAL WELLNESS BULLETIN

## Mind Your Mouth

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### Gum Disease: Know the Risks

Most people don't show signs of gum disease until they're in their 30s or 40s. But getting older doesn't necessarily mean you'll get gum disease. Daily dental care and regular visits to your dentist can reduce your risk of gum disease.

### Risk Factors

Research shows that the following can increase your chances of developing gum disease:

- ▶ **Smoking.** Need another reason to quit smoking? Smoking is one of the most significant risk factors associated with the development of gum disease. Additionally, smoking can lower the chances for successful treatment.
- ▶ **Hormonal changes in girls/women.** These changes can make gums more sensitive and make it easier for gingivitis to develop.
- ▶ **Diabetes.** People with diabetes are at higher risk for developing infections, including gum disease.
- ▶ **Other illnesses.** Diseases like cancer or AIDS and their treatments can also negatively affect the health of gums.
- ▶ **Medications.** There are hundreds of prescription and over the counter medications that can reduce the flow of saliva, which has a protective effect on the mouth. Without enough saliva, the mouth is vulnerable to infections such as gum disease. And some medicines can cause abnormal overgrowth of the gum tissue; this can make it difficult to keep teeth and gums clean.
- ▶ **Genetic susceptibility.** Some people are more prone to severe gum disease than others.

Researchers are working to learn more about preventing and treating gum problems. Some are exploring whether stem cells might help to restore damaged tissues that support the teeth. Others are searching for genes and proteins produced by our bodies and by the bacteria in our mouths to see how they interact to affect gum health.

Some studies suggest that gum disease may increase the risk of heart attack or stroke or cause other health problems. But so far, it hasn't been confirmed that gum disease contributes to these conditions.

Although many aspects of gum disease are still being investigated, one thing is clear: controlling gum disease can save your teeth. That alone is an excellent reason to take good care of your teeth and gums every day.

### To Prevent Gum Disease

Brush your teeth twice a day with fluoride toothpaste.

Floss every day.

Visit the dentist routinely for a check-up and professional cleaning.

Don't smoke.

