

Drugs to Treat Low Bone Density

Comparing Osteoporosis Drugs: The Bisphosphonates

What is osteoporosis (low bone density)?

Osteoporosis is a condition in which the body does not build enough new bone. As a result, the bones get weaker and are more likely to break. It is more common with age, especially in women. It is dangerous because it can lead to fractures of the hip, spine, and wrist. Breaking these bones can cause disability. Studies show that having a broken hip can increase the risk of death in women over 50.

A type of X-ray, called DXA, tells you if you have osteoporosis—or if you have pre-osteoporosis, a less serious condition.

Can medicines help?

The main drugs to treat osteoporosis are called bisphosphonates. Studies show that they can help prevent broken bones in older women with osteoporosis. However, the benefit of drugs is small. And there is little proof that they help if you have pre-osteoporosis.

Before you take a drug for osteoporosis, talk to your doctor about your risks for fractures, and your other health conditions and family health history. Smoking increases your risk.

What are the side effects?

Side effects of bisphosphonates can include diarrhea, nausea, vomiting, heartburn, irritation of the esophagus (gullet), and bone, joint, or muscle pain. A rare side effect is permanent bone loss in the jaw. If you take the drug for five years or more, there's a possible higher risk of breaking a thigh bone.



Ask your doctor how to lower the risk of side effects. It helps to follow patient instructions carefully and to take extra calcium.

Can lifestyle changes help protect bones?

Yes. For most people, the actions below are more important than taking medicine:

- Getting enough calcium and vitamin D.
- Doing weight-bearing exercises, such as walking, dancing, and strength training.
- Quitting smoking.
- Taking steps to prevent falls. For example, limit alcohol and reduce clutter.

Our advice:

We compared the effectiveness, safety, convenience, and cost of different bisphosphonates. They work about equally well to prevent fractures.

If your doctor says you have “pre-osteoporosis,” try lifestyle changes instead of drugs. If your doctor says you have osteoporosis and recommends medication, we suggest the following **Consumer Reports Best Buy Drug**:


Generic alendronate

Generic alendronate costs \$39 to \$63 a month, depending on the dose. Studies show that it helps prevent fractures. The daily and weekly doses cost less than the monthly dose.









If you've taken any bisphosphonate for five years or more, ask your doctor about taking a drug “holiday.” This means you stop taking it for a while to help promote normal bone growth and to reduce the risk of side effects. At present, doctors don't agree how long it's best to take a bisphosphonate.

**If you take an osteoporosis drug,
follow the instructions carefully.
This helps prevent side effects.**

Treating Osteoporosis with Bisphosphonates: Drug Comparison Chart

The Consumer Reports Best Buy Drugs are in blue. We recommend these drugs because they work as well and are as safe as the other drugs, and they cost less.  This symbol means that you might be able to get the drug at a low cost at large chain stores, like Costco, CVS, Kmart, Kroger, Sam's Club, Target, Walmart, and Walgreens. However, there may be a membership fee or other restrictions.

This is a summary of a longer, more detailed report you can find at www.CRBestBuyDrugs.org. Our analysis is based on a scientific review by the Oregon Health and Science University-based Drug Effectiveness Review Project. The Agency for Healthcare Research and Quality conducted the analysis as part of the Comparative Effectiveness Program.

Best Buy	Drug/Strength/Form	Brand ¹	Average Cost per Month ²	Formulation and Frequency of Dose ³	Generic?	Low Cost
Bisphosphonates						
	Alendronate 5 mg tablet	Generic	\$63	One pill daily	Yes	
	Alendronate 10 mg tablet	Generic	\$61	One pill daily	Yes	
	Alendronate 35 mg tablet	Generic	\$39	One pill weekly	Yes	
	Alendronate 70 mg tablet	Generic	\$41	One pill weekly	Yes	
	Alendronate 70 mg tablet	Fosamax	\$132	One pill weekly	No	
	Ibandronate 150 mg tablet	Generic	\$130	One pill monthly	Yes	
	Ibandronate 150 mg tablet	Boniva	\$183	One pill monthly	No	
	Ibandronate 3 mg/3 mL injectable	Boniva	\$200	3 mg IV every three months	No	
	Risedronate 5 mg tablet	Actonel	\$163	One pill daily	No	
	Risedronate 35 mg tablet	Actonel	\$181	One pill weekly	No	
	Risedronate 150 mg tablet	Actonel	\$189	One pill monthly	No	
	Risedronate 35 mg delayed-release tablet	Atelvia	\$174	One pill weekly	No	
	Zoledronic acid 5 mg/100 mL injectable	Reclast	\$107	5 mg infusion once a year	No	
	Zoledronic acid 5 mg/100 mL injectable	Generic	\$47	5 mg infusion once a year	Yes	
Selective estrogen receptor modulator						
	Raloxifene 60 mg tablet	Evista	\$213	One pill daily	No	
Parathyroid hormone						
	Teriparatide 600 mcg/2.4 mL unit	Forteo	\$1,573	20 mcg injection once daily	No	
Biologicals						
	Denosumab 60 mg/mL injection	Prolia	\$220	60 mg/mL injection every six months	No	

¹ "Generic" indicates that it is the generic version of this drug.

² Prices reflect nationwide retail average in May 2013, rounded to the nearest dollar. Information derived by *Consumer Reports Best Buy Drugs* from data provided by Symphony Health Solutions, which is not involved in our analysis or recommendations.

³ As commonly recommended or prescribed.