



# Adjuvant bisphosphonate

## Information for patients from the Kent Oncology Centre

Please use this leaflet to support you when making decisions about **the role of bisphosphonates in your breast cancer care**.

### What are bisphosphonates?

Bone is always undergoing a process of renewal. Specialised bone cells break down old bone and replace it with new bone every day. This process helps to repair damage to the skeleton from everyday activities. We call this process bone turnover. As we age this process becomes less efficient and the bones become thinner and weaker.

Bisphosphonates are a group of medications that have been used to treat thin bones (osteoporosis) for decades. They:

- control the cells that break down bone (osteoclasts), and
- allow the cells that rebuild bone (osteoblasts) to work better.

As a result, they increase bone density and strength. Reducing the risk of fractures especially at the wrist, hip, and spine.

### Why are bisphosphonates used to treat breast cancer?

Clinical studies have shown that breast cancer can recur in and spread to bones. This often happens many years after the operation to remove the cancer from a patient's breast. Doctors think this could be because the chemicals that control bone turnover, could also encourage the growth of breast cancer cells inside bones.

Clinical trials of bisphosphonates in early breast cancer began in the 1990s. Bisphosphonates were added to standard treatments after breast surgery, like chemotherapy and tamoxifen. The results were then compared to these standard treatments alone. The trials found that bisphosphonates reduced the risk of breast cancer coming back in patients' bones. Often meaning that patients lived longer.

Not all patients had the same degree of benefit though. The greatest benefits from bisphosphonates were seen in two groups of women.

- Post-menopausal women; and
- Pre-menopausal women, where drugs were given to suppress their ovaries.

In these groups of women, using bisphosphonates prevented:

- 1 in 3 recurrences of breast cancer in the bone at 10 years after diagnosis, and
- 1 in 6 deaths from breast cancer at 10 years after diagnosis.

### Who can take bisphosphonates?

Specialists are prescribing this treatment to the following women.

- Post-menopausal women who have had their breast cancer completely removed.
- Pre-menopausal women who are on drugs to suppress their ovaries, as part of their treatment after surgery.

Patients whose kidneys are not working normally will take a reduced dose.

Bisphosphonates are not licensed for use in breast cancer patients to stop the disease recurring. A specialist must start the treatment in hospital. They will tell your GP of the recommended treatment and how long you should take the medication for.

### How do I take bisphosphonates?

This will depend on whether you are having chemotherapy as part of your treatment plan. Bisphosphonates are given through a drip into a vein, using a drug called zoledronic acid.

We recommend you take bisphosphonates over three years.

- If you are having chemotherapy, you are given three doses of zoledronic acid into a vein about every six weeks. These doses will be given at the same time you have your chemotherapy treatments. This will add about 15 minutes to your chemotherapy session. It should not affect the chemotherapy side effects.
- Once you have finished chemotherapy you will have a zoledronic acid infusions at 6, 12, 18, 24, 30, and 36 months.

### What are the possible side effects?

Most people will not experience side effects, and if they do they are usually short-lived.

**General side effects** include 'flu like' symptoms such as fever, aching muscles or headache. You can take mild painkillers, such as paracetamol or ibuprofen, if needed.

#### Rare side effects

- **Osteonecrosis of the jaw** is a condition where some cells in the jaw bone die. This means that the jaw may be slow to heal. This is linked with high doses of bisphosphonate drugs, so is unlikely to occur with

six monthly treatments. The risk with the treatments we are recommending is low. This risk would affect less than one patient in 100.

As a precaution, people taking this treatment:

- must have a full dental assessment before they start treatment
  - get approval from their dentist to have bisphosphonates
  - have regular dental check-ups, and
  - should not have non-emergency dental work done six weeks before or after an infusion.
- A link to **osteonecrosis of the auditory canal** is also reported. This is very rare, affecting less than one in 10,000 patients. Patients taking bisphosphonates should tell their doctor if they have persistent ear pain and / or discharge from their ears.
  - There is also a link between long-term use of bisphosphonates and developing **a stress fracture of the thigh bone**. This is very rare, affecting less than one in 10,000 patients. It is unlikely to be a problem in the treatment of breast cancer, as you will only be taking the medication for three years. If you develop aching pain in your thigh while taking bisphosphonates, tell your doctor.
  - **Irregular heartbeats or inflammation in the eye**. This is very rare, affecting less than one in 10,000 patients.

### Is there anything I should look out for whilst taking bisphosphonates?

With their first dose, some patients have 'flu like' symptoms such as fever, aching muscles, or headache. These symptoms usually stop after the first couple of days. They are less likely to happen with later treatments. If symptoms continue, speak to your specialist or GP.

If you have any of the following symptoms whilst taking this medication, please speak to your doctor.

- Persistent ear pain and / or discharge from your ear.
- Persistent jaw pain and / or ulceration of your gum.
- Aching pain in your thigh.

**You are also advised to have regular dental check-ups whilst taking this medication.**

### Do I need to take extra calcium or vitamin D?

You should have an adequate calcium and vitamin D intake whilst on bisphosphonate treatment.

- Your **calcium** levels should be fine if you follow a well balanced diet. Two glasses of milk and a portion of cheese or a yoghurt each day should provide enough calcium.
- For **vitamin D** take an over-the-counter supplement. These are available from chemists and supermarkets at a recommended dose of 800 to 1000 IU daily. Further information is available on the Association of UK Dietitians (BDA) web site (<https://www.bda.uk.com/food-health/food-facts.html>).

**Regular weight-bearing exercise** is also recommended. These include exercises or activities where your feet and legs support your weight.

### Can I choose to stop receiving bisphosphonates?

Yes, you can stop at any time. You may wish to stop treatment if:

- you feel that the side effects are too much for you, or
- your quality of life is suffering.

If you decide to stop treatment, we will understand and respect your decision.

### General advice

After a diagnosis of breast cancer:

- avoid smoking, and
- drink alcohol within the recommended limits.

For information and support, please contact One You Kent (<https://www.kentcht.nhs.uk/service/one-you-kent/>) on telephone 0300 123 1220, or by email ([kentchft.oneyoukent@nhs.net](mailto:kentchft.oneyoukent@nhs.net)).

### Where can I find further information?

For further information on bisphosphonates, please speak to the staff treating you at the hospital or your GP.

- Royal Osteoporosis Society (<https://theros.org.uk/>)  
Camerton, Bath BA2 0PJ  
Helpline: 0808 800 0035 (free phone)  
Helpline email ([nurses@theros.org.uk](mailto:nurses@theros.org.uk))
- The Association of UK Dietitians (BDA) (<https://www.bda.uk.com/>)  
3rd Floor Interchange Place, 151-165 Edmund Street  
Birmingham B3 2TA  
Helpline: 0121 200 80 80  
General enquiries email ([info@bda.uk.com](mailto:info@bda.uk.com))

### Notes (for you to complete)

|                 | Name | Telephone |
|-----------------|------|-----------|
| Key worker      |      |           |
| Oncologist      |      |           |
| Palliative care |      |           |
| GP              |      |           |

|                | Name | Telephone |
|----------------|------|-----------|
| District nurse |      |           |
| Other          |      |           |

### Further information and advice

- **Dietetic Service**

Offers advice on managing diet related side effects of palliative chemotherapy.

Telephone: 01227 864236

- NHS 111 (<https://www.nhs.uk/nhs-services/urgent-and-emergency-care-services/when-to-use-111/>)

We have used the term 'women' in this leaflet. When we use this term we also mean people with female reproductive organs who do not identify as a woman. East Kent Hospitals is committed to supporting people of all gender **identities**. Please tell your doctor or nurse how you would like them to address you, so we can be sure to get this right.

**This leaflet has been produced with and for patients.**

**Please let us know:**

- If you have any accessibility needs; this includes needing a hearing loop or wanting someone to come with you to your appointment.
- If you need an interpreter.
- If you need this information in another format (such as Braille, audio, large print or Easy Read).

**You can let us know this by:**

- Visiting the Trust web site (<https://www.ekhuft.nhs.uk/ais>).
- Calling the number at the top of your appointment letter.
- Adding this information to the Patient Portal (<https://pp.ekhuft.nhs.uk/login>).
- Telling a member of staff at your next appointment.

**Any complaints, comments, concerns or compliments**, please speak to a member of your healthcare team. Or contact the Patient Advice and Liaison Service on 01227 783145 or email ([ekh-tr.pals@nhs.net](mailto:ekh-tr.pals@nhs.net)).

**Patients should not bring large sums of money or valuables into hospital.** Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property has been handed into Trust staff for safe-keeping.

**Further patient information leaflets** are available via the East Kent Hospitals' web site (<https://www.ekhuft.nhs.uk/patient-information>).

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