

Should I be screened with mammography for breast cancer?

For women between 40 and 49 years of age:

Among women who do not screen, the risk of dying from breast cancer is:

1 in 313

With regular screening your risk of dying of breast cancer is:

1 in 370

However, with regular screening:

... your risk of having a false positive mammogram requiring further screening is:

1 in 3

... your risk of having a biopsy is:

1 in 28

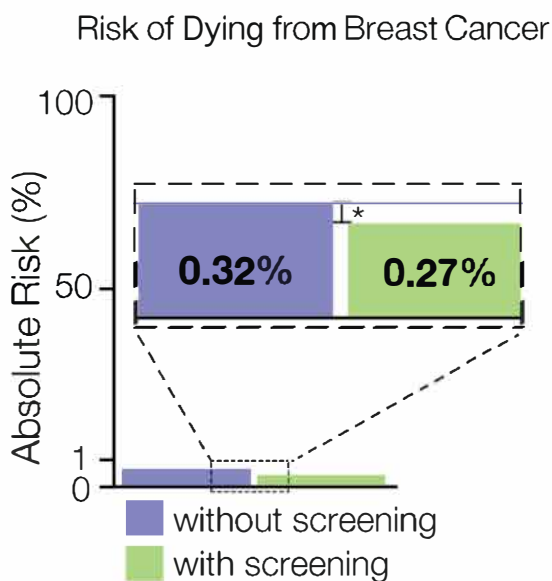
... your risk of having part or all of a breast removed unnecessarily is:

1 in 200

Be informed!

You may hear the risks or benefits of breast cancer screening described as either **absolute** or **relative**. But what does all this mean and how does it apply to you?

The main difference is that absolute risk takes into consideration the fact that whether or not you get screened or treated, you still have a baseline risk of dying of breast cancer: **1 in 313** or **0.32%**. With regular screening that risk changes to: **1 in 370** or about **0.27%**. Relative risk does not consider baseline risk in the same way and may lead to confusion about how regular screening reduces risk.



* screening reduces risk by **0.05%**

The absolute risk is simply the difference in risk between regular screening (0.27%) and no screening (0.32%).

$$0.32\% - 0.27\% = 0.05\%$$

Therefore screening in women aged 40-49 reduces your **absolute risk** of dying of breast cancer by **0.05%**.

So the **absolute benefit** of screening is **0.05%**.

Relative risk only looks at the reduction in risk as a proportion of the total risk (so it doesn't consider that you are already at risk of cancer, this can lead to larger values than absolute risk).

$$0.05\% / 0.32\% = 15\%$$

Thus, screening in women aged 40-49 reduces your **relative risk** of dying of breast cancer by **15%**. So the **relative benefit** of screening is **15%**.

So how does this translate into actual numbers? Among 100 000 women aged 40 to 49 who are:

Screened **EVERY** 2 years for 11 years:

- **270** would die of breast cancer
- **32 700** would experience a false alarm
- **3600** would have a biopsy
- **500** would have part or all of a breast removed without having cancer
- **50** would escape a breast cancer death

NOT screened for 11 years:

- **320** would die of breast cancer
- **99 680** would not

For more info visit:

<http://www.canadiantaskforce.ca>

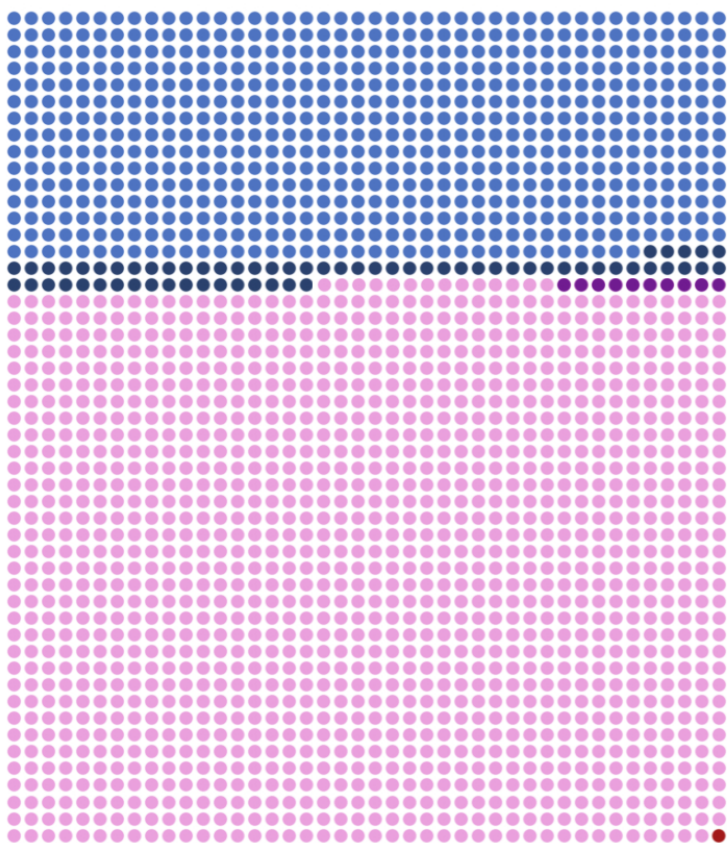
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Absolute Benefit of Screening with Mammography

If we wanted to describe the previous information in regards to the effect on an individual woman then we can look at what would occur in a base of 2100 women instead of 100 000.

In the graphic below, each dot represents 1 woman (● = 1 woman)

If we screened **2100** women, aged 40-49 years, at average risk of breast cancer every two years for 11 years...



...about **700** women would experience a false positive mamogram requiring further imaging...

...**75** of these women would have a biopsy, all to confirm that they do not have breast cancer

...at least **10** women would have part or all of a breast unnecessarily removed and bear the burden of over- diagnosis

...**1** woman would escape a breast cancer death



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