

Helping people ages 40 to 49 decide whether to screen for breast cancer

Why breast cancer screening conversations are important

The Ontario Breast Screening Program (OBSP) encourages people ages 40 to 49 to make an informed decision about whether breast cancer screening is right for them based on their personal risk for breast cancer, the potential benefits and potential harms of breast cancer screening, and what matters most to them in taking care of their health. Having conversations about breast cancer screening is important because generally people ages 40 to 49 have a lower chance of getting breast cancer compared to people ages 50 to 74, and the balance of potential benefits to potential harms of regular breast cancer screening may be different for people ages 40 to 49 than for people ages 50 to 74.

Eligibility for the OBSP

Women, Two-Spirit people, trans people and nonbinary people ages 40 to 49 are eligible for breast cancer screening in the OBSP if they:

- have no new breast cancer symptoms
- have no personal history of breast cancer
- have not had a mastectomy
- have not had a screening mammogram within the last 11 months
- if transfeminine, have used feminizing hormones for at least 5 years in a row.

There is also a program for people who are at high risk of getting breast cancer based on whether they have certain genes, their family or personal health history, or if they have previously had radiation therapy to the chest. If you would like to learn more about the high risk screening program you can visit the program website at cancercareontario.ca/obsp or call the Ontario Health Contact Centre at 1-866-662-9233.

Setting the stage for decision-making

Make sure the person you are counselling understands that their choice is between **getting screened now** or **not getting screened right now**.

Reassure them that:

- they can take as much time as they need to decide.
- if they choose not to screen, they can change their mind and start screening at any time between age 40 to 74.
 - Note: Eligible people will receive an invitation letter to start screening when they turn 50.

Risk of breast cancer

Breast cancer is the most commonly diagnosed cancer in Ontario, but most breast cancers are found in people ages 50 and over.

Each person's chance of getting breast cancer differs based on their individual risk factors. People can use My CancerIQ (mycanceriq.ca/Cancers/Breast) to understand how their risk of breast cancer compares to others in their age group and get personalized information on how they can decrease their risk of breast cancer. Understanding their own risk may help them make a decision about breast cancer screening.

Age group	Number of females* who got breast cancer in Ontario, 2021
40 to 44	114.9/100,000
45 to 49	173.1/100,000
50 to 54	236.2/100,000
55 to 59	240.9/100,000

Source: Statistics Canada. Table 13-10-0111-01 Number and rates of new cases of primary cancer, by cancer type, age group and sex DOI: <https://doi.org/10.25318/1310011101-eng>

*The binary-only sex statistics reported in this section reflect how the data are recorded in the data source and are not inclusive of all gender diversity. As a result, the data may incorrectly classify people whose gender identity differs from their sex assigned at birth.

Race, ethnicity and Indigeneity

- Data show that there are race-, ethnicity- and Indigenous-specific differences in breast cancer subtype, stage at diagnosis, incidence, mortality, and survival.
- It is currently unknown how screening people in Ontario ages 40 to 49 may impact outcomes across different racial and ethnic groups and in Indigenous people. Although there is not enough evidence to provide race-, ethnicity- and Indigenous-specific breast cancer screening recommendations, it is important for providers to help their patients understand the available evidence so they can make an informed decision based on their individual risk.
- Caution must be taken in applying the data provided below from other jurisdictions to the Ontario context. Below find a high-level summary of available evidence from Canada, the United States and the United Kingdom:
 - Age at breast cancer diagnosis for non-white female populations has been found to be younger than in white females in certain studies from Canada and the United Kingdom.^{1,2}
 - Canadian and United Kingdom studies showed that Black females have more aggressive tumour profiles compared with white females.^{1,3}
 - Canadian, United States and United Kingdom studies showed that the incidence of breast cancer is lower in some racial and ethnic groups than in white females.^{1,4,5,6}
 - Black females have a higher breast cancer mortality rate than white females in Canada and the United States.^{1,7}
 - First Nations females in Ontario have lower breast cancer incidence and mortality rates than other females in Ontario*, but they also have a lower survival rate.⁸
 - Breast cancer incidence was significantly higher for Métis women than for non-Indigenous women in Canada.⁹
 - Breast cancer incidence was lower among female residents of Inuit Nunangat compared to female residents in the rest of Canada.¹⁰

- Also consider that race-, ethnicity- and Indigenous-specific disparities are a reflection of determinants outside of biological differences, including, but not limited to, individual barriers (limited awareness, fear or distrust), community or interpersonal barriers, structural barriers, social or historical factors, structural racism and inequities in the health care system.
- For more detailed information on different race-, ethnicity- and Indigenous-specific breast cancer incidence and outcomes, see the additional notes section at the end of this document.

*Includes females living in Ontario, except First Nations in the Indian Register and Métis in the Métis Citizenship Registry.

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Values and preferences for breast cancer screening

- As you review the potential benefits and potential harms with people ages 40 to 49, ask them which are most important to them, and what matters most to them about breast cancer screening.
- There are potential benefits and potential harms of screening that exist regardless of the age at which someone decides to screen; however, the balance of potential benefits to potential harms may change based on someone's age.

Potential benefits of regular breast cancer screening

- Screening can find breast cancer early, which may mean that:
 - Treatment has a better chance of working.
 - Treatment can be less intensive or invasive.
 - The chance of dying from breast cancer is lower.

Potential harms of regular breast cancer screening

- A screening test result can sometimes be abnormal when someone does not actually have cancer (a false-positive). This may result in additional testing.
- Screening can find a cancer that would have never caused harm if left untreated (overdiagnosis). This could result in a surgery or treatment that was not needed.

Starting screening at age 40 compared to starting screening at age 50

Comparison of screening starting at age 40 vs. 50 over a lifetime (per 1,000 women*)	Screened every 2 years starting at age 40	Screened every 2 years starting at age 50
1 to 2 more deaths prevented	8.4 / 1000	6.9 / 1000
519 more false positives	1,540	1,021
2 more cases overdiagnosed	12 / 1000	10 / 1000
62 more unnecessary biopsies	210 / 1000	148 / 1000

Source: Trentham-Dietz A, Chapman CH, Jayasekera J, et al. Collaborative Modeling to Compare Different Breast Cancer Screening Strategies: A Decision Analysis for the US Preventive Services Task Force. JAMA. Published online April 30, 2024.

doi:10.1001/jama.2023.24766

<https://jamanetwork.com/journals/jama/fullarticle/2818285>

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The data in this section are derived from five simulation models of breast cancer in United States female populations screened using digital 2D mammography. Data includes all screens (initial screens and rescreens). There are limitations to modelling: assumes 100% participation, all abnormal screens receive prompt evaluation and immediate treatment. These numbers will be updated to reflect Canadian data when the final Canadian Task Force on Preventive Health Care modelling is updated and released.

Additional information for people who are pregnant or lactating

- Counsel them about their screening options:
 - People who are pregnant can be screened safely with mammography.
 - People who do not want to screen while pregnant can start screening three months post-partum.
 - People who are lactating can start screening three months post-partum.
- Counsel them about the signs and symptoms of pregnancy-associated breast cancer.

Next steps after someone chooses to screen:

Provide information about how to make an appointment:

- Website with OBSP locations, contact information and wait times at ontariohealth.ca/breastscreeninglocations
OR
- The OBSP Appointment Booking Line at 1-800-668-9304

Next steps if someone chooses not to screen:

Make a note to discuss screening with them again in five years or when they turn 50, whichever comes first.

An updated conversation guide will be available online at the time of launch and will be available as a healthcare provider resource at [Screening Resources for Healthcare Providers | Cancer Care Ontario](#).

Additional notes on race, ethnicity and Indigeneity

- Data show that there are race-, ethnicity- and Indigenous-specific differences in breast cancer subtype, stage at diagnosis, incidence, mortality, and survival.
- However, there is not enough evidence to provide race-, ethnicity- and Indigenous-specific breast cancer screening recommendations. Currently, there are no Canadian data on race-, ethnicity- and Indigenous-specific impacts of breast cancer screening, such as data on different screening age ranges and intervals, as well as the potential benefits and potential harms of screening. Caution must be taken in applying data from other jurisdictions to Ontario. Therefore, it is currently unknown how screening may impact differences in breast cancer risk and outcomes by race, ethnicity and Indigeneity for people in Ontario ages 40 to 49.
- Jurisdictional evidence in the table below should be shared with people to support an informed decision-making discussion as it applies to them.

Jurisdictional evidence

- The section below provides additional detailed data on race, ethnicity and Indigeneity.
- Information provided will be expanded upon as new data becomes available.

Age at diagnosis
<p>Canada:</p> <ul style="list-style-type: none">• Ontario First Nations females have a similar age of breast cancer diagnosis as other females in Ontario.*⁸ <p>United Kingdom:</p> <ul style="list-style-type: none">• Females from all ethnic groups were diagnosed with breast cancer at a younger age than white females.²<ul style="list-style-type: none">○ The mean age at diagnosis ranged from 3 to 6 years younger in Indian, black Caribbean and Pakistani females compared with white females.²○ The mean age at diagnosis for Black African females was 50.5 years compared with 59.3 years for white females.²
Cancer subtype
<p>Canada:</p> <ul style="list-style-type: none">• Black females are more likely to be diagnosed with aggressive subtypes of breast cancer (e.g., triple negative).¹ <p>United Kingdom:</p> <ul style="list-style-type: none">• Females in ethnic groups, especially young black females, have been reported to be diagnosed with more aggressive tumour profiles than white females.³
Stage at diagnosis
<p>Canada:</p> <ul style="list-style-type: none">• Ontario First Nations females have a similar stage at breast cancer diagnosis as other females in Ontario.*⁸ <p>United Kingdom:</p> <ul style="list-style-type: none">• Females in all ethnic groups were more likely to be diagnosed with a later stage of breast cancer than white females.²

- Black African females were more likely to be diagnosed with the latest stage of breast cancer than other ethnic groups.²
- Females with African, Caribbean, Indian, Bangladeshi and Pakistani backgrounds were more likely to be diagnosed with late stage breast cancer than white females.¹¹

Incidence

Canada:

- Black females ages 40 to 49 have a lower incidence of breast cancer than white females.¹
- Filipina females ages 40 to 59 have a higher incidence of breast cancer than white females.¹
- Ontario First Nations females have a lower incidence of breast cancer than other females in Ontario.*⁸
- Arab females ages 50 to 59 have a higher incidence of breast cancer than that of white females.¹

United States:

- Black females have a lower incidence of breast cancer than non-Hispanic white females.⁶

United Kingdom:

- The incidence of breast cancer is lower in ethnic groups than white females.^{4,5}
- The incidence of breast cancer in females was significantly lower in the Asian, Black and Mixed/Multiple ethnic groups than the white female ethnic group.⁴

Mortality

Canada:

- Black females ages 40 to 49 have a higher breast cancer mortality rate than white females.¹
- Filipina females ages 40 to 59 have a lower breast cancer mortality rate than white females.¹
- Ontario First Nations females have a lower breast cancer mortality rate than other females in Ontario.*⁸
- Arab females ages 50 to 59 have a lower breast cancer mortality rate than that of white females.¹
- First Nations and Métis females ages 60 to 69 have higher breast cancer mortality rates than white females.¹

United States:

- Black females have a higher breast cancer mortality rate than white females and all United States females.⁷
- American Indian or Alaska Native, Asian or Pacific Islander and Hispanic females have a lower breast cancer mortality rate than with white females and all United States females.⁷

Survival

Canada:

- First Nations females in Ontario who are diagnosed with breast cancer have a lower chance of surviving than other females in Ontario.*⁸

- The following resources provide more race-, ethnicity- and Indigenous-specific information on cancer screening:
 - [Breast Cancer Update - Canadian Task Force Draft Recommendations](#) – see ‘Race and Ethnicity’ section
 - [Cancer Screening Performance Report 2023 – Cancer Care Ontario](#) – see ‘Catching Cancers Early’ Research Project

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¹ Canadian Task Force on Preventive Health Care. Breast Cancer (Update) - Draft Recommendations. www.canadiantaskforce.ca/wp-content/uploads/2024/05/BCU_Draft-Rec_Discussion-tool_40-49_FINAL.pdf

² Gathani T, Chiuri K, Broggio J, Reeves G, Barnes I. Ethnicity and the surgical management of early invasive breast cancer in over 164 000 women British Journal of Surgery, May 2021;108(5):528-533, <https://doi.org/10.1002/bjs.11865>.

³ Copson E, Eccles B, Maishman T, Gerty S, Stanton L, Cutress R I, Altman D G, Durcan L, Simmonds P, Lawrence G, Jones L, Bliss J, Eccles D, POSH Study Steering Group. Prospective Observational Study of Breast Cancer Treatment Outcomes for UK Women Aged 18–40 Years at Diagnosis: The POSH Study. JNCI: Journal of the National Cancer Institute, 3 July 2013;105(13):978-988, <https://doi.org/10.1093/jnci/djt134>.

⁴ Delon C, Brown K F, Payne N W, Kotrotsios Y, Vernon S, Shelton J. Differences in cancer incidence by broad ethnic group in England, 2013–2017. Br J Cancer, 2022. 126, 1765–1773. <https://doi.org/10.1038/s41416-022-01718-5>

⁵ Gathani T, Chaudhry A, Chagla L, Chopra S, Copson E, Purushotham A, Vidya R, Cutress R. Ethnicity and breast cancer in the UK: Where are we now? European Journal of Surgical Oncology, December 2021; 47(12):2978-2981. <https://doi.org/10.1016/j.ejso.2021.08.025>.

⁶ Giaquinto AN, Miller KD, Tossas KY, Winn RA, Jemal A, Siegel RL. CA Cancer J Clin. 2022 May;72(3):202-229. <https://doi:10.3322/caac.21718>.

⁷ Chen, T, Kharazmi, E, Fallah, M. Race and Ethnicity-Adjusted Age Recommendation for Initiating Breast Cancer Screening. JAMA Netw. Open 2023;6: e238893. <https://doi:10.1001/jamanetworkopen.2023.8893>

⁸ Ontario Health (Cancer Care Ontario). Ontario Cancer Screening Performance Report 2023. Toronto; 2024. <https://www.cancercareontario.ca/sites/ccocancercare/files/assets/OCSPPRfullReport.pdf>

⁹ Mazereeuw MV, Withrow DR, Nishri ED, Tjepkema M, Vides E, Marrett LD. Cancer incidence and survival among Métis adults in Canada: results from the Canadian census follow-up cohort (1992–2009). CMAJ 2018 March 19;190:E320-6. <https://doi:10.1503/cmaj.170272>

¹⁰ Carrière GM, Tjepkema M, Pennock J, Goedhuis N. Cancer patterns in Inuit Nunangat: 1998–2007. International Journal of Circumpolar Health, 2012;71(1). <https://doi.org/10.3402/ijch.v71i0.18581>

¹¹ Limb M. Black women in England are at greater risk of late cancer diagnosis than white women. BMJ 2023;380:211. <http://dx.doi.org/10.1136/bmj.p211>