Aperients – which, when, why?

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Find a friend
Plan of action

- Types of aperients and mechanism of action
- Some commonly used aperients
- Case studies
Source of info?

- Australian Medicines Handbook provides practical, reliable, comparative medicines information resources for health professionals.

- We are entirely independent of the pharmaceutical industry and are owned by three respected professional organisations, the [RACGP](https://www.racgp.org.au), [PSA](https://www.pharmacy.org.au) and [ASCEPT](https://www.ascept.com.au)
Class of aperients

• Bulk-forming laxatives
• Osmotic laxatives
• Stimulant laxatives
• Faecal softener laxatives
• Opioid antagonists
• *Suppositories and enemas*
• **Precautions** *Intestinal obstruction, partial or complete*—contraindicated.
How do aperients work?

- Bulk-forming laxatives work by increasing the amount of faeces you have and softening them - the fibre 'bulks out' the faeces. This then encourages your bowels to move and push the faeces out.
- Osmotic laxatives work by increasing the amount of water that stays in your faeces as they pass through your large bowel. This makes them softer and easier to pass.
- Stimulant laxatives work by speeding up the movements of your intestines.
- Faecal softener laxatives work by lubricating and softening the faeces, which makes them easier to pass.
- Opioid antagonists block the constipating effect of opioids on the bowel.
Bulk forming agent – e.g. psyllium

• **Mode of action**
  – Absorb water in the colon to increase faecal bulk, which stimulates peristaltic activity.

• **Indications**
  – Constipation
  – Diarrhoea (and occasionally faecal incontinence), to improve stool consistency
  – Colostomy and ileostomy, to regulate faecal consistency

• **Common Adverse effects**
  – flatulence, bloating, abdominal discomfort

• **Practice points**
  – give with extra fluid to ensure laxative effect, or with minimal fluid to harden stool
  – full effect may take several days
Osmotic agent – e.g. Lactulose

• **Mode of action**
  – Poorly absorbed, metabolised by colonic bacteria; it exerts an osmotic effect in the colon. Increase in intraluminal pressure stimulates peristalsis.

• **Indications**
  – Constipation
  – Hepatic encephalopathy

• **Common Adverse effects**
  – Flatulence, abdominal discomfort, cramps

• **Practice points**
  – Onset of action is 1–3 days
  – This medicine tastes very sweet; it may help to mix it with fruit juice, water or milk.
Stimulant aperient – senna

- **Mode of action**
  - Act by direct stimulation of nerve endings in colonic mucosa to increase intestinal motility. May also cause accumulation of water and electrolytes in the colonic lumen.

- **Adverse effects - Infrequent**
  - discolouration of urine (yellowish brown or red)

- **Adverse events - Rare**
  - hepatitis, melanosis coli (benign, reversible, occurs with chronic use),

- **Practice points**
  - onset of action is 6–12 hours
  - there is no convincing evidence that chronic use of stimulant laxatives is harmful to the colon – however stimulants are the laxative group most often associated with laxative misuse
Softeners e.g. docusate

- **Mode of action**
  - Softens stool by assisting mixture of water into faeces. May also increase intestinal fluid secretion.
- **Adverse effects**
  - abdominal cramps, diarrhoea, nausea, rash
- **Practice points**
  - onset of action is 1–3 days
  - poloxamer (Coloxyl Drops®) is preferred for children <3 years
- **Usually used in conjunction with a stimulant**
Macrogol 3350/PEG

• **Mode of action**
  Macrogols or polyethylene glycols (PEGs) are large polymers with osmotic activity. Most products combine electrolytes with PEG; these solutions are iso-osmotic with respect to normal intestinal contents, which minimises electrolyte and water loss.

• **Adverse effects**
  Fluid and electrolyte disturbances are less of a risk with PEG laxatives than with other osmotic laxatives
  - nausea, vomiting, diarrhoea, anal irritation, abdominal distension, cramps or pain

• **Rare**
  - allergic reactions (including anaphylaxis)
Opioid antagonist - naloxone

• Little, if any, tolerance to constipating side-effects develops. Attention to fluid intake, diet and mobility is required; regular laxative use (eg stimulant laxative and stool softener) is essential as soon as chronic opioid treatment is started.

• naloxone is intended to reduce opioid-induced GI adverse effects such as constipation

• **Mode of action**
• Competitive antagonist at opioid receptors.
• consider use if optimised regular laxatives for opioid-induced constipation are inadequate, as comparative studies with laxatives are lacking
• most studies included only people with chronic non-cancer pain
Questions?
Case scenarios
Scenario 1

- Person who usually has well functioning bowel.
- Falls and breaks wrist, panadeine forte for pain relief.
- Now BNO for 4 days, abdo discomfort and nausea, last BM was pebbles and hard to get out.
Scenario 2

- Person who has had lifelong issues with bowel function. Usually type two-three, longterm use coloxyl and senna or laxettes two-three times per week.
- Assessment triggered by continence questions to join hydrotherapy class.
Scenario 3

• Female in twenties, bowels always ‘slow’, also vary a lot with menstrual cycle and diet, but usually constipation. Strains to initiate and empty.
• Has used laxettes, actilax, coloxyl and senna, metamucil at various times, with varying success. Has all of these at home, and uses each intermittently. When using laxatives often overshoots into diarrhoea, then cycle starts again.
• Bowel chart shows type 1-2 infrequent, with type 3-6 following laxative use.
Scenario 4

• 62 year old
• Recent episode ‘near-miss’ faecal incontinence due to loose watery stool
• Faeces firmer and more difficult to pass in general past 6 months interspersed with occasional episode loose faeces.