

# Ask Dr. Huff...Why is my dentist concerned about my Osteoporosis medicine?



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Medication has been used to retard the breaking down of bone in bone diseases like osteoporosis and metastatic bone cancer since the

early 1970's. Most commonly, these drugs are in category called *bisphosphonates* which slow down the function of a specific type of cells, *osteoclasts*. There are many different names for the drugs in this category, and many of them are taken in pill form.

In a healthy body, osteoclasts digest mature bone when necessary to pull calcium out of the bones when the body needs it and to help the body grow by getting rid of dying bone. Osteoclasts

then send out chemical messengers to another type of cell, called *osteoblasts*, to tell them to start making new bone. In a healthy body, this system is very precisely tuned and allows for growth and healing throughout life, which is a process called *remodeling*.

In certain types of bone disease, the osteoclasts become overzealous and break down bone faster than the osteoblasts can rebuild new bone. The goal of bisphosphonate medications is to reset the balance between the two. For the most part, they function fairly well and are necessary to minimize the pain and suffering that can come from catastrophic fractures of the hip, spine, and wrist in those afflicted with osteoporosis or in reducing the dangerously high levels of calcium in the blood that can develop in those suffering from metastatic bone cancer. Although therapeutic dosages of medications can be prescribed, there is no

way to prescribe bisphosphate medications precisely enough to re-establish the harmony of bone remodeling that exists in a perfectly healthy individual.

As with all drugs, side effects are an expected reality. Regarding bisphosphate medications, a rare but serious side effect has been observed called bisphosphonate-related osteonecrosis of the jaw after dental extractions and/or dental implant placement. Periodontal disease, alcohol abuse, smoking, and malnutrition can also be contributing factors. Basically, osteonecrosis is death of bone in a localized site that may or may not become infected. The problem is that treatment is very unpredictable, often disfiguring and painful, and healing of bisphosphate-related osteonecrosis may be impossible.

Because this side effect, although extremely rare, can significantly reduce the quality of life of the few who may suffer from it, dentists are very concerned

about not extracting teeth in people who use bisphosphate medication. It has drastically affected the way that we prescribe treatment for these individuals. For example, performing root canal therapy on broken roots and sealing the root stumps at the gumline is a wise treatment over extraction in these patients. As with all medications, it is wise to openly discuss them with both your physician and your dentist.

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