

# Diverticular disease



Short notes



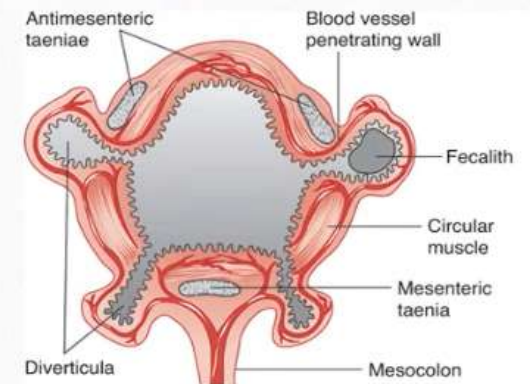
- Common anatomical disorder Characterized by acquired , sac-like mucosal protrusions ( diverticula ) through the muscle wall.

- Traditionally thought to be related :

- Western world
- Mature age group
- Meat rich Fiber poor diet

- Parks , based on 300 dissections :

- In the Lateral intertaenial areas
- Mainly in the sigmoid
- A blood vessel pierce the wall at the neck of the diverticulum.



Source: Gerard M. Doherty: *CURRENT Diagnosis & Treatment: Surgery, 13th Edition*, <http://www.accessmedicine.com>

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# Race and geography

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- Geographic disparities in the incidence imply that it is predominantly a disease of industrialised societies associated with an ageing population and Western diet
  - The incidence has increased in North America by up to 50% in the past two decades, and more so in younger people. IT is extremely rare in Asia and Africa compared to Europe and the USA
  - Immigration to Western countries results in an increase in the incidence of diverticular disease



# Age and gender



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- **Males** are more likely to develop diverticulitis at a **younger** age whereas there is a **female** predominance in **older** patients
  - younger age is a risk factor for recurrent disease rather than an indication for early intervention in the acute setting, as these patients are just as likely to settle with conservative management



# Diet

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- Low-fibre diet has an **epidemiological** association with the development of diverticular disease. However, recommending fibre as a treatment for diverticulosis is largely based on **outdated, poorly controlled studies**.



# Etiology and pathogenesis

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- luminal trauma, elevated colonic pressures, altered bacterial flora. cholinergic smooth muscle excitation and neurohumoral signalling (serotonin, nitric oxide, VIP)
- Lifestyle ( Obesity )
- Smoking
- NSAID

# Diverticular disease ( Diverticulosis) can cause:

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Diverticulitis

Peritonitis

Abscess



Intestinal obstruction

Haemorrhage

Fistula formation (ex. colovesical fistula )

# Diverticulitis

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- Acute inflammatory condition characterised by left iliac fossa or suprapubic pain, malaise and fever



- Annual incidence of 1/1000
- Male predominance aged under 45 but female predominance in those older
- Increasing incidence in the under-45 age group



# Hinchey classification



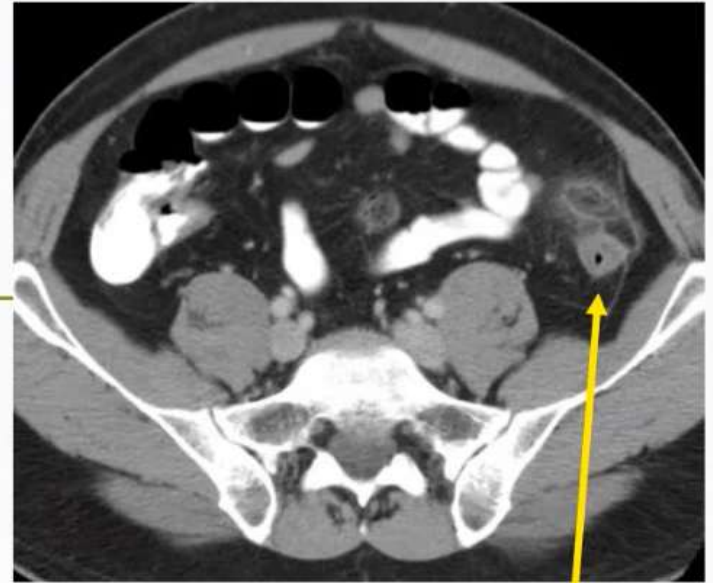
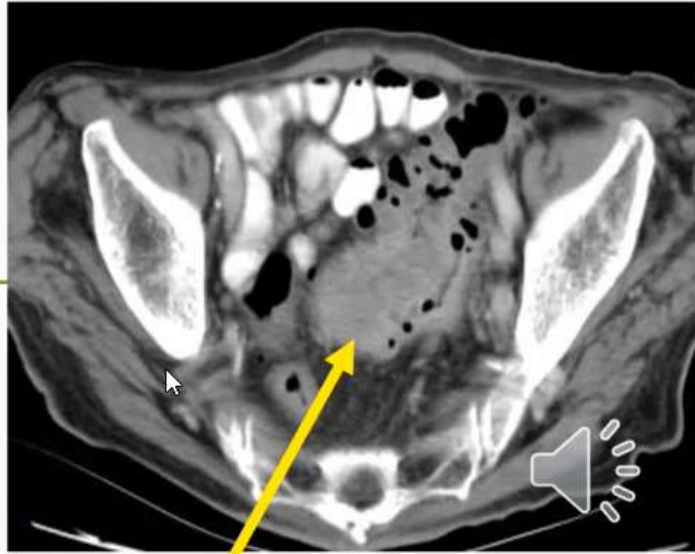
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- Grade I Mesenteric or pericolic abscess
  - Grade II Pelvic abscess
  - Grade III Purulent peritonitis
  - Grade IV Faecal peritonitis

# Diagnosis and imaging

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- CT in rapid, multiple slice scanners capable of variable plane reconstruction became the gold standard in determining the diagnosis and staging of diverticulitis
- Colonic imaging (either colonoscopy or CT colonography) is still performed routinely following an episode of diverticulitis to rule out neoplasia
- Timing and indication of Colonoscopy is **questionable** .



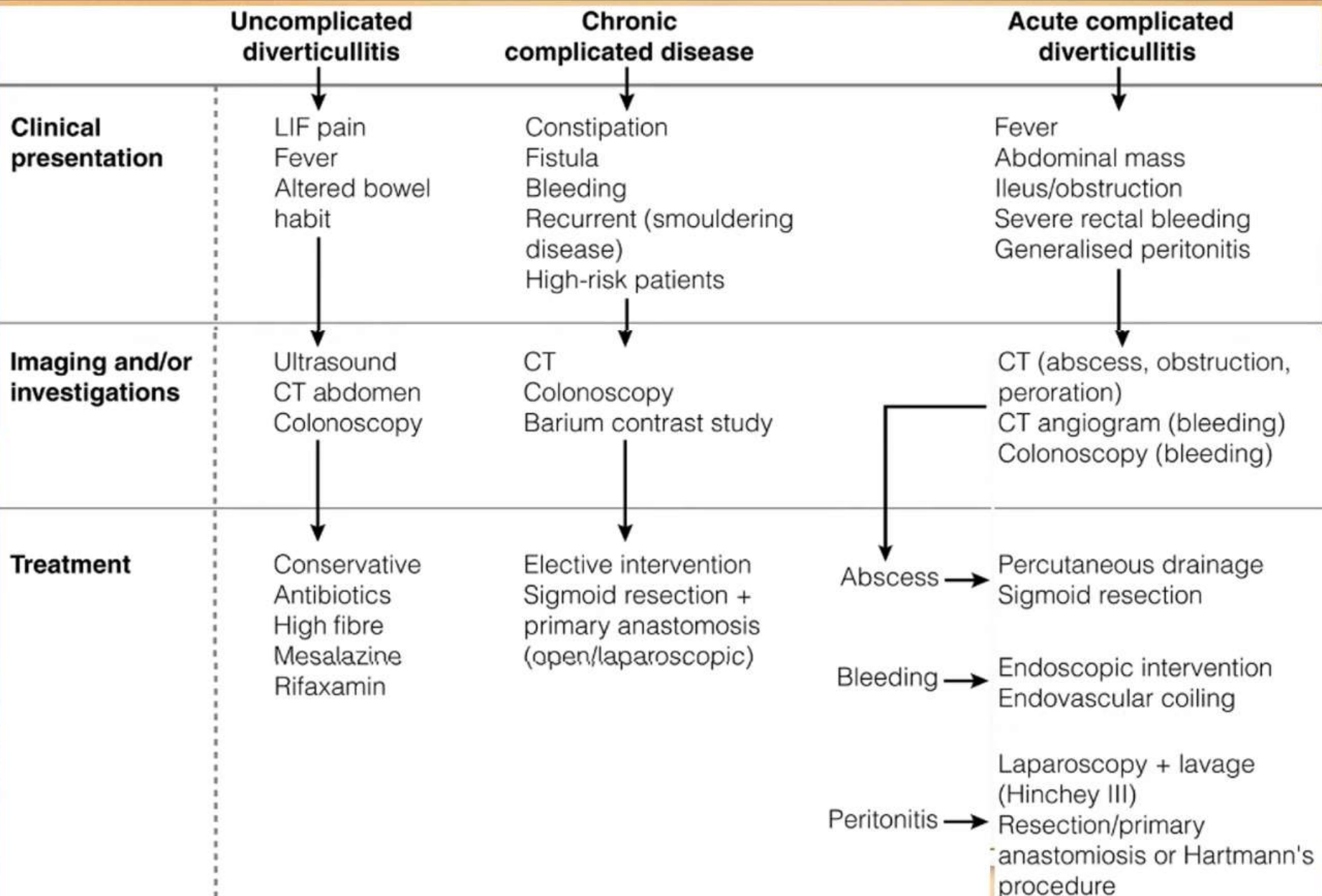




# Treatment

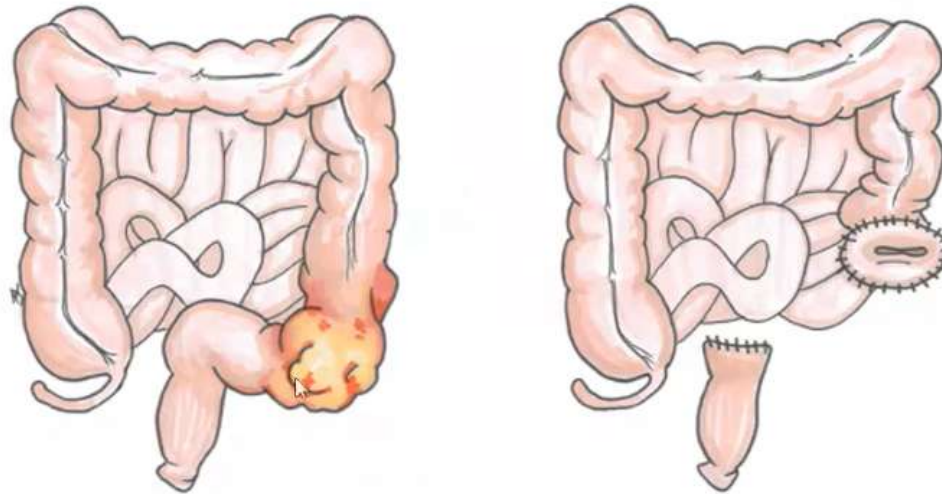
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- Asymptomatic patients with **diverticulosis** do not require treatment
  - Avoiding nuts and seeds : No scientific basis or fact
  - higher fibre intake does not change the course of symptomatic diverticular problems
- There is currently no consensus on the most appropriate antibiotic regimen or route (oral/intravenous) for diverticulitis but , broad-spectrum agents covering Gram-negative and anaerobic organisms are advised
- Two randomised trials have found that antibiotic treatment for acute uncomplicated diverticulitis neither accelerates recovery nor prevents complications or recurrence. As such, observational treatment without antibiotics can be considered appropriate in non-septic patients



# Hartmann's operation

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# Elective resection

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- Recurrent Diverticulitis ???
  - The natural history of diverticulitis is such that one in six patients undergo surgery at presentation while approximately 20–25% re-present, with a similar proportion requiring surgery, such that less than 5% have more than two episodes
  - Decision of surgery is based on an individualized basis
- Diverticular fistula, diverticular stricture and disease refractory to conservative management.



# Diverticular haemorrhage

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- 3-5 %
- The majority of diverticular haemorrhages cease spontaneously
- May need angiography , emergency resection.
- Elderly patient with high mortality

Thank You

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