

Laxatives – How do they work?

What causes constipation?

Constipation is a condition when people feel they are not passing stools (faeces) as often as they normally do, they have to strain more than usual, or they are unable to completely empty their bowels¹. Many sources define constipation as having a bowel movement fewer than three times per week.

Constipation occurs when the colon (large intestine or large bowel) absorbs too much water or if the colon's muscle contractions are slow or sluggish, causing the stool to move through the colon too slowly. As a result, stools can become hard and dry.

Constipation in the UK is very common with wide-ranging causes including:

- **Lack of fibre in the diet** – this is the most common cause. Fruit, vegetables and cereals are all good sources of fibre.
- **Low fluid intake** – Not drinking enough can cause or exacerbate constipation.
- **Lack of exercise** – Exercise helps to stimulate the intestine and hence move stools through the bowel. The effects of immobility on constipation can be a particular problem for the elderly and bed-ridden.
- **Old age** – As people get older, the movement of the large intestine may slow down causing chronic constipation.
- **Medication** – Some drugs cause constipation as a side-effect, including painkillers containing codeine, aluminium antacids, antidepressants and diuretics.
- **Pregnancy** – Constipation often occurs during pregnancy as a result of hormonal changes.
- **Underlying condition** – Rarely, constipation can be a sign of an underlying condition. Such conditions include an underactive thyroid, irritable bowel syndrome (IBS) and colon or rectal cancer.

What are laxatives used for?

People suffering from constipation should firstly try making dietary and lifestyle changes, such as drinking more water, eating more fibre in the diet and increasing the amount of exercise they do.

However, if these changes don't work, there are many over-the-counter products that can help provide relief. These can also be useful when someone occasionally goes two or three days longer than usual without a bowel movement. If constipation persists beyond the short term, it is recommended that the patient consults a doctor.

How do laxatives work?

Medicines used to relief constipation work in four different ways. These are:

- **Stimulant laxatives** - These include bisacodyl, senna and sodium picosulfate. They work by stimulating the nerve endings in the bowel, causing the muscle walls to contract and move the contents through quicker. Because they keep the bowel contents moving, there is less opportunity for water to be absorbed and the stools are softer and easier to pass as a result. They work quickly – usually within 8 to 12 hours.
- **Bulk forming laxatives** - These include ispaghula husk, methylcellulose and sterculia. They work by absorbing water and swelling to form a gel. This retains water in the faeces, avoiding impaction and making removal of the faeces easier by increasing the bulk of the stool. It will usually be 2-3 days before these types of laxatives start to work and they should be taken with plenty of water. They are also suitable for longer-term use over-the-counter if necessary.
- **Osmotic laxatives** - These include macrogol, lactulose, lactitol and mineral salts, such as magnesium sulphate. They retain water in the bowel and faeces, helping the body to pass stools and soften the stools. As with bulk forming laxatives, it takes 1-3 days before these types of laxatives start to work. They should be taken with plenty of water, excepting sachet format osmotic laxatives that are taken with water as a drink. This type of laxative is often recommended during pregnancy.
- **Stool softeners** – These include docusate sodium and glycerine suppositories. They work by lubricating hard, dry stools with extra water in the large intestine. This makes stools softer and easier to evacuate. Stool

softeners may take only a few hours to work. Glycerin suppositories also act as stimulant laxatives.

What are the side effects?

Most laxatives don't have side effects if used correctly. However, sometimes they can cause cramping, gas, bloating, nausea and diarrhoea.

With stimulant laxatives, it is particularly important that they are not used for more than a few days unless under medical supervision.

As with all over-the-counter medicines, people should read the packaging and patient information leaflet before starting to use them.

¹ NHS Choices website: <http://www.nhs.uk/Conditions/Constipation/Pages/Introduction.aspx>