

Celiac disease is linked to osteoporosis

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People with celiac disease are at risk for osteoporosis, according to physicians at Loyola University Health System (LUHS). A 2009 *New England Journal of Medicine* study supports this correlation. Researchers believe that people with celiac disease may develop osteoporosis because their body poorly absorbs calcium and vitamin D, which are necessary for bone health.

Celiac disease is an inherited autoimmune disorder that damages the <u>small intestine</u> and does not allow <u>nutrients</u> to properly absorb when foods containing gluten are ingested. Gluten is found in grains such as wheat, rye, barley and triticale. Patients with <u>celiac disease</u> must eliminate foods containing this protein or risk further damage.

"Many people with celiac disease go on to develop osteoporosis later in life," said Pauline Camacho, MD, director of the LUHS Osteoporosis and Metabolic Bone Disease Center. "We attribute this to the fact that patients with celiac disease do not get the proper amount of nutrients necessary for bone function, which leads to rapid bone destruction and severe osteoporosis."

For the Bobel family, this certainly is the trend. The family first learned that they were at risk for this debilitating disease when Rebecca Bobel, 71, fractured her pelvis, hip and tailbone at age 50. She was diagnosed with osteoporosis at the time and doctors later learned that she carries the gene for celiac disease. Bobel also went on to develop hypothyroidism, another autoimmune disorder, and <u>vitamin D</u> deficiency, which is common in people with these disorders. Today, she



is being treated for each of these conditions at Loyola.

"People with one autoimmune disorder are at risk for developing other autoimmune disorders," Dr. Camacho said. "This was extremely apparent with the Bobel family where we saw more than one disorder in each family member we treated."

Bobel's daughter Kim Lewis, 47, learned that she had celiac disease and vitamin D deficiency after she stopped absorbing her medication for hypothyroidism. She has since switched to a gluten-free diet and has started taking calcium, magnesium and vitamin D supplements. These lifestyle changes have allowed her to ward off osteoporosis. However, Lewis continues to get screened yearly for the disease and quarterly for her other autoimmune disorders.

"It is critical to get checked for celiac disease at an early age if you have a family history of this disorder and osteoporosis," Lewis said. "Doctors caught my various <u>autoimmune disorders</u> early and have been able to prevent osteoporosis from developing as a result. Now I have to educate my daughters and nieces about these conditions to help them protect their health."

Lewis' niece Nicole Gaynor, 31, was diagnosed with celiac disease in the last year after she experienced prolonged symptoms of bloating. Dr. Camacho was concerned that she wasn't properly absorbing the nutrients in her food, so she worked with a team of Loyola gastrointestinal specialists and confirmed that Gaynor had the disease. Gaynor has since made rigorous diet changes that have stopped her celiac disease from progressing. She also has been treated successfully for hypothyroidism and vitamin D deficiency.

"While altering my diet has been challenging, it is much easier than coping with the broken bones that come with osteoporosis," Gaynor said.



"I have seen my grandma suffer from the painful side effects of <u>osteoporosis</u>, and I want to prevent that from happening to my other family members and me."

Provided by Loyola University Health System

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