
Osteoporosis and Steroid Medications

What are steroid medications?

Steroid medications, often called corticosteroids, include medications like prednisone and cortisone. Steroids can be prescribed in many ways, but they are usually taken by mouth or inhaled. Steroid medications are medically necessary to treat many conditions and diseases. The most common diseases requiring steroid treatment are asthma, rheumatoid arthritis, lupus, inflammatory bowel diseases, and multiple sclerosis. It is important to follow your health care provider's recommendations regarding steroid use and how you can protect and promote strong bones.

What effects do steroids have on bone?

Steroid medications have major effects on the metabolism of calcium, vitamin D and bone. This can lead to bone loss, osteoporosis, and broken bones. When steroid medications are used in high doses, bone loss can happen rapidly. It is important to know that not all people who take steroid medications lose bone. There are different rates of bone loss among individuals taking steroid medications. The exact reasons for these differences are not known but probably include differences in steroid dose, the effect of certain underlying diseases on bone loss, and perhaps some people are genetically more susceptible to the effects of steroid medications. For example, postmenopausal women who take steroid medications for longer than six months have the greatest risk of bone loss.

Bone loss occurs most rapidly in the first 6 months after starting oral steroid medication. After 12 months of chronic steroid use, there is a slower loss of bone. Some people are concerned about the effects of inhaled steroids. Inhaled steroids are less likely to cause bone loss than steroids taken by mouth. However, in higher doses, inhaled steroids may also cause bone loss. Steroid medications used for only a few days or applied to the skin are not associated with bone loss. The major impact of steroid medications on bone is fractures (broken bones) that occur most commonly in the spine and ribs. Steroid medications (taken by mouth) equal to or more than 5mg of prednisone daily, taken for more than 3 months, is considered a risk for fracture. Fracture risk increases as the daily doses of steroid medications increase. Almost 1 in 3 postmenopausal women who routinely take steroid medications will have a spine fracture. A person on steroids is more than twice as likely to have a spine fracture compared to a person not taking steroids. Your health care provider determines when you should stop taking your steroid medication. Once the medication is stopped, it is expected that your fracture risk will lessen. You should never change the way you take your medication until you speak to your health care provider.

It is important for you to assess all of your personal risk factors for osteoporosis. To find the appropriate NYSOPEP risk assessment tool for you, visit the NYSOPEP website at www.nysopep.org. Consult your health care provider to discuss your risk factors and to ask if getting a bone mineral density test (BMD test) is right for you. It is often recommended that you get a BMD test before taking steroid medications for longer than three months.

Are there medications to protect bone during steroid therapy?

The U.S. Food and Drug Administration (FDA) approves medications to prevent bone loss and reduce the risk of fractures related to osteoporosis for those who regularly take steroid medications and for long periods of time.

How do I know if I need an osteoporosis medication?

Prevention and treatment of osteoporosis should always include:

- Eating a varied, nutrient-rich diet that includes plenty of fruits and vegetables
- Choosing foods to get the calcium you need and adding a supplement only if necessary
- Getting the recommended amount of vitamin D; this often requires a supplement.
- Being physically active every day (for example: walking, climbing stairs, or dancing), to the extent of your abilities.
- Not smoking -- and quitting if you do smoke
- Limiting the amount of alcohol you drink
- Taking safety precautions to avoid falls

If you are taking steroid medications on a regular basis, these important lifestyle modifications alone are often not enough. Medication may be needed to stop bone loss or prevent fractures. Your health care provider will help you decide whether or not you need an osteoporosis medication. The decision will depend upon results of your BMD test, (which you'll take before steroids are started), the expected dose and duration of steroid medications and the evaluation of other risk factors for osteoporosis.