

alendronate sodium

Fosamax

Pharmacologic class: Bisphosphonate

Therapeutic class: Bone-resorption inhibitor

Pregnancy risk category C

Action

Impedes bone resorption by inhibiting osteoclast activity, absorbing calcium phosphate crystal in bone, and directly blocking dissolution of hydroxyapatite crystal of bone, without inhibiting bone formation or mineralization

Availability

Tablets: 5 mg, 10 mg, 35 mg, 40 mg, 70 mg

Indications and dosages

➤ Paget's disease of bone

Adults: 40 mg P.O. daily for 6 months. Then administer only with water at least a half hour before first oral intake of day.

➤ Prevention of osteoporosis in postmenopausal women

Adults: 5 mg P.O. daily or 35 mg P.O. once weekly. Then administer only with water at least a half hour before first oral intake of day.

➤ Glucocorticoid-induced osteoporosis in adults with low bone mineral density who are receiving daily glucocorticoid doses equivalent to 7.5 mg or more of prednisone

Adults: 5 mg P.O. daily. Then administer only with water at least a half hour before patient's first oral intake or medication of day.

➤ Osteoporosis in postmenopausal women

Adults: 10 mg P.O. daily. Then administer only with water at least a half hour before first oral intake or medication of day.

➤ Osteoporosis in postmenopausal woman; to increase bone mass in men with osteoporosis

Adults: 10 mg P.O. daily or 70 mg P.O. once weekly. Then administer only with water at least a half hour before first oral intake or medication of day.

Contraindications

- Hypersensitivity to bisphosphonates
- Hypocalcemia
- Renal insufficiency
- Esophageal abnormalities

Administration

- Give with 6 to 8 oz of water before first food, beverage, or medication of day.
- Don't give food, other beverages, or oral drugs for at least 30 minutes after giving dose.
- Keep patient upright for at least 30 minutes after administering dose to avoid serious esophageal irritation.
- Be aware that aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) may worsen GI upset. Discuss alternative analgesics with prescriber.

Route	Onset	Peak	Duration
P.O.	1 mo	3-6 mo	3 wk-7 mo

Adverse reactions

CNS: headache

CV: hypertension

GI: nausea, vomiting, diarrhea, constipation, abdominal pain, acid regurgitation, esophageal ulcer, flatulence, dyspepsia, abdominal distention, dysphagia, abnormal taste

GU: urinary tract infection

Hematologic: anemia

Metabolic: hypomagnesemia, hypophosphatemia, hypokalemia, fluid overload

Musculoskeletal: bone or muscle pain

Skin: rash, redness, photosensitivity

Interactions

Drug-drug. *Antacids, calcium supplements:* decreased alendronate absorption

NSAIDs, salicylates: increased risk of GI upset

Ranitidine: increased alendronate effect

Drug-diagnostic tests. *Calcium, phosphate:* decreased levels

Drug-food. *Any food, caffeine (coffee, tea, cocoa), mineral water, orange juice:* decreased drug absorption

Precautions


Use cautiously in:

- renal insufficiency, esophageal disease, GI ulcers, gastritis
- pregnant or breastfeeding women
- children.

Patient monitoring

- Monitor for signs and symptoms of GI irritation, including ulcers.
- Monitor blood pressure.
- Evaluate blood calcium and phosphate levels.

Patient teaching

 Tell patient to immediately report serious vomiting, severe chest or abdominal pain, difficulty swallowing, or abdominal swelling.

- Instruct patient to take drug first thing in morning on an empty stomach, with 6 to 8 oz of water only.
- Tell patient not to lie down for at least 30 minutes after taking drug.
- Instruct patient not to eat, drink, or take other oral medications for 30 minutes after taking dose.
- Teach patient to take only those pain relievers suggested by prescriber. Inform him that some over-the-counter pain medicines (such as aspirin and NSAIDs) may worsen adverse effects.