OSTEOPOROSIS MEDICINES

Although there is no cure for osteoporosis, there are steps you can take to prevent, slow or stop its progress. In some cases, you may even be able to improve bone density and reverse the condition to some degree.

Getting enough calcium and vitamin D as well as appropriate exercise are essential for the bone health of everyone. This includes people who take an osteoporosis medicine.

Medicines for Prevention and Treatment

To prevent and treat osteoporosis, the Food and Drug Administration (FDA) has approved medicines to reduce the risk of broken bones. These medicines either (1) slow or stop bone loss or (2) rebuild bone. They are approved for postmenopausal women. Some of them are also approved for men and people taking steroid medicines like prednisone and cortisone which can cause bone loss and osteoporosis.

The best way to determine whether you have osteoporosis is with a bone density test by a DXA machine. DXA stands for dual energy x-ray absorptiometry.

The T-score result on a bone density test falls into three categories: normal density, low density (osteopenia) and osteoporosis. The chart on page 2 indicates when you should speak with your healthcare provider about possible treatment with an osteoporosis medicine.

People at high risk for fractures that are caused by osteoporosis should always speak with their healthcare provider about treatment. Individuals at highest risk are those who have had previous broken bones of the spine (vertebral fractures) or hip. Almost all people with these types of broken bones need treatment for osteoporosis.

Some other serious risk factors to consider when making a treatment decision include:

- Having a broken bone as an adult
- Having parents who had osteoporosis or broken bones
- Being small and thin
- Taking certain medicines (such as steroids)
- Smoking
- Drinking too much alcohol (e.g. more than two - three drinks per day)

Bone Remodeling Cycle

Bone is living, growing tissue that constantly forms new bone while replacing older bone. Bone continuously renews and changes through a process called remodeling.

The bone remodeling cycle consists of two distinct stages:

(1) Bone resorption (breakdown or removal). During bone resorption, special cells (osteoclasts) on the bone's surface dissolve bone tissue and create small cavities.

(2) Bone formation. During bone formation, other cells (osteoblasts) fill the cavities with new bone tissue.

Usually, bone resorption and bone formation take place in close sequence and remain balanced. An imbalance in the bone remodeling cycle occurs with menopause and with aging in both genders. It can also occur with other conditions. An imbalance can result in bone loss that eventually leads to osteoporosis and broken bones (also called fractures).
Table 1. Bone Density Test Results and Treatment

<table>
<thead>
<tr>
<th>Bone Density Category</th>
<th>When to Consider Treatment with an Osteoporosis Medicine in Postmenopausal Women and Men Age 50 and Older</th>
<th>T-Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Scores</td>
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<tr>
<td></td>
<td></td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Possible Score</td>
</tr>
<tr>
<td>Normal Bone Density</td>
<td>Most people with T-scores of -1 or higher do not need to consider a medicine.</td>
<td>-1 and higher</td>
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<tr>
<td>Low Bone Density</td>
<td>People with T-scores between -1.0 and -2.5 should consider a medicine when there are certain risk factors suggesting an increased chance of breaking a bone in the next 10 years.</td>
<td>-1.1 to -2.4</td>
</tr>
<tr>
<td>(Osteopenia)</td>
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<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Osteoporosis</td>
<td>All people with osteoporosis should consider a medicine.</td>
<td>-2.5 and lower</td>
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</tbody>
</table>

*NOF has presented the T-scores differently than in its clinical guidelines to help make this information more understandable.

**Special Note:** All medicines have potential side effects. When making a decision about taking a medicine, NOF encourages you to discuss your treatment options with your healthcare provider and to look at both the risks and benefits of taking or not taking a medicine.

Bisphosphonates, calcitonin, denosumab, estrogen and estrogen agonists/antagonists are antiresorptive medicines. They slow the bone loss that occurs in the breakdown part of the remodeling cycle.

When people first start taking antiresorptive medicines, they stop breaking down bone as quickly as before, but still make new bone at the same pace. Therefore, bone density may increase. The goal of treatment with antiresorptive medicines is to prevent bone loss and lower the risk of breaking bones.

Teriparatide, a form of parathyroid hormone, is the first osteoporosis medicine to increase the rate of bone formation and is in a distinct category of osteoporosis medicines called anabolic drugs. Teriparatide is the only osteoporosis medicine that truly rebuilds bone. The goal of treatment with teriparatide is to build bone and lower the risk of breaking bones.

See page 9 for a detailed table that includes information about all of the osteoporosis medicines.

**Predicting Fracture Risk**

Some DXA machines can now provide a report that gives information on a person’s Absolute Fracture Risk or FRAX® score. This report incorporates a person’s bone density results, age and some of the major risk factors for osteoporosis and broken bones. Healthcare providers can also perform this calculation using a web-based version of the FRAX tool.

The information in the Absolute Fracture Risk report is used to help determine a person’s risk of breaking a bone in the next 10 years. This prediction on Absolute Fracture Risk can help both healthcare providers and patients decide when treatment with an osteoporosis medicine may be appropriate.
After drinking the solution, patients must remain upright (sitting, standing or walking) for at least 30 minutes with no food or drink during this time.

Alendronate with either 2,800 IU or 5,600 IU of vitamin D₃ provides another option for a source of vitamin D. Weekly alendronate with 2,800 IU of vitamin D₃ is the equivalent of taking 400 IU daily, while weekly alendronate with 5,600 IU of vitamin D₃ is the equivalent of taking 800 IU daily. Vitamin D₃ is also called cholecalciferol.

**Ibandronate Sodium** *(Brand name Boniva®)*

Ibandronate is approved for the prevention and treatment of osteoporosis in postmenopausal women. Ibandronate reduces the incidence of spine fractures by about 50 percent over three years.

Data do not yet confirm that ibandronate can reduce the risk of hip and other non-spine fractures. However, ibandronate increases bone density throughout the skeleton.

For both prevention and treatment, ibandronate is taken once monthly as a 150 mg tablet. For treatment, it is also available as an intravenous (IV) injection of 3 mg given every three months. Although the FDA has approved a daily dose, it is not available in the U.S.

Oral ibandronate should be taken on the same day each month, first thing in the morning after waking up and on an empty stomach. It needs to be swallowed whole with 6 to 8 ounces of plain water (no other liquid), at least 60 minutes before having anything to eat or drink. Patients must remain upright (sitting, standing or walking) during this 60-minute period.

A healthcare professional administers the IV dose in a doctor’s office or other outpatient setting. It takes less than a minute to inject.

Patients need to have a blood test (serum creatinine) to confirm that kidney function is normal prior to each IV injection.
Risedronate Sodium or Risedronate Sodium with Calcium Carbonate
(Brand name Actonel® and Actonel® with Calcium)

Risedronate is approved for the prevention and treatment of osteoporosis in postmenopausal women, and for the treatment of osteoporosis in men. It also is approved for the prevention and treatment of glucocorticoid-induced osteoporosis in men and women as a result of long-term use of steroid medications (examples are prednisone and cortisone).

Risedronate slows bone loss, increases bone density and reduces the risk of spine and non-spine fractures by 35 - 45 percent over three years.

For both prevention and treatment, risedronate is taken daily as a 5 mg tablet, weekly as a 35 mg tablet that is available with or without separate calcium carbonate tablets, twice monthly as a 75 mg tablet (on two consecutive days) or monthly as a 150 mg tablet.

The risedronate tablet needs to be taken first thing in the morning after waking up and on an empty stomach. It is swallowed whole with 6 - 8 ounces of plain water (no other liquid), at least 30 minutes before having anything to eat or drink. Patients must remain upright (sitting, standing or walking) during this 30-minute period.

Weekly risedronate with calcium carbonate offers another way to get calcium. The once weekly risedronate tablet comes with six individual tablets that contain 500 mg of calcium in the form of calcium carbonate. One calcium tablet is taken daily except on the day of the week when risedronate is taken.

If calcium is taken with the risedronate tablet, it will prevent the absorption of risedronate and the desired effect will not occur. Calcium carbonate supplements should be taken with food to be well absorbed.

Zoledronic Acid (Brand name Reclast®)

Zoledronic acid is approved for the treatment of osteoporosis in postmenopausal women. It is approved to increase bone mass in men with osteoporosis and for the prevention of new clinical fractures in patients who have recently had a low-trauma hip fracture.

It is also approved for the prevention and treatment of glucocorticoid-induced osteoporosis in men and women as a result of long-term use of steroid medications (examples are prednisone and cortisone). Although the FDA approved zoledronic acid in 2007 to treat osteoporosis, the medicine was already available under the name Zometa® for use in cancer patients with certain bone conditions. The FDA first approved zoledronic acid as Zometa® in 2001.

Zoledronic acid increases bone density and reduces fractures in the hip, spine and non-spine areas (for example, the wrists, legs and arms).

In one major study, zoledronic acid reduced the risk of spine fractures by 70 percent and hip fractures by 41 percent. Zoledronic acid also reduces the risk of more broken bones in people who have recently broken a hip.

Zoledronic acid is given once a year as an intravenous (IV) infusion to treat osteoporosis. It is also given every two years as an IV infusion to prevent osteoporosis. A healthcare professional gives zoledronic acid as an intravenous (IV) dose of 5 mg in a doctor’s office or other outpatient setting. It takes at least 15 minutes for the yearly infusion.

Patients need to have two blood tests prior to each IV dose. One is a test for creatinine to confirm that kidney function is normal. The other is a test for calcium to confirm that the blood calcium level is normal.

Side Effects of Bisphosphonates

Side effects for all the bisphosphonates (alendronate, ibandronate, risedronate and zoledronic acid) may include bone, joint or muscle pain.

Side effects of the oral tablets may include nausea, difficulty swallowing, heartburn, irritation of the esophagus (the esophagus is the tube connecting the throat to the stomach) and gastric ulcer.

Side effects that can occur shortly after receiving an IV bisphosphonate include flu-like symptoms, fever, headache and pain in muscles or joints. These generally stop within two - three days and usually do not happen with future infusions.
Calcitonin is also a naturally occurring hormone in the body that is involved in calcium regulation and bone metabolism.

Calcitonin medication slows bone loss and increases bone density in the spine. It reduces the risk of spine fractures but has not been shown to decrease the risk of non-spine fractures.

Calcitonin medication is available as a nasal spray (200 IU daily) or an injection (dosage varies).

**Side Effects**

Common side effects with nasal calcitonin are a runny nose, headache, back pain and nosebleed (epistaxis). Injectable calcitonin may cause an allergic reaction and unpleasant side effects including flushing of the face and hands, urinary frequency, nausea and a skin rash.

**Denosumab (Brand name Prolia™)**

Denosumab is a RANK ligand (RANKL) inhibitor/human monoclonal antibody. The medication was approved by the FDA in June 2010 for the treatment of osteoporosis in postmenopausal women at high risk of fracture or breaking a bone. According to the package insert, being at high risk of fracture means that you meet one or more of the following conditions:

- you have already broken a bone from osteoporosis
- you have several risk factors for breaking a bone
- you have not been able to take other osteoporosis medicines due to side effects
- you have not received enough benefit from other osteoporosis medicines

A healthcare professional gives denosumab by injection every six months. Patients need to have a blood test before each dose to confirm that the blood calcium level is normal.

In clinical trials, denosumab reduced the incidence of new spine fractures by 68 percent, reduced the incidence of hip fractures by 40 percent and reduced the incidence of all non-spine fractures by 20 percent over three years.
ET and HT are commonly available as a tablet or skin (transdermal) patch and in other forms. Estrogen and hormone medicines come in a wide variety of doses.

Side Effects

When estrogen is taken alone, it can increase a woman's risk of developing cancer of the uterine lining (endometrial cancer). To reduce this risk, physicians prescribe the hormone progesterone in combination with estrogen (hormone therapy or HT) for those women who have a uterus. Estrogen therapy (ET) is prescribed for women who have had hysterectomies. Side effects may include vaginal bleeding, breast tenderness and gallbladder disease.

The Woman’s Health Initiative (WHI) study confirmed that one type of HT, Prempro® (given to women who on average were more than ten years past menopause), reduced the risk of hip and other fractures, as well as colon cancer. However, it was associated with a slight increase in the risk of breast cancer, strokes, heart attacks, venous blood clots and cognitive (mental) decline. ET was associated with a similar increase in the risk of strokes, venous blood clots and cognitive decline, but it did not increase the risk of breast cancer or heart attacks.

According to the FDA, postmenopausal women should consider other osteoporosis medicines before taking ET or HT to prevent osteoporosis. Because estrogen use has serious risks, women should discuss with their healthcare providers whether the benefits outweigh the risks. Women who decide to take ET or HT should take the lowest possible dose for the shortest period of time.

Raloxifene (Brand name Evista®)

Raloxifene is approved for the prevention and treatment of osteoporosis in postmenopausal women. It is in a class of drugs called estrogen agonists/antagonists that have been developed to provide the beneficial effects of estrogens without their potential disadvantages. It is neither an estrogen nor a hormone.

Raloxifene used to be called a selective estrogen receptor modulator (SERM). Raloxifene increases bone density and reduces the risk of spine fractures. There are no data showing that raloxifene reduces the risk of hip and other non-spine fractures.
For both prevention and treatment, raloxifene is taken daily as a 60 mg tablet with or without meals. Raloxifene appears to decrease the risk of estrogen-dependent breast cancer by 65 percent over eight years. It is FDA approved to reduce the risk of breast cancer in women with osteoporosis and in women without osteoporosis who are at high risk of breast cancer.

Side Effects

While side effects are not common, they include hot flashes, leg cramps and deep vein thrombosis (blood clots). Blood clots are also associated with estrogen therapy. Other side effects include swelling and temporary flu-like symptoms. Raloxifene is not associated with diseases of the uterus or ovaries and does not affect cognitive (mental) function.

Raloxifene should not be given to women at increased risk for stroke. This includes women who have had previous strokes, transient ischemic attacks (TIAs), atrial fibrillation (a type of serious irregular heart beat) or uncontrolled hypertension (high blood pressure).

Bone Forming (Anabolic) Medicines

Teriparatide – Parathyroid Hormone (PTH) (1-34) (Brand name Forteo®)

Teriparatide, a type of parathyroid hormone, is approved for the treatment of osteoporosis in postmenopausal women and in men who are at high risk for a broken bone. This medicine rebuilds bone and significantly increases bone mineral density, especially in the spine.

In clinical studies of postmenopausal women using teriparatide, fractures were reduced in the spine and throughout the skeleton. In men, bone density increased, but the study was too small and not long enough to determine whether fractures decreased.

Good candidates for teriparatide include those who have had an osteoporosis related fracture and those with very low bone mineral density (T-scores lower than -3.0). Teriparatide is also an option for patients who continue to lose bone density or break a bone during treatment with other osteoporosis medicines.

Teriparatide is self-administered as a daily injection from a pre-loaded pen containing a one month supply of medicine.

It can be taken for a maximum of two years. At the end of two years, to retain the benefits of treatment with teriparatide, most experts recommend that patients start an antiresorptive medicine.

Side Effects

Side effects include leg cramps and dizziness. Modest elevations in serum and urine calcium can occur, but there is no documented increase in the risk of kidney stones.

In animal studies, very high doses of teriparatide that were given for a long period of time increased the incidence of rat osteosarcoma, a type of bone cancer. Although common in rats, this type of tumor is extremely rare in adult humans. For this reason, the FDA approved its use for up to two years only. There has been no evidence of increased risk of osteosarcoma in humans taking teriparatide.

People with certain conditions should not take this medicine. This includes people with Paget’s disease, children with growing bone, persons with unexplained serum alkaline phosphatase elevations, and those who have had radiation treatment involving the skeleton. It also should not be given to people with metabolic bone diseases such as hyperparathyroidism and those with cancer that has spread to the bone. Also, people who have certain abnormal blood tests, including increased calcium levels, should not take this medicine.

Response to Treatment

A medicine that is appropriate and effective for one person may not be the best choice for another person. People can respond differently to treatment with the same medicine.

To be effective, an osteoporosis medicine must be taken as prescribed. It is important to stay with the plan on which you and your healthcare provider have agreed. Most people cannot feel their bones getting stronger (or weaker) in response to treatment with a medicine. So if you decide that a particular treatment plan is not right for you, discuss your concerns with your healthcare provider before stopping or interrupting treatment.

For your medicine to work, you need to exercise regularly and continue to get enough calcium and vitamin D.
With the antiresorptive medicines (bisphosphonates, calcitonin, estrogen and estrogen agonists/antagonists), the goal of treatment is to prevent further bone loss and to reduce the risk of fractures. Fractures can cause deformities, disabilities, and serious, as well as life threatening complications. A patient has a favorable response to treatment when bone mineral density either remains stable or improves and no broken bones occur.

With the one anabolic medicine, teriparatide (Forteo®), the goal of treatment is to rebuild bone, increase bone mass, repair microscopic defects in bone and reduce the risk of fractures. A patient has a favorable response to treatment when both bone quantity and quality improve and there is a substantial increase in bone strength.

**Monitoring Treatment**

Most healthcare providers repeat the bone density test at least every two years to monitor the effectiveness of treatment with an osteoporosis medicine. Healthcare providers may have some patients repeat a bone density test in one year. Bone density tests and blood and urine tests for bone remodeling are the only widely available monitoring tools. At the current time, there is no easy way to measure improvement in bone quality.

**How Long to Treat**

There are currently no conclusive research findings to suggest how long an osteoporosis drug remains safe and effective, except for teriparatide (Forteo®). Teriparatide can be taken for no more than two years according to the FDA. It is uncertain how long any of the osteoporosis medicines remain effective after they are stopped.

**Past Experience and Studies**

Past experience with bisphosphonates (Actonel®, Boniva® and Fosamax®) suggests that upon discontinuation of any of these drugs, the benefits may continue for several years or longer. This is because the drugs remain in the bone for a long time. Eventually, however, the beneficial effect begins to lessen, bone remodeling rates increase and bone loss may occur.

One study found that alendronate (Fosamax®) continued to have a beneficial effect on bone mineral density for up to 10 years in postmenopausal women taking the medicine. Biopsies of bone tissue in women on alendronate for 10 years show that bone tissue looks healthy and normal. Other studies show that treating with alendronate for more than five years improves bone strength and reduces fractures of the spine.

Another study suggested that women who stopped taking alendronate after five years of treatment did not significantly increase their fracture risk for up to an additional five years. Women who stopped alendronate after five years had the same rate of non-spine fractures as women who continued using the drug for 10 years. However, the study found that women at very high risk of spine fractures may benefit by continuing to take alendronate beyond five years.

**Drug Holiday**

When a patient has a good response to treatment with an osteoporosis medicine, some healthcare providers will consider a drug holiday. This means stopping the medicine for a period of time and continuing to monitor bone mineral density.

Some healthcare providers consider a drug holiday after five years when there has been a good response to treatment. Others view it as an option when bone mineral density tests are performed two years apart, and the test results are similar and show a good response to treatment.

Although some healthcare providers give drug holidays, there are few research findings that support (or not support) this practice.

In the absence of clinical studies on duration of treatment, healthcare providers and patients should discuss options to determine the best course of action. NOF encourages all healthcare providers to evaluate a patient on the basis of clinical risk factors, such as the presence or absence of broken bones, bone density, age, weight, smoking and alcohol use. Length of treatment should be individualized and based on the person’s medical and fracture history, as well as the initial and most recent bone density test results.
### Table 2: Osteoporosis Medicines Approved by the FDA

<table>
<thead>
<tr>
<th>Class and Drug</th>
<th>Brand Name</th>
<th>Form</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bisphosphonates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alendronate</td>
<td>Generic Alendronate and Fosamax®</td>
<td>Oral (tablet)</td>
<td>Daily/Weekly</td>
</tr>
<tr>
<td>Alendronate</td>
<td>Fosamax Plus D™ (with 2,800 IU or 5,600 IU of Vitamin D₃)</td>
<td>Oral (tablet)</td>
<td>Weekly</td>
</tr>
<tr>
<td>Alendronate</td>
<td>Fosamax®</td>
<td>Oral (liquid solution)</td>
<td>Weekly</td>
</tr>
<tr>
<td>Ibandronate</td>
<td>Boniva®</td>
<td>Oral (tablet)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Ibandronate</td>
<td>Boniva®</td>
<td>Intravenous (IV) injection</td>
<td>Four Times per Year</td>
</tr>
<tr>
<td>Risedronate</td>
<td>Actonel®</td>
<td>Oral (tablet)</td>
<td>Daily/Weekly/Twice Monthly/Monthly</td>
</tr>
<tr>
<td>Risedronate</td>
<td>Actonel® with Calcium</td>
<td>Oral (tablet)</td>
<td>Weekly</td>
</tr>
<tr>
<td>Zoledronic Acid</td>
<td>Reclast®</td>
<td>Intravenous (IV) infusion</td>
<td>One Time per Year</td>
</tr>
<tr>
<td><strong>Calcitonin</strong></td>
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<td></td>
</tr>
<tr>
<td>Calcitonin</td>
<td>Fortical®</td>
<td>Nasal spray</td>
<td>Daily</td>
</tr>
<tr>
<td>Calcitonin</td>
<td>Miacalcin®</td>
<td>Nasal spray</td>
<td>Daily</td>
</tr>
<tr>
<td>Calcitonin</td>
<td>Miacalcin®</td>
<td>Injection</td>
<td>Varies</td>
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<tr>
<td><strong>Denosumab (RANKL inhibitor/human monoclonal antibody)</strong></td>
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<tr>
<td>Denosumab</td>
<td>Prolia™</td>
<td>Injection</td>
<td>Two times per year</td>
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<tr>
<td><strong>Estrogen</strong>*</td>
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<td></td>
</tr>
<tr>
<td>Estrogen</td>
<td>Multiple Brands</td>
<td>Oral (tablet)</td>
<td>Daily</td>
</tr>
<tr>
<td>Estrogen</td>
<td>Multiple Brands</td>
<td>Transdermal (skin patch)</td>
<td>Twice Weekly/Weekly</td>
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<tr>
<td><strong>Estrogen Agonists/Antagonists</strong> also called Selective Estrogen Receptor Modulators (SERMs)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Raloxifene</td>
<td>Evista®</td>
<td>Oral (tablet)</td>
<td>Daily</td>
</tr>
<tr>
<td><strong>Parathyroid Hormone</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Teriparatide</td>
<td>Forteo®</td>
<td>Injection</td>
<td>Daily</td>
</tr>
</tbody>
</table>

### Adverse Events

When a patient has a serious reaction or problem with a drug, either the patient or the patient’s healthcare provider should report the problem to the FDA. This can be done by calling 1 (800) 332-1088 or completing an online report at www.fda.gov/medwatch. Patients can also notify the pharmaceutical manufacturer. The chart on the next page provides the phone numbers of the pharmaceutical manufacturers and the date each medicine was approved by the FDA as an osteoporosis medicine.

### Nutrition and Exercise

To protect bone health, keep a well-balanced diet rich in fruits, vegetables, calcium and vitamin D. Adults age 50 and older need 1,200 mg of calcium and 800-1,000 IU of vitamin D every day. Adults under age 50 need 1,000 mg of calcium and 400 – 800 IU of vitamin D every day. Certain individuals may need more vitamin D. Ask your healthcare provider whether you should have a blood test to check your vitamin D levels. Two types of exercises that are also important for bone health include weight-bearing and muscle-strengthening exercises.
OSTEOPOROSIS MEDICATIONS

Alendronate
*Fosamax®, Fosamax Plus D™*
Merck, (800) 672-6372 (multiple companies manufacture generic)
FDA Approval: 1995

Calcitonin
*Fortical®, Miacalcin®*
Upsher-Smith, (800) 654-2299 (Fortical®)
Novartis, (888) 669-6682 (Miacalcin®)
FDA Approval: 1995

Denosumab
Prolia™
Amgen, (800) 772-6436
FDA Approval: 2010

Estrogen (ET) and Hormone Therapy (HT)
*Multiple brand names are available.*
(Examples of ET are Estrace® and Premarin®. Examples of HT are FemHrt® and Prempro®)

Ibandronate
*Boniva®*
Roche, (800) 526-6367
FDA Approval: 2005 for Monthly Oral Dose and 2006 for Quarterly IV Dose

Raloxifene
*Evista®*
Eli Lilly, (800) 545-5979
FDA Approval: 1997

Risedronate
*Actonel®, Actonel® with Calcium*
Warner Chilcott, (800) 836-0658
FDA Approval: 2000

Teriparatide
*Forteo®*
Eli Lilly, (800) 545-5979
FDA Approval: 2002

Zoledronic Acid
*Reclast®*
Novartis, (888) 669-6682
FDA Approval: 2007

Additional Information

- **Medicines.** For additional information on medicines, the following Web sites may be helpful:
  - DrugDigest
    [www.drugdigest.org](http://www.drugdigest.org)
  - Food and Drug Administration
    [www.fda.gov](http://www.fda.gov)
  - MedlinePlus
  - Physicians’ Desk Reference (PDR)
    [www.pdrhealth.com](http://www.pdrhealth.com)

  These Web sites have information on the results of clinical studies, including those on medicines:
  - [www.clinicalstudyresults.org](http://www.clinicalstudyresults.org)
  - [www.pubmed.gov](http://www.pubmed.gov)

- **My Medical Record.** To help you keep track of your prescription medicines, over-the-counter medicines and dietary supplements, the Food and Drug Administration (FDA) has developed a form. It is called “My Medicine Record.” You can use it to share information with your healthcare providers. The FDA suggests taking it with you when you visit your doctor, pharmacy or hospital. You can print the record from the FDA Web site by visiting [www.fda.gov](http://www.fda.gov) and searching for “My Medical Record” in the search box.

- **MUST for Seniors™ Program.** Older adults and caregivers can get help to avoid medication problems and recognize and manage common side effects. You can obtain this helpful information from the MUST for Seniors™ program. MUST stands for “Medication Use Safety Training.” The National Council on Patient Information and Education (NCPIE) sponsors it. The Web site is [www.mustforseniors.org](http://www.mustforseniors.org)