

PHARMACY

Drug Information

Bisphosphonates



What are Bisphosphonates?

- Bisphosphonate is a class of medicine used to treat osteoporosis, a common condition associated with fragile bones that are at increased risk for fracture.
- Bones in the body regularly undergo a remodeling process which involves the continuous bone breakdown and bone formation. Bisphosphonates work by slowing bone breakdown, in turn increasing bone mass and lowering the risk of fracture.
- Bisphosphonates come as tablets and also as injection. Examples of Bisphosphonates include:
 - Oral: Alendronate (or Alendronic Acid), Risedronate
 - Intravenous: Zoledronate (or Zoledronic Acid)

How are Bisphosphonates Administered/ Taken?

- Bisphosphonates take several months to work. Thus, it is important that you take your medication regularly or you may not benefit at all.

Medication	Points to Note
Alendronate/ Risedronate	<ul style="list-style-type: none"> • Alendronate 70mg or Risedronate 35mg tablet: Take 1 tablet once a week on the same day • Take on an empty stomach, first thing in the morning • Swallow whole with a full glass of plain water (do not drink mineral water) • Stay upright (e.g. sitting, standing) for at least 30 minutes after taking the medication and do not lie down until after your first snack or meal of the day • Wait for at least 30 minutes before taking food, beverages or other medications • Do not take milk, dairy products, antacids or calcium/ iron/ magnesium/ aluminium supplements within one hour after Alendronate or two hours after Risedronate
Zoledronate	<ul style="list-style-type: none"> • Given as an intravenous infusion on a yearly basis • You may be prescribed medication to reduce infusion-related symptoms e.g. fever, headache, flu-like symptoms, muscle/ joint pain. These symptoms usually occur within three days after the infusion, and are mostly self-limiting.

What Should I do if I Miss a Dose?

- Take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Never take a double dosage to make up for the missed dose.

Can Bisphosphonates be Taken With Other Medications?

- Avoid other medications within 30 minutes after taking Alendronate/ Risedronate to minimise interference with absorption.
- Bisphosphonates should not be taken with other osteoporosis medications such as Denosumab (Prolia), Raloxifene (Evista) or Teriparatide (Forteo).
- Your doctor may also prescribe calcium and vitamin D supplements as part of your osteoporosis treatment. Do space them apart from your Alendronate/ Risedronate tablets as advised.
- Painkillers such as non-steroidal anti-inflammatory drugs (NSAIDs) e.g. Naproxen, Diclofenac should be used with caution as it may increase gastrointestinal side effects.
- Please inform your doctor, pharmacist or nurse clinician if you are taking other medications including over-the-counter medicines, supplements or traditional/ herbal remedies as they may interact with Bisphosphonates.

What are the Important Side Effects of Bisphosphonates?

- Medications prescribed by your doctor should be beneficial for your condition even though they may result in some inevitable side effects.

Side Effect	Management
Common side effects: <ul style="list-style-type: none"> • Mild diarrhoea • Nausea • Flatulence • Constipation • Transient flu-like symptoms • Headache • Dizziness 	May improve as you get used to the medication. If side effects persist, speak to your doctor.

Side Effect	Management
Oesophagus (tube connecting the throat and stomach) or stomach inflammation (Warning signs: unusual or severe stomach pain, pain on swallowing)	Follow the instructions on how to take your Bisphosphonates to reduce side effects. Consult your doctor if symptom persists. Inform your doctor if you have history of esophageal or gastrointestinal problems e.g. gastritis.
Bone, joint or muscle pain	May get better as you get used to the medication. If side effects persist, speak to your doctor.
Low blood calcium level (Warning signs: numbness, muscle spasm, cramps, irregular heartbeat, fits)	Consult your doctor immediately. Patients with poor kidney function are at higher risk. Your doctor may monitor your calcium level especially during the first few weeks after initiating the medicine.
Osteonecrosis of the jaw (rare) (Warning signs: jaw pain, delayed healing of wound in the mouth)	As a precaution, any dental infection should be treated and planned dental treatment should be performed before starting on Bisphosphonates. You should maintain good oral hygiene (regular brushing and flossing) and receive regular dental review. Inform your doctor if you experience these symptoms.
Atypical fracture of the thigh bone (rare) (Warning signs: persistent dull, aching in thigh, hip or groin area)	Risk of atypical fracture increases with prolonged use of the medication e.g. more than 5 years. Your doctor will assess the risks and benefits to decide on the duration of your treatment. Inform your doctor if you experience any of these symptoms.

If you develop rashes, facial swelling or shortness of breath after taking the medication, you could be allergic to the medication. Please seek medical attention immediately.

Are There any Special Precautions That I Need to Take?

- Do not use this medication if you are pregnant or breastfeeding.

Do I Need Regular Monitoring When Taking the Medication?

- Your doctor may do blood tests to monitor your calcium level and kidney function.
- You may also require a bone mineral density (BMD) scan to monitor your condition as well as to evaluate the effectiveness of your medication.

How do I Store Alendronate/ Risedronate?

- Store your medication in a cool, dry place away from heat, moisture and direct sunlight.

If you have any problems with your treatment, please contact your doctor, pharmacist or nurse clinician.

Please keep all medications out of reach of children.

