



A Glossary of Commonly Used Terms in Osteoporosis

Actonel® – See risedronate.

Alendronate – A medication that can prevent and treat osteoporosis in women and men. It is in a class medications called bisphosphonates. It is taken as an oral tablet once weekly or daily. The brand name is Fosamax®.

Anabolic Medications – A category of medications that helps build bone. At this time, teriparatide is the only anabolic osteoporosis medication.

Antiresorptive Medications – A category of medications that slows the breakdown of bone. These medications protect bone mineral density and reduce the risk of fractures. Most osteoporosis medications are antiresorptive medications. These medications include bisphosphonates, calcitonin, estrogen therapy/hormone therapy and an estrogen agonist/antagonist which is also called a selective estrogen receptor modulator (SERM).

Bisphosphonate Medications – A class of antiresorptive medications that slow the breakdown of bone. They include alendronate, ibandronate, risedronate and zoledronic acid.

Bone density – See bone mineral density (BMD).

Bone mass – The amount of mineral content in your bones. Bone mass is not corrected for bone size.

Bone mineral density (BMD) – Average concentration of minerals in your bones. BMD is corrected for bone size and is also called bone density.

Bone mineral density (BMD) test – A test that uses a special machine to measure bone density. Some people also call it a bone mass measurement test or bone density test. It helps doctors find out if your bones are becoming weak and if you are likely to have a fracture.

Boniva® – See ibandronate.

Calcitonin – A medication to treat osteoporosis in women at least 5 years past menopause. It is a hormone that helps regulate how your body uses calcium. Calcitonin is available as a nasal spray (brand names are Fortical® and Miacalcin®) or injection (brand name is Miacalcin®) to treat osteoporosis.

Calcium – A mineral needed to build strong bones. For bone health, it is important to eat foods rich in calcium, such as milk, dairy products, fortified foods and other calcium rich foods. If you do not get enough calcium through your diet, it is important to take a calcium supplement.

Calcium citrate – A type of calcium supplement. Calcium supplements from calcium citrate do not need to be taken with food for absorption.

Calcium carbonate – A type of calcium supplement. Calcium carbonate should be taken with food for best absorption.

Collagen – A major component of bone. Collagen is a protein that gives bones a flexible framework.

Corticosteroids – Medications that relieve inflammation and are much like certain hormones made by your own body. If you take them for long or at high doses, they can cause bone loss that leads to osteoporosis and fractures. These medications are also known as steroids and glucocorticoids. They are used to treat many conditions such as arthritis and asthma.

Daily Value (DV) – The Food and Drug Administration (FDA) lists DVs on the “Nutrition Facts” panel of foods to help consumers determine the amount of nutrients in each product. DVs can help people decide if a food is a good source of certain nutrients, such as calcium and vitamin D.

Dual-energy x-ray absorptiometry (DXA) – A test to detect low bone density and diagnose osteoporosis. Most experts consider it the preferred method to diagnose osteoporosis. This test can be performed on the spine, hip, forearm, heel or total body.

Endocrinologist – A physician who treats the endocrine system, which includes the glands and hormones that help control the body's metabolic activity. In addition to osteoporosis, conditions often treated by endocrinologists include diabetes, thyroid disorders and pituitary diseases.

Estrogen – A female hormone that controls sexual development and the menstrual cycle. It also plays an important role in maintaining healthy, strong bones in women. The body produces very little estrogen after menopause.

Estrogen Agonist/Antagonist – A type of medication that is also called a selective estrogen receptor modulator (SERM). It was developed to provide the benefits of estrogen therapy without some of the risks. This type of medication is for women only. The only estrogen agonist/antagonist that is currently approved for osteoporosis is raloxifene (Evista®).

Estrogen therapy (ET)/Hormone therapy (HT) – These terms refer to estrogen therapy (ET) alone and estrogen with progesterone hormone therapy (HT). While these medications can prevent osteoporosis in postmenopausal women they also increase the risk of other health problems. A woman who still has her uterus can only take HT. ET/HT are available under many brand names.

Evista® – See raloxifene.

Family physician – A physician with a broad range of training that includes surgery, internal medicine, obstetrics and gynecology and pediatrics. They place special emphasis on caring for an individual or family on a long-term, continuing basis.

Forteo® – See teriparatide.

Fosamax ®– See alendronate.

Fracture – A broken bone. A fracture is often the first sign of osteoporosis. While the most common osteoporosis fractures occur in the hip, vertebrae (bones in the spine) and wrist, these fractures also occur in many other bones.

Geriatrician – A family healthcare provider or internist who specializes in treating patients age 65 and older. This type of physician receives additional training on the aging process and is able to evaluate and treat common conditions and multiple diseases that typically occur among the elderly.

Glucocorticoids – See corticosteroids.

Gynecologist – A physician who diagnoses and treats conditions of the female reproductive system and associated disorders. A gynecologist may serve as primary healthcare provider for women and follow a patient’s reproductive health over time.

Healthcare Provider – A person who is trained and licensed to provide healthcare services. Healthcare providers include medical doctors, nurse practitioners, physician assistants, physical therapists and other health professionals.

Hormone Therapy – See **Estrogen Therapy (ET)/Hormone Therapy (HT)**.

Ibandronate – A medication that can prevent and treat osteoporosis in women. It is in a class of medications called bisphosphonates. Ibandronate can be taken as an oral tablet once monthly or given by intravenous (IV) infusion every three months. The brand name is Boniva ®.

Idiopathic Juvenile Osteoporosis – This condition affects children between the ages of 1 and 13. Its cause is unknown. Children with this condition tend to have fractures, particularly of the legs and spine. Fortunately, this type of osteoporosis usually goes away at adolescence.

Internist – A physician who is trained in the essentials of overall care of general internal medicine in adults. An internist diagnoses and nonsurgically treats many diseases of the body. An internist also provides long-term comprehensive care in the hospital and office.

Kyphoplasty – A treatment for severely painful fractures of the vertebrae (bones in the spine). It involves inserting a balloon device into a fractured vertebra and inflating it to

restore the height of the vertebra. The space is then filled with bone cement. This can help pain and possibly deformity of the spine due to recent fractures of the vertebrae.

Kyphosis – Abnormal forward curving of the spine caused by fractures of the vertebrae.

Medications - Substances or combination of substances which are primarily used or given to treat or prevent disease. Osteoporosis medications fall into two categories: 1) antiresorptive medications; and 2) anabolic medications. Medications are also called medicines or drugs.

Menopause – The time in a woman’s life when she stops having menstrual periods and her estrogen levels drop. This can happen naturally or when the ovaries are removed surgically. For many women, bone density decreases quickly in the first few years after menopause.

Nurse practitioner – A registered nurse with advanced education and training who is licensed to treat patients in collaboration with physicians.

Occupational therapist (OT) – A healthcare professional who can help you recover from a fracture. An OT can teach techniques that will help you move safely during your daily activities to reduce pain and prevent falls.

Orthopedist – A physician who treats injuries and disorders of the musculoskeletal system. This system includes bones, joints, muscles and tendons. An **orthopedic surgeon** operates to correct, fix or replace joints and limbs. Alternate spelling for orthopedic is **orthopaedic**.

Osteoarthritis – The most common form of arthritis which sometimes called “wear and tear.” A disease of joint cartilage. Cartilage is the tough tissue that covers the ends of the bones where they meet to form joints. When joint cartilage breaks down, the bones can rub against each other. Bone spurs often form and the joints become stiff and painful. Aside from its name, osteoarthritis has little in common with osteoporosis.

Osteopenia – Low bone mass. This means bone mass or bone mineral density is lower than normal, but not yet low enough to be considered osteoporosis. A person in this category may benefit from taking an osteoporosis medication depending on their risk factors for osteoporosis and fractures.

Osteoporosis – A condition in which the bones become so porous and weak that they are likely to break from a minor injury. A person with osteoporosis can break a bone from a minor fall, picking up a bag of groceries, and in more serious cases, from a simple action such as a sneeze. While the most common osteoporosis fractures occur in the hip, vertebrae (bones in the spine) and wrist, these fractures also occur in many other bones.

Ovaries – The two glands that produce eggs and sex hormones in women. When the ovaries stop producing estrogen at menopause or are removed surgically, bone loss can occur rapidly.

Parathyroid hormone – A hormone made by the four parathyroid glands that is close to the thyroid gland in the neck. Its main job is to control the amount of calcium in the blood.

Peripheral DXA – A test of bone density in bones other than the hip or spine. The type of test is often done on the wrist, finger and heel.

Peak bone mass – The point at which you have the most bone you will ever have. This is usually is between the ages of 25-30.

Physiatrist – A doctor who specializes in rehabilitation. A physiatrist can help you recover from fracture, regain function and reduce pain. Physiatrists often oversee a team of health professionals that may include PTs, OTs and other healthcare professionals to provide well-rounded rehabilitation for the patient.

Physical therapist (PT) – A healthcare professional who can help you after a fracture. PTs treat pain and discomfort with exercises to keep the body moving. They also use ice, heat and other treatments to help a person recover after a fracture. A PT can also help you learn an exercise program to help ease pain, make you stronger and better able to perform your daily activities as well as to prevent fractures.

Physician assistant – A healthcare professional who is licensed to treat patients under the supervision of a physician.

Quantitative computed tomography (QCT) – A test that measures bone mineral density in the spine or other bones using a CT scan and computer software. This test is less commonly used than a DXA.

Radiographic absorptiometry (RA) – A test that uses a special hand x-ray to measure bone density of the hand.

Raloxifene – The first in a class of osteoporosis medications called estrogen agonists/antagonists, which are also known as selective estrogen receptor modulators (SERMs). It is approved for women only and is taken as an oral tablet daily. The brand name is Evista®.

Registered Dietitian – A resource for nutrition information and special dietary needs. Most hospitals have registered dietitians on staff and many offer outpatient instruction.

Remodeling -- The ongoing process of bone formation and bone breakdown (bone loss) that occurs throughout life.

Risedronate – A medication that can prevent and treat osteoporosis in women and men. It is in a class of medications called bisphosphonates. It is taken as an oral tablet daily, weekly or twice monthly. The brand name is Actonel®.

Reclast® – see zoledronic acid.

Resistance Exercises – A type of exercise that uses muscular strength to improve muscle mass and strengthen and support bone. This type of exercise includes using free weights, wrist weights, weighted vests, exercise bands and resistance machines found at gyms and health clubs.

Resorption – The process of bone breakdown and loss.

Rheumatoid Arthritis – An autoimmune disease in which the membrane surrounding the joints becomes inflamed. Steroid medications that are often used to reduce inflammation, as well as the condition on its own, can increase the risk of osteoporosis.

Risk factor – Anything that is known to make you more likely to have a certain problem. For osteoporosis, risk factors include low bone mineral density, low body weight, family history of fractures, a previous fracture and smoking.

SERM: See Estrogen Agonist/Antagonists

Single energy x-ray absorptiometry (SXA) – A test used to assess bone density in the wrist or forearm.

Steroids – See corticosteroids.

Support group – A group of people who come together to share common concerns. An osteoporosis support group can allow you to express feelings and fears and share ideas for coping with the disease.

Teriparatide – The first in a class of osteoporosis medications called anabolics. It is a type of parathyroid hormone. It works by helping to form new bone. Teriparatide is taken as a daily injection by the patient. The brand name is Forteo®.

T-score – A number that shows the amount of bone you have in comparison to a healthy young adult.

Testosterone – The main male sex hormone. In men, testosterone protects bone. Low levels of the hormone can lead to bone loss

Ultrasound densitometry – A test that uses sound waves to assess bone density in the heel.

Vertebrae – The 33 bones that form the spinal column, or back bone.

Vertebroplasty – A procedure in which cement is injected into recently fractured vertebrae to relieve persistent or severe pain.

Vitamin D – A vitamin formed in the skin when it is exposed to sunlight. Vitamin D helps the body use calcium to keep bones strong. It is available in a few foods such as fortified milk and cereal, egg yolks and fatty fish.

Weight-bearing exercise -- A type of exercise, such as walking or jogging, in which the bones of the legs bear the weight of the body. Weight-bearing exercises are helpful for building and keeping bones strong.

Z-score – A number that shows the amount of bone you have in comparison to other people of your age group, gender and weight.

Zoledronic acid – A medication that can treat osteoporosis in women. It is in a class of medications called bisphosphonates. It is given once a year by intravenous (IV) infusion over at least 15 minutes). The brand name is Reclast ®.