



## Bisphosphonates for treating osteoporosis

### Patient decision aid

### What is osteoporosis and how can bisphosphonates help?

Everyone's bones get weaker as they get older. In some people, this can lead to a condition called osteoporosis, in which bones fracture (break or crack) more easily. Bisphosphonates are medicines that can reduce the risk (chance) of fractures by strengthening bones. They can be taken by mouth or given as an injection.

NICE recommends that women aged 65 and over, men aged 75 and over, and other people who could be at higher risk of fractures might want to think about having their risk of fractures estimated by their healthcare professional. If you are at higher risk of fractures because of your osteoporosis, you might want to think about having bisphosphonate treatment.

**You can choose whether to have bisphosphonate treatment or not.** There are pros and cons, which this decision aid will help your healthcare professional explain.

Information about how this decision aid was produced and the evidence on which it is based is available on the NICE website.

### How likely am I to benefit?

Treatment with a bisphosphonate reduces your risk of fracturing a hip or fracturing bones in your spine (called vertebral fractures). It has not been shown to make a difference to your risk of fracturing your wrist or arm.

Although you are much less likely to have a vertebral or hip fracture if you have bisphosphonate treatment, this could still happen. Also, many people with osteoporosis will not fracture a vertebra or hip bone whether they have bisphosphonate treatment or not.

**It is not possible to know in advance what will happen to any individual person.**

The chance of you benefitting depends on how likely you are to have a fracture anyway (known as your 'baseline risk'). The diagrams on pages 3 and 4 show the effects of bisphosphonates on the risk of vertebral or hip fractures for some different baseline risks.

## What are the side effects of bisphosphonate treatment?

The most common side effects include:

- heartburn and indigestion
- pain or stiffness in your muscles, joints or back
- headache
- feeling tired.

Not everyone gets these side effects, but they may affect around 1 person or more per 100. People who have bisphosphonate injections can get symptoms like flu for a few days afterwards, especially after the first injection. Less common but serious side effects include:

- ulcers of the stomach and oesophagus (gullet)
- unusual fracture of the thigh bone (this is **rare**)
- damage to the bone in the jaw and ear (this is **very rare**).

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## Other things to think about

### How long does treatment last?

It is not known how many years it is best to have bisphosphonate treatment for. But there is no clear evidence that having treatment for more than 3 years will protect you against fractures any more than if you stop treatment after 3 years.

### Taking bisphosphonates

#### **Bisphosphonates can be taken by mouth**

This is as tablets once a day, once a week or once a month; or as a liquid taken once a week (this depends on the particular medicine and the dose).

You have to take your bisphosphonate tablet or liquid immediately after getting up, on an empty stomach with a full glass of plain water at least 30 minutes to 1 hour before any other drink, food or medicine.

You must take the tablets standing or sitting up. You must not lie down for at least 30 minutes to 1 hour afterwards, and only after you have had something to eat and drink.

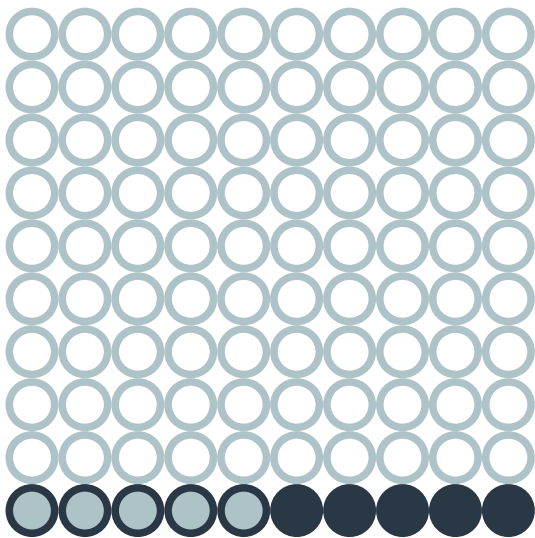
#### **Bisphosphonates can also be given by injection**

This is every 3 months or once a year (this depends on the particular medicine and the dose). You may have to go to hospital as an outpatient or to a clinic to have the injection.

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# Effect of bisphosphonates on the risk of vertebral (spinal) fractures

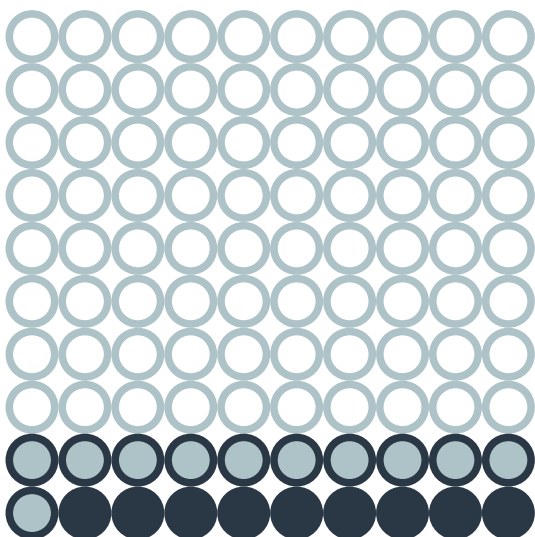
## 10 in 100 (10%) baseline risk



**On average**, for every 100 people at this baseline risk who have bisphosphonate treatment for at least 3 years, over 10 years:

- about 90 people will not have a vertebral fracture and would not have done anyway
- about 5 people avoid getting vertebral fractures because they have bisphosphonate treatment
- about 5 people get vertebral fractures even though they have bisphosphonate treatment.

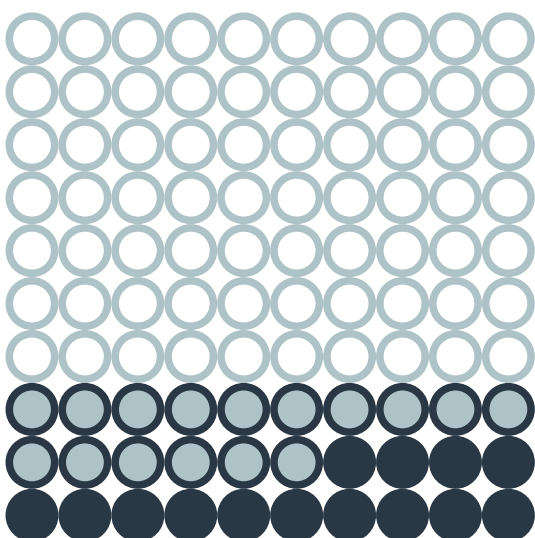
## 20 in 100 (20%) baseline risk



**On average**, for every 100 people at this baseline risk who have bisphosphonate treatment for at least 3 years, over 10 years:

- about 80 people will not have a vertebral fracture and would not have done anyway
- about 11 people avoid getting vertebral fractures because they have bisphosphonate treatment
- about 9 people get vertebral fractures even though they have bisphosphonate treatment.

## 30 in 100 (30%) baseline risk



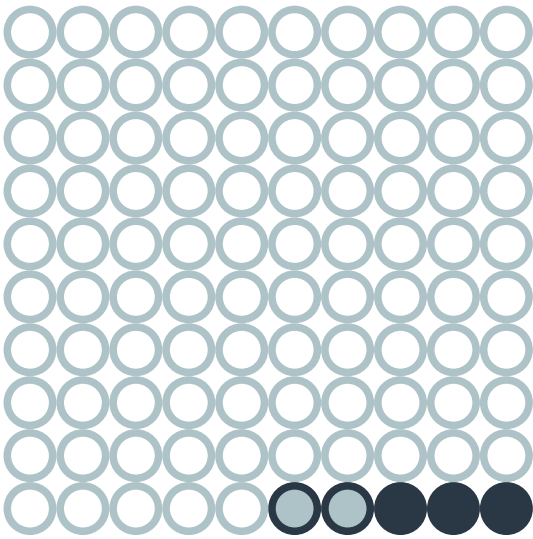
**On average**, for every 100 people at this baseline risk who have bisphosphonate treatment for at least 3 years, over 10 years:

- about 70 people will not have a vertebral fracture and would not have done anyway
- about 16 people avoid getting vertebral fractures because they have bisphosphonate treatment
- about 14 people get vertebral fractures even though they have bisphosphonate treatment.

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# Effect of bisphosphonates on the risk of hip fractures

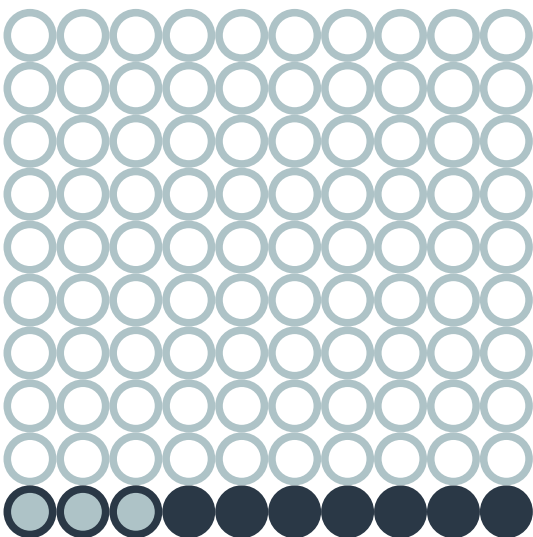
## 5 in 100 (5%) baseline risk



**On average**, for every 100 people at this baseline risk who have bisphosphonate treatment for at least 3 years, over 10 years:

- about 95 people will not have a hip fracture and would not have done anyway
- about 2 people avoid having a hip fracture because they have bisphosphonate treatment
- about 3 people have a hip fracture even though they have bisphosphonate treatment.

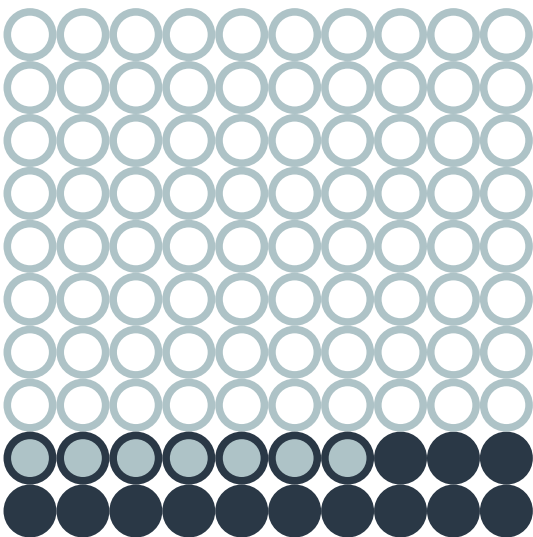
## 10 in 100 (10%) baseline risk



**On average**, for every 100 people at this baseline risk who have bisphosphonate treatment for at least 3 years, over 10 years:

- about 90 people will not have a hip fracture and would not have done anyway
- about 3 people avoid having a hip fracture because they have bisphosphonate treatment
- about 7 people have a hip fracture even though they have bisphosphonate treatment.

## 20 in 100 (20%) baseline risk



**On average**, for every 100 people at this baseline risk who have bisphosphonate treatment for at least 3 years, over 10 years:

- about 80 people will not have a hip fracture and would not have done anyway
- about 7 people avoid having a hip fracture because they have bisphosphonate treatment
- about 13 people have a hip fracture even though they have bisphosphonate treatment.

It is not possible to know in advance what will happen to any individual person