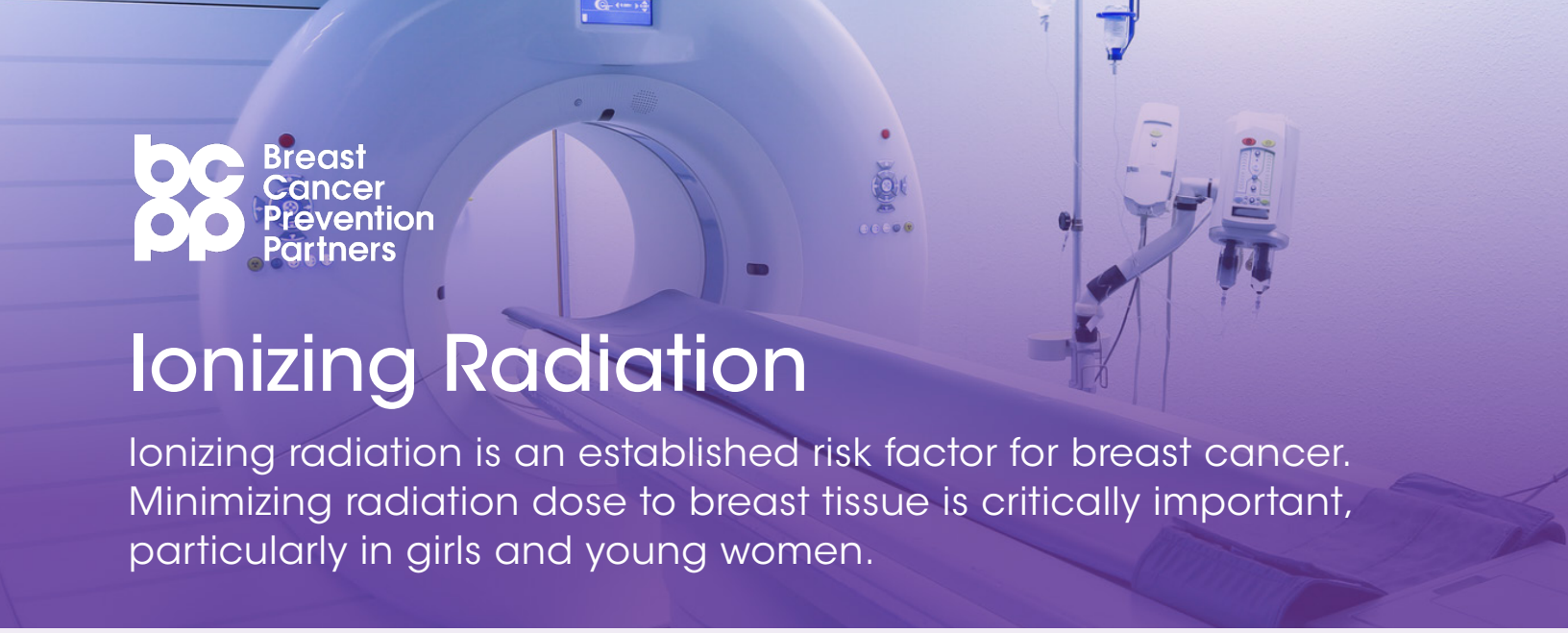


Breast Cancer Prevention Partners

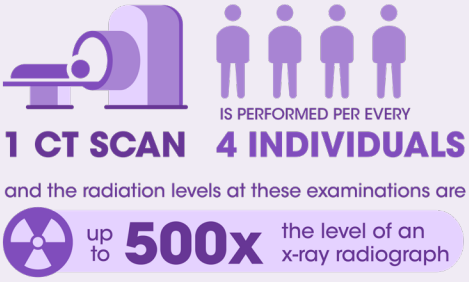
Ionizing Radiation

Ionizing radiation is an established risk factor for breast cancer. Minimizing radiation dose to breast tissue is critically important, particularly in girls and young women.

Science Summary

The largest source of ionizing radiation exposure for most people is from medical procedures like x-rays, mammograms, CT scans, and fluoroscopy. Only mammography undergoes close federal oversight. CT scans are particularly concerning due to their higher doses and frequent use. In the U.S., one CT scan is performed per four individuals, with each scan delivering up to 500 times the radiation of an x-ray.

Other exposure sources include air travel and working in or living near the nuclear industry. Radiation not only increases cancer risk but can also interact with, trigger, or amplify other breast cancer risk factors including tobacco, chemicals, chemotherapeutic agents, and host factors such as age at exposure, gender, or reproductive history.



What can I do for my own body and health?

Some exposure to radiation is unavoidable. Many exposures are medical necessities, but other procedures may be unnecessary. For medical imaging, ask your doctors and radiation experts to help reduce your exposure to and risk of harm from diagnostic ionizing radiation. Ask that they:

- Check if you have a similar test done recently that can provide them with the background information they need.
- Check if a test that does not use ionizing radiation (for example, ultrasound or MRI) can provide similar information.
- Make certain the least possible amount of radiation needed to obtain a good-quality image is used for your procedure.

What can I do to support the health of my family and friends, and my community?

Share what you know with loved ones. For those who are uncomfortable or nervous making requests to medical professionals, offer to go with them to appointments or practice asking questions at home.

How can I navigate and get support with any systemic barriers to my health?

The University of California-San Francisco offers resources to help understand and reduce medical radiation exposure, including tips for discussing dose minimization with healthcare providers. Visit knowyourdose.ucsf.edu.

People who work in healthcare facilities also face higher ionizing radiation exposure and should be trained on risks of medical imaging, appropriate use, and protection.

For environmental exposures, radon is a naturally occurring radioactive gas and levels vary depending on location and house construction. The Environmental Protection Agency's (EPA) Radon Zone Map provides information on radon levels. The California Department of Public Health has tips on how to get houses tested. If radon is detected, the EPA offers resources on what to do next.

How can I help advocate for and support systemic change to remove barriers to health?

Ionizing radiation definitively increases breast cancer risk and it is critical that we reduce this exposure whenever possible. Here are some systems-level changes we can advocate for:

- Ensure all medical radiological equipment complies with state standards to minimize radiation exposures from medical imaging.
- Establish best practices and train all personnel potentially exposed in health care settings (including, for example, cleaning and other support staff) on how to minimize radiation exposure from medical devices.
- Implement best practices to minimize cumulative exposure to radiation in non-medical workplaces.
- Require full transparency to residents, developers, and other interested parties of potential radioactive contamination in their communities.

TOGETHER, WE CAN MAKE CHANGE!

Learn more and get involved.

Breast Cancer Prevention Partners (BCPP) is the leading science-based advocacy organization working to prevent breast cancer by eliminating our exposure to toxic chemicals and other environmental exposures linked to the disease.

BCPP.org

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