

# ■ Celiac Disease (Sprue) ■

Children with celiac disease have damage to the intestines, which may cause diarrhea and other symptoms. The damage is caused by exposure to gluten, contained in wheat and other grains. Treatment consists of carefully avoiding all gluten in your child's diet, which can be difficult to do. To avoid continued symptoms and possible complications, your child must follow a gluten-free diet throughout his or her life.

## What is celiac disease?

Celiac disease is damage to the small intestine, often causing diarrhea, fussiness, and slow weight gain and growth. It is caused by exposure to gluten, a protein found in wheat, rye, and barley, which is present in many bread and cereal products. Celiac disease most often occurs several months after solid foods are first introduced into your baby's diet. It is sometimes called "sprue."

If the doctor suspects your child has celiac disease, he or she will probably recommend a visit to a specialist in stomach and intestinal diseases (a gastroenterologist). This doctor may perform special procedures and tests to make sure the diagnosis is correct. A special gluten-free diet will eliminate most symptoms and complications of celiac disease.

## What does it look like?

- Symptoms most often develop a while after your child starts on solid foods, usually around ages 6 months to 2 years. However, celiac disease can be present for quite a while before it is recognized.
- Symptoms of celiac disease vary. Your child may have some or all of the following symptoms:
  - Diarrhea; sometimes vomiting.
  - Poor growth; your child may be underweight or short for age.
  - Irritable behavior.
  - Decreased appetite.
  - Bulging (distended) belly, despite being skinny and underweight.
- Many other symptoms are possible. Other patients have gluten intolerance and intestinal damage without the typical symptoms of celiac disease.

## What causes celiac disease?

- People with celiac disease are "gluten-intolerant." When they eat cereal or foods containing gluten, this causes damage to a part of the small intestine. The intestinal

damage takes a while to occur—it doesn't happen the first time your child eats wheat or other grains.

- It's not certain why some people develop celiac disease. A genetic component (inheritance) may play a role, along with factors in your child's diet and environment. Some people have the typical intestinal damage of celiac disease but never develop symptoms.

## What are some possible complications of celiac disease?

- Slow weight gain and growth; height may be lower than normal. In older children, onset of puberty may be delayed.
- Anemia: low levels of hemoglobin, which lets blood cells carry oxygen.
- "Celiac crisis": sudden severe diarrhea, weight loss, and other symptoms.
- Other problems may occur in adulthood, including weak bones and increased risk of certain types of cancer. Following a gluten-free diet lowers the risk of these complications.

## What puts your child at risk for celiac disease?

- Celiac disease appears to be most common in people of Northern European descent. However, it does occur in other races and ethnic groups.
- Genetic factors affect the risk of developing celiac disease. If you or others in your family have celiac disease, your child may be at increased risk.
- The risk of developing gluten intolerance and celiac disease is higher in children with certain other diseases, including diabetes, rheumatoid arthritis, thyroid disease, Addison's disease, and Down's syndrome.

## Can celiac disease be prevented?

- Since it is genetically determined, there is no practical way to prevent celiac disease.

## How is it diagnosed and treated?

- Special tests may be needed to make the diagnosis of celiac disease, including measurement of specific antibodies. A referral to a gastroenterologist (a specialist in diseases of the intestine) is often made.
- To be certain of the diagnosis, the doctor may recommend a procedure called endoscopy. A special instrument like a telescope is used to examine the inside of your child's intestine and to take a sample of tissue (called a biopsy).

- There is no cure for celiac disease. The main treatment is a *gluten-free diet*. You must carefully eliminate all bread and cereal grains from your child's diet, including wheat, rye, and barley.
- *Foods to avoid* include breads, cakes, cookies, and other baked goods. Also, many types of processed foods include thickeners and other grain products. Parents of children with celiac disease must become experts in reading labels to determine which products contain gluten.
- *Foods that are allowed* include any food that doesn't contain gluten, such as fruits and vegetables (including potatoes, beans, and corn), meats, dairy products, and rice. Some cereals are made without wheat, and special gluten-free products are increasingly available.
- Most children with celiac disease do fine on a gluten-free diet. Diarrhea and other symptoms may start to improve within a week or so. If your child has been very ill, improvement may take a little longer.
- Your doctor may recommend iron and vitamin supplements. Additional medications, such as pancreatic enzymes, may be used as well.
- Some children have trouble following a gluten-free diet. This is a special problem in the teen years, when children are more independent and want to eat the foods their friends enjoy (for example, pizza). You may need to remind your child that gluten intolerance is a lifelong problem, even when he or she isn't having any symptoms. Staying on the diet not only reduces your child's risk of complications but will also help him or her look and feel better.

### When should I call your office?

Call our office if:

- You need help developing a gluten-free diet for your child.
- Your child has continued diarrhea and other symptoms, despite a gluten-free diet.

*If your child has symptoms of celiac crisis (severe diarrhea, rapid weight loss), call our office immediately. This is a potential emergency, requiring immediate treatment.*

