

## **Lactose Intolerance in Children: Diagnosis and Management**

---

Lactose is the primary sugar in mammalian milks, including cow's milk and human breast milk.

Absorption requires the enzyme lactase which is produced in the small intestine brush border.

Lactose intolerance is different from milk allergies which are immunological reactions to milk protein.

### **Lactose intolerance**

Lactose intolerance is a clinical syndrome of one or more of abdominal pain, diarrhoea, nausea, flatulence and/or bloating related to the ingestion of lactose containing foods.

Lactose intolerance is due to:

1. **Primary lactase deficiency:** The prevalence of this varies greatly with ethnic origin but worldwide 70% of the adult population is lactase deficient. It is however rare amongst Northern Europeans (approx. 2%). Its onset is usually gradual during childhood with onset most commonly during adolescence as the production of lactase declines. Most people with primary lactase deficiency will tolerate some milk foods in their diet without symptoms.
2. **Secondary lactase deficiency:** This is most commonly seen after a gastrointestinal infection and is usually temporary until the gut mucosa recovers. This may take a few weeks to a few months. Secondary lactase deficiency is also seen in untreated coeliac disease, crohns disease etc and improves with treatment of the underlying condition.
3. **Congenital lactase deficiency:** this is very rare even in populations where primary lactase deficiency is common in older age-groups. Affected newborns have intractable diarrhoea. Diagnosis is on biopsy showing absent lactase activity.

### **Diagnosis**

If lactose intolerance is suspected the diagnosis is usually made by an exclusion-reintroduction trial.

Lactose containing foods should be removed from the diet for a period of 2 weeks – see flow chart.

Stool reducing substances are no longer felt to be helpful as false negative and positives high.

Hydrogen breath test can be used in complex cases but not suitable for very young children.

## Investigation and management of possible lactose intolerance

