Most physicians agree that the most accurate form of diagnosis is a series of intestinal endoscopies to biopsy the small intestine. The child will be sedated, either with "conscious sedation" or, more likely "unconscious sedation" (general anesthesia). While there are some risks inherent in anesthesia itself, general anesthesia is a safer way to perform an endoscopy because the child is completely relaxed.

The pediatric gastroenterologist is usually the one to do the actual procedure; an anesthesiologist is present. A tube (endoscope) is inserted through the mouth and threaded to the small intestine. There, they clip a part of the mucosal tissue and send it to a lab for biopsy. They are looking at the villi to see if they have flattened out (mucosal atrophy), or are blunted. The biopsy itself is not painful, because there are no pain-sensitive nerves inside the small intestines.

Generally, the test is done first while the child is still very sick with symptoms. It is important that the child is still on a gluten-containing diet at the time of the endoscopy. The expectation at that time is to see blunted, atrophied villi.

While it is considered the "gold standard" in diagnosing celiac disease, the biopsy does involve risks. There is a slight chance of internal injury, such as perforation of the bowel or excessive bleeding. Also, the sample itself is small, and may not be representative of the entire small intestine. Furthermore, it is difficult to obtain a good sample - some physicians may not be as "good" as others. Interpretation of the results can be subjective, as well. And finally, a "false negative" result can occur. In other words, a biopsy that comes back negative for celiac disease does not necessarily mean the patient does not have celiac disease. It’s important to follow your instinct, and to press further with your doctor when you feel it is warranted.