How do laxatives and antidiarrhoeals work?

COMPOUND INTEREST

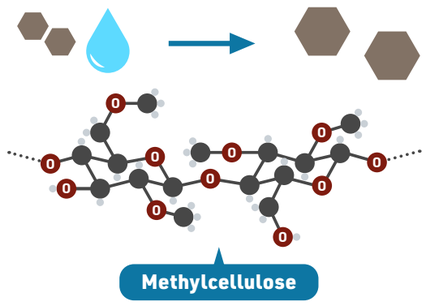
Laxatives

Laxatives are medicine used to treat constipation. There are four main types.

KEY: Carbon · Oxygen · Nitrogen · Sulfur · Sodium · Bismuth · Hydrogen

Bulk-forming laxatives

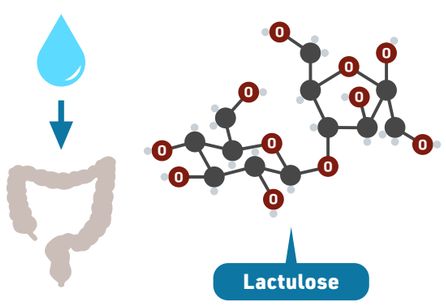
These are fibrous agents, such as methylcellulose, which absorb water and form a bulky gel. This stimulates the bowel to push softened poo out.



Methylcellulose

Osmotic laxatives

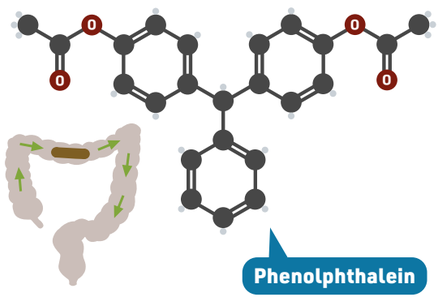
These agents draw water into the bowel to soften poo and make it easier to pass. Examples include lactulose and macrogol.



Lactulose

Stimulant laxatives

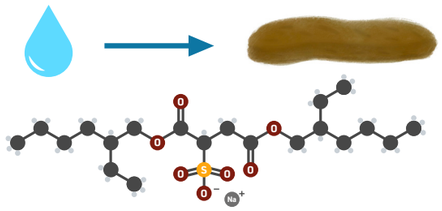
These agents stimulate the muscles in the bowel to move poo along. They include bisacodyl and senna, as well as the disused phenolphthalein.



Phenolphthalein

Poo-softening laxatives

These agents add moisture to poo and make it softer and easier to pass. An example is docusate (dioctyl sulfosuccinate).



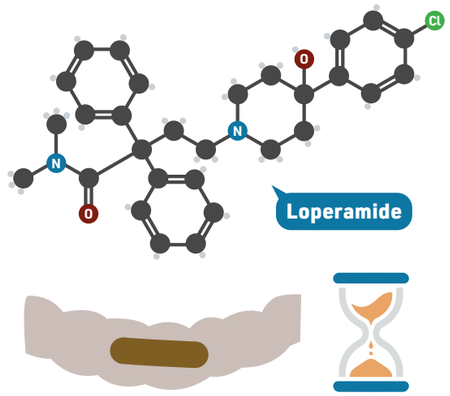
Dioctyl sulfosuccinate

Antidiarrhoeals

Antidiarrhoeals treat diarrhoea. As with laxatives, there are four main types.

Opioid and opioid-related

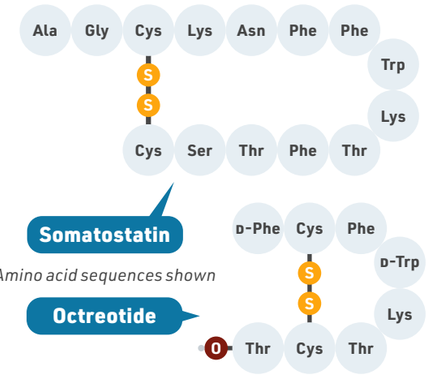
These agents decrease the intestinal muscle movements which move poo along the bowel. They include loperamide.



Loperamide

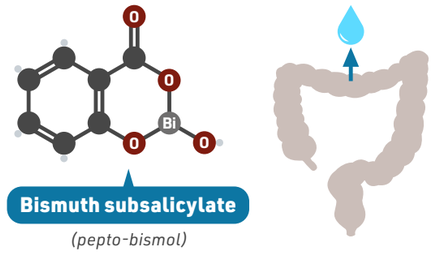
Somatostatin analogues

These agents, such as octreotide, mimic the natural hormone somatostatin, slowing the movement of food through the intestines.



Adsorbents

Adsorbents such as pepto-bismol are thought to coat and kill bacteria that cause diarrhoea, as well as increasing intestinal fluid absorption.



Bismuth subsalicylate

(pepto-bismol)

Bulk-forming agents

Fibrous bulk-forming agents absorb the excess water in the bowel, bulking up poo to relieve diarrhoea. They can take 2-3 days to work.

Common bulk-forming agents

Methylcellulose, psyllium, polycarbophil