Should I be screened with mammography for breast cancer?

For women between 70 and 74 years of age:

Among women who do not screen, the risk of dying from breast cancer is: 1 in 146
With regular screening your risk of dying of breast cancer is: 1 in 217

However, with regular screening:

... your risk of having a false positive mammogram requiring further screening is: 1 in 5
... your risk of having a biopsy is: 1 in 38
... your risk of having part or all of a breast unnecessarily removed 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 146 or 0.68%. With regular screening that risk changes to: 1 in 217 or 0.46%. Relative risk does not consider baseline risk in the same way and may lead to confusion about how regular screening reduces risk.

The absolute risk is simply the difference in risk between regular screening (0.46%) and no screening (0.68%).

0.68% - 0.46% = 0.22%

Therefore screening in women aged 70-74 reduces your absolute risk of dying of breast cancer by 0.22%.

So the absolute benefit of screening is 0.22%.

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).

0.22%/0.68% = 32%

Thus, screening in women aged 70-74 reduces your relative risk of dying of breast cancer by 32%. So the relative benefit of screening is 32%.

So how does this translate into actual numbers? Among 100 000 women aged 70 to 74 who are:

Screened EVERY 2 years for 11 years:
- 460 would die of breast cancer
- 21 200 would experience a false alarm
- 2600 would have a biopsy
- 500 would have part or all of a breast removed without having cancer
- 222 would escape a breast cancer death

NOT screened for 11 years:
- 680 would die of breast cancer
- 99 320 would not

For more info visit: http://www.canadiantaskforce.ca
Should I be screened with mammography for breast cancer?

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 450 women instead of 100,000.

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

If we screened 450 women, aged 70-74 years, at average risk of breast cancer every two years for 11 years...

- About 90 women would experience a false positive mammogram requiring further imaging...
- 11 of these women would have a biopsy, all to confirm that they do not have breast cancer...
- At least 2 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...

For more information visit: http://www.canadiantaskforce.ca