Curious About Injection Treatments for Osteoporosis? Here’s What’s Available

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Shots for Osteoporosis: Know Your Treatment Options

Pain, whether it is chronic or acute, can be a distraction at best, or life-limiting at its worst. Finding the right treatment for your unique circumstances can be a challenge, one that is best done in consultation with your health care providers. I feel empowered by doing my own research too, so that I can understand my osteoarthritis and osteopenia fully. It’s important to know what treatment options are available to me; knowledge enables me to have more meaningful conversations with my health care team. By fully understanding my treatment options, I can work with my health care team to live my best life. Like you, I know my body best, and I know what I want and need out of life. In this article, we cover one of the treatment options for osteoporosis: shots for osteoporosis.

How to Choose the Best Osteoporosis Treatment

There are several treatment options for osteoporosis, each one with its own risks and benefits. Your health care team will assess your osteoporosis condition with your overall health to determine which treatment option is right for you. Treatments will likely focus on slowing down the rate at which your bones breakdown (bone loss), thereby maintaining or increasing your bone density and bone strength.

What Are Shots for Osteoporosis?

I am no fan of needles, but I am open to the right medical treatment that may involve injections. The injection of specific drugs is one treatment option for osteoporosis. Injections are sometimes the best way to deliver drugs, particularly if one has gastrointestinal problems. Some drugs must be injected by a healthcare professional, while others can be administered by the patient themselves. In this case, you must ask yourself if administering an injection on your own body is something that you feel comfortable with.

Hormone Injections for Osteoporosis

One such osteoporosis treatment is the subcutaneous injection of parathyroid hormone into the thigh or abdominal wall once a day. Parathyroid hormone (or a synthetic version called teriparatide) acts to build new bone by stimulating the bone-building cells.

Because of the rate at which new bone is generated and added to the skeleton, treatment can result in an increased bone density. PTH treatment is most often indicated in postmenopausal women with severe osteoporosis who have not had success with other therapies and who are at significant risk of fracture.

Side effects of hormone injections:

- Dizziness

- Nausea
- Joint pain
- Cramps in the legs

This treatment cannot be taken for more than 24 months. PTH acts to increase the number of bone-building osteoblasts and has been shown to increase bone density to reduce the risk of fractures.

Protein Injections for Osteoporosis

Another treatment is the subcutaneous injection (under the skin). This includes a RANK ligand inhibitor, or monoclonal antibody, known as denosumab. This is a protein that inhibits the development and activation of the cells which break down bone.

This drug strengthens bones by increasing their mass, lowering the chance of fractures to the hips and spine. This may be an appropriate treatment for postmenopausal women, as well as both men and women who are at high risk for fractures. This injection is also good for those who have not been able to tolerate other osteoporosis medications. This treatment is injected by a health care professional every six months. Side effects may include muscle pain and skin irritation. Denosumab is a bone metabolism regulator.

There are several possible side effects with this drug:

- Skin reactions
- Lowered blood calcium levels
- Muscle pain
- Cellulitis
- Rare bone fractures

This drug is often chosen for those who have a high risk of fractures, who do not tolerate oral bisphosphonates and those who have not found success with other osteoporosis treatments.

Bisphosphonates and Bone Growth

Bisphosphonates are used to treat osteoporosis by binding to the bone, slowing down the erosion of the bone. This allows the bone-building cells to work effectively.

Examples of some bisphosphonates:

- Alendronate
- Etidronate
- Risedronate
- Zoledronic acid

One risk of long-term use (over five years) is rare but can result in a fracture of the femur (thighbone). Most bisphosphonates are taken orally, but zoledronic acid is administered by a healthcare professional via an intravenous infusion once a year.

There are possible side effects:

- Fever
- Muscle, bone and joint pain
- Headaches
- Nausea
- Abdominal pain
- Loose bowel movements

Calcitonin Injections for Osteoporosis

Calcitonin, a naturally occurring thyroid hormone, is replicated in a man-made version that can be injected. Calcitonin also inhibits bone removal by osteoclasts and increases new bone formation. Some individuals have an allergic reaction to this drug and it has been shown to have a small increased risk of cancer. Calcitonin has also been shown to reduce the pain associated with osteoporotic fractures.

In Summary

Living with chronic pain as I do means doing some homework; I educate myself as much as possible about my conditions and what treatment options are available. By knowing what is out there, I can have a more robust conversation with my health care team. Take heart in knowing that while there is no cure for osteopenia or osteoporosis, there are numerous treatment options that can help you live your best life. Talk to your health care team about what osteoporosis treatments (if any), such as shots for osteoporosis, might be right for you.