Bisphosphonates (taken by mouth)

What is osteopenia and osteoporosis?

Bone is living tissue that is always being broken down and replaced. Your doctor may have ordered a Bone Mineral Density (BMD) test to measure the amount of minerals in your bone.

Osteopenia is a condition where your bones become weaker and more brittle due to a loss of calcium and other minerals. This problem is very common as you age, and usually happens after menopause. Patients who have had chemotherapy, or who are taking hormone blocking medicines (endocrine therapy) are more likely to have a decrease in their bone mineral density. Osteopenia is thought to be the halfway point to osteoporosis, which means the bone density is lower than normal, but not as severe. Treating osteopenia may slow the bone loss that leads to osteoporosis.

Osteoporosis is a condition where your bones have become very weak and brittle. Often, people do not know that they have osteoporosis until their bones become so weak that a sudden strain, bump, or fall causes a bone fracture. These type of fractures are most common in the hip, wrist or spine. Fractures from osteoporosis may cause:

- Back or other bone pain
- Loss of height
- Spinal deformities such as hump in the spine
- Stooped posture
- Problems with moving

Although there is no cure for osteoporosis, there are treatments to help stop more bone loss and fractures. Talk to your health care provider about your treatment options.

Your doctor will look at the following to decide what treatment may help reduce your chance of breaking a bone:

- The results of your Bone Mineral Density (BMD)
- Your risk factors for osteoporosis which include:
  - ▶ Endocrine therapy for breast cancer
  - ▶ Chemotherapy for breast or other cancers
  - ▶ Ovarian suppression (treatments that stop the ovaries from making estrogen)
  - ▶ Oophorectomy (surgery to remove one or both of your ovaries)
  - ▶ Tobacco use
  - ▶ 3 or more drinks of alcohol each day
  - ▶ No weight bearing exercise
  - ▶ Family history of hip fractures
  - ▶ Previous fractures
  - ▶ Advanced age
  - ▶ Long term use of steroid medicines
  - ▶ Low body weight/small body frame
- Your chance of breaking a bone in the future
- Your medical history
- Your current health

What are bisphosphonates (bis-fäs-fə-nāts) and how do they work?

Bisphosphonates are a group of drugs that target and block certain bone cells called “osteoclasts”. Bisphosphonates can slow down osteopenia and prevent more bone loss. Bisphosphonates are also used to prevent fractures in patients who have osteoporosis. Depending on which drug your doctor prescribes, you will take this medicine by mouth, either 1 time a week or 1 time a month.

What should I tell my doctor before starting this treatment?

Talk to your doctor if you have any of the following:

- Problems with your mouth, throat or esophagus, such as mouth ulcers, bleeding, trouble swallowing, reflux or heartburn
- Unable to stand or sit up for 30 minutes

- Very low calcium in your blood (hypocalcemia)
- Kidney problems
- Gum, tooth or dental problems, dentures that do not fit very well, or if you have had any mouth surgery
- If you are pregnant or think you may be pregnant
- If you are breastfeeding
- If you have been told that you need to start a new medicine
- The medicines/pills you are taking including:
  - ► Nonsteroidal anti-inflammatory medicine (NSAID's) such as Ibuprofen (Advil), Meloxicam (Mobic) or Naproxen (Aleve)
  - ► Medicines prescribed by any of your doctors
  - ► Herbs
  - ► Vitamins or Supplements
  - ► Over-the-counter medicines

How do I take this bisphosphonate medicine?

- A check **(√)** has been put in the box by the medicine and the dose that has been prescribed by your doctor:

  ☐ Alendronate (Fosamax) 35 mg once weekly

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  ☐ Ibandronate (Boniva) 150 mg once monthly

  ☐ Risedronate (Actonel) 35 mg once weekly

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- **Do not** take more tablets than prescribed.
- The pharmacy where you fill your bisphosphonate prescription may give you more specific directions on how to take this medicine.
- This medicine should **only** be taken with plain water (8 ounces or more).
- **Do not** take this medicine at the same time you take your calcium supplements, multivitamins, antacids, magnesium supplements/laxatives or iron pills. Wait for 60 minutes after you take your bisphosphonate medicine before you take these type of pills.

- Swallow this medicine whole. **Do not** chew, break, or crush the pill.
- Take your bisphosphonate pill first thing in the morning **and** 30 to 60 minutes before you eat any food, drink any beverage (except the plain water used to take the pill) or take any of your other medicine(s) for the day.
- Stay upright and do not lie down for 30 to 60 minutes after you take the pill **and** until after you eat your first food of the day. This will help reduce throat irritation.
- Take this drug as directed by your doctor or other health care provider, even if you feel well.
- **Do not** start any other medicines or have any dental work done while taking this medicine without talking to your health care provider first.

What are the side effects of this treatment?

Every person responds differently to treatment. Some of the more common side effects of this treatment are:

- Constipation
- Diarrhea
- Stomach pain
- Nausea or upset stomach
- Belching or burping, heartburn
- Headache
- Muscle or joint pain

When should I call my doctor?

You should call your doctor **right away** if you have any of the following problems:

- Signs of an allergic reaction such as a rash or hives
- Red, itchy, swollen, blistered or peeling skin with or without a fever
- Wheezing, tightness in your chest or throat
- Trouble breathing or talking
- Unusual hoarseness or swelling of the mouth, face, lips, tongue, or throat
- Black, tarry or bloody stools
- Chest pain
- Coughing up blood or vomit that looks like coffee grounds

- Trouble swallowing
- Pain when swallowing
- Change in your eyesight, eye pain or a very bad eye irritation
- Serious bone, joint or muscle pain
- Any new or strange groin, hip, or thigh pain
- Open sores on your tongue or in your mouth
- If you start taking any new medicines (prescription, over-the-counter or dietary/herbal supplements)

Is there anything else I should know about this treatment?

- Bisphosphonate treatment works best when combined with calcium/vitamin D and safe physical activity. Doing resistance training and cardiovascular exercise while taking this medicine has been found to improve bone strength. This type of physical activity should include doing resistance exercises, such as lifting weights or Pilates, 2 to 3 days a week **and** 150 minutes each week of moderate intensity exercise, such as walking, water aerobics or dancing.
- For more information, see the patient education handout **Calcium + Vitamin D Supplements for Breast Cancer Survivors**. If you need help with creating a personalized, safe resistance exercise program, ask your doctor for an Oncology Rehabilitation referral for physical therapy.
- Take good care of your teeth and see a dentist regularly. Tell your dentist that you are taking an oral bisphosphonate.
- Talk to your oncologist (cancer doctor) before having any dental procedures while on this treatment.
- Call your oncologist or dentist if you have any of the following problems:
  - ► Pain, swelling or numbness in your mouth or jaw
  - ► A heavy feeling in your jaw
  - ► Loose teeth
  - ► Any other problems with your teeth or jaw

You may find it helpful to watch The James Patient Education videos at **http://cancer.osu.edu/patientedvideos** to learn tips for how to manage treatment side effects.