Treatment interventions for bowel dysfunction: constipation — part two

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This two-part article aims to help healthcare professionals understand constipation; the possible causes, and the anatomical and functional problems. In the first part, the author explained anatomy and physiology of the lower gastrointestinal tract, what are normal bowel motions, frequency and variation, which includes the Bristol Stool Chart to view the types of bowel motions sufferers may often experience. Here, the focus is on conservative treatment interventions for constipation, exploring the four ‘Fs’ acronym (Rex, 2013): fibre (in diet); fluids (those best for health reasons); fitness (‘if you do not move, it will not move’); and finally feet, which relates to the best sitting position to help achieve bowel evacuation successfully.

KEYWORDS:
Constipation ■ Conservative treatment ■ Fibre ■ Fluid intake ■ Exercise

Good health is valued above almost anything, as ill health can prevent people from participating in everyday activities, such as socialising, doing hobbies, going to work, maintaining relationships, and caring for themselves and their loved ones. The right advice and treatment from GPs is often wanted so that patients can swiftly get back to usual daily activities. However, there is one preventable and manageable illness affecting two million people in the UK, which many are too embarrassed to seek help for; chronic constipation (Coloplast, 2015).

Research commissioned by Coloplast with YouGov, shows that chronic constipation is causing people initially to suffer in silence. Findings included:
- 48,409 emergency admissions for constipation last year alone, this is clearly a national problem which is not being talked about (Coloplast, 2015).
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Understanding good bowel health can help to manage many preventable conditions and minimise complications, such as swollen veins in your anus (haemorrhoids), torn skin in your anus (anal fissure), stool that cannot be expelled (faecal impaction), intestine that protrudes from the anus (rectal prolapse), etc, which can be associated with long-term conditions. According to the Bladder and Bowel Community (2017), there is a conservative estimate of 6.5 million people in the UK today with some form of bowel problem, i.e. one in 10 non-discriminatory affecting both men and women, young and old. But due to the personal nature of the topic and shyness in discussing it, there is low awareness of how common chronic constipation is and the effective treatments available. The issue is rarely discussed in the media, leaving patients to believe it is a less common and serious health issue than it actually is. With 48,409 emergency admissions for constipation last year alone, this is clearly a national problem which is not being talked about (Coloplast, 2015).

RECENT RESEARCH ON CONSTIPATION

As said, research commissioned by Coloplast shows that being unable to manage constipation effectively is leading to thousands of hospital admissions each year, often through A&E. The YouGov survey asked 2,352 individuals about their knowledge of constipation and how they would deal with it and, although the bowels play an important part in health and wellbeing, it found that a significant proportion of the population does not think constipation is a serious health issue. Many participants admitted that they would wait for several weeks before addressing the issue, with confusion and myths about what are normal and healthy bowels. Findings included:
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Practice point

Bowel habits are an important indicator of health and need the same attention and care as vital organs such as the heart, eyes, and ears, etc.
Nearly one in five people thought that passing stools less than once a day is a symptom of constipation. A third of people said they would search online for how to treat constipation, if they thought they might be suffering from it. 35% of people said they would wait to see if their symptoms cleared up before speaking to their GP. Nearly one in 10 people who would seek advice from a healthcare profession would wait between two weeks and a month (after first noticing constipation symptoms) before speaking with them.

Gastrointestinal functional disorders, especially constipation, are common morbidity factors in otherwise healthy persons, as well as in patients with various predisposing diseases (Peppas et al, 2008). There are a number of factors contributing to the high number of hospital visits for constipation, as seen in the results from the survey which found that:

- Nearly one in five people feel embarrassed talking to their GP about constipation.
- If they thought they were suffering from constipation, over a fifth of people would try and solve it themselves, without speaking to anyone about it.
- Talking to a GP about bowel health was found to be equally as embarrassing as talking to them about erectile dysfunction. 10% of adults in the UK are embarrassed to talk about either of these issues.

In addition to the embarrassment of constipation, as previously said, the survey also shows that there is a lack of understanding of what constipation is, what is ‘normal’ when it comes to bowel health, and not knowing how to treat it.

**FINANCIAL, PHYSICAL AND PSYCHOLOGICAL IMPACT OF CONSTIPATION**

In the author’s clinical opinion, constipation is a manageable and treatable condition. Being comfortable discussing constipation with your healthcare provider sooner, rather than later, is essential to prevent more intensive interventions, such as surgery, which may occasionally play a role in the management of rectal outlet obstruction (e.g. rectocele, rectal prolapse, internal rectal intussusception), or in patients with a hypomotile (laxative) colon who are refractory to medical treatment. It will also save money for the NHS in treatment costs and expensive preventable non-elective admissions. In the author’s clinical practice reported by patients and their carer(s), constipation is seen by many as a minor health issue, meaning that the serious long-term impact on health and wellbeing can be overlooked and not properly addressed.

For those who suffer from constipation, quality of life can diminish enormously. Chronic constipation can cause debilitating psychological and physical distress. Further, according to the 2015 Coloplast report, poor bowel health and chronic constipation is debilitating, preventing people from enjoying the best quality of life possible. This includes taking part in various key aspects of everyday life, such as going to work or enjoying time with friends and family, as many are needlessly suffering with chronic constipation because of the taboo nature of the subject, combined with a lack of understanding of the issue.

**CONSERVATIVE TREATMENT INTERVENTIONS**

Choice and availability of treatments, products and medicines has never been greater and there are ways in which patients can help themselves, such as with lifestyle changes. Constipation can be completely cured in some cases, and in others, effectively managed with the right treatments to regain quality of life. However, it is advisable to visit a GP as soon as possible if a person suffers from constipation for more than three weeks, has blood in the stool, suffers from pain, or feels a lump in the abdomen.
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Constipation can normally be treated by making some reasonable adjustments to diet and lifestyle, such as eating a healthy balanced diet with plenty of fibre and taking regular exercise to enable good digestion (Potter and Wagg, 2005). Sometimes, constipation can become a chronic problem and be linked to other bowel disorders such as irritable bowel syndrome (IBS) and Crohn’s disease (Bladder and Bowel Community, 2017). It is often caused by lack of fibre and/or fluid in the diet, which can easily be rectified by eating the required amount of fibre from vegetables, wholemeal foods and cereals. It is also essential to keep well hydrated by drinking plenty of fluids, preferably water.

In the author’s clinical opinion, having a regular routine for visiting the toilet, where the patient feels comfortable and not rushed, can help. Anxiety can cause some people to hold on for longer than they should, leading to impaction over time. Eating at regular times also helps to regulate bowel patterns. Sitting comfortably in an optimal position to allow gravity to aid the elimination process is also helpful. A foot stool can be useful to keep legs in the correct toilet position, i.e. raised so that the knees are slightly higher than the hips.

Laxatives can be used to quickly relieve short-term constipation, but it is always advisable to initially try basic conservative treatment measures. There are some over-the-counter laxatives that act in different ways. Bulking laxatives work by softening the stool, making it easier to pass, and stimulant laxatives, such as Senna, encourage peristalsis and stimulate the gut to pass the stool.

**INCREASE IN DIETARY FIBRE INTAKE**

According to the British Nutrition Foundation (2016), dietary fibre refers to the group of edible substances in food plants, which cannot be broken down by human digestive enzymes. This includes waxes, lignin and polysaccharides, such as cellulose and pectin. It was originally thought that dietary fibre was completely indigestible and did not provide any energy, but it is now known that some fibre can be fermented in the large intestine by the gut bacteria, yielding short-chain fatty acids and gases known as methane, hydrogen and carbon dioxide (Nutrition Foundation, 2016). Fatty acids are then absorbed into the blood stream and provide a small amount of energy. The amount of gas produced depends on the type of fibre eaten and the gut bacteria present. After a large increase in the amount of fibre in the diet, some people experience symptoms such as abdominal distension, discomfort and wind. However, the large intestine and gut bacteria will gradually adapt to the increased intake and symptoms usually decrease.

Dietary fibre is found in all plant foods including cereals, bread, beans, lentils, legumes, nuts, seeds, grains, fruits and vegetables. According to the British Nutrition Foundation (2016), most people in the UK do not eat enough fibre — the average intake is 17.2g per day for women and 20.1g per day for men. However, the recommended average intake for adults is 30g per day (see below). A low fibre intake is associated with constipation and some gut diseases, such as bowel cancer. A high fibre diet can help reduce cholesterol, reduce the risk of diabetes and help protect against overweight (British Nutrition Foundation, 2017). There is also a form of fibre called chitin, which can be found in the shells of crustaceans such as crab, lobster and shrimp.

Fibres are not all the same — some are soluble in water while others are not. Soluble fibre slows digestion and helps with absorption of food nutrients. Insoluble fibre adds bulk to stool, helping it pass more quickly through the intestines. Most food plants contain some of each kind. Foods containing high levels of soluble fibre include dried beans, oats, oat bran, rice bran, barley, citrus fruits, apples, strawberries, peas and potatoes. Foods high in insoluble fibre include wheat bran, whole grains, cereals, seeds and skins of many fruits and vegetables. The best fibres to ease constipation are whole-grain breads, cereals and pastas. Cereal fibres generally have cell walls that resist digestion and retain fluid within the cellular structures. Wheat bran can be highly effective as a natural laxative.

Other foods that are high in fibre are fresh fruits, vegetables and legumes, such as beans and lentils. The fibre found in citrus fruits and legumes stimulates the growth of colonic flora, which increases stool weight and bacterial amount. Certain colonic bacterial growth encouragement may help in the promotion of healthy intestine. Some fruits, such as prunes, are often referred to as being a ‘natural remedy’, as they contain sorbitol, which has a natural, laxative effect in the body. Dried plums are also high in disease-fighting antioxidants and have both insoluble and soluble fibre.

Fibre is needed to maintain digestive health, stay regular and feel full at all meal times and between meals. It normalises the transit through the colon, absorbs water, increases bulk in the stool and makes the stool soft. It is important to have a balanced fibre diet, as too much fibre can cause a loose stool, i.e. fast transit through the colon, and not enough fibre can cause a hard stool, i.e. slow transit through the colon.

The World Health Organization recommended 18 to 30 grams of fibre a day. Women younger than 51 should aim for 25 grams of fibre daily and men younger than 51 should aim for 38 grams of fibre daily. Women over 51 should get 21 grams of fibre daily and men over 51 should get 30 grams of fibre daily. Five pieces of fruits and vegetables per day are recommended.

Thirty grams of fibre constitutes:
- One bowl high fibre cereal, e.g. All Bran, Fibre Plus
- Four slices of wholemeal or wholegrain bread, 2–3 servings of fruit
- One medium potato with skin on
- Half a cup of cooked dried beans, lentils, corn or baked beans.
Sources of less fermented fibre can act as bulking (laxative) agents and help prevent constipation. There is a great need for an increase in fluid intake for fibre to have the best effect on preventing constipation. Some oligosaccharides (a type of fibre with shorter carbon chain length) can be fermented by gut bacteria and may have a beneficial effect on the gut flora. A diet with low fibre is associated with diverticulitis (where the bowel wall becomes inflamed and ultimately damaged) and bowel (colorectal) cancer (British Nutrition Foundation, 2016). Evidence suggests a protective effect of eating a diet rich in dietary fibre on diverticulitis and colorectal cancer (British Nutrition Foundation, 2017).

INCREASE IN FLUID INTAKE

Fluid is vital to the treatment of constipation (Basson, 2017), and is important for digestion as it keeps the food eaten moving along through the intestines, while also keeping the intestines smooth and flexible. Dehydration is one of the most common causes of chronic constipation, as if there is not enough fluid in the body, the colon will soak up water from food waste, causing hard stools that are difficult to pass.

Patients should be advised to drink at least six to eight fluid drinks per day. While water is best, there are other options, such as milk, juice, cordial, soups, mineral water, tonic water, soda water, herbal tea, decaffeinated tea and coffee. Drinks with caffeine, such as tea, coffee and cola, act as diuretics and are excreted through the kidneys. This is the same with alcohol drinks, which are also diuretics. Decaffeinated tea and coffee are better hot drink options.

According to Basson (2017), failure to control constipation on a regimen of fibre supplementation and increased water intake should prompt an analysis of patient compliance and a search for other physical reasons, such as altered colonic transit time, outlet obstruction, and psychological causes. Basson (2017) claims that early failures usually reflect inadequate water intake, whereas recidivism months to years later usually reflects a patient’s decision that fibre supplementation is no longer necessary. He urges clinicians to counsel patients in advance to encourage them to avoid these inappropriate decisions.

In selected patients who comply with a trial of a high-fibre, high-water diet, but find that this approach does not successfully treat their constipation, a trial of a very-low-residue diet, or even a liquid diet, may be appropriate (Basson, 2017). Such a regimen is most successful in patients with an outlet obstruction who are not candidates for surgical correction, and in patients whose presentation is more characteristic of IBS, with a chief complaint of abdominal pain. A low-residue diet may be effective in the latter group of patients if thorough mechanical cleansing of the bowel, such as is done for diagnostic endoscopy or barium enema, temporarily relieves their symptoms (Basson, 2017).

INCREASED FITNESS

According to Rex (2013), ‘If you don’t move, it won’t move’, with bedbound patients having the worst bowel movements and athletics the best. Exercise helps constipation by decreasing the time it takes food to move through the colon, thus limiting the amount of water absorbed from the stool into the body. In addition, aerobic exercise accelerates breathing and heart rate. This helps to stimulate the natural contraction of intestinal muscles, efficiently helping to move stools out quickly.

After eating, blood flow increases to the stomach and intestines to help the body digest the food. However, exercising right after eating, the blood flows toward the heart and muscles instead. Since the strength of the gut’s muscle contractions directly relate to the quantity of blood flowing in the area, less blood in the gastrointestinal tract means weaker intestinal contractions, fewer digestive enzymes, and the food waste moving sluggishly through the intestine. This can result in bloating, excess gas and constipation. Therefore, after a big meal, the body needs to be given a chance to digest before exercising.

All exercises are good — simply getting up and moving can help with constipation. Walking is the easiest way — just walking 10–15 minutes several times a day can help the body and digestive system to function optimally. Fit people might opt for aerobic exercise, such as running, jogging and swimming. Stretching may also help alleviate constipation, as might certain yoga positions.

RAISING THE FEET

Toilets were not designed to sit on Western toilets, but rather to squat, as this changes the anorectal angle, reflexes the puborectalis muscle and creates a funnelling effect. Trying to maintain a good toilet position may be beneficial for those who find it difficult to pass a stool, who strain when defecating or suffer from constipation.

If a person relieves themselves in a natural squatting position, the body is ideally placed for elimination (Saedd, 2002). The colon is also in the right position, so that the faeces can be pushed out easily. Western toilets put the body in an unnatural position, increasing pressure on the colon and other organs of the lower abdomen region. During the natural squatting position, the thighs provide necessary support to the colon for elimination. There is a valve between the small intestines and the colon, which gets sealed in the squatting position and hence generates proper pressure for elimination. This does two things — first, acts as a natural laxative since faeces are eliminated naturally, and second, faeces cannot leak back into the small intestines. In a squatting position, the abdomen presses against the thighs, creating a natural pressure on the organs, such as rectum and colon, to push faeces out. The unnatural sitting position may look comfortable, but it causes many health problems such as constipation, appendicitis and colon...

For example, incidence of colon cancer is high in regions which use western toilets, compared to those where squatting is still prevalent (Mercola, 2012). Indeed, in some cultures with traditional lifestyles, these diseases are uncommon or almost unknown (Mercola, 2012). However, western toilets do have benefits as they are good for people with problems in their knees, and obese people who cannot squat properly.

There is no right or wrong way to sit on the toilet; however, the following steps may help make emptying bowels easier:
- Leaning forward when sitting on the toilet with hands resting on thighs
- Making sure that knees are bent and are higher than hips (it may be helpful to use a footstool if the toilet is high or the person is not very tall)
- Making sure feet are resting on the ground (or on a footstool)
- Trying to breathe to the bottom of the lungs with mouth open to prevent straining and contracting pelvic floor (diaphragmatic breathing)
- Bulging tummy muscle forward, as a deep breath is taken in, and then bracing tummy to prevent it bulging further forwards without tightening tummy
- Relaxing anal sphincter to open bottom and letting the stool out
- Using deep breathing to increase the pressure in the abdomen and pushing down towards the anus.

A maximum of only three trials are recommended for the above and if this does not work, the patient should be advised to get up from the toilet and walk around. It may also help to have a warm/hot drink.

**CONCLUSION**

There are some serious medical conditions that can cause chronic constipation, such as structural lesions of the colon (e.g. colon cancer, colon stricture or narrowing), diabetes, thyroid disorders, Parkinson’s disease, and a medical evaluation is often required. However, for healthy individuals who are looking for safe and effective long-term relief for chronic constipation, help might be found on the grocery’s shelves instead of over-the-counter remedies to get things moving. One of the simplest ways is to drink plenty of fluids every day, eat dietary fibre and exercise. Many food and plant-based fibre products are available to naturally relieve constipation.  

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**KEY POINTS**

- Currently, 6.5 million people in the UK suffer with some form of bowel problem.
- Constipation can normally be treated by making some reasonable adjustments to diet and lifestyle, such as eating a healthy balanced diet with plenty of fibre and taking regular exercise to enable good digestion.
- If suffering for more than three weeks, have blood in the stool, feel pain or lumps in the abdomen, it is advisable for patients to visit a GP.
- Chronic constipation can cause debilitating psychological and physical distress.
- Unwillingness to address the issue of constipation prevents people from seeking effective early treatment, and therefore requiring hospital treatment further down the line.