

NINE CONSIDERATIONS

Nine considerations for you and your health care provider when discussing your breast screening.



DENSE BREASTS
CANADA

NINE CONSIDERATIONS FOR YOU AND YOUR HEALTH CARE PROVIDER WHEN DISCUSSING YOUR BREAST SCREENING

The recommendations of Canadian experts in breast cancer screening differ in every way from those of the Canadian Task Force for Preventive Health Care (Task Force). The recommendations from experts are based on current, relevant evidence and this evidence has been used to produce this document.

1. How do the Canadian breast screening guidelines empower women?

The guidelines emphasize two things: engaging in shared decision making and recognizing that the decision to have a mammogram is a woman's. The guideline states, "Based on a woman's values and preferences, *the decision to undergo screening is conditional on the relative value a woman places on possible benefits and harms from screening.*" The Task Force stated to the media, "The new guidelines are intended for an empowered position, which puts the decision-making in the hands of the individual woman in terms of what she prioritizes."

2. What does current evidence show about the benefits of mammograms?

Current breast screening guidelines underestimate the benefits of screening. The Task Force panel considered only Randomized Control Trials (RCTs) from the 1960s to 1990s, which show a **15-20%** mortality reduction. Observational studies done with modern mammography equipment, such as the [2014 study of screening in Canada](#) of almost **3** million women showed **40%** fewer deaths among women who had screening mammograms than women who did not. A **44%** reduction in breast cancer mortality occurred in women in their 40s. The only measured outcome of the RCTs used by the Task Force was mortality reduction, but there are three [other significant benefits of early detection of cancer](#): the ability to avoid chemotherapy, mastectomy, and axillary dissection and possibly lymphedema.

3. How are the "harms" of mammograms overestimated?

The Task Force overestimates the harms of screening when discussing false alarms and overdiagnosis.

a. About 8-10% of women need additional tests after screening, called "recalls." Most of these recalls are reassuring and are due to overlapping tissue and benign breast lesions like cysts, while a few (8%) need to go onto a needle biopsy. About 40% of these biopsies will show breast cancer. Image-guided needle biopsies are done with a local anesthetic and should not be painful. When women are recalled, [it causes anxiety, but it's transient, and studies show that it doesn't harm women long-term](#). Studies show women are more likely to participate in screening after abnormal recalls.

b. Undue weight has been given to overdiagnosis. The Task Force estimates **41%** of breast cancers are overdiagnosed. This is largely because of their reliance on the compromised Canadian National Breast Screening studies done from 1980-1985. Experts estimate overdiagnosis to be **1-10%**, more likely in the low end of that range. It is shown that overdiagnosis is lower in younger women <50 years than in older women.

4. What does current evidence show about the importance of annual screening at 40?

[Annual mammographic screening starting at age 40](#) saves the [most lives](#). Seventeen percent of breast cancers occur in women in their 40s. Twenty seven percent of all the years of life lost to breast cancer occur in women diagnosed before age 50. Starting at age 40 is [especially](#) important for [Black, Asian and Hispanic women](#). They have earlier onset and peak of breast cancer incidence in the late 40s, compared with the peak in Caucasian women which is in the late 50s-early 60s.

5. Would most women aged 40-49 choose to be screened?

When told that mammograms can prevent breast cancer death and allow them to avoid aggressive treatment and surgery, most women choose to be screened. [Researchers in Pittsburgh](#) surveyed all women attending for routine screening and found that 97% would have regular screening, even if it meant having a false alarm and 82% said they'd be willing to have a needle biopsy if it might increase the chance of detecting a cancer earlier.

6. What does evidence show about the benefits of supplemental screening for women with dense breasts?

The Task Force considers women with dense breasts to be of average risk. They are not. Women with dense breast tissue are more likely to have larger cancers and positive nodes because the cancer may be masked by their normal dense breast tissue, and they present with interval cancers, which have a poorer-prognosis than screen-detected cancers. The Task Force says there is insufficient evidence to recommend additional screening for women with dense breasts because they only consider RCTs. A RCT of screening ultrasound is [underway in Japan](#) and is already showing higher sensitivity, smaller cancers and reduced interval cancers in the ultrasound arm, and this is the precursor to mortality reduction. There is also decades of [observational data](#) from multiple studies showing that [ultrasound finds](#) an additional 2-7 cancers per [thousand women](#). These are almost all small (1cm), invasive, nose-negative cancers. Supplemental MRI screening of women with dense breast tissue shows an [incremental cancer detection rate of 16 per 1000](#) and reduction of interval cancers. Finding these cancers earlier will allow less aggressive treatment and reduce mortality.

7. What does modelling demonstrate about the impact on Canadian women from dangerous guidelines?

Researchers using the OncoSim-Breast microsimulation model developed by The Canadian Partnership Against Cancer, in collaboration with Statistics Canada, [found that more than 400 women will die](#) unnecessarily each year in Canada, if women are not screened in their 40s. If the other guidelines are followed: screening women aged 50 and older only every 2-3 years and not using supplemental screening for women with dense breasts, the figure would be close to **1,100** unnecessary deaths in Canadian women each year.

8. Who made Canada's breast screening guidelines?

There are no breast cancer screening experts on the 15-member Task Force panel that made the 2018 breast cancer screening guidelines. The volunteers are experts in methodology or research but have no expertise in breast cancer diagnosis, treatment, or management. The panel for the 2018 breast guidelines included: a psychologist, epidemiologists, a public health nurse, a chiropractor, and an occupational therapist. A nephrologist acted as the chair of the breast guideline.

9. How do the recommendations of non-subject matter experts differ from those of breast screening experts?

Recommendations from non-subject matter experts: Canadian Task Force Recommendations	Recommendations from breast screening experts: Canadian Association of Radiologists/Canadian Society of Breast Imaging
Screening for women aged 40-49 is not recommended	Women aged 40-49 should screen annually with mammography
Women aged 50-74 should screen every 2-3 years with mammography	Women aged 50-74 should screen every 1-2 years with mammography
There are no recommendations for screening women over age 74	Women over aged 74 should screen every 1-2 years with mammography as long as they are in good health with life expectancy of ~7 + years
Supplemental screening is not recommended for women with dense breasts	Women with dense breasts can benefit from supplemental screening
Risk assessment not recommended	Risk should be assessed by age 25-30 to determine if early screening is appropriate
Clinical breast exam is not recommended	Mammography may miss breast cancers and clinical breast exam is complementary to mammography

Summary:

- If a woman in her 40s or over 74 chooses to be screened, after a discussion with her healthcare provider of the benefits and limitations of mammograms, a requisition should be given.
- There is 44% mortality reduction with screening of women aged 40-49.
- Other benefits of early detection of breast cancer include: reduced need for mastectomy, chemotherapy, and lymphedema.
- 80% of breast cancers occur in women with no family history, so all women need to be screened.
- Supplemental screening (i.e. ultrasound) for women with dense breasts can find cancers missed on mammography when they are small and node negative.
- False alarms are highest after a woman's first screen, but diminish thereafter.
- Overdiagnosis is estimated at 1-10%.

