

## ASK THE EXPERT

**Question:** *What are the common treatments for diarrhea?*

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Chronic diarrhea may be the result of many different conditions. Although diarrhea decreases quality of life, most affected individuals have mild symptoms that are not dangerous. These individuals are advised to see a clinician for a routine evaluation. If this evaluation does not reveal any diagnoses, then it is reasonable to take a "watch and wait" approach and use other symptomatic therapies that may be beneficial or at least will do no harm. However, if the diarrhea becomes aggravated in severity or is associated with other clinical effects (such as blood or fat in the stool, weight loss, dehydration, vomiting, fever, changes in serum electrolytes, incontinence, diarrhea with severe pain or vomiting), then a further evaluation by a clinician is important in order to identify conditions that require specific therapies.

First, *dietary modifications* can help improve symptoms (lessen the diarrhea). Smaller, more frequent meals may be easier to digest and reduce the rate of nutrient exposure to the gut. Reduced carbohydrate intake decreases gas production and reduced fat intake decreases gas retention and bloating. Sorbitol (a sweetener found in sugar-free gum and candies) is an indigestible sugar that should be avoided. Individuals with lactose malabsorption should decrease milk intake and foods with "hidden lactose." But, it should be noted that most of these individuals can tolerate between 1 and 2 cups of milk/day. Prehydrolyzed milk (Lactaid) confers no benefit for treating diarrhea and there is limited evidence to support the use of lactase supplements (e.g. Lactrase, LactAce, Dairy Ease, Lactrol).

Among over-the-counter treatments, *bulking agents* (e.g., psyllium) and adsorbents (e.g., charcoal, kaolin plus pectin) are commonly recommended by clinicians, there is no good evidence to support their use in chronic diarrhea. *Bismuth subsalicylate* (i.e., Pepto-Bismol) has been proven to be effective in children with chronic diarrhea and for adults with microscopic colitis.

Clinical experience suggests that *opioids* and *opioid agonists* are the most effective prescription medications for treatment of chronic diarrhea. Loperamide (Immodium) is a peripherally acting opioid that is recommended as first line therapy. It does not produce sedation, it is not addictive, and it is safe to use during pregnancy and lactation. This medication can be taken as needed, usually 1-2 mg after each bowel movement, up to 16 mg/day. Other opiates such as diphenoxylate-atropine (Lomotil) are effective, but they can be habit forming and associated with a number of side effects such as sedation, dizziness and dry mouth. Codeine and other opiates should be reserved for more refractory cases of diarrhea.

There are also several *medications* available for treatment of chronic diarrhea. *Clonidine* has antisecretory and antimotility effects and has been proven to be useful in the treatment of diabetic diarrhea and moderate and severe diarrhea-predominant irritable bowel syndrome (IBS). *Somatostatin* is used to treat refractory diarrhea caused by various etiologies including AIDS, post chemotherapy, graft versus host disease (GVHD), and hormone secreting tumors. *Alosetron* is a serotonin (5HT<sub>3</sub>) receptor antagonist useful for treating diarrhea in IBS. However, because of the risk for constipation and, rarely, ischemic colitis its use is reserved for severe cases. *Bile acid binders* (e.g. Cholestyramine) can be empirically used in patients with a history of ileal resection, cholecystectomy, or vagotomy. Similarly, *pancreatic enzyme supplements* can be used empirically for individuals with suspected pancreatic insufficiency. Finally, antimicrobials are used to treat small bowel bacterial overgrowth syndrome (SBBO) and documented bacterial and parasitic infections. In summary, individuals with chronic diarrhea should be evaluated by a clinician. If the clinician detects no evidence of a dangerous underlying condition, it is reasonable to avoid a more extensive workup and to initiate non-specific therapies, such as dietary modifications and certain anti-diarrheal medications. Most individuals should respond to these measures. Those who do not get adequate relief from their diarrhea through these measures should be re-evaluated by a clinician, to see if a different diagnosis can be made and more directed therapies can be instituted.