

### **What is gluten?**

Gluten is a form of protein contained in „bakeable“ cereals such as wheat, spelt, rye, oat, barley, forest cereal, kamut, unripe spelt grain and bulgur.

Strictly speaking, gluten intolerance, which is also known as celiac disease, is intolerance to the gluten component gliadine.

### **What are the causes of gluten intolerance?**

One known cause is a genetic predisposition. It was found that the blood of those affected contains immune agents called tissue antigens. They cause antigen-antibody reactions and tissue inflammations in the bowel, which may result in destruction of its mucus membranes, depletion of their resorptive capacity, loss of metabolic enzymes and - ultimately - malnutrition. This genetic disposition can already be detected in children experiencing growth and development disorders, so that the condition can be diagnosed and treated at an early stage.

**However, gluten intolerance can also be acquired (temporarily) as a result** of damage to bowel tissue caused by fermentation, putrefaction and other mal-digestion processes. The affected intestinal mucus membranes grow sensitive to all kinds of food ingredients. One such disorder called ‚leaky gut syndrome‘ is usually detected only at adult age and may lead to loss of the protective function of the mucus membranes in the bowel.

### **How is gluten intolerance diagnosed?**

Gluten intolerance can be detected by the applied kinesiology test (AKT).

Classical diagnostics include a blood and stool examination and small intestine biopsy.

Modern laboratory diagnostics can detect antibodies in the blood and thereby determine whether the intolerance is caused by a genetic predisposition.

Another important diagnostic indicator is a marked improvement in digestion and the general state of health after changing to a gluten-free diet.

### **Which complaints does gluten intolerance cause?**

The range of symptoms is very wide: from flatulence and stomach pains, diarrhoea, constipation, nausea and vomiting to skin rashes, water accumulation in tissues, headaches, depression and anxiety syndromes, fatty stool and weight loss, as well as development disorders in children, which typically begin when they start taking cereal food.



**VIVA**  
Das Zentrum für  
MODERNE MAYR MEDIZIN

**Information on Gluten Intolerance**

The only effective gluten intolerance therapy is to avoid food containing gluten. If the intolerance is caused genetically, the only option is a life-long gluten-free diet. IN the case of an acquired gluten intolerance in the form of the „leaky-gut syndrome“ or enteropathy diagnosed by the Mayr method, a six-month gluten-free diet is recommended first, after which an applied kinesiology (AK) control test is performed or ‘test’ meals containing gluten are served, whereby the gluten content can be raised step by step, unless typical symptoms reappear.

To observe a gluten-free diet, patients need to change their nutrition habits considerably and need corresponding advice.

### **Which cereals are gluten-free?**

Native buckwheat, rice, corn, sorghum, quinoa and amarantha

Since declaring gluten content is not a legal requirement, the ingredient lists on packaged foods can not be relied on. Substances containing gluten can also be added to initially gluten-free foods during processing as aromatic substances, thickening agents, stabilisers, modified starch etc. Diet errors are therefore virtually unavoidable without detailed knowledge of the food processing steps.

Even minor things like storing gluten-free and gluten foods separately or a separate mill for gluten-free cereals are important.

### **What health effects can gluten intolerance cause?**

The damage to mucus membranes in the bowel can lead to a deficiency in secondary lactase (a vital enzyme for lactose depletion) and thereby cause milk intolerance.

In addition, clinical relationships with diabetes mellitus and certain skin diseases are known.

The defective resorption capacity of the bowel membranes can lead to iron, folic acid, vitamin B12 and calcium deficiency, which should be compensated by nutrition supplements. The late effects include an increased risk of gastrointestinal tumours or lymphoma.

