Can Osteoporosis Be Reversed?

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Is It Possible to Reverse Osteoporosis?

Osteoporosis can be a scary disease to have. As a generally “silent” disease, you may not know you have it until you are screened for it — or worse, until you break a bone.

Once you find out you have it and begin treatment you may wonder, “Can osteoporosis be reversed?”

Unfortunately, osteoporosis cannot be reversed. However, there are ways you can slow down bone degeneration and prevent falls and fractures.

Fracture Prevention

The National Institutes of Health notes that osteoporosis causes 1.5 million (MILLION!) fractures yearly. 300,000 will break their hip and half of those people will never walk again. Twenty percent of those people with a hip fracture will die within a year related to complications.

For someone who is elderly, a fracture can mean not only pain, but also an end to their quality of life. For this reason, preventing fractures is vital.

So the big question is — how do we prevent fractures from occurring in the first place?

Proper Exercise

Exercise is key! Often people who have osteoporosis worry that exercise will increase their risk of fractures due to falls. True — falling during exercise can cause a fracture. However, exercise builds the strength of the bones.

Shreyasee Amin, MD, a rheumatologist at Mayo Clinic in Rochester, Minnesota states, “Keeping physically active helps your reflexes stay sharp and your muscles stay strong. That can help with coordination and lower your risk of falling.”

So, what kind of exercise should you do?

A good rule of thumb is to find an exercise you enjoy and will stick with. After all, if your physician tells you to begin tai chi and you hate it, you’re unlikely to continue the practice.

Experiment with various types of exercises. Generally recommended is a combination of weight-bearing exercises, resistance exercises and flexibility and balance exercises. High-impact exercises such as tennis and jogging should be avoided.

Know Your Risks

Fracture prevention not only includes building your bones by becoming stronger, but also being aware of factors in your life that may increase your risk of falling, such as certain medications that are known to cause dizziness.

These medications include, but are not limited to:

- Certain psychiatric medications
- Anticonvulsants, which are used to treat epilepsy
- Sedatives
- Sleeping pills
- Opioids
- Medications for heart conditions and hypertension

Medications to Treat Osteoporosis

There are a variety of medications used to treat osteoporosis. As previously stated, these medications are not used to reverse or cure osteoporosis. Rather, they may slow the progression of osteoporosis.

There are several different drug classes that may be used. There are two groups: antiresorptives and anabolics.

Bisphosphonates

Bisphosphonates are a class of drugs in the antiresorptives group. They work by slowing down bone breakdown. There are several options available:

- **Alendronate.** This medication is taken orally and can be taken by both men and women.
- **Ibandronate.** This medication can be taken orally or intravenously. It is specific to women and helps lower the risk of spinal fracture.
- **Risedronate.** This medication is taken orally and can be taken by both men and women.
- **Zoledronic acid.** This medication is taken intravenously only. It is also specific to women.

Calcitonin is naturally produced by the thyroid. However, it can also be given intravenously or as a nasal spray and will increase bone mass. It is limited to women who are at least five years post-menopause and who have severe osteoporosis.

Estrogen can be given to post-menopausal women. It is given in this age group because after menopause, a lack of estrogen causes a weakening of bones.

However, this treatment should also be used with caution — research shows estrogen therapy may increase the risk of other conditions, such as breast cancer, strokes, blood clots, and heart attacks.

Estrogen agonists/antagonists work in a similar fashion but without many of the dangerous side effects. They do have bothersome side effects, such as blood clots and hot flashes. Raloxifene is the only FDA-approved therapy for osteoporosis.

Biologics

There is currently one biologic that is used to treat osteoporosis, called Denosumab. This biologic medication works by breaking down the RANKL protein, meaning that the bone cannot be broken down as quickly.

Denosumab is given as an injection every six months. It is only indicated in women who are post-menopausal.

Anabolics

The above listed medications are all in the antiresorptive category of medications. The anabolic group is limited to

one FDA-approved medication — Teriparatide.

It is a synthetic form of parathyroid hormone and works by promoting rapid bone formation. It is indicated in both men and women. It can only be given for a span of two years because it is linked to bone cancer if given for a longer period of time.