

Chemoprevention

For reducing the risk of breast cancer in women unaffected by cancer but who have a family history of the disease.

This leaflet explains about the use of chemoprevention in women who have an increased risk of breast cancer due to their family history of the disease. If you have any further questions or concerns, please do not hesitate to contact your genetics clinician on 020 7188 1364.

What is chemoprevention?

Chemoprevention is the use of medication to lower the risk of cancer (or risk of recurrence) in healthy people. This leaflet focuses on chemoprevention in women who have not developed cancer and have an increased risk of getting the disease due to their family history.

Breast cancer affects 1 in 8 women in the UK. Some women may have a higher chance of developing breast cancer due to their family history and this is called familial breast cancer. The National Institute for Health and Care Excellence (NICE) has recommended considering the use of two drugs called Tamoxifen and Raloxifene to reduce breast cancer risk in women with an increased familial breast cancer risk. Tamoxifen and Raloxifene are known as **selective oestrogen receptor modulators (SERMS)**.

How do SERMS work?

Oestrogen is the group of hormones produced by a woman's ovaries. They are important in developing a woman's body, for example growing breasts and starting the menstrual cycle (periods).

A large number of breast cancers rely on oestrogen to grow. SERMS can prevent the growth of oestrogen in patients who are diagnosed with oestrogen positive breast cancer, by blocking the action of oestrogen.

What are the potential benefits of chemoprevention?

Research shows that women who have an increased risk of familial breast cancer can reduce the risk of developing breast cancer by taking Tamoxifen for five years.

The largest research trial, known as the Breast Cancer Prevention Trial, found that for 1,000 women treated with Tamoxifen for five years, 21 breast cancers would be prevented. Chemoprevention is a non-surgical way of reducing familial breast cancer risk.

What is the impact of chemoprevention on survival?

There is no evidence to support an increase in survival or life span in women who took Tamoxifen in comparison to those that did not. Further studies are needed to research this area.

What are the potential side effects of chemoprevention?

Common side effects include vaginal dryness, hot flushes, vaginal discharge as well as nausea and leg cramps.

Infrequent side effects include increased risk of blood clots or strokes (Thromboembolism), womb cancer (endometrial cancer) and headaches.

Studies suggest that one in five women will experience side effects which are significant enough to make them stop taking the drug.

Which women should consider chemoprevention?

We only recommend using these drugs for breast cancer prevention in women with an increased risk of breast cancer above that in the general population, as assessed by a family history or genetics specialist.

Research shows that the greatest benefit is for women assessed to be at high risk of developing breast cancer according to the NICE familial breast cancer guidance. For women assessed as moderate risk, the benefit is less.

The benefit of Tamoxifen in women with BRCA mutations is uncertain. However the benefit is significantly less than if a woman chose to have breast surgery to reduce the risk of cancer developing. This is something that women with BRCA mutations can choose to have done.

As both Tamoxifen and Raloxifene reduce the incidence of oestrogen positive cancers, the benefit to BRCA1 mutation carriers who are at increased risk of oestrogen negative cancers is unclear. BRCA carriers should discuss chemoprevention with a breast or genetics clinician.

Women with BRCA2 mutations who have already had breast surgery (with or without reconstruction) to reduce the risk of cancer developing, are not eligible for chemoprevention.

I have decided to choose chemoprevention, what do I do next?

Tamoxifen and Raloxifene are currently not licensed for the purpose of chemoprevention in the UK. The recommendation from NICE suggests that women choosing chemoprevention are monitored regularly and that the drug is prescribed by a health professional who is familiar with their personal medical history. For these reasons, we recommend women discuss this with their GP and formulate a prescription and follow up plan individually with their GP. Current guidance suggests that Tamoxifen is taken after the age of 35 for a maximum of five years at a dose of 20mg daily for the purpose of chemoprevention.

Taking an unlicensed medicine

The leaflet, **Unlicensed medicines – a guide for patients**, has more information about unlicensed medicines. If you would like a copy, please ask your doctor, nurse or pharmacist. Alternatively you can call the pharmacy medicines helpline – contact details are at the end of this leaflet.

Do I need to continue having breast screening?

All women assessed as having an increased familial breast cancer risk (moderate, high or higher) should continue with their individual breast screening plans even if they have chosen chemoprevention.

Where can I get more advice?

If you are from a family that has been assessed as being at moderately increased risk of breast cancer due to the family history, you can seek further advice from your local breast family history clinic.

For women who have been assessed at high risk of breast cancer due to their family history, further advice is available either through your local breast family clinic or the Guy's cancer genetics service.

For women who carry a BRCA1 or BRCA2 mutation, further advice is available through the Guy's BRCA Family Service.

Contact us

If you have any questions or concerns, please contact your genetics clinician on 020 7188 1364 (Monday to Friday, 9am to 5pm).

Cancer Genetics Service
Guy's Regional Genetics Service
Guy's Hospital
Great Maze Pond
London SE1 9RT

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets.

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership

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