

Zoledronic acid infusion

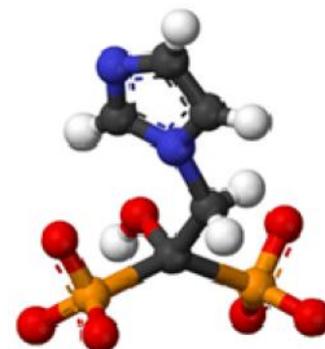
What is zoledronic acid?

Zoledronic acid is a powerful type of bisphosphonate. Bisphosphonates are used to treat osteoporosis and Paget's disease, and to prevent some forms of cancer from spreading in the bones.

How bisphosphonates work

Your bones are in a constant state of change. As new bone is added by cells called *osteoblasts*, old bone is dissolved by cells called *osteoclasts*.

Bisphosphonates help to prevent these *osteoclasts* from dissolving (or *resorbing*) your bones.



Treatment with zoledronic acid

Zoledronic acid is given directly into the arm via a drip. This is called intravenous infusion. It takes between 15 and 30 minutes, and is carried out every one to two years by your general practitioner. Patients are usually given calcium tablets and/or vitamin D tablets at the same time as the infusion. This helps to keep the blood calcium levels normal.

Benefits of zoledronic acid

Zoledronic acid is proven to:

- increase bone density in patients with osteoporosis.
- reduce fracture rates by 35 to 70%.
- reduce bone pain in patients with bone disease.

Side effects

Some patients experience flu-like symptoms after the first treatment of zoledronic acid, but apart from this, side effects are not common. When considering zoledronic acid treatment, it is important to balance the small risk of side effects against the much greater risk of a major fracture.



Known side effects

- Flu-like feelings – About 30% of people experience a flu-like feeling after their first treatment, which usually lasts two to four days, but can occasionally go on for longer, sometimes with associated muscle or joint aching. This problem is usually treated with regular paracetamol. The chance of this side effect occurring after the second or third zoledronic acid infusion is much lower (about 3 to 4%).
- Kidney damage – People with severe pre-existing kidney damage can sometimes experience deterioration in their kidney function after the administration of zoledronic acid. This is why it is important to drink extra fluid on the day of the infusion, and your doctor may advise you to stop taking any medication that can affect the kidneys. However, zoledronic acid is not normally given to people whose kidneys are not functioning well.



Rare side effects

- Osteonecrosis of the jaw (ulceration in tooth sockets or the gums) – This problem has been found in cancer patients (where high doses of bisphosphonates are given) and, rarely, in people being treated for osteoporosis. It is often associated with poor oral hygiene and may follow dental extractions. For this reason, it is suggested that the infusion is delayed until you have completed any major dental treatment. It is also important to maintain good oral hygiene and have regular dental checks.
- Upper leg fractures – There is a very small risk of atypical leg fractures after longer-term use of zoledronic acid infusions.

Preparing for the infusion

Before the infusion

Your zoledronic acid infusion may be carried out by your own general practitioner or you may be referred to another general practitioner or specialist. The following steps need to be done before you have the infusion.

- Your doctor will check that you are able to have this type of medication. They will explain about the medication and what to expect, as well as possible side effects. Either your doctor or the person performing the infusion will make sure that you are happy to proceed and will ask you to sign a consent form.
- Your doctor will give you a prescription for the infusion. Take it to a pharmacy and arrange to pick it up on the day of your procedure.
- If you need any dental treatment, it is recommended that you have this done before your infusion. If you have not had a recent dental check, consider having this done. Talk to your dentist about the infusion.
- Your doctor will arrange for you have a blood test one week before the infusion.
- If you are not already taking vitamin D Tablets, your doctor will ask you to take two calciferol (vitamin D) tablets one week before your appointment. You will also be given calcium tablets to take for one week after the infusion.

On the day of the infusion

- You should not take any anti-inflammatory or diuretic medication on the day of your appointment. If you are not sure what these are, ask your doctor.
- Remember to pick up the infusion from your pharmacy.
- Eat and drink as normal. Additionally, drink two large glasses of water either before or during the infusion.
- Take two paracetamol tablets 30 to 60 minutes before your appointment. You will also be given paracetamol to take regularly for three days after the infusion.

See your doctor before attending the appointment if you have any questions about the procedure.

Talk to your doctor if you have any other questions about the medicine or your bone condition.

Written by Auckland Bone Density. Adapted by HealthInfo clinical advisers. January 2012