

Why Mammography Screening is being Abolished in Switzerland



Whether breast cancer screening does more harm than good has been debated extensively. Earlier this year the Swiss Medical Board published a report recommending that no new systematic mammography screening programs be introduced. Here is how and why they came to this conclusion.

The Swiss Medical Board is part of an independent health technology assessment initiative in Switzerland. In 2013 they were asked to review the current mammography screening program. The team of experts on the board included amongst others a medical ethicist, a clinical epidemiologist, a pharmacologist, an oncologic surgeon, a nurse scientist, a lawyer, and a health economist.

“Systematic mammography screening” is the term generally used to describe the serial radiological examination of women within the framework of a screening program whereby all women in a specific age group are invited to an X-ray examination of their breasts which is not conducted by a doctor. At the time the country had in place a comprehensive screening program which was offered to all women aged from 50 to 69.

The board spend twelve months reviewing all available evidence and its implications. They reported becoming “increasingly concerned” about the widely believed notion that mammograms were safe and capable of saving lives. They said “As we embarked on the project, we were aware of the controversies that have surrounded mammography screening for the past 10 to 15 years. When we reviewed the available evidence and contemplated its implications in detail, however, we became increasingly concerned.”

In fact they concluded that statistics clearly indicated that mammograms appeared to be preventing only 1 death per 1,000 women screened, and actually caused harm to many more. Their thorough review left them no choice but to recommend that “no new systematic mammography screening programs be introduced, and that a time limit should be placed on existing programs.”

The report was made public at the start of 2014 wherein they advised that the quality of mammography screening should be evaluated and every woman should be informed, in a “clear and balanced” way, about the benefits in addition to the potential harms of screening.(i)

The subject of whether breast cancer screening in women with no symptoms has been questioned by many industry experts over the years and this revelation from the Swiss seems to prove that it no longer makes sense.

Two members of the Swiss Medical Board's expert panel went on to expand on their research and the reasons which led to their conclusion in an article in *New England Journal of Medicine* (ii) discussing three major factors:

1. OUTDATED CLINICAL TRIALS

“We noticed that the ongoing debate was based on a series of reanalyses of the same, predominantly outdated trials. The first trial started more than 50 years ago in New York City and the last trial in 1991 in the United Kingdom. None of these trials were initiated in the era of modern breast-cancer treatment, which has dramatically improved the prognosis of women with breast cancer. Could the modest benefit of mammography screening in terms of breast-cancer mortality that was shown in trials initiated between 1963 and 1991 still be detected in a trial conducted today?”

2. BENEFITS DID NOT OUTWEIGH THE HARMS

The panel referred to a recent study published in *The Lancet*, recognized as one of the largest and longest studies of mammography to date. This study involved 90,000 women who were followed for a period of 25 years. The study concluded that mammograms have absolutely NO impact on breast cancer mortality (iii). These conclusions were widely publicized at the time and showed that the death rate from breast cancer was virtually identical between those who received an annual mammogram and those who did not, while 22% of screen-detected invasive breast cancers were over-diagnosed, leading to unnecessary treatment.

The Swiss experts stated: “This means that 106 of the 44,925 healthy women in the screening group were diagnosed with and treated for breast cancer unnecessarily, which resulted in needless surgical interventions, radiotherapy, chemotherapy, or some combination of these therapies. In the best case, the small reduction in breast-cancer deaths was attenuated by deaths from other causes. In the worst case, the reduction was canceled out by deaths caused by coexisting conditions or by the harms of screening and associated overtreatment. Did the available evidence, taken together, indicate that mammography screening indeed benefits women?”

This concurs with the Cochrane Collaboration Review, published in 2013 which also found no evidence that mammography screening has an effect on overall mortality (v). Thus calling into question whether mammography screening really benefits women. According to the authors of the Cochrane review: “If we assume that screening reduces breast cancer mortality by 15% and that overdiagnosis and overtreatment is at 30%, it means that for every 2000 women invited for screening throughout 10 years, one will avoid dying of breast cancer and 10 healthy women, who would not have been diagnosed if there had not been screening, will be treated unnecessarily. Furthermore, more than 200 women will experience important psychological distress including anxiety and uncertainty for years because of false positive findings.”

3. WOMEN'S PERCEPTIONS OF MAMMOGRAPHY BENEFITS ARE NOT MIRRORED IN THE REALITY

The Swiss panel said “we were disconcerted by the pronounced discrepancy between women’s perceptions of the benefits of mammography screening and the benefits to be expected in reality.”

One survey found that the majority of women believed that mammography screening programs reduced the risk of breast cancer deaths by at least half and prevented at least 80 deaths per 1,000 women screened (vi).

In this survey, which involved more than 4000 participants, most women said they believed mammography reduced the risk of breast cancer deaths by at least half and prevented at least 80 deaths per 1,000 women screened. The authors concluded that “Misconceptions were widespread: a majority of women believed that screening prevents or reduces the risk of contracting breast cancer (68%), that screening at least halves breast cancer mortality (62%), and that 10 years of regular screening will prevent 10 or more breast cancer deaths per 1000 women (75%).”

However in reality, mammography may, at best, offer a relative risk reduction of 20 percent and prevent in absolute terms only one breast-cancer death per 10,000 women. This led to the panel of experts to ask a long overdue question: “How can women make an informed decision if they overestimate the benefit of mammography so grossly?”

In conclusion the Swiss said “It is easy to promote mammography screening if the majority of women believe that it prevents or reduces the risk of getting breast cancer and saves many lives through early detection of aggressive tumors.⁴ We would be in favor of mammography screening if these beliefs were valid. Unfortunately, they are not, and we believe that women need to be told so. From an ethical perspective, a public health program that does not clearly produce more benefits than harms is hard to justify. Providing clear, unbiased information, promoting appropriate care, and preventing overdiagnosis and overtreatment would be a better choice.”

Often women can feel almost guilt-tripped into thinking that skipping their annual mammogram appointment is hugely irresponsible. The industry over the years talked about it as a one size all type of approach to preventing or detecting breast cancer. In reality there are now reasonable doubts regarding symptom free women.

We expect our health professionals to know what they’re talking about, and to give the best advice possible. But this research suggests that doctors can be just as confused and misinformed as the patients, compounded by mis-information and media propaganda in a powerful and profits driven industry which often chooses to dismiss research that dramatically contradicts their profit-based agenda.

The industry as a whole has a responsibility to no longer ignore mounting research showing that more women are being harmed by regular mammograms than are saved by them.

OTHER POINTS MAKING MAMMOGRAMS RISKIER AND UNRELIABLE:

The Swiss medical board found that for EVERY BREAST CANCER DEATH PREVENTED in US women over a 10-year course of annual screening beginning at 50 years of age:

- * 490 to 670 women are likely to have a false positive mammogram with repeat examination
- * 70 to 100 forced to undergo an unnecessary biopsy
- * 3 to 14 women have an over-diagnosed breast cancer that would never have become clinically apparent and present no danger

In addition studies also indicate that up to 50 percent of women have dense breast tissue, making mammograms very difficult to decipher. Dense breast tissue and cancer can both appear as white areas on an X-ray, therefore making it nigh impossible for a radiologist to detect cancer in these women with any level of accuracy. This has led to legislation, or ‘breast density laws’, to be passed in California, Connecticut, New York, Virginia, and Texas, which make it absolutely mandatory for radiologists to inform their patients who have dense breast tissue that mammograms are basically useless for them. A law is currently being considered at a federal level so all women are informed across the country.

WOMEN CARRYING THE BRCA 1 or 2 GENE

Women who have this genetic mutation are known to have an increased risk of breast cancer and in the past have often been encouraged to have regular mammograms. However research published in the British Medical Journal(BMJ) in 2012 studied the risk of breast cancer associated with diagnostic radiation in carriers of BRCA1/2 mutations (vii). This research covered almost 2000 women in Britain, France and the Netherlands. They found that women carrying this mutation are particularly vulnerable to radiation-induced cancer stating that women carrying this mutation who were exposed to diagnostic radiation before the age of 30 were twice as likely to develop breast cancer, compared to those who did not have the mutated gene.

They also found that the radiation-induced cancer was dose-responsive, meaning the higher the dose, the greater the risk of cancer developing. The authors concluded that: “The results of this study support the use of non-ionizing radiation imaging techniques (such as magnetic resonance imaging) as the main tool for surveillance in young women with BRCA1/2 mutations.”

Incredibly, despite these findings, the National Cancer Institute reports that some expert groups still recommend women with BRCA 1/2 mutation undergo a mammogram every year starting as young as age 25 (viii) – the exact scenario that the BMJ study found may double their breast cancer risk!

Be informed, be confident that your doctor is fully educated with all studies and make your own decision. Women need to know that there are other screening options (including thermography, ultrasound, and/or MRI), each with their own strengths and weaknesses, and you have a right to utilize those options. Know your breasts and seek advice should you notice any changes. Also remember that we can minimize the risk of breast cancer by focusing attention on prevention in addition early detection.

Eat a healthy diet full of fresh organic vegetables and avoid sugar and processed foods. Include organic animal based sources of omega 3 fatty acids. Reduce alcohol intake. Exercise regularly and maintain a healthy body weight.

Be informed. Remain informed.

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