Content from /en/blog/divertikler/

Diverticula of the bowel: what they are, when they become dangerous, and how to investigate them

Diverticula (or "pouches on the bowel") are small sacs in the intestinal wall that bulge outward through weak spots - typically in the left side of the colon (sigmoid colon). Prevalence increases sharply with age: **<10 %** under 40, **>50 %** over 60, and **up to 70 %** over 80 in Western countries [1]. Most people with diverticula are unaware - the condition is asymptomatic and called diverticulosis. Only when a diverticulum becomes inflamed do we speak of diverticulitis.

Three stages - important distinction

Stage	Description	Symptoms	Treatment
Diverticulosis	Diverticula present, no inflammation	None, or mild bloating	High-fibre diet
Symptomatic uncomplicated diverticular disease (SUDD)	Symptoms without objective inflammation	Left lower quadrant pain, altered bowel habit	Diet, mesalazine, rifaximin
Diverticulitis	Acute inflammation of one or more diverticula	Pain, fever, tenderness, raised CRP	Antibiotics, possibly surgery

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Why do diverticula form?

Classical theory: **low fibre intake** → hard stool → raised intraluminal pressure → outpouching through weak points where blood vessels perforate the muscle layer. Newer research also points to:

- **Genetics**: 40-50 % of risk is heritable (twin studies) [2].
- **Microbiome dysbiosis**: altered flora around diverticula.
- **Connective tissue weakness**: more frequent in Ehlers-Danlos, Marfan.
- **Medication**: NSAIDs and opioids raise the risk of complications.

Symptoms

Uncomplicated diverticulosis often produces no symptoms. When symptoms occur:

- **Abdominal pain** - typically left lower quadrant, intermittent, often worse after meals, relieved by defecation.
- **Altered bowel habit** - alternating constipation and diarrhoea.
- **Bloating** and flatulence.

- **Rectal bleeding** - sudden, painless, red blood (diverticular bleed).

Alarm symptoms requiring urgent assessment:

- Persistent fever above 38.5 °C
- Severe, worsening abdominal pain
- Board-like abdomen (peritonitis from perforation)
- Major rectal blood loss
- Sudden cessation of gas/stool passage (suspected obstruction)

Work-up

1. **History and clinical examination** - palpation, rectal exam, temperature.
2. **Blood tests** - white cell count, CRP, haemoglobin.
3. **Colonoscopy** - gold standard for direct visualization. **Avoided in acute diverticulitis** (perforation risk); performed 6-8 weeks after the episode has resolved to exclude colorectal cancer [3].
4. **CT abdomen with contrast** - primary imaging for suspected acute diverticulitis. Assesses complications (abscess, fistula, perforation).
5. **Sigmoidoscopy** - alternative for focal sigmoid symptoms.

Treatment

Asymptomatic diverticulosis:

- No active treatment.
- **High-fibre diet** (25-35 g/day) reduces risk of future complications.
- Adequate fluid intake and regular exercise.

Symptomatic without inflammation (SUDD):

- Dietary modification - fibre, reduce red meat.
- **Mesalazine** (5-ASA) considered for persistent symptoms.

- **Rifaximin** 400 mg twice daily for 7 days each month - proven symptom relief [4].

Acute diverticulitis:

- **Uncomplicated** (Hinchey 0-Ia): antibiotics **are no longer routinely recommended** for mild cases in immunocompetent patients - symptomatic treatment, clear fluids, close observation [5].
- **Complicated** (abscess >4 cm, perforation, peritonitis): IV antibiotics, drainage or emergency surgery.

Surgery is considered for:

- Recurrent episodes with significant quality-of-life impact
- Complications (fistula, stricture, chronic abscess)
- Suspected malignancy

Prevention of recurrence

- **Fibre intake** - whole grains, vegetables, legumes; target 25-35 g daily.
- **Smoking cessation** - smoking doubles the risk of complications.
- **Weight loss** if BMI >30.
- **Reduce red meat** - increased risk at >50 g/day.
- **Avoid NSAIDs** if previous complications.
- *Nuts and seeds are NOT forbidden* - the old dietary ban has been scientifically abandoned [6].

Treatment at Kirurgen.dk

We provide colonoscopy and sigmoidoscopy for work-up of diverticular disease, follow-up after diverticulitis and exclusion of cancer. See also: Diverticulosis, Diverticulitis vs. diverticulosis, Rectal bleeding, Colorectal cancer.

References

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