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## Steatorrhoea

Steatorrhoea is the result of fat malabsorption, with diagnosis usually ascertained from patient history. The hallmark of steatorrhoea is the passage of pale, bulky, and malodorous stools, which often float and are difficult to flush.

In healthy individuals, less than 6 g of fat is excreted daily in the stools. This amount remains stable irrespective of intake.

The most important first step in deciding whether to investigate possible steatorrhoea is to determine if the overall clinical picture suggests fat malabsorption. Fat malabsorption can have many causes including pancreatic insufficiency, diarrhoeal illnesses and coeliac disease. A history of oil drops that separate from the main stool mass, and become whitish and firm after cooling (non-hydrolysed triglycerides), strongly points toward pancreatic insufficiency as the cause.

### Faecal elastase test<sup>1</sup>

- Most sensitive test for pancreatic insufficiency
- Elastase levels correlate with other pancreatic enzymes such as lipase, amylase and trypsin

### Faecal fat test<sup>2,3</sup>

- Not recommended
- Low sensitivity for pancreatic insufficiency
- Very unpleasant test

### Fat soluble vitamins<sup>3</sup>

- In the first instance, the measurement of fat soluble vitamins is not indicated when investigating steatorrhoea, but may be recommended by a specialist
- Ongoing steatorrhoea can be associated with deficiency of fat soluble vitamins (A, D, E, K), as they are “trapped” by the unabsorbed fats

### Investigating steatorrhoea

Diagnosis made clinically	✓
Faecal elastase	✓
Faecal fat	✗
Fat soluble vitamins	✗

Further assessment at a specialist level will often be directed towards making a specific diagnosis rather than proving fat malabsorption.

### References:

1. Loser C, Mollgaard A, Folsch UR. Gut 1996;39:580-586
2. RCPA The Royal College of Pathologists of Australasia version 5  
<http://www.rcpamannual.edu.au/default.asp>
3. Diagnostic Medlab – A handbook for the interpretation of laboratory tests. 4th edition