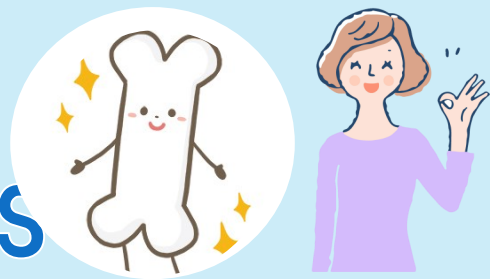


# Female hormones and Osteoporosis



If you feel that you are shorter, your back is rounded, or your back hurts, it may be a sign of osteoporosis. When our bones become brittle, it can break easily when we stumble or just bear weight. Joints of arms and legs, wrists, etc. are prone to fracture. Osteoporosis is a condition in which the density of bones or bone mass is diminished. Since female hormones regulate bone metabolism, it is said that a rapid decrease in female hormones, especially with menopause, makes osteoporosis more likely to occur.



## -Female hormones and bones -

Bone strength is determined by bone density and bone structure. Female hormones are deeply involved in this bone structure. Estrogen generally protects your bones, but when you reach menopause, your estrogen levels drop. That drop can lead to bone loss, and left untreated, bone loss can eventually lead to osteoporosis and osteoporotic fractures.

The secretion of female hormones decreases from the late 30s, and through menopause. Hormone replacement therapies are sometimes indicated but some natural supplements are preferred due to less side effects and safety. Soy isoflavones and pomegranates that are very similar to estrogen can greatly relieve the symptoms of menopause.

## -Bones that are prone to fracture-

The areas that are prone to fractures due to osteoporosis are the spine, the top of the legs, the wrists, and the top of the arms. When the spine is crushed by the weight of the body, it is called a "compression fracture" and causes the back and hips to bend. Even if a compression fracture occurs, it may be overlooked as a mere back pain or it may not be painful. Early detection and early treatment are important because a single fracture puts a strain on the surrounding bones and tends to lead to a chain of fractures. Since 85% of fractures at the top of the legs (proximal femur) are directly caused by falls, it is important to prevent falls as well as to treat osteoporosis.



## -To make strong and supple bones-

You can't build strong bones just by taking calcium. Calcium is not used for bone regeneration without exercises that put a load on the bones (walking and weight exercises). Bone is composed of collagen fibers as well as calcium. Elderly people need to consciously increase their intake of calcium and collagen so that their bones are not only solid but also able to withstand bending forces.

## Calcium and Vitamin D



Calcium and vitamin D are two important micronutrients that work together in the body to support overall health. The complex vitamin D and calcium relationship is especially crucial when it comes to bone metabolism, as both are integral to maintaining the strength of the skeleton.

Vitamin D can be obtained by sun exposure or supplementation and helps the absorption of calcium into the bones

## Exercise & bone

With moderate exercise, pressure is applied to the bones, and the stimulation promotes bone formation. Lack of exercise is a factor that reduces bone density, so it is effective to just do light exercises or take a walk in your daily life. Exercise also plays an important role in fall prevention. Muscles protect bones from fractures in case of a fall, but lack of exercise causes loss of muscle mass and increases the risk of falls. Falls increase with age. In particular, be aware that elderly people are more likely to have a fracture of the femoral neck due to a fall and often become bedridden. Exercise is crucial to healthy bones, muscles and body balance.



## Magnus' supplements

### Menopause

S.R.P\$80 /60caps



### ■ Sakura-Sokai

A blend of high quality herbs to balance female hormones.

### Collagen

S.R.P\$60 /150 tabs



### ■ Nano Collagen

Ultra-low collagen with 100% purity and excellent absorption. It is indispensable for the elasticity of bones.