



Welcome to Patient Register | Sign in

MyHealth | Blogs | Shop | Symptom checker

Patient Access



Search Patient



Home

Wellbeing

Health Information

Medicines

Professional Reference

Forums

Directory

Home > Professional Reference > Gastrointestinal Malabsorption

Advertisement

Gastrointestinal Malabsorption



388 Users are discussing this topic

- Article
- Related
- Support
- Discuss

- Print
- PDF
- Email
- Bookmark
- Notes
- Listen

On this page

Clinical features

Causes of malabsorption

Investigations

Management

Complications

Historical note

References

Join our health community

Respiratory Symptoms and Disorders
388

Dietary, Nutrition and Exercise Advice
307



PatientPlus articles are written by UK doctors and are based on research evidence, UK and European Guidelines. They are designed for health professionals to use, so you may find the language more technical than the [condition leaflets](#).

Malabsorption is a failure to fully absorb nutrients from the gastrointestinal tract. There are many causes including abnormalities of the gut wall, failure to produce digestive enzymes and abnormalities of gut flora.

The outcome is [malnutrition](#). Malnutrition may also be caused by inadequate diet with or without malabsorption.

Clinical features

Malabsorption, from whatever cause, may be accompanied by:

- Changes in weight and growth:
 - Inadequate absorption of calories will lead to loss of weight in adults or stunting of growth in children.
 - Adults will complain of [unintentional weight loss](#) and perhaps tiredness, lethargy and fatigue.
 - Children may have similar symptoms accompanied by [failure to thrive with growth failure](#) (falling through the centile charts for height and weight).
- Gastrointestinal symptoms:
 - [Chronic diarrhoea](#) is common. Chronic diarrhoea may be defined as the abnormal passage of three or more loose or liquid stools per day for more than four weeks and/or a daily stool weight greater than 200 g/day.
 - Steatorrhoea is often present. There is excessive fat in the stools and they become pale, bulky and offensive in smell. Stools float and are difficult to flush away. They often leave a greasy rim around the pan.
- Family history:

388



14



0



9



Helpful advice and support

You're not alone, reach out to thousands of patients

[Join the discussion >](#)

Advertisement



Latest discussions



Excessive Yawning and Constant Need to Breathe Deep

Posted a day ago in Respiratory

Symptoms and Disorders

For the past few days, I've been yawning a lot, much more than average (once every few minutes I feel the need). If I'm not yawning I'm breathing in as deep as I can to get similar "satisfaction". ...

- Some diseases associated with malabsorption are found more frequently in families - eg, coeliac disease, Crohn's disease, cystic fibrosis and disaccharidase deficiencies (lactase). It is therefore important to explore the family history carefully.^[1]



FlutterbyPie



- Signs of deficiencies may be apparent. There may be:
 - **Non-anaemic iron deficiency.**
 - **Iron-deficiency anaemia.**
 - **Folate deficiency** or **vitamin B12 deficiency.**
 - Bleeding, resulting from **low vitamin K.**
 - Oedema, which occurs in protein/calorie malnutrition.

There may also be clinical features associated with the particular cause of malabsorption. The most common causes in the UK are coeliac disease, Crohn's disease and chronic pancreatitis.

Causes of malabsorption

Mucosal causes

- **Coeliac disease** usually presents in childhood but can present later. It is due to allergy to gluten in the diet that results in subtotal villous atrophy. This considerably reduces the surface area available for absorption. A diet strictly free of gluten will reverse the process. Nowadays, about 1 child in 4 with coeliac disease is diagnosed by targeted screening rather than presenting with malabsorption.^[2]
- **Cows' milk intolerance.**
- Soya milk intolerance.
- Fructose intolerance and malabsorption: simultaneous consumption of glucose reduces fructose malabsorption.^[3]

NEW - log your activity



Add notes to any clinical page and create a reflective diary



Automatically track and log every page you have viewed



Print and export a summary to use in your appraisal

[Click to find out more »](#)

- Infection:
 - Giardiasis
 - Whipple's disease
 - Intestinal tuberculosis
 - Tropical sprue
 - Traveller's diarrhoea
 - Diphylobotriasis (tapeworm can cause vitamin B12 malabsorption)
 - Ancylostomiasis (hookworm)
 - Strongyloidiasis (nematode)
- In patients with an inflammatory bowel disorder and malabsorption, an immune deficiency, including HIV enteropathy, should be considered.^{[4][5]}
- Intestinal lymphangiectasia and other causes of lymphatic obstruction include lymphoma, tuberculosis and cardiac disease.

Intraluminal causes

- Pancreatic insufficiency:
 - Cystic fibrosis
 - Chronic pancreatitis
 - Carcinoma of pancreas
 - Zollinger-Ellison syndrome
- Defective secretions of bile salts, due to cholestatic jaundice or disease of the terminal ileum.
- Drugs.

Structural causes

- Intestinal hurry:
 - Post-gastrectomy
 - Post-vagotomy
 - Gastrojejunostomy
- The blind loop syndrome involves disturbance of normal gut flora with malabsorption.

- Fistulae.
- Diverticulae and strictures.
- Crohn's disease.
- Amyloidosis.
- Short bowel syndrome.
- Eosinophilic gastroenteropathy.
- Mesenteric arterial insufficiency.
- Radiation enteritis.

Causes outside the gut

- Hyperthyroidism.
- Hypothyroidism.
- Addison's disease.
- Diabetes mellitus.
- Hyperparathyroidism.
- Hypoparathyroidism.
- Carcinoid syndrome.
- Widespread skin disease (rapid cell turnover may also affect gut mucosa).
- Malnutrition.
- Collagen diseases.
- Eating disorders.
- Factitious diarrhoea due to purgative abuse.

In the elderly, causes of malabsorption are as in the young but pancreatic insufficiency can occur without obvious cause and intestinal overgrowth can occur without anatomical abnormality of the bowel.^[6]

Investigations

The World Gastroenterology Organisation has produced guidelines for the investigation of malabsorption.^[1]

Blood tests

- FBC.
- Plasma viscosity, ESR, CRP.
- Vitamin B12 level.
- Red cell folate.
- Iron status (usually ferritin but can be iron and iron-binding capacity).
- Clotting screen for vitamin K deficiency.
- Serum albumin.
- Calcium (corrected for albumin level).
- Anti-endomyseal, anti-reticulin and alpha-gliadin antibodies (coeliac screen).
- LFTs.
- Serum magnesium.

PatientPlus P+

Nutritional Support in Primary Care

Food Allergy and Food Intolerance

Lactose Intolerance

Allergic Phenomena

[Read more articles >](#)

Iron deficiency causes a microcytic blood picture. **Folate** or **vitamin B12 deficiency** causes megaloblastic anaemia but the picture may be mixed.

Patients with unexplained iron deficiency merit screening for coeliac disease.^[7]

Stool

- Faecal microbiological assessments may be indicated.
- Sudan stain for fat globules.
- Tests for secretory function - eg, elastase or chymotrypsin in stool.

Imaging and endoscopy

- Abdominal ultrasound (gallbladder, liver, pancreas, intestinal wall, adenopathy).
- Barium follow-through may show structural abnormalities.
- Ileocolonoscopy including biopsies of colon and ileum.
- CT; MRI of pancreatic duct-systems or endoscopic retrograde cholangiopancreatography (ERCP).

Breath hydrogen tests

Take samples of end-expired air; give glucose; take more samples at half-hourly intervals.

If there is bacterial overgrowth there is an increase in exhaled hydrogen one hour after ingestion.

Management

Nutritional support may be required.

Management otherwise depends upon the cause. For example:

- Coeliac disease requires a strict gluten-free diet.
- Pancreatic insufficiency requires the oral administration of enzymes with food.
- Blockage of the flow of bile requires surgery.
- Crohn's disease usually responds to steroids.
- Blind loop syndromes may require further surgery.
- Where bile salts are not reabsorbed, it may be necessary to give resins to bind them.^[8]
- If there is folate deficiency and possibly B12 deficiency too, it is imperative to give an injection of vitamin B12 before starting folate supplementation. Otherwise, there is a risk of precipitating subacute combined degeneration of the cord.

Complications

Complications are related to the underlying disease.

- Lassitude is common. Children will have stunted growth.
- Untreated coeliac disease may result in small bowel adenocarcinoma or lymphoma.
- Infertility is common, especially in coeliac disease.
- Anaemia may occur.
- **Rickets**, **osteomalacia** or **osteoporosis** may occur.

Related blog posts



[Personalised medicine](#)

[Cystic fibrosis awareness](#)

[Read more blog posts >](#)

Historical note

Before it was superseded by endoscopy, small bowel biopsy was performed with the Crosby capsule: this is swallowed on the end of a tube, and is monitored by X-ray screening until it reaches the jejunum. It is fired by suction, and a biopsy is caught in its jaws. It is then pulled back up.

[Provide Feedback](#)

Further reading & references

- [The Management of Adults with Coeliac Disease](#); British Society of Gastroenterology (2010)
1. [Malabsorption Practice Guideline](#), World Gastroenterology Organisation (Feb 2012)
 2. [Ravikumara M, Tuthill DP, Jenkins HR](#); The changing clinical presentation of coeliac disease. *Arch Dis Child*. 2006 Dec;91(12):969-71. Epub 2006 Aug 3.
 3. [Latulippe ME, Skoog SM](#); Fructose malabsorption and intolerance: effects of fructose with and without simultaneous glucose ingestion. *Crit Rev Food Sci Nutr*. 2011 Aug;51(7):583-92. doi: 10.1080/10408398.2011.566646.
 4. [Agarwal S, Mayer L](#); Gastrointestinal manifestations in primary immune disorders. *Inflamm Bowel Dis*. 2010 Apr;16(4):703-11. doi: 10.1002/ibd.21040.
 5. [Murray JA, Rubio-Tapia A](#); Diarrhoea due to small bowel diseases. *Best Pract Res Clin Gastroenterol*. 2012 Oct;26(5):581-600. doi: 10.1016/j.bpg.2012.11.013.
 6. [Schiller LR](#); Diarrhea and malabsorption in the elderly. *Gastroenterol Clin North Am*. 2009 Sep;38(3):481-502. doi: 10.1016/j.gtc.2009.06.008.
 7. [Zamani F, Mohamadnejad M, Shakeri R, et al](#); Gluten sensitive enteropathy in patients with iron deficiency anemia of unknown origin. *World J Gastroenterol*. 2008 Dec 28;14(48):7381-5.
 8. [Johnston I, Nolan J, Pattni SS, et al](#); New insights into bile acid malabsorption. *Curr Gastroenterol Rep*. 2011 Oct;13(5):418-25. doi: 10.1007/s11894-011-0219-3.

Disclaimer: This article is for information only and should not be used for the diagnosis or treatment of medical conditions. EMIS has used all reasonable care in compiling the information but make no warranty as to its accuracy. Consult a doctor or other health care professional for diagnosis and treatment of medical

conditions. For details see our [conditions](#).

Original Author:
Dr Richard Draper

Current Version:
[Dr Colin Tidy](#)

Peer Reviewer:
Dr Adrian Bonsall

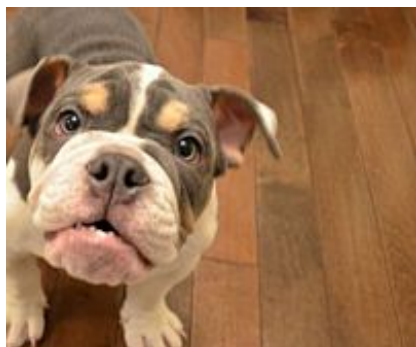
Document ID:
2183 (v23)

Last Checked:
18/10/2013

Next Review:
17/10/2018

From The Web

Sponsored Links by Taboola



**Things You Do That
Definitely Annoy Your Pet**

Rant Pets



**The Surprising But True
Meaning of Your Last Name**

Ancestry



**Warren Buffett Just Gave
Americans a Big Warning**

The Motley Fool



**The #1 Worst Exercise for
Aging**

Old School New Body eBook



**These 15 Photos Actually
Happened**

LOLWOT



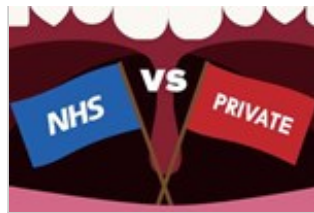
**The Secret Dangers of
Coconut Oil**

Safe or Dangerous

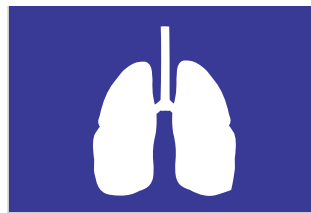
Also on Patient



Immunotherapy drug combination could help ...
Wellbeing article



How does the private and NHS dental system...
Wellbeing article



Cystic fibrosis diagnosis
Discussion forums



Coeliac Disease and "mood disorders" - con...
Discussion forums



IBD: Raising awareness and making a differ...
Wellbeing article



Cystic fibrosis awareness
Blog article



Personalised medicine
Blog article



Nutritional Support in Primary Care
PatientPlus

Advertisement

Advertise with us [?](#) [×](#)

Patient is one of the most trusted medical resources online, supplying evidence based information on a wide range of medical and health topics to patients and health professionals.

Connect with us



For Patients

Health Information
Medicines
Clinical Trials
Symptom Checker

Wellbeing
MyHealth
Media

Directory
Patient Local
Patient Access

Discussion Forums
Blogs
Mobile Apps

For Health Professionals

Patient Plus
UK Clinical Guidelines
Evidence Based Medicine

Textbooks and Journals
Higher Education
Shared Decision Aids

Healthcare Pro Blog
Medical Calculators

DVLA
Medline Information

About Patient

Accessibility
Awards
Careers

Contact / Feedback
Cookie policy
Disclaimer / Terms

Editorial Policy
FAQs

Search Widget
Sitemap
XML Sitemap

[About Us](#) | [Media Enquiries](#) | [Press Releases](#) | [Commercial Opportunities](#) | [Advertise With Us](#)



© EMIS Group plc. Registered in England and Wales. Registered number: 06553923 Registered office: Raw don House, Green Lane, Yeadon, Leeds LS19 7BY

Patient is a UK registered trade mark.

Trending search phrases: bmi calculator, scarlet fever, blood pressure, cystic fibrosis, pregnancy symptoms, glandular fever, multiple sclerosis, prostate cancer, depression test, rheumatoid arthritis