CONDITION

Drug-induced diarrhea

Drug-induced diarrhea is loose or frequent stool caused by a medicine or supplement.

WHAT IT IS
Diarrhea caused by a medicine or supplement

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Loose stools, urgency, cramps, frequent bowel movements

WHAT CAUSES IT
Medication effects, altered gut bacteria, or bowel inflammation

HOW IT IS DIAGNOSED
Medication review, stool tests, and blood tests when needed

MAIN TREATMENT
Medicine adjustment, fluids, and treatment of specific causes

CAN IT BE CURED?
Sometimes - often resolves after medicine adjustment

IS IT AN EMERGENCY?
Sometimes - severe dehydration, bloody stool, or intense pain

LONG-TERM OUTLOOK
Usually short-lived; persistent inflammation may need treatment

Overview

Drug-induced diarrhea means that a medicine, vitamin, mineral, herbal product, or other supplement is causing loose or unusually frequent bowel movements. It may begin after starting a product, changing the dose, or taking the same medicine for months.

Some medicines draw water into the bowel or make it move faster. Others irritate the bowel lining, alter gut bacteria, or trigger inflammation. Antibiotics like amoxicillin or doxycycline can also allow Clostridioides difficile , or C. diff , to grow and produce toxins in the colon.

Symptoms are often mild and improve after the responsible product is changed or stopped. However, ongoing diarrhea can cause dehydration, disturb salts such as sodium and potassium, and affect the absorption of other medicines. Severe bowel inflammation and C. diff infection require specific treatment.

Do not stop an important prescription medicine on your own. Some medicines must be reduced gradually, and stopping them may be more harmful than the diarrhea. Ask a clinician or pharmacist for advice.

Symptoms

The main symptom is stool that is looser or more watery than usual. You may also pass stool more often or struggle to reach a toilet in time.

Other symptoms may include:

Symptoms may develop within hours or days, or after weeks or months. Antibiotic-associated diarrhea can begin during treatment or after the course has ended.

Blood in the stool, fever, significant abdominal pain, or repeated watery diarrhea may indicate infection or inflammation and need prompt assessment.

Signs of dehydration include a dry mouth, strong thirst, dark or reduced urine, dizziness, weakness, and unusual sleepiness. Older adults, young children, and people with kidney or heart conditions may become dehydrated more quickly.

- Abdominal cramps or bloating
- Nausea or reduced appetite
- Sudden urgency
- Excess gas
- Mucus in the stool
- Soreness around the anus

Causes and risk factors

Many medicines can cause diarrhea, including:

Different medicines cause diarrhea in different ways. Magnesium salts and some laxatives hold water in the intestine. Orlistat leaves more fat in the stool, causing oily leakage or urgency.

Antibiotics alter normal bowel bacteria. Mild antibiotic-associated diarrhea is common, but some cases are caused by C. diff . Risk is higher after healthcare exposure, repeated antibiotic use, or a previous C. diff infection.

Some medicines, including certain acid-reducing medicines, NSAIDs, and antidepressants, have been linked to microscopic colitis. This colon inflammation is detected through tissue

samples. Immune checkpoint inhibitors used for cancer can cause serious immune-related colitis and symptoms should be reported promptly to the cancer team.

Risk may be higher if you take several medicines or supplements, recently changed a dose, have an existing bowel condition, or are vulnerable to dehydration. Sugar alcohols such as sorbitol in liquid or chewable products can also loosen stool.

- Antibiotics
- Metformin and some other diabetes medicines
- Magnesium-containing antacids or supplements
- Laxatives
- Proton pump inhibitors
- Nonsteroidal anti-inflammatory drugs like ibuprofen or naproxen , or NSAIDs
- Some antidepressants like sertraline or fluoxetine
- Colchicine
- Cancer treatments
- Medicines that suppress or alter immune activity
- Orlistat and other products that reduce fat absorption

Diagnosis

There is no single test for every case. Diagnosis usually begins with symptom timing and a review of everything you take, including prescriptions, nonprescription products, laxatives, vitamins, minerals, herbal products, weight-loss products, and recently completed medicines. Note when each was started, stopped, or changed.

A clinician may ask about stool frequency and appearance, recent antibiotics, travel, food exposure, hospital care, weight loss, fever, pain, and blood. They may check for dehydration and abdominal tenderness.

Testing may not be needed for mild, short-lived symptoms. Severe, persistent, or bloody diarrhea, or diarrhea after antibiotics, may require:

A colonoscopy may be considered if symptoms persist or inflammation is suspected. Biopsies may be needed to diagnose microscopic colitis even if the colon looks normal.

Improvement after changing a suspected medicine supports the diagnosis. Do not restart a medicine simply to see whether symptoms return unless a specialist considers it necessary

and safe.

- Stool tests for infection, including C. diff
- Blood tests for dehydration, anemia, inflammation, and salt imbalance
- Kidney function tests
- Tests for other causes, such as coeliac disease

Treatment and management

Treatment depends on the medicine, symptom severity, and whether infection or inflammation is present.

A clinician may stop the suspected product, lower its dose, change when it is taken, or prescribe an alternative. This must be balanced against why the medicine is needed.

Replace lost fluid. Water may be enough for mild diarrhea, while an oral rehydration solution can better replace water and salts when diarrhea is frequent or dehydration has begun.

Smaller, easily tolerated meals may help. A highly restrictive diet is usually unnecessary. Alcohol, large fatty meals, caffeine, and sugar alcohols can worsen symptoms.

Antidiarrheal medicines are not suitable for everyone. Do not use them without medical advice if there is blood in the stool, fever, suspected C. diff , or significant bowel inflammation. They may mask worsening symptoms or slow the removal of infectious material.

Confirmed C. diff usually requires a specific antibiotic and a review of contributing medicines. Severe dehydration may require intravenous fluids. Microscopic colitis or immune-related colitis may require anti-inflammatory or immune-suppressing treatment under medical supervision.

Evidence for probiotics is mixed. They do not replace assessment for severe or persistent symptoms.

Complications

The main complication is dehydration. Fluid loss can also lower sodium, potassium, and other salts needed for normal muscle, nerve, kidney, and heart function.

Frequent diarrhea may cause weight loss, poor nutrition, skin irritation, and disruption to daily activities. It can also alter the absorption of other medicines.

Severe C. diff infection can cause marked colon inflammation and swelling. Immune-related

colitis can also become severe without treatment.

Persistent diarrhea should not automatically be blamed on medicine. Infection, coeliac disease, inflammatory bowel disease, thyroid conditions, and problems absorbing food can cause similar symptoms.

Prevention

Drug-induced diarrhea cannot always be prevented, even when a medicine is used correctly.

Take medicines only as directed and avoid unnecessary laxatives or magnesium-containing products. Tell your clinician or pharmacist about all supplements and nonprescription products so they can check for overlapping side effects.

Do not use leftover antibiotics or take antibiotics for illnesses they cannot treat. Appropriate antibiotic use reduces disruption of bowel bacteria and limits C. diff risk.

If a medicine has caused significant diarrhea before, make sure this is recorded in your medication history. Before starting a new product, ask whether diarrhea is a known side effect and which symptoms require medical advice.

Living with it and what to expect

Mild diarrhea often improves within days after a medicine is adjusted or the body becomes accustomed to it. The course depends on the medicine and its effect on the bowel.

Antibiotic-associated symptoms may continue briefly after treatment. C. diff requires specific treatment and can sometimes return after improving.

Microscopic colitis may improve and recur over months or years. Removing a possible trigger may help, but some people need additional treatment.

If the responsible medicine is essential, the goal may be a tolerable dose, different formulation, or alternative treatment. A short record of bowel movements, meals, and medication timing can help identify patterns.

Most people return to usual activities once the cause is addressed and hydration is restored. Persistent symptoms need reassessment rather than repeated self-treatment.

When to get medical help

Arrange medical advice if diarrhea began after starting or changing a medicine, lasts more than

a few days, keeps returning, or interferes with eating, sleep, work, or usual activities. Contact the cancer team promptly if symptoms occur during immunotherapy.

Seek urgent medical care for:

Call emergency services for collapse, severe confusion, difficulty waking, or other signs of severe dehydration or circulatory problems.

Children, older adults, pregnant people, and those with kidney disease, heart disease, weakened immunity, or serious ongoing illness may need earlier assessment.

- Blood or black, tar-like stool
- Fever with frequent diarrhea
- Severe or increasing abdominal pain
- Repeated vomiting or inability to keep fluids down
- Very little urine, marked dizziness, confusion, or fainting
- A swollen abdomen with severe pain
- Frequent watery diarrhea during or after antibiotic treatment

Common questions

How long does drug-induced diarrhea last?

Mild symptoms may settle within a few days after the responsible medicine is changed or stopped. Infection or bowel inflammation can last longer and may need specific treatment.

Should I stop taking the medicine that is causing diarrhea?

Do not stop a prescription medicine without checking with its prescriber or a pharmacist. Some medicines must be reduced gradually or are essential. Seek prompt care for severe symptoms or warning signs.

Can antibiotics cause diarrhea after I finish taking them?

Yes. It can begin during or after treatment. Frequent watery diarrhea, fever, abdominal pain, or blood in the stool after antibiotics should be assessed for possible C. diff .

Can metformin diarrhea start after years of taking it?

Yes. Although it often begins when metformin is started or increased, delayed symptoms can occur. New or persistent diarrhea should still be assessed for other causes.

Is it safe to take an antidiarrheal medicine?

It may be suitable for some mild cases. Avoid self-treatment and seek advice if you have fever,

bloody stool, severe pain, recent antibiotic use, or possible bowel inflammation.

How can I tell whether diarrhea is from a medicine or an illness?

Timing may provide a clue, but symptoms alone may not identify the cause. A medication review, examination, and sometimes stool or blood tests can distinguish a side effect from infection or another condition.

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