Managing constipation in the pharmacy

J van Schoor
Amayeza Information Services, South Africa

Republished from: *SA Pharmacist's Assistant* 2023;23(1):8-11 Prof Nurs Today 2023;27(2):26-28

Constipation is a common problem in adults and children of all ages. It is a symptom rather than a disease. Constipation is only rarely associated with life-threatening diseases, but in some patients such as the elderly, constipation can be a major health concern.

Constipation refers to a change in bowel habits but has varied meanings:

- Doctors may regard constipation as being synonymous with infrequent bowel movements, typically fewer than three per week.
- Adult patients may report a broader set of symptoms, including stools are too hard or too small, or difficult to pass, a feeling of incomplete evacuation, abdominal discomfort, bloating and distension, as well as other symptoms, such as excessive straining.
- A child with constipation may have bowel movements less frequently than normal, or their bowel movements may be hard or difficult and painful to pass. For example, a child who normally has one to two bowel movements every day may be constipated if he or she has not had a bowel movement in two days. However, a child who has a bowel movement every two days is not constipated, if the bowel movement is reasonably soft and is not difficult or painful to pass.

Not having a bowel movement every day does not necessarily signify constipation. Constipation, therefore, is usually described as the passage of hard, dry stools less frequently than what is usual for that person.

Constipation may be acute or chronic. Acute constipation begins suddenly and noticeably, while chronic constipation may begin gradually and persist for years or months. Many people experience occasional acute constipation, e.g. when travelling.

Causes of constipation

Many factors can contribute to or cause constipation, although, in most people, no single cause can be found. In general, constipation occurs more frequently in older people. Causes of constipation include:

- Changes in the diet
- Lack of fibre in the diet
- Inadequate fluid intake
- Poor bowel habits, e.g. delaying the passing of stools
- Lack of exercise or long periods of immobility
- Laxative abuse
- Medical conditions such as Parkinson's disease, depression, irritable bowel syndrome
- Medicines such as aluminium- and calcium-containing antacids, iron supplements, antispasmodics, analgesics such as codeine and antidiarrhoeal agents such as loperamide

Alarm symptoms in constipation – when to seek help

Most cases of constipation can be treated at the pharmacy level. However, there are some alarm symptoms in constipation that require referral to the doctor. Some patients, because of their age or condition, are also best referred to the doctor, e.g. constipation presenting in an infant or young child, constipation during pregnancy or constipation in an elderly or frail patient (refer to Table I).

Table I: Alarm symptoms in constipation – when to refer the patient to the doctor

• New constipation that has lasted two weeks or more
• Constipation occurs together with abdominal pain, nausea, vomiting or bloating
• Presence of blood in the stools
• Patients over the age of 50 years who present with persistent constipation for the first time
• Constipation is associated with symptoms such as weight loss, fever or weakness
• The patient's prescribed medication may be the cause of constipation
• Previous appropriate lifestyle interventions and over-the-counter (OTC) medicines have not resolved the constipation

Management of constipation

Treatment for constipation includes changing some lifestyle behaviours and using laxatives, if needed (refer to Table II).

Behaviour changes

The bowels are most active after a meal, and this is often the time when stools will pass most readily. Patients should be reminded not to ignore the body's signals to have a bowel movement, as ignoring 'nature's call' may result in these signals becoming weaker over time. Drinking a caffeine-containing beverage in the morning may also be helpful.

Increasing fibre in the diet may reduce constipation. The recommended amount of dietary fibre is 20–35 grams of fibre per day. Adding raw bran to the diet (2–6 tablespoons with each meal) is an inexpensive way to increase fibre intake. Bran can be added into palatable drinks such as smoothies, yoghurt, cereals, or baked foods to improve fibre intake.

Many fruits and vegetables can be helpful in preventing and treat-ing constipation. This is especially true of citrus fruits, prunes, and prune juice. Some breakfast cereals are also an excellent source of dietary fibre.

Note:
An increased fibre intake should be done in conjunction with an increased fluid intake. Adults should take in 2–2.5 litres of fluid per day.
Increasing fibre intake too quickly and consuming large amounts of fibre can cause abdominal bloating or flatulence. These symptoms can be minimised by increasing fibre intake by a small amount and slowly increasing it until stools become softer and more frequent.

Bulk-forming laxatives

Bulk-forming laxatives that are available include mucilaginous seeds and seed coats (e.g. ispaghula, also known as psyllium) and mucilaginous gums (e.g. sterculia). Bulk-forming laxatives work by absorbing moisture and swelling in the colon, increasing faecal mass so that normal bowel action is stimulated. Bulk-forming laxatives are effective in increasing the frequency and softening the consistency of the stools with minimum adverse effects. There is generally a delay (up to 72 hours) between taking a bulk-forming laxative and improved bowel function. Taken together with adequate fluid, bulk-forming laxatives can be used long-term to improve bowel habits in people with persistent constipation.

Note: Intestinal obstruction may occur in patients taking bulk-forming laxatives if fluid intake is not adequate, especially in the patient whose gastrointestinal tract is not functioning properly because of abuse of stimulant laxatives.

Table II: Laxatives used in the treatment of constipation

Laxative	Trade name	Patient information
Bulk-forming laxatives		
Ispaghula; seeds of plantago ovata	Agiobulk®	Ensure an adequate intake of fluid Non-habit-forming Suitable for long-term use for chronic constipation May cause abdominal distension, cramps, and flatulence
Sterculia	Normacol®	
Bulk-forming laxative in combination with a stimulant laxative		
Ispaghula; seeds of plantago ovata; senna	Agiolax®	Ensure an adequate intake of fluid Not recommended for long-term use Combination may initially be used in patients with severe constipation May cause abdominal distension, cramps, and flatulence
Sterculia with frangula	Normacol® Plus	
Hyperosmolar laxatives		
Polyethylene glycol with electrolytes	Movicol® Purgolene® Purgoped®	Suitable for chronic constipation in patients unable to use bulk-forming laxatives
Lactulose	Duphalac®	May cause flatulence and bloating Start treatment at a low dose to reduce the risk of side effects
Saline laxatives		
Magnesium hydroxide	Phipps Milk of Magnesia	Suitable for occasional use May cause loss of normal bowel function with long-term use
Sodium sulphate	Freshen Sodium Sulphate	
Stimulant laxatives		
Senna	Depuran® Senokot®	Use only if response to bulk-forming laxatives is inadequate Restrict to occasional use Long-term use may result in loss of normal bowel function and laxative dependence
Bisacodyl	Dulcolax®	

Other laxatives

People who respond poorly to fibre or do not tolerate it, may require other laxatives.

Hyperosmolar laxatives such as lactulose, sorbitol, and polyethylene glycol work by drawing fluid into the bowel and thereby increasing stool frequency. Lactulose is a synthetic sugar. It is not metabolised by intestinal enzymes and therefore, water and electrolytes remain in the bowel due to the osmotic effect of the undigested sugar. Lactulose requires some time (24–48 hours) to produce its effect. Polyethylene glycol may be used in chronic constipation. A treatment course is usually two weeks, which may be repeated if necessary. Extended use may be required in patients with resistant constipation or in those with constipation because of another medical condition, e.g. Parkinson's disease.

Saline laxatives such as magnesium hydroxide (Milk of Magnesia), magnesium sulphate, sodium sulphate and sodium picosulphate act similarly to hyperosmolar laxatives. A dose of these laxatives usually produces a bowel movement within a few hours. Some saline laxatives are used to evacuate the bowel before surgery or investigative procedures. Prolonged use is generally not recommended. Adequate fluid intake should be encouraged to prevent dehydration.

Stimulant laxatives (e.g. senna and bisacodyl) work by increasing colonic motility and should only be used for short-term indications, i.e. acute constipation. Ongoing use of stimulant laxatives can cause changes in the colon and dependency on the laxative. Stimulant laxatives should not normally be used for longer than a week. The intensity of the laxative effect depends on the dose that is taken. It is advisable to start at a low dose and only increase the dose if needed. Oral stimulant laxatives take between six and 12 hours to produce an effect. However, bisacodyl suppositories may produce an effect within one hour of insertion.

A variety of herbal products are available for the treatment of constipation. Some of them contain active ingredients, e.g. senna, found in commercially available medicines. The same cautions apply to the use of these products.

Summary and recommendations

Constipation is a common complaint and often responds to behaviour changes and various laxatives. An increased intake of dietary fibre and bulk-forming laxatives may be recommended as initial management of constipation, together with adequate fluids. For patients who do not tolerate bulk-forming laxatives or respond poorly to fibre, hyperosmolar laxatives such as lactulose or polyethylene glycol may be recommended. Saline laxatives and stimulant laxatives may be considered for occasional use only, as prolonged use is not recommended.

Bibliography

- American Gastroenterological Association (AGA). Medical position statement on constipation. 2013. Gastroenterology. 2013;144:211-7. https://doi.org/10.1053/j.gastro.2012.10.029.
- Lindberg G, Hamid S, Malfertheiner P, et al. World Gastroenterology Organisation global guidelines. Constipation: a global perspective. 2010. Available from: https://journals.lww.com/jcge/fulltext/2011/07000/world_gastroenterology_organisation_global.4.aspx.
- MIMS Guide to OTC Products. 2022;28.
- Sood MR. Patient education: Constipation in infants and children (BeyondtheBasics).2023.Availablefrom:https://www.uptodate.com/contents/constipation-in-infants-and-children-beyond-the-basics.
- South African Medicines Formulary 2020. 13th edition.
- Wald A. Management of chronic constipation in adults. 2023. Uptodate. Available from: https://www.uptodate.com/contents/management-of-chronic-constipation-in-adults.
- Wald A. Patient education: Constipation in adults (Beyond the Basics). 2023. Uptodate. Available from: https://www.uptodate.com/contents/constipation-in-adults-beyond-the-basics.