

Drug treatments for osteoporosis: Strontium ranelate

Strontium ranelate (Aristo) is a drug treatment for osteoporosis. It can help to strengthen bones, making them less likely to break. It comes as a sachet of granules, which you can mix with water and drink each night. Your doctor will only recommend strontium ranelate if other drug treatments for osteoporosis are not suitable for you.

Who is this fact sheet for?

This information may be helpful if you (or someone close to you):

- have osteoporosis or a high risk of fractures (broken bones), and want to know how strontium ranelate can help
- have already tried other treatments, or been told by your doctor that other treatments are not suitable for you
- want to understand the advantages and disadvantages of strontium ranelate, including the possible side effects.

It includes the following information:

- What is strontium ranelate?
- Why do I need a drug treatment?
- What does strontium ranelate do and how does it work?
- Who can have strontium ranelate?
- How do I take strontium ranelate?
- How will my treatment be monitored?
- What are the possible side effects?
- Making a decision about treatment
- More ways to look after your bones
- Getting more information and support

What is osteoporosis?

Osteoporosis is a condition where the bones become weaker and break easily, even after a minor bump or fall. You might hear these breaks described as fragility fractures. The terms 'fracture' and 'broken bone' mean the same thing.

Fractures can affect almost any bone, but they are most common in the wrists, hips and spine. It's these broken bones that can cause pain, rather than osteoporosis itself. Spinal fractures can also cause height loss and a curved spine.

What is strontium ranelate?

Strontium ranelate (Aristo) is a drug treatment for osteoporosis. It used to be known by its old brand name, Protelos®. Doctors now prescribe a generic (non-branded) version, made by company Aristo. The drug itself is still the same.

Why do I need a drug treatment?

Doctors follow guidelines when deciding whether to offer treatments. If your doctor has recommended strontium ranelate, this means your risk of breaking a bone is high enough to need a drug treatment.

Strontium ranelate can help to strengthen and protect your bones, making you less likely to break a bone in the future.

It's your choice whether to have strontium ranelate or not. There's information on page 5 to help you decide.

What does strontium ranelate do and how does it work?

Strontium ranelate can help to make your bones stronger and reduce your risk of broken bones, including hip and spinal fractures.

Bones are made up of living tissue. The inside of our bones is constantly being broken down and rebuilt by specialist bone cells. As long as this process is in balance, your bones should stay healthy and strong.

But if the process becomes out of balance, our bodies can start to break down more bone than we build. This can cause the bones to become weaker and more likely to break easily.

Many drug treatments for osteoporosis help restore the balance to make your bones stronger. Strontium ranelate is thought to work in a different way.

Strontium ranelate replaces some of the calcium found in bone. This may be how it helps to improve bone strength.

You may still break a bone while taking strontium ranelate. If this happens, it doesn't necessarily mean the drug isn't working. No medication can stop all fractures, but taking strontium ranelate will make them much less likely.

Strontium ranelate is not a pain-relieving medicine, so it won't reduce the pain caused by broken bones. But there are other treatments and ways to manage pain. There's information about these on our website at theros.org.uk/pain

Who can have strontium ranelate?

Strontium ranelate may be suitable if you have osteoporosis, and your risk of breaking a bone is high enough to need a drug treatment. It will usually only be an option if other treatments aren't suitable for you.

It is licensed for use in women who have been through the menopause, and for men. You're very unlikely to be offered strontium ranelate if you're a younger woman and you have not yet reached the menopause.

You will usually be prescribed strontium ranelate at a specialist clinic.

When is strontium ranelate not suitable?

Strontium ranelate will not be suitable if you:

- have ever had a blood clot
- are immobile (unable to move around), as this can increase the risk of blood clots
- have had – or are at risk of – heart problems or a stroke
- have uncontrolled high blood pressure
- have severe kidney problems
- are pregnant or breast-feeding.

How do I take strontium ranelate?

Strontium ranelate comes in the form of granules, which you can mix with water and drink.

The following steps are important for ensuring the treatment works properly. They will also help to make side effects less likely (see page 3).

Have one sachet per day

Every day, mix a 2g sachet of medication in at least 30ml water (2 tablespoons) and drink it straight away. The granules will not actually dissolve, so the liquid may look cloudy.

Drink your medicine at bedtime

Take strontium ranelate just before bedtime each night, at least two hours after eating, or after drinking anything that contains milk. This is to make sure your stomach is empty and your body can absorb and use the drug. Unlike other osteoporosis drug treatments that come as tablets, you can lie down straight away after taking strontium ranelate.

Avoid taking calcium supplements at bedtime

If you take calcium supplements, make sure you don't take them at the same time of day as your strontium ranelate. This is because calcium can affect how well the drug is absorbed.

If you take other medicines or supplements, ask your doctor or pharmacist if it's okay to take them with strontium ranelate.

Take your medication regularly

Strontium ranelate is a long-term treatment, so you're likely to keep taking it for several years. It's important to take it every day. If you miss the odd sachet, this shouldn't affect your bone health in the long term. But try to avoid this if you can. If you often forget to take your medication, talk to your doctor.

Strontium ranelate and antibiotics

Strontium ranelate can stop some antibiotics from working properly.

If you need antibiotics, make sure your doctor knows that you take strontium ranelate. They may ask you to stop taking it until you've finished the course of antibiotics. Or they may prescribe a different antibiotic that you can take at the same time.

How will my treatment be monitored?

You should have a check-up about every 6-12 months, to look for any signs of possible heart problems. You'll need to stop taking strontium ranelate if you develop any new risk factors for heart problems. It's a good idea to ask for a regular check-up if your doctor doesn't suggest this.

You should also get in touch with your doctor if you have any side effects (see below) or other problems. They may be able to suggest ways to help manage any side effects.

If you break a bone while taking strontium ranelate, speak to your GP. Breaking a bone doesn't necessarily mean your treatment isn't working. But it may be a good idea to have a bone health assessment.

After a few years, you may have a formal treatment review. Ask your doctor when this should happen if you're unsure. At this review, your doctor will check if you still need a drug treatment, and that strontium ranelate is still the right treatment for you.

You may have a bone density scan as part of your review. But because strontium replaces some of the calcium in bone, a bone density scan will no longer give as much useful information about your bone strength. Your doctor will need to consider other things as well, such as whether you've broken any bones since starting your treatment.

While there's no way to prove for certain that your treatment is working, research has shown that strontium ranelate does lower people's risk of broken bones. We also know that it keeps working for at least ten years, as long as you take it regularly.

After your review, your doctor may advise you to:

- keep taking strontium ranelate
- start a different drug treatment, if any other medications are suitable for you
- stop having any treatment.

Your doctor can advise you on what's best for you, based on your own situation.

What are the possible side effects?

As with any drug, strontium ranelate can sometimes cause side effects. The most common side effects are listed on page 4, along with some less common problems that have also been linked to strontium ranelate.

It is important to remember that in general, side effects are less common than many people think. Most people on strontium ranelate don't have any problems. Even if you do get side effects at first, it may be worth continuing to take the sachets. Most side effects will go away as your body gets used to the drug. But it is a good idea to discuss any concerns with your doctor or pharmacist.

For a full list of possible side effects, look at the patient information leaflet that comes with the drug. If you don't have a copy, ask your doctor or pharmacist for one.

It's important to understand that many of these problems aren't actually caused by the drug. When a medicine is first tested, the people taking it have to report anything unusual to the researchers. The problems they report are often just as common in people who aren't taking the drug.

The following table has information on the main side effects that were seen more often in people taking strontium ranelate, rather than a dummy drug. For example, it shows that fewer than 1 in every 10 people who use strontium ranelate will get nausea and diarrhoea. The other 9 in every 10 people who take this medicine will not get nausea and diarrhoea.

If you do get any side effects that don't go away, it may help to:

- make sure the problem isn't caused by any other medication you are taking
- tell your doctor or pharmacist, who may be able to help find out what is causing the problem
- ask your doctor or pharmacist if any other treatments might be suitable for you.

Possible side effects of strontium ranelate:

Side effect	How common is it?	What can I do about it?
Nausea and diarrhoea	Less than 1 in 10	Symptoms are usually mild and improve as your body gets used to the medicine. Talk to your doctor if you're struggling. They may be able to suggest ways to reduce these problems.

Other possible health risks:

Deep vein thrombosis (blood clot in a vein)	Less than 1 in 100	<p>This is only slightly more common in people taking strontium ranelate than in other people. But your risk will be higher if you're unable to move about – particularly if you're over 80.</p> <p>If you're about to have an operation or your mobility has become worse, speak to your GP. You may need to stop taking strontium ranelate until you're more active again.</p> <p>If you're planning a flight or other journey where you'll be sitting for more than five hours, certain exercises can help to reduce the risk of clots. You may also want to consider wearing flight socks.</p>
Heart attack	Less than 1 in 50	<p>Your treatment should be stopped if you develop any heart or circulation problems, including:</p> <ul style="list-style-type: none"> • heart disease • peripheral artery disease • stroke • uncontrolled high blood pressure.
Severe allergic reaction (skin rash with fever or swollen glands)	Less than 1 in 1,000	<p>If this happens, it will usually develop during the first six weeks of treatment. If you get these symptoms, stop taking strontium ranelate and get urgent advice from a doctor. Make sure they know you've been taking strontium ranelate.</p> <p>Symptoms should go away when you stop taking the medicine, but you may need a course of steroids.</p>

Making a decision about treatment

Some people worry about starting a new drug treatment and find it hard to make a decision. You might be concerned about possible side effects or health risks, or wonder if you really need treatment. Or you might not like taking medication in general.

It's important to learn all you can about your treatment options, so you can decide what's right for you. Talk to your doctor so that you fully understand your situation. Make sure you read – and understand – any information they give you, as well as the leaflet that comes with the treatment.

No-one can make you have treatment if you don't want it. But do take the time to understand the benefits and possible risks – both of taking strontium ranelate, and of **not** taking it.

Take care when visiting online forums or chat groups on social media. Reading about other people's experiences can be helpful. But you may not always see a balance of views online. People are more likely to seek support for bad experiences than good ones. This can make it seem that everyone has problems with drug treatments. In reality, most people have no side effects at all.

If you do feel worried, before or during your treatment, talk to your doctor or pharmacist, or contact our specialist Helpline nurses.

Why have I been offered strontium ranelate?

If you've been offered strontium ranelate, this means your risk of breaking a bone is high enough that your bones would benefit from a drug treatment. For you, the benefits of taking this drug are likely to outweigh any possible risks. In other words, your risk of health problems if you do have treatment is smaller than your risk of breaking a bone if you don't have treatment.

Your doctor will have considered lots of things before recommending strontium ranelate, including:

- how likely you are to break a bone without treatment
- whether any other treatments might be suitable for you – strontium ranelate is only usually prescribed if you can't have other osteoporosis drug treatments
- any other health problems you have
- any other medications you take
- the treatments available at your local hospital or GP surgery
- your own thoughts and feelings about treatment.

If you have any questions about the treatment you've been offered, speak to your doctor. They can explain why they've recommended strontium ranelate, and why other more commonly-prescribed treatments are not suitable for you.

Think about the advantages and disadvantages

As with any treatment, there are advantages and disadvantages to taking strontium ranelate. You should think about these when deciding whether to take strontium ranelate, and about what's important to you.

Here are some of the main things to consider.

Advantages

- It can help to reduce your risk of broken bones.
- It may be an option if other, more commonly prescribed treatments aren't suitable for you.
- Side effects are usually mild and improve after a few weeks of treatment.
- It keeps working for at least ten years – and probably longer – as long as you take it regularly.

Disadvantages

- As with all medications, some people get side effects (see page 3).
- There are some possible health risks, but these aren't very common (see page 4).

What will happen if I don't have a drug treatment?

If you decide not to take a drug treatment, it is likely that your bones will get weaker over time. This means your chance of breaking a bone will increase.

Some people may never break any bones, while others may break several. Everyone's risk is different, so it's important to understand your own situation and make the decision that's right for you.

Is there a natural alternative to medication?

People often want to know if they can improve their bone strength without taking a drug treatment. The lifestyle changes listed on page 6 are all important for your bones. But if you have a high risk of broken bones, there isn't good evidence that any non-drug approaches will improve your bone strength enough to reduce the chance of breaking a bone.

More ways to look after your bones

As well as taking medication, a healthy lifestyle is important for your bone health. This includes:

- a well-balanced, varied and calcium-rich diet
- safe exposure to sunlight, so that your skin makes vitamin D
- regular weight-bearing impact exercise and muscle-strengthening exercise
- not smoking
- not drinking more than the recommended levels of alcohol
- taking steps to lower your risk of falling, as falls can lead to broken bones.

Calcium and vitamin D

Getting enough calcium and vitamin D is very important for your bones. While you're having a drug treatment, your doctor may advise you to:

- aim to consume around 1,000mg of calcium a day
- take a daily 20 microgram (20µg or 800 IU) supplement of vitamin D.

This is more than the usual recommended amount, to make sure you are getting enough for your bones.

For more information on healthy living, including our calcium and vitamin D-rich food choosers, tips for preventing falls, and our films and fact sheets on how to exercise safely for your bones, visit our website at

theros.org.uk/healthy-bones

Getting more information and support

We hope this fact sheet will help you feel more informed and confident when discussing your bone health with your medical team.

For more information about osteoporosis and bone health, including fact sheets on all available drug treatments, visit our website at theros.org.uk/info or order more of our printed publications.

If you need more information or support, talk to your healthcare professional. You can also call our specialist Helpline nurses with any questions or concerns about bone health or living with osteoporosis, for free, on **0808 800 0035** or email them at nurses@theros.org.uk



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This information is based on the latest evidence and clinical practice. It should not replace advice from your own healthcare professionals.

To give us feedback on this fact sheet, email us at health.info@theros.org.uk

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 theros.org.uk/info

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