

ANTIDIARRHOEAL DRUGS

Diarrhoea is an increase in the fluidity and frequency of bowel movements. In some cases diarrhoea protects the body from harmful substances in the intestine by hastening their removal. The most common causes are viral infection, food poisoning, and parasites. But it also occurs as a symptom of other illnesses. It can be a side effect of some drugs and may follow radiation therapy for cancer. Diarrhoea may also be caused by anxiety.

An attack of diarrhoea usually clears up quickly without medical attention. The best treatment is to abstain from food and to drink plenty of clear fluids. Rehydration solutions containing sugar as well as potassium and sodium salts are widely recommended for preventing dehydration and chemical imbalances, particularly in children. You should consult your doctor if: the condition does not improve within 48 hours; the diarrhoea contains blood; severe abdominal pain and vomiting are present; you have just returned from a foreign country; or if the diarrhoea occurs in a small child or an elderly person.

Severe diarrhoea can impair absorption of drugs, and anyone taking a prescribed drug should seek advice from a doctor or pharmacist. A woman taking oral contraceptives may need additional contraceptive measures (see p.121).

The main types of drugs used to relieve nonspecific diarrhoea are opioids, and bulk-forming and adsorbent agents. Antispasmodic drugs may also be used to relieve accompanying pain (see Drugs for irritable bowel syndrome, below).

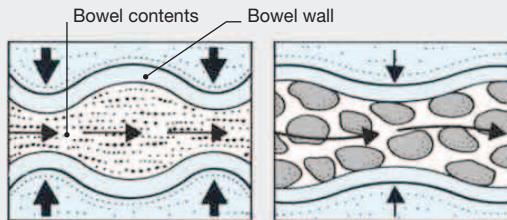
Why they are used

An antidiarrhoeal drug may be prescribed to provide relief when simple remedies are not effective, and once it is certain the diarrhoea is neither infectious nor toxic.

Opioid drugs are the most effective antidiarrhoeals. They are used when the diarrhoea is severe and debilitating. The bulking and adsorbent agents have

ACTION OF ANTIDIARRHOEAL DRUGS

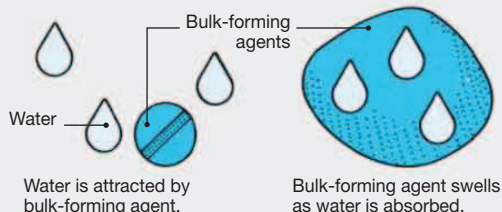
Opioid antidiarrhoeals
These drugs reduce the transmission of nerve signals to the intestinal muscles, thus reducing muscle contraction. This allows more time for water to be absorbed from the food residue and therefore reduces the fluidity as well as the frequency of bowel movements.



Before drug
Rapid bowel contraction prevents water from being absorbed.

After drug
Slowed bowel action allows more water to be absorbed.

Bulk-forming agents
These preparations contain particles that swell up as they absorb water from the large intestine. This makes the faeces firmer and less fluid. It is thought that bulk-forming agents may absorb irritants and harmful chemicals along with excess water.



Water is attracted by bulk-forming agent.

Bulk-forming agent swells as water is absorbed.

a milder effect and are often used when it is necessary to regulate bowel action over a prolonged period – for example, in people with colostomies or ileostomies.

How they work

Opioids decrease the muscles' propulsive activity so that faecal matter passes more slowly through the bowel.

Bulk-forming agents and adsorbents absorb water and irritants present in the bowel, thereby producing larger and firmer stools at less frequent intervals.

How they affect you

Drugs that are used to treat diarrhoea reduce the urge to move the bowels. Opioids and antispasmodics may relieve

abdominal pain. All antidiarrhoeals may cause constipation if used in excess.

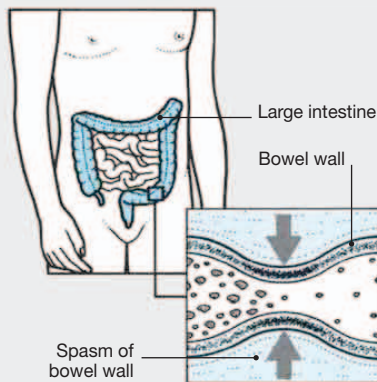
Risks and special precautions

Used in relatively low doses for a limited period of time, the opioid drugs are unlikely to produce adverse effects. However, these drugs are not recommended for acute diarrhoea in children and should be used with caution when diarrhoea is caused by an infection, since they may slow the elimination of microorganisms from the intestine. All antidiarrhoeals should be taken with plenty of water. It is important not to take a bulk-forming agent together with an opioid or antispasmodic drug, because a bulky mass could form and obstruct the bowel.

DRUGS FOR IRRITABLE BOWEL SYNDROME

Irritable bowel syndrome is a common stress-related condition in which the normal coordinated waves of muscular contraction responsible for moving the bowel contents smoothly through the intestines become strong and irregular, often causing pain, and associated with diarrhoea or constipation.

Symptoms are often relieved by adjusting the amount of fibre in the diet, although medication may also be required. Bulk forming agents may be given to regulate the consistency of the bowel contents. If pain is severe, an antispasmodic drug may be prescribed. These anticholinergic drugs reduce the transmission of nerve signals to the bowel wall, thus preventing spasm. Tricyclic antidepressants are sometimes used because their anticholinergic action has a calming effect on the bowel.



COMMON DRUGS

Antispasmodics

Alverine
Atropine *
Dicycloverine
(dicyclomine) *
Hyoscine *
Mebeverine *
Peppermint oil
Proprantheline

Opioids

Codeine *
Co-phenotrope *
Loperamide *
Morphine/
diamorphine *

Antibacterials

Ciprofloxacin *

Bulk-forming agents and adsorbents

Ispaghula
Kaolin
Methylcellulose *
Sterculia

Other drugs

Aluminium
hydroxide *
Colestyramine *

* See Part 3