Is Osteoporosis Hereditary?

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If you have recently been diagnosed with osteoporosis, you may be wondering, “Why?” Alternatively, your mother may have osteoporosis, and you may be wondering what your chances of being diagnosed are.

Is osteoporosis hereditary?

According to the *International Business Times*, all signs point to yes.

Genetics and Osteoporosis

It is estimated that osteoporosis is the cause of up to 1.5 million fractures annually in the United States. Although we have long known that osteoporosis is probably genetically linked, there has been recent research that pinpoints specific genes that play a role.

The study isolated 56 different genetic variants that are thought to cause osteoporosis. A staggeringly high number – but also pretty amazing. Douglas Kiel, study co-author and professor of medicine at Harvard Medical School notes that this study may allow for the development of pharmacotherapy that is based on specifics – “personal, gene-based treatments for osteoporosis.”

Moreover, the research indicates that each variant causes a small increase in osteoporosis risk. Having one risk alone only increased the risk by about one and a half percent, research showed. Likely, the variants combine for further increased risk.

John Ioannidis, a researcher at Stanford Prevention Research Center, believes that there could be upwards of 500 more genetic variants that will be found with continued research.

Is it Possible to Beat Genetics?

Maybe.

Certain risk factors significantly increase your chances of developing osteoporosis. You cannot change your family history – but you can change certain risk factors:

- **Smoking.** Smoking increases the risk of osteoporosis, as well as the chance of fracturing a bone. If you smoke, quit as soon as possible.
- **Alcohol consumption.** Drinking too much alcohol can slow down or even stop bone formation, as well as put you at risk for falls due to being under the influence. Keep your alcohol intake to two drinks or less per day.
- **Inadequate calcium.** Bones need calcium. If you are not getting enough calcium in your diet, they will not

get an adequate amount. Men and women need 1,000mg of calcium per day, with that number increasing to 1,200mg per day after the age of 50 for women, and the age of 70 for men. We will further discuss calcium intake later.

- **Lack of exercise.** Exercise builds bone and slows bone loss. Although you will reap the largest benefit by beginning this practice while you are young, starting an exercise routine at any age is recommended.
- **Weight.** Being underweight can increase the chance of fractures while being overweight puts a tremendous amount of stress on the bones. You may be indicated to gain or lose weight by your physician.

A Word About Calcium

It is likely that you will be heavily prescribed calcium and vitamin D if you have osteoporosis – or if you have the risk factors for developing osteoporosis.

Vitamin D is essential because it allows the body to metabolize and utilize calcium appropriately.

Ideally, you will have an adequate intake of calcium and vitamin D in your diet.

Food choices for calcium include:

- Dairy products, such as milk, cheese or yogurt
- Green, leafy vegetables
- Vegetables, such as broccoli and cabbage
- Foods that are “calcium-fortified,” such as breakfast cereals and orange juice

Food choices for vitamin D include:

- Mushrooms
- Eggs (specifically, the yolks)
- Salmon, tuna, sardines, mackerel, and shrimp
- Cod and fish liver oils
- Foods that have been fortified

If it has been deemed that you are deficient in either of these nutrients, your physician may choose to supplement you. He or she may prescribe a multivitamin or a supplement that contains just the nutrient. The dose will be calculated based on your specific needs.

You may have read that calcium supplements may increase the risk of having a heart attack. As of a result from a 2013 study from the National Institutes of Health that found an increased risk of heart attack, stroke and other cardiovascular diseases from taking calcium supplements – from men only. There have been other studies that may indicate an increased risk for both men and women.

Keep in mind – your physician will weigh the pros and cons before prescribing you a calcium supplement.