

# Breast Cancer: Why Do We Permit So Many *Preventable* Cases?

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Just recently, a popular lady of American film, television, and dance, Suzanne Somers, came forth to let the American people know that she is battling breast cancer. Celebrities could do a lot to inform people that there is a guaranteed way to *prevent* a great many cases of future breast cancer.

In 1965, the *British Journal of Cancer* published the first study indicating that medical x-rays are a cause of breast cancer. Much additional evidence firmly established medical x-rays as a proven cause of breast cancer by 1980. And several studies and monographs in the 1995-2000 period, by Charles Land, Michele Doody, and myself, have established that low-dose exposures to x-rays and gamma rays are a *very important* cause of his wretched disease.

In causing breast cancer, the relevant exposure to medical x-rays is the cumulative total dose. Therefore, the x-ray history of women not only during adulthood, but also during gestation, infancy, and childhood, has a whole lot to do with who "gets" breast cancer at ages 30, 40, 50, 60, 70, or 80 years of age.

## If You Care, You Measure

Dose from the same x-ray imaging procedure can vary today by 10- to 20-

fold, according to the operator's technique and the patient's size. No one presently knows how much x-ray dose is accumulated by women anywhere in this country, during diagnostic and surgical procedures, because doses are still not measured.

Today, the breasts receive unmeasured x-ray doses from CT scans, fluoroscopy, and regular x-rays of the lungs, heart, upper spine, upper gastro-intestinal tract, upper arm, shoulder, and during mammograms, certain biopsies, cardiac angioplasty, and some other procedures. Pre-delivery x-ray pelvimetry of mothers, which irradiated one baby out of every 13 until about 1970, is part of the accumulated x-ray dose for many women.

Is there a woman anywhere who knows her own lifetime accumulated x-ray dose to the breasts? Let me hear from her ([comments@x-raysandhealth.org](mailto:comments@x-raysandhealth.org)).

A guaranteed way to reduce future breast cancer is to reduce x-ray dose per x-ray imaging procedure. And if we are *serious* about achieving good images with the *least* possible x-ray doses, x-ray measurements are the key. If we care, we measure -- because otherwise we do not know if we are succeeding or failing. "What you measure improves," is an appropriate motto here.

## **A Relentlessly Positive Approach**

I am unaware of any other aspect of medicine where we use a potentially lethal agent without measuring the dose and making every effort to reduce the risk. It is not good enough, morally, that the benefit exceeds the risk. The moral imperative includes making the risk as small as possible.

So, if we care about *preventing* breast cancer, we will establish a relentlessly positive program of measuring and recording x-ray doses, so that physicians and patients will know if the United States is succeeding, or not, in the one known action *guaranteed* to reduce breast cancer rates.

Naysayers will deny that patients commonly receive much higher x-ray doses than necessary. Such denials would be wrong according to recent articles right in the medical literature (links and references at [www.x-raysandhealth.org](http://www.x-raysandhealth.org)). Techniques to reduce x-ray doses are already known and demonstrated, and await application.

## **Real Heroes for Breast Health**

Instead of expending attention on mistaken naysayers, encouragement should be directed at those who are in a position to become positive heroes for humanity.

Where will we find the "Heroes for Breast Health?" There are three professional groups, present in large hospitals, who are outstanding candidates for this honor: The radiologists, radiologic technologists, and

health physicists. Together they have the expertise to do what is needed to reduce x-ray dose per x-ray imaging procedure. Links to their main professional societies are provided at [www.x-raysandhealth.org](http://www.x-raysandhealth.org).

When these three groups decide to accept this responsibility, they will change the entire landscape in the breast-cancer field. Local chapters could contribute successful models which other localities could duplicate. By leading a relentless program to reduce doses during x-ray imaging, these professionals can say "NO!" to permitting a great many *preventable* cases of future breast cancer, and they would deserve every honor of the realm, absolutely! Will they rise to the occasion? How soon?

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