

# Differential diagnosis of diarrhoeal diseases

**Differential diagnosis of diarrhea** is based on anamnestic data and basic objective examination.

If the patient does not report a recent stay in tropical or subtropical areas, we may consider one of **4 groups of diseases** (enterotoxigenic; acute infectious diarrhea; conditions mimicking acute infectious diarrhea; subacute, chronic, or recurrent diarrhea).

## Enterotoxigenic

Occur after ingestion of foods containing **bacterial toxins**. Stools are watery, yellow in colour, without admixture of mucus and blood. The predominant symptom is vomiting. They have a short incubation period, and the initial course is very turbulent, but the disease rapidly subsides.

**Treatment** consists of intensive rapid rehydration.

The most common causative agents include **Staphylococcus aureus, Bacillus cereus and Clostridium perfringens**.

## Acute infectious diarrhoea in the strict sense

They are caused by an overgrowth of pathogenic microorganisms in the intestines. The main symptoms include fever and abdominal pain. There is an addition of blood and mucus in the stool. If the illness is of **bacterial origin**, vomiting occurs rarely or not at all, but stools are more often with an admixture of mucus and blood. Conversely, diarrhea of **viral origin** is accompanied by vomiting, and the stool is watery.

The illness usually lasts several days.

Treatment is again rehydration. On the basis of culture stool examination, the aetiological agent is determined; this further determines the need for isolation or antibiotics.

- Bacterial aetiology: *Salmonella enterica, Campylobacter jejuni, Shigella species, Yersinia enterocolitica, Enterotoxigenic E. coli, Clostridium difficile*.
- Viral aetiology: rotaviruses, noroviruses, enteradenoviruses.

## Conditions mimicking acute infectious diarrhea

### Inflammatory bowel disease of unknown etiology

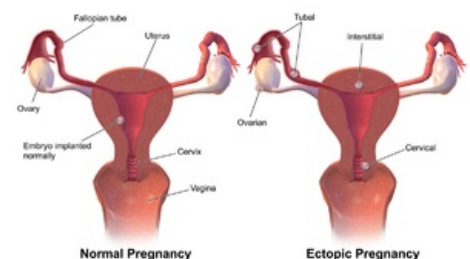
🔍 For more information see Crohn's disease.

🔍 For more information see Ulcerative colitis.

The main representatives are ulcerative colitis and Crohn's disease. These diseases are accompanied by fever, diarrhea with mucus and blood. Laboratory findings include an increase in inflammatory parameters. A history of repeated attacks is important.

### Serious diseases with a cause outside the digestive tract

- Sudden abdominal episode - the main symptom is abdominal pain, subileptic to ileitic condition.
- Ectopic pregnancy is a severe condition accompanied by pallor, weakness and hypotension. There is a history of loss of menses.
- Diarrhoea at the onset of meningococcal sepsis is an example.
- Toxic shock syndrome is accompanied by diarrhea, fever, exanthema, and hypotension.
- Legionellosis is a disease with major symptoms such as, again, diarrhea, pneumonia or encephalopathy.



Schema of ectopic pregnancy. Normal pregnancy (left), ectopic pregnancy (right)

## Subacute, chronic or recurrent diarrhea

The longer the illness lasts, the higher the likelihood of a non-infectious etiology. Of the **inflammatory diseases** (i.e., with increased inflammatory markers), these may include the aforementioned Crohn's disease or ulcerative colitis. Other serious **non-inflammatory diseases**, e.g. irritable bowel, colorectal cancer, colonic polyps, post-resection bowel conditions, appendicitis syndrome, chronic pancreatitis, intolerance to certain food components (lactose), malabsorption syndromes or endocrine disorders (hyperthyroidism, diabetes mellitus).

Infectious diseases, **especially opportunistic infections - clostridial colitis, parasitic infections, HIV/AIDS - are also causes.**

## Links

### Related articles

- Antidiarrheals

### Literature used

- BENES, Jiří, et al. *Infectious Medicine*. 1. edition. Prague : Galén, 2009. pp. 475 - 477. ISBN 978-80-7262-644-1.

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