

Healthcare Provider FAQs: Breast Cancer Screening CPG

The following is intended to help answer some common questions that healthcare professionals may have about the 2022 Alberta Breast Cancer Screening Clinical Practice Guidelines update and breast cancer screening in general.

Remember, the majority of breast cancers are found in women with no known risk factors. We encourage all eligible women to screen regularly. Supplementary screening should be chosen by first weighing the benefits and harms.

What changed in the 2022 CPG compared to the previous CPG?

One of the major changes made in the 2022 CPG update was an update to the recommended starting age for breast cancer screening. The new recommended starting age is 45 years old, lowered from the previous recommended starting age of 50.

Next, recommendations for a higher-than-average risk group was added. The addition of this risk group was to capture people who may have risk factors that put them at higher risk of breast cancer compared to the average risk group, but did not have risk factors that would put them into the high risk category (high risk is typically defined as >20% lifetime risk¹).

The last major addition was the inclusion of recommendations for transgender, gender diverse, and non-binary individuals. For breast cancer screening, these would specifically refer to those who were:

- 1. Assigned female at birth and have not undergone top surgery (mastectomy); or
- 2. Assigned male at birth and have been on feminizing hormone therapy for 5 or more years in total (does not have to be consecutive years)

Why were these changes made?

Emerging evidence has demonstrated a potential reduction in mortality for some people who start screening before they turn 50 years old^{2,3}. Data from the Alberta population has also shown that the number of breast cancers detected in the 45-49 age groups (246 cancers) was similar to the number detected in the 50-54 age group (287 cancers), despite having a much lower screening participation rate (24% vs 65%)⁴. Lastly, data modelling using the OncoSim-Breast model projected that biennial screening for 45-49 year olds had the best balance of benefits and harms compared to other screening intervals and age groups for 40-49 year olds⁴.

How are transgender, non-binary, and gender diverse populations affected?

Transgender, non-binary, and gender-diverse individuals to fall under the above specified categories are recommended to screen for breast cancer due to the presence of breast tissues and hormones that may increase their risk of breast cancer. Prolonged exposure to estrogen and/or progesterone that known risk factors for breast cancer⁵, and studies have also indicated that people taking female gender affirming hormone therapy are at greater risk of breast cancer compared to cisgender men^{6,7}. Individuals who have not had a mastectomy would still have female breast tissue and may still be at increased risk of breast cancer compared to cisgender men, even if they are undergoing male gender affirming hormone therapy^{6–8}. It is currently recommended that these individuals follow the same screening recommendations as cisgender women^{9,10}.

People who don't identify as cisgender often experience disparities in seeking healthcare and may face conflicting information as to whether they should screen for cancer^{7,11}. If you think your patient may benefit from breast cancer screening, think about having a conversation with them to discuss what would be the best course of action for them.



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Higher-than-average risk

The higher-than-average risk category was added to address several risk factors that do not qualify as high risk. Higherthan-average risk is generally defined as having a 15-20% lifetime risk of developing breast cancer¹²⁻¹⁴. Common factors that may categorize someone as higher-than-average risk include having dense breast (category D density – see below), having a family history of breast cancer, having a previous history of breast cancer, or having benign breast conditions that are known to increase risk (such as atypical hyperplasia or lobular carcinoma in situ). Depending on an individual's risk factors, they may be recommended to screen more often than every two years and/or use additional methods to screen for breast cancer.

What type of screening methods are recommended?

Digital mammography is the recommended method to screen for breast cancer for the average-risk population. Digital mammography takes a low-dose x-ray image of the breast after the breast is compressed between two plates¹⁵. You may see some clinics use digital breast tomosynthesis (DBT/3D mammography), which takes multiple views of the breast at different angles and combines them to create a 3D image of the breast^{16,17}.

For people who may be at increased risk of breast cancer, or have risk factors that may increase risk, other screening methods may be used in addition to mammography, such as ultrasounds or MRIs. For people with dense breasts, the benefits of using supplemental ultrasound may be greater as denser breasts tend to mask abnormalities¹⁸. MRIs may also be used to screen for breast cancer for people at high risk¹⁹.

Other screening methods, such as thermography and clinical breast exams, are not recommended as replacements for mammography²⁰.

How does breast density affect screening recommendations?

Breast density is a measure of the amount of fibroglandular tissue in the breast compared to the amount of fatty tissue²¹. The tissue shows as white on a mammogram, which can mask the appearance of cancer²¹. Because of this, it can be harder to detect cancer in people who have a high amount of tissue in their breast (referred to as dense breast).

Breast density will be categorized in 1 of 4 categories on a radiologist report:

- 1. A or Fatty
- 2. B or scattered
- 3. C or Heterogenous dense
- 4. D or Extremely dense

A radiologist may recommend that a person screen more often, or undergo supplemental screening, if they have dense breast. Check out the Breast Density FAQ to learn more about how breast density may affect your patient.

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^{2.} Moss, S. M. et al. Effect of mammographic screening from age 40 years on breast cancer mortality in the UK Age trial at 17 years' follow-up: a randomised controlled trial. Lancet Oncol. 16, 1123-1132 (2015).

^{3.} Ray, K. M., Joe, B. N., Freimanis, R. I., Sickles, E. A. & Hendrick, R. E. Screening Mammography in Women 40-49 Years Old: Current Evidence. Am. J. Roentgenol. 210, 264-270 (2018).



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