

Do You Have Nutrient Deficiencies?

The importance of follow-up nutritional testing

You finally have a diagnosis: celiac disease. You've endured a battery of tests, made a commitment to eating gluten-free for life and are on the road to feeling better. Now what? How often should you see your doctor for follow-up nutritional testing? And which tests are most important?

It depends.

"It's very conflicting. We need standardization," says Melinda Dennis, RD, LDN, nutrition coordinator at the Celiac Center at Beth Israel Deaconess Medical Center in Boston.

According to the Celiac Disease Foundation (CDF) website, a celiac patient should be re-evaluated by a doctor three to six months after the initial diagnosis, and every year after that to address any nutritional deficiencies.

"These evidence-based guidelines have been established by [CDF's] medical advisory board and the World Gastroenterology Organization," says Marilyn Geller, CDF's chief executive officer.

Sheila Crowe, MD, president of the American Gastroenterological Association, concurs on the three- to six-month follow-up after a thorough nutritional assessment at diagnosis. However, Crowe says it's not necessary for celiac patients to get nutritional testing throughout their lives.

"Once a patient is treated on the gluten-free diet, there's usually no need for special testing, since the intestine heals and there are no longer nutritional deficiencies in most individuals," she says.

Why Get Tested?

When a person is first diagnosed with celiac disease, nutritional deficiencies are common due to characteristic malabsorption. Many patients have reduced levels of iron, folate, vitamin B12, vitamin D, zinc or magnesium, according



to a 2013 article in the *Annals of Medicine*.

For the majority of patients, the gluten-free diet leads to recovery and normalization of nutrient levels. But folate (vitamin B9) and vitamin B12 deficiencies can persist and may require vitamin supplementation. Bone mineral density doesn't always normalize, so supplementation of vitamin D and calcium may also be recommended. Magnesium can also continue to be an issue, since gluten-free grains have a lower magnesium content, the researchers said.

CDF suggests that physicians order tests for various nutrients upon diagnosis, repeating abnormal tests at the three- to six-month visit and annually after that until nutrient levels are normalized.

Crowe, also a professor of medicine and director of research in the Division of Gastroenterology at the University of California, San Diego, adds that testing for vitamin D should take center stage.

"If the blood count is normal, the No. 1 nutritional test I always run is vitamin D because most people, not just celiac patients, have a vitamin D deficiency." She also recommends testing for vitamin K if malnourishment is evident.

If nutritional levels are abnormal at the first follow-up, Crowe will recommend gluten-free nutritional supplements,

Check These Nutrients

Many adults newly diagnosed with celiac disease have reduced levels of the following:

- ▶ Iron
- ▶ Magnesium
- ▶ Vitamin B complex
- ▶ Vitamin D
- ▶ Zinc

such as a daily multivitamin. She'll then check nutritional levels six months to a year after supplementation is started.

Nancy Patin Falini, RD, LDN, a registered dietitian in Pennsylvania who specializes in celiac disease and other gluten-related disorders, suggests patients get a bone-density exam a year after diagnosis to see if they need more vitamin D and calcium, as untreated celiac disease can affect bone mineral density. (Celiac organizations also recommend bone density screening, especially for women.)

"However, the gluten-free diet can promote a significant increase in bone density just because of enhanced absorption," she says.

Follow-up nutritional testing helped 40-year-old Kelly Komancheck get pregnant a second time—in a roundabout way. The golf pro, diagnosed with celiac nearly three years ago, suspects that she had been living with the disease since she was 13.

"I had severe back spasms and would get really sick. Because I played sports, everyone treated it like a back issue."

Then in 2015, after her sister suffered a series of similar back spasms and had her gallbladder removed, Komancheck saw a gastroenterologist and learned she was "off the charts for celiac."

"I had blood work done every three months after the diagnosis. My doctor advised against getting pregnant until my body healed," she says.

Last October, Komancheck had a follow-up endoscopy and more bloodwork done. The doctor gave her the green light to get pregnant, and after a long five years of trying to conceive, Komancheck is expecting a baby girl.

The Dietitian's Role

A dietitian should play a key role in the health-care plan for people with celiac disease, providing information about nutrition and helping them follow a gluten-free diet.

The World Gastroenterology Organization suggests that patients see a nutritionist every three to six months until nutrient levels return to normal and then every one to two years, particularly women of childbearing age and during pregnancy.

Crowe recommends that patients be seen by a registered dietitian who is knowledgeable and experienced with celiac disease.

Celiac-savvy dietitian Falini says that doctors should also evaluate the whole person, in addition to follow-up nutrient testing: "Lifestyle, diet, skin, hair, overall appearance. Blood work is our standard—but we need to take into account these other factors, too."

Contributor Lynn Armitage is a health and medical writer and a newly diagnosed celiac patient.



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