

Clinical Evidence Handbook

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Constipation in Adults

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Persons with chronic idiopathic constipation can be divided into two main categories: those with difficulty defecating (but with normal bowel motion frequency) and those with a transit abnormality (which can present as infrequent defecation).

- Although there are defined criteria for the diagnosis of constipation, in practice, diagnostic criteria are less rigid and depend in part on the perception of normal bowel habit.
- Constipation is highly prevalent, with approximately 12 million general practitioner prescriptions for laxatives being written in England in 2001.

Increasing fiber intake and exercise may improve the symptoms and prevalence of constipation.

- We have not found sufficient evidence examining the effects of other nondrug interventions, such as increasing fluid intake or performing biofeedback, although biofeedback may be useful for constipation caused by pelvic floor dyssynergia.
- Despite this lack of firm evidence, a number of poorer-quality studies have shown these lifestyle interventions to be potentially beneficial.

Macrogols (polyethylene glycols) improve symptoms of constipation without serious adverse effects.

- Lactitol and lactulose may be equally effective in improving the frequency of bowel movements.
- We found no randomized controlled trials (RCTs) on the effects of magnesium salts, or phosphate or sodium citrate enemas.

The bulk-forming laxative ispaghula husk (psyllium) seems more effective than lactulose at improving overall symptoms of constipation.

Prucalopride and lubiprostone seem to be more effective than placebo at improving

frequency of bowel movements and spontaneous complete bowel movements in persons with chronic constipation.

Although the effectiveness of lubiprostone has been shown in RCTs, we are unsure about its role because of relatively common adverse events.

- We do not know whether other bulk-forming laxatives, such as methylcellulose or sterculia, are effective for improving symptoms of constipation.

We do not know the effectiveness of stimulant laxatives, such as bisacodyl, cascara, docusate, glycerol or glycerine suppositories, or senna.

Although generally considered beneficial, we did not find any evidence examining the use of the fecal softeners paraffin and seed oils or arachis oil for treating constipation.

Definition

Bowel habits and perception of bowel habits vary widely within and among populations, making constipation difficult to define. The Rome III criteria is a standardized tool that diagnoses chronic constipation on the basis of two or more of the following symptoms for at least 12 weeks in the preceding six months: straining at defecation on at least one-fourth of occasions, stools that are lumpy or hard on at least one-fourth of occasions, sensation of incomplete evacuation on at least one-fourth of occasions, and three or fewer bowel movements per week. In practice, however, diagnostic criteria are less rigid and are partly dependent on perception of normal bowel habit. Typically, chronic constipation is diagnosed when a person has bowel actions twice per week or less for two consecutive weeks, especially in the presence of features such as straining at stool, abdominal discomfort, and sensation of incomplete evacuation.

Clinical Questions

What are the effects of nondrug interventions in adults with idiopathic chronic constipation?

Likely to be beneficial	High-fiber diet or advice to consume a high-fiber diet
Unknown effectiveness	Biofeedback Exercise or advice to exercise Increasing fluids or advice to increase fluids

What are the effects of fiber supplements in adults with idiopathic chronic constipation?

Likely to be beneficial	Ispaghula husk (psyllium)
Unknown effectiveness	Methylcellulose Sterculia

What are the effects of paraffin (or similar compounds) in adults with idiopathic chronic constipation?

Unknown effectiveness	Paraffin Seed oils or arachis oil
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What are the effects of osmotic laxatives in adults with idiopathic chronic constipation?

Beneficial	Macrogols (polyethylene glycols)
Likely to be beneficial	Lactitol Lactulose
Unknown effectiveness	Saline laxatives Phosphate enemas Sodium citrate enemas

What are the effects of stimulant laxatives in adults with idiopathic chronic constipation?

Unknown effectiveness	Bisacodyl Cascara Docusate Glycerol or glycerin suppositories Senna
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What are the effects of prostaglandin derivatives in persons with idiopathic chronic constipation?

Likely to be beneficial	Lubiprostone
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What are the effects of 5-hydroxytryptamine 4 receptor agonists in persons with idiopathic chronic constipation?

Likely to be beneficial	Prucalopride
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Population: For the purposes of this review, we included all RCTs stating that all participants had chronic constipation, whether or not this diagnosis was made according to strict Rome III criteria. Where the definitions of constipation in the RCTs differ markedly from those presented here, we have made this difference explicit. In this review, we deal with chronic constipation not caused by a specific underlying disease (sometimes known as idiopathic constipation) in adults older than 18 years, although we have included adults with pelvic floor dyssynergia. We excluded studies in pregnant women and in persons with constipation associated with underlying specific organic diseases such as dehydration, autonomic neuropathy, spinal cord injury, bowel obstruction, irritable bowel syndrome, or paralytic ileus. We excluded persons with Parkinson disease and dementia, persons who were

postoperative, or those who were terminally ill. Persons with opioid-induced constipation were also excluded.

Diagnosis: The diagnosis of constipation is initially based on history. Specific tests available for further investigation include thyroid function tests, calcium concentration, barium enema or colonoscopy, defecation proctography, anorectal manometry, and colon transit time studies.

Incidence and Prevalence

Prevalence data are limited by small samples and problems with definition. One U.K. survey of 731 women found that 8.2 percent had constipation meeting Rome II criteria, and 8.5 percent defined themselves as being constipated. A larger survey (1,892 adults) found that 39 percent of men and 52 percent of women reported straining at stool on more than one-fourth of occasions. Prevalence is increased in older persons. Several surveys from around the world suggest that, in a community setting, prevalence among older persons is about 20 percent.

Etiology and Risk Factors

One systematic review suggests that factors associated with an increased risk of constipation include a low-fiber diet, low fluid intake, reduced mobility, consumption of drugs such as opioids and anticholinergic antidepressants, and Parkinson disease.

Prognosis

Untreated constipation can lead to fecal impaction (with resulting fecal incontinence), particularly in older and confused persons. Constipation has been suggested as a risk factor for hemorrhoids and diverticular disease; however, evidence of causality is lacking.

EDITOR'S NOTE: Prucalopride and sterculia are not available in the United States.

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