



FERTILITY CENTER

*Pathway to Parenthood*

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## **Nutritional and Gluten Sensitivity**

**Unexplained infertility** is a diagnosis that up to 25% of couples attempting to have a baby will receive. In approximately four to eight percent of these cases, the underlying cause of infertility will be discovered to be a hereditary disorder known as celiac disease.

People with celiac disease have an adverse reaction to gluten, which is the combination of two proteins, gliadin and glutenin. Gluten is found in wheat, rye and barley foods as well as their byproducts. When people with celiac disease eat foods that contain gluten, their immune systems respond by damaging the villi found in the small intestine. This makes absorption of nutrients difficult and in turn causes malnourishment and sometimes, gastrointestinal distress and infertility.

People who have celiac disease often display no symptoms at all and do not suspect that celiac is the cause of their infertility issues. For some individuals, stomach distress such as bloating, abdominal pain, and weight loss will occur, making diagnosis easier. Both groups upon testing will show the antibodies and genes associated with the disease. When dietary modifications completely eliminating gluten intake are made, normal reproductive functioning will often occur.

If you do in fact suspect that celiac disease might be at the core of your infertility, request that your doctor run a blood test for the disease. It is important that you do not alter your diet to a gluten free regimen prior to testing, as this will cloud the test results needed to make the correct diagnosis.

Upon testing, people with celiac will show higher than normal levels of some autoantibodies. These are proteins that react against the body's own cells or tissues. Your doctor will test for **anti-transglutaminase antibodies** (ATA) and also **anti-endomysium antibodies** (EMA). If these tests come back negative but celiac is still suspected, additional investigations could still be done.

If the tests do indicate celiac disease, a biopsy of the small intestine may be done to confirm the diagnosis. Upon confirmation, the patient will then be placed on a **gluten free diet**. Following a gluten free diet is the sole treatment for celiac disease.

Not all men and women with celiac disease are infertile, but in particular for women with celiac, there does appear to be an association between the disease and reproductive problems; both the inability to conceive and also, repeat miscarriages.

In two large case control studies researchers found that young women who were not on a gluten free diet began their menstrual cycle 1 1/2 years later than those who were gluten free. Thirty nine percent

of menstruating women who were not gluten free went for long stretches of time without a period (**amenorrhea**), compared with gluten free women who experienced amenorrhea at a much lower rate of 9%. In addition, the gluten free women went into menopause an average of four to five years later than their gluten eating counterparts.

An additional finding that researchers identified was that infertile women test positive for celiac related antibodies at a rate that is ten fold higher than the normal population.

In further research studies on pregnant women with celiac, 21% experienced pregnancy loss, although some women within that statistic had previously carried a baby to term or, were able to successfully complete a pregnancy later on.

Miscarriage among women with this diagnosis is a significant concern. It is now widely accepted that patients with recurrent pregnancy loss and an unrevealing basic work up should be tested for celiac disease. The first line of treatment in this case is to establish a strict gluten free diet; some patients, however, will continue to miscarry even after this dietary change.

Celiac disease is a serious condition which can impact an individual's health, physical comfort and well being, independent of infertility concerns. However, it is the lack of diagnosis that creates the problems associated with the disorder. Once diagnosed, celiac disease is easily controlled for the vast majority of afflicted individuals through simple dietary modifications.

If you are concerned about celiac disease, speak to your doctor, and get the tests necessary to confirm the diagnosis. Then, healing can begin.

For information on the gluten free diet, as well as more information on celiac disease, visit these websites:

<http://www.celiac.com/>

<http://www.glutenfreedietfoods.com/>

<http://www.examiner.com/infertility-miscarriage-in-national/is-it-unexplained-infertility-or-is-it-celiac-disease>

<http://www.celiac.com/articles/22259/1/The-Celiac-Disease-and-Reproductive-Health-Connection/Page1.html>

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*This handout is intended as an aid to provide patients with general information. As science is rapidly evolving, some new information may not be presented here. It is not intended to replace or define evaluation and treatment by a physician.*