

DISACCHARIDASES

SYMPTOMS OF DEFICIENCY

- A disaccharidase deficiency can resemble dyspepsia and irritable bowel syndrome (IBS).
- Chronic diarrhoea is probably the most consistent symptom in all of the sugar malabsorption syndromes.
- Coeliac patients on a gluten-free diet who have persistent symptoms, or develop symptoms, should be investigated for a disaccharidase deficiency.
- Infants and children can experience more severe symptoms than adults. Undigested carbohydrates can be detected in their stool which can be of watery consistency and acidic in nature.



WHO NEEDS TO BE TESTED?

Patients who experience meal-related symptoms of carbohydrate intolerance.

Disaccharidase deficiency can be classified as either primary (genetically determined) or secondary (due to underlying disease process which can be excluded by histological investigation). Actual enzyme deficiency can be confirmed by means of tissue disaccharidase activity as this is not possible by histological investigation.

BENEFITS OF TESTING

Tissue disaccharidase testing offers a direct assessment of enzyme activity.

It confirms abnormal activity in suspected patients with normal histology.

ARE THERE ALTERNATIVE, NON-INVASIVE SCREENING TESTS AVAILABLE?

- Oral loading with lactose, sucrose or glucose polymers, depending on the suspected disaccharidase deficiency, and measuring the increase in serum glucose post loading. Patients with lactase or sucrase deficiency can experience severe abdominal symptoms post loading such as abdominal pain and diarrhoea.
- Hydrogen breath test: undigested carbohydrate will be fermented by microflora in the colon with subsequent release of hydrogen which can be measured in exhaled breath.

Unfortunately none of the above screening tests are routinely available, including at specialist units.

HOW TO ORDER

Request **Disaccharidases (DSA)**.

SAMPLE REQUIRED

Duodenal biopsy.

The biopsy should be **frozen** as soon as possible after collection in order to ensure sample integrity. Disaccharidase activity deteriorates within 1 hour after collection if left unfrozen.

TEST FREQUENCY

Disaccharidase testing is done daily at the Australian Clinical Labs Bella Vista laboratory using a semi-automated method.

COST

Medicare Bulk Billing available.

