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AMERICAN DENTAL ASSOCIATION



Osteoporosis medications (oral bisphosphonates)

From birth until about age 30, a person's bones grow longer and increasingly dense, resulting in a strong skeleton. Bone density is affected by diet, physical activity, heredity, hormones, lifestyle and certain medications. Generally, as people age, their bones gradually lose density and strength.

Osteoporosis (os-tee-oh-puh-roh-sis), or porous bone, is a disease that weakens bones and increases the risk of fractures. Bones become fragile as bone mass decreases and bone tissues deteriorate. This can make people more vulnerable to fractures, especially of the hip, spine and wrist.

Osteoporosis affects about 10 million Americans (8 million are women). Another 34 million Americans are at risk of developing osteoporosis. The disease affects more women than cancer, heart disease or stroke combined. Many people are treated with a group of prescription drugs called oral bisphosphonates (bis-fos-fonates). Examples include alendronate (*Fosamax*, Merck, Whitehouse Station, N.J.), risedronate (*Actonel*, Procter & Gamble, Cincinnati) and ibandronate (*Boniva*, Roche, Nutley, N.J.).¹

Osteoporosis and bone fractures

The risks of osteoporosis, especially the development of bone fractures, are serious. Fractures of the spinal column and hip, which can be life-threatening, are the most common osteoporosis problems.⁴ The National Osteoporosis Foundation reports that one in two women and one in four men over age 50 will have an osteoporosis-related fracture in her/his remaining lifetime. Osteoporosis causes more than 1.5 million fractures each year, including more than 300,000 hip fractures and about 700,000 vertebral fractures, 250,000 wrist fractures and 300,000 fractures at other sites.

One in five patients with a hip fracture ends up in a nursing home. Six months after experiencing a hip fracture, only 15 percent of patients are able to walk across a room without help. A woman's risk of having a hip fracture is equal to her combined risk of developing breast and ovarian cancers.¹

Many studies report that the use of oral bisphosphonates reduces bone loss, increases bone density and reduces the risk of fractures. For example, it is estimated that alendronate may reduce by 40 percent the risk of hip fracture in patients with osteoporosis. Thus it is possible that the drug could prevent more than 100,000 hip fractures and tens of thousands of deaths each year.⁵

Osteonecrosis of the jaw (ONJ)

Recent news reports have alarmed and confused many patients who receive oral bisphosphonates. That's because uncommon complications are linked to these drugs. The drugs have been associated with osteonecrosis (os-tee-oh-ne-kro-sis) of the jaws (ONJ), a rare but potentially serious condition that can cause severe destruction of the jawbone(s).²

Most cases of ONJ have been seen in cancer patients who receive treatment with *intravenous* bisphosphonates. To date, about 94 percent of all ONJ cases have been linked to intravenous bisphosphonate use and 6 percent linked to oral bisphosphonates.³ The true risk posed by oral bisphosphonates remains uncertain, but researchers agree that it appears very small.

Given the risks associated with osteoporosis and the proven benefits of oral bisphosphonate therapy, do not stop taking these medications before discussing the matter fully with your physician.

Tell your dentist

If your physician prescribes an oral bisphosphonate, it's important to tell your dentist so that your health history form can be updated. Because some dental procedures, such as extractions, may increase your risk of developing ONJ, the American Dental Association published treatment guidelines for patients on bisphosphonates.⁶ The medical and dental communities continue to study ways to prevent and treat ONJ to ensure the safest possible result for dental patients taking bisphosphonates.

Your physician serves as the best source of information regarding your need for oral bisphosphonates. Given the significant benefits of osteoporosis medication, your physician may recommend that you continue taking it despite the slight risk of ONJ. While neither your physician nor your dentist can eliminate the possibility of a patient developing ONJ, regular dental visits and maintaining excellent oral hygiene are essential in helping to avoid osteonecrosis. For more information visit the National Osteoporosis Foundation's Web site.

References

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⁶ American Dental Association Council on Scientific Affairs. Dental management of patients receiving oral bisphosphonate therapy: expert panel recommendations. *J Am Dent Assoc.* 2006 Aug;137(8):1144-50.

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