Prevent another fracture: Bisphosphonate medicines to strengthen bones

Bisphosphonates are the most common medicines used to prevent bone loss. Most of the time, they are taken as pills. These medicines increase bone thickness and strength. Research shows that bisphosphonates are very effective medicines that can reduce the risk of bone fractures by up to 50%.

As with any medicine, there are risks and benefits in using bisphosphonates. Some of the side effects may be bothersome, but recovering from another fracture can be more difficult. For most people who’ve already had a fracture, the benefits of taking bisphosphonates far outweigh the risks.

In recent years, bisphosphonates have been linked to some rare and unusual risks that include femur (thigh bone) fracture and breakdown of the jaw. The risk of either of these happening is very low – each happen in less than 1% of women taking these medicines.

Here are some common questions and answers about bisphosphonates:

What are the side effects of bisphosphonates?
Side effects include heartburn and irritation of the esophagus (tube connecting your throat to the stomach), headache, constipation, and diarrhea. If you take this medicine as prescribed, your risk of side effects may be small.

What is a femur fracture?
The femur is the large bone in your thigh. Femur fractures are unusual. While the femur is normally very strong, some people have had a femur fracture without a fall or major injury. Fractures of the femur have been reported in some people taking bisphosphonate drugs, but these types of fractures can also happen to people who do not take bisphosphonates.

Do bisphosphonates cause femur fractures?
The U.S. Food and Drug Administration (FDA) reviewed the available data and found no clear connection between bisphosphonate use and femur fractures. Some reports suggest that these fractures may happen with long-term bisphosphonate use (over 10 years). If you start bisphosphonates, your doctor will evaluate your bone health during treatment and decide if you should continue, stop, or make changes in your medicine.

How common are femur fractures in people taking bisphosphonates?
The exact rate of femur fractures in people who take bisphosphonates is unknown, but these fractures appear to be very rare (in less than 1% of women taking these medicines), even among women taking the drug for 10 years. These types of fractures can also happen to people who do not take bisphosphonates.

What is breakdown of the jaw?
The loss or breakdown of jaw bone is a condition called osteonecrosis of the jaw. Symptoms can include pain or swelling in the gums or jaw, toothaches, numbness in the mouth or jaw, and infection.

If I take bisphosphonates, do I have to worry about problems with my jaw?
Most cases of osteonecrosis of the jaw involved people who received bisphosphonates by infusion (through a vein) to treat cancer that spread to the bone. Jaw problems happen in about 1%-5% of people with cancer who receive bisphosphonates by infusion. For people taking bisphosphonates by mouth, the rate is much lower (in less than 1% of people). Loss of jawbone can also happen to people who do not take bisphosphonates.

What are other things I can do to help keep my bones strong?

- Make sure you get enough calcium and vitamin D. We recommend the following:
  - Calcium:
    - Women up to age 50: 1000 mg daily; over age 50, 1200 mg daily.
    - Men up to age 70: 1000 mg each daily; over age 70, 1200 mg daily.
  - Vitamin D: All adults up to age 70 should get 600 IU daily; 800 IU daily after age 70.
- Stay physically active. Aim for 30 minutes of exercise most days of the week. Do a variety of activities that can help improve balance, strengthen muscles and bones. Good examples include tai chi, walking, climbing stairs, weight lifting.

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- If you smoke, quitting is the best thing you can do for your health. When you're ready to quit, call our Quit For Life Program at 1-800-462-5327 to get started.
- Brush your teeth and floss regularly and get routine dental care to keep your mouth, teeth, and gums healthy.

If you're still unsure about taking these medicines, please view the decision point **Osteoporosis: Should I Take Bisphosphonate Medicines?** at https://www.qhc.org/kbase/topic.jhtml?docId=te7592#av2392. This aid will help you learn more about bisphosphonates, compare your options, and help you consider what matters most to you about treatment.