

Bisphosphonates and Osteonecrosis of the Jaw

By Terry S. Shapiro, D.M.D.

Many of my mature Long Island dental patients are taking the bisphosphonate drugs, Fosamax, Actonel, or Boniva, to prevent further bone loss. No one wants to lose inches or suffer with broken bones. But you should be aware of a condition called osteonecrosis of the jaw (ONJ) which has been linked to use of bisphosphonate medications.

Bisphosphonate ONJ is diagnosed in a patient who has an area of exposed bone in the jaw that persists for more than 8 weeks and who has no history of radiation therapy to the head and neck and who is taking, or has taken, a bisphosphonate medication. The condition is characterized by pain, soft-tissue swelling, infection, loose teeth, and exposed bone.

It is important that you distinguish between the bisphosphonate medications (such as Fosamax, Actonel, Boniva) which are taken orally to treat osteoporosis and others (such as Aredia, Bonfos, Didronel or Zometa) which are administered intravenously as part of cancer therapy.

In rare instances, some individuals receiving intravenous bisphosphonates for cancer treatment have developed osteonecrosis of the jaw, or destruction of the jawbone. Still more rarely,

osteonecrosis of the jawbone has occurred in patients taking oral bisphosphonates.

Patients currently receiving intravenous bisphosphonates should avoid invasive dental procedures if possible. Visit your dentist and take care of needed dental work before beginning the bisphosphonate therapy. Be sure to let your dentist know if you use any bisphosphonate medication, whether oral or intravenous.

The January 1, 2009 issue of the Journal of the American Dental Association reported on a new study at the University of South Carolina showing that the proportion of people taking oral osteoporosis drugs who develop osteonecrosis of the jaw (ONJ) may be much higher than previously thought.

The USC School of Dentistry's database showed that nine of 208 patients taking Fosamax had active ONJ, a prevalence of about 4 percent. All were patients who had undergone some kind of dental procedure, such as having a tooth removed. The jaw complication has been seen in patients taking Fosamax for as little as one year. It seems to occur most frequently after routine tooth extraction.

Although no one is sure why bisphosphonates seem to have this effect only on jaw bones, researchers have



speculated that the drugs may make it easier for bacteria to adhere to bone that is exposed after a tooth extraction.

At the USC School of Dentistry patients are put on anti-microbial, anti-fungal rinse one week pre-operatively or post-operatively if they have been on bisphosphonates six months or longer.

It is up to you and your physician whether to modify use of the bisphosphonate medication before dental surgery procedures. The consensus is that good oral hygiene and regular dental care will help to lower your risk of developing osteonecrosis of the jaw.

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