Mucus in stool: When is it normal - and when should it be investigated?

The bowel naturally produces 3-5 ml of mucus per 24 hours to lubricate the stool and protect the mucosa [1]. Visible mucus in the stool can therefore be entirely normal, but a sudden increase, mucus with blood, or mucus combined with a change in bowel habit should always be evaluated - especially in adults over 40.

What is bowel mucus?

Mucus (mucin) is secreted by **goblet cells** in the bowel mucosa and forms a protective layer against bacteria, acid and digestive enzymes. The amount naturally increases with:

- Constipation (slower passage = more mucus)
- Diarrhoea (acute secretion to protect the mucosa)
- Dehydration
- Pregnancy

Common (benign) causes

Cause	Typical signs
Irritable bowel syndrome (IBS)	Mucus + bloating, alternating stool, abdominal pain relieved by defecation
Hemorrhoids	Mucus + fresh red blood, possibly prolapse, itching
Anal fissure	Mucus + pain on defecation, slight bleeding
Chronic constipation	Mucus around hard stool
Gastrointestinal infection	Acute mucus + diarrhoea, possibly fever - typically Salmonella, Campylobacter, Shigella

Serious causes requiring prompt work-up

Mucus in the stool can also be an early sign of:

- **Inflammatory bowel disease (IBD)** - ulcerative colitis and Crohn's disease often present with mucus + blood + diarrhoea.
- **Intestinal polyps** - particularly large villous adenomas can secrete large amounts of mucus.
- **Colorectal cancer** - mucus + blood + altered bowel habit for >6 weeks is an alarm symptom.
- **Diverticulitis** - mucus + left-sided pain + fever.
- **Rectal prolapse** - continuous mucus/leakage.

When should you see a doctor?

Contact your GP promptly if you have:

- Mucus **+ visible blood** in the stool
- Mucus with **altered bowel habit** for more than 4 weeks (more frequent, looser, thinner)
- Mucus + **unintentional weight loss**
- Mucus + **abdominal or night-time pain**
- Age **>50** without previous evaluation
- **Family history** of colorectal cancer or IBD

How mucus in the stool is investigated

1. **History and stool diary** - frequency, consistency (Bristol scale), blood, pain.
2. **Stool samples** - F-calprotectin (distinguishes IBS from IBD), F-Hb (immunochemical blood test), possibly culture and parasites.
3. **Blood tests** - CRP, haemoglobin, ferritin, leukocytes.
4. **Colonoscopy** - gold standard for alarm symptoms, age >50, or raised calprotectin/F-Hb [2].
5. **Sigmoidoscopy** - may suffice for isolated rectal symptoms.

Treatment

Treatment depends entirely on the cause:

- **IBS**: dietary modification (FODMAP), fibre regulation, possibly antispasmodics.
- **Hemorrhoids**: dietary fibre, band ligation, possibly surgery.
- **IBD**: medical treatment by a gastroenterologist (5-ASA, immunomodulators).
- **Polyps**: polypectomy during colonoscopy.
- **Colorectal cancer**: surgery in collaboration with oncology.

Treatment at Kirurgen.dk

We offer rapid work-up with colonoscopy and sigmoidoscopy under the public health insurance scheme. See also our articles on rectal bleeding and intestinal polyps.

References

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3. Lacy BE, Mearin F, Chang L, et al. *Bowel disorders (Rome IV).* Gastroenterology 2016;150(6):1393-407.
4. Vasen HFA, et al. *Revised guidelines for the clinical management of Lynch syndrome.* Gut 2013;62(6):812-23.