CONDITION

Diclofenac sodium overdose

Diclofenac sodium overdose happens when someone takes more diclofenac than their body can safely handle.

WHAT IT IS
Harmful exposure to too much diclofenac sodium

BODY SYSTEM
Stomach, kidneys, liver, brain, and circulation

MAIN SYMPTOMS
Nausea, vomiting, stomach pain, drowsiness

WHAT CAUSES IT
Taking more diclofenac than the body can safely handle

HOW IT IS DIAGNOSED
Medication history, examination, and blood and urine tests

MAIN TREATMENT
Urgent supportive care and symptom monitoring

CAN IT BE CURED?
Yes - most recover with prompt care

IS IT AN EMERGENCY?
Yes - any suspected overdose needs urgent advice

LONG-TERM OUTLOOK
Most recover; severe organ injury may cause lasting harm

Overview

Diclofenac sodium overdose happens when someone takes more diclofenac than their body can safely process. It may follow one large dose, several extra doses over time, or accidental swallowing of a diclofenac product.

Diclofenac is a non-steroidal anti-inflammatory drug like ibuprofen or naproxen , or NSAID. It reduces pain and inflammation. It is available in several forms, including standard, delayed-release, and extended-release tablets. Some products are applied to the skin, but swallowing them can also be harmful.

Too much diclofenac can irritate the stomach and intestines. It can also reduce blood flow through the kidneys and, in severe cases, affect the liver, brain, breathing, and circulation.

There is no reliable way to judge safety from symptoms alone. Someone may initially feel well, especially after taking a delayed-release or extended-release product. Any suspected overdose needs prompt advice from a poison centre or emergency medical service.

Symptoms

Symptoms may begin within several hours, but their timing depends on the product, amount taken, and whether other substances were involved.

Common early symptoms include:

Stomach or intestinal bleeding can cause vomit containing blood or material that looks like coffee grounds. Stools may become black and sticky. Bleeding is more likely to be serious in someone with a previous ulcer or gastrointestinal bleed.

Kidney injury may cause much less urine than usual, swelling, unusual tiredness, or shortness of breath. However, early kidney injury may only be found through blood and urine tests.

Severe poisoning is uncommon but may cause confusion, agitation, seizures, very slow or difficult breathing, low blood pressure, collapse, or loss of consciousness. Liver injury can cause worsening nausea, pain under the right ribs, dark urine, pale stools, or yellowing of the skin or eyes. These liver symptoms may not appear immediately.

- Nausea or vomiting
- Pain, burning, or discomfort in the upper abdomen
- Drowsiness, dizziness, or headache
- Ringing in the ears

Causes and risk factors

An overdose may happen when someone:

The seriousness of an overdose cannot be predicted by tablet count alone. The person's weight, age, health, product type, time since exposure, and other substances taken all matter.

The risk of complications may be greater in people who are dehydrated or already have kidney disease, liver disease, heart failure, a stomach ulcer, or a history of intestinal bleeding. Older adults and people taking blood thinners like warfarin or apixaban may also be more vulnerable to bleeding or kidney problems.

Alcohol may increase stomach irritation and bleeding risk. Other medicines taken at the same

time can change the symptoms or treatment needed. This includes other pain relievers, sleep medicines, antidepressants like sertraline or fluoxetine , and combination products.

- Takes several doses too close together
- Confuses different tablet strengths or formulations
- Uses more than one medicine containing diclofenac
- Combines diclofenac with another NSAID
- Accidentally swallows medication, including a topical product
- Takes diclofenac intentionally to cause harm

Diagnosis

There is no routine blood test that directly confirms a diclofenac overdose or accurately predicts its severity. Diagnosis is based mainly on what was taken, the likely amount, when it was taken, symptoms, and examination findings.

If possible, healthcare staff will identify the product strength and whether it was standard, delayed-release, or extended-release. They may ask about missing tablets and any alcohol, medicines, or recreational drugs that could also have been taken.

Blood tests may check:

A urine test can help assess kidney function and hydration. Heart monitoring or an electrocardiogram, known as an ECG, may be used when symptoms are severe or another substance may be involved.

Some people need observation and repeat blood tests because kidney or liver problems can develop after the first assessment.

- Kidney function and body salts, called electrolytes
- Liver function
- Red blood cell levels if bleeding is possible
- Blood acidity in someone who is seriously unwell

Treatment and management

There is no specific antidote that reverses diclofenac poisoning. Treatment supports the body while the medicine is cleared and addresses complications if they occur.

Do not make the person vomit. Do not give food, milk, antacids, or activated charcoal unless a poison specialist or healthcare professional directs you to do so. These steps do not reliably neutralise diclofenac and may create additional risks.

In hospital, treatment may include monitoring of breathing, heart rate, blood pressure, urine output, and mental alertness. Fluids may be given through a vein if the person is dehydrated or has low blood pressure. Medicines can be used to control vomiting, reduce stomach irritation, or treat seizures.

Activated charcoal may be considered soon after a potentially harmful ingestion. It binds some medicine in the digestive tract. It is only suitable in selected situations, especially when the person can safely swallow and protect their airway.

Bleeding may require medicines, blood transfusion, or an endoscopy. An endoscopy uses a flexible camera to examine the upper digestive tract.

People with significant kidney or liver injury need specialist care. Dialysis may support someone whose kidneys have failed, but it does not remove diclofenac efficiently because most diclofenac is tightly attached to proteins in the blood.

After discharge, repeat kidney or liver blood tests may be needed. Diclofenac should not be restarted unless a healthcare professional confirms that it is safe to do so.

Complications

Possible complications include inflammation, ulcers, or bleeding in the stomach and intestines. A major bleed can cause weakness, fainting, low blood pressure, or anaemia, meaning too few healthy red blood cells.

Acute kidney injury is a sudden decline in kidney function. It is often reversible with prompt care, but severe injury may require temporary dialysis and can occasionally leave lasting damage.

Liver inflammation or liver failure can occur, although this is less common. Severe poisoning may also lead to seizures, breathing problems, coma, abnormal blood acidity, or circulatory collapse.

Complications are more likely after a large exposure, delayed treatment, dehydration, or an overdose involving several substances.

Prevention

Diclofenac overdose can often be prevented, although not every medication error is avoidable.

Keep diclofenac in its original labelled package. Store it away from children and from anyone who could take it accidentally. Do not transfer tablets into an unmarked container.

Check the active ingredients of pain and cold medicines. Diclofenac should not usually be combined with another NSAID, such as ibuprofen or naproxen, unless a healthcare professional has specifically advised this.

Use a medication list, pill organiser, or dose-tracking reminder if missed or repeated doses are a concern. Ask a pharmacist before switching between standard, delayed-release, and extended-release products because they are not necessarily used in the same way.

If there is a risk of intentional overdose, reducing access to large quantities of medicine can be part of a safety plan. Emotional and mental health support is also important.

Living with it and what to expect

A diclofenac overdose is a single poisoning event rather than an ongoing condition. Many people who receive timely assessment and have no organ injury recover after observation or a short period of treatment.

Mild nausea, stomach discomfort, or tiredness may settle as the medicine leaves the body. More serious kidney, liver, or digestive tract injury can take days or weeks to improve. Follow-up may include repeat blood tests and review of pain treatment.

Most people do not have lasting effects after a mild overdose. Severe kidney injury, liver injury, or major bleeding can lead to a longer recovery and, occasionally, ongoing health problems.

Routine follow-up is important if you were told to have repeat tests, if symptoms continue, or if the overdose happened because medicine instructions were confusing. An intentional overdose also deserves confidential mental health support, even when the physical effects have resolved.

When to get medical help

Get urgent poison advice immediately after any suspected diclofenac overdose. Do not wait for symptoms. Contact your local poison centre or emergency medical service. In the United States, Poison Control can be reached at 1-800-222-1222.

Call emergency services now if the person:

Do not leave an unconscious or severely drowsy person alone. If they are breathing, place them

on their side while waiting for help. Do not give anything by mouth.

Take the medication packet or container to the hospital if it is safe to do so. Note the likely time taken, the number of missing tablets, and any other substances involved. Do not delay emergency care while trying to collect this information.

- Is unconscious, difficult to wake, or severely confused
- Has a seizure, collapses, or cannot stand safely
- Has trouble breathing
- Vomits blood or passes black, sticky stools
- Has severe or worsening abdominal pain
- Produces very little or no urine
- Took diclofenac intentionally to cause harm

Common questions

How much diclofenac causes an overdose?

There is no single amount that is safe for everyone or guaranteed to cause poisoning. Risk is affected by body size, health conditions, formulation, timing, and other medicines. A poison centre can assess the specific exposure without relying on symptoms alone.

What if I accidentally took one extra dose?

An extra dose does not always cause serious harm, but it still deserves individual advice. Check the package, avoid taking more diclofenac or another NSAID, and contact a pharmacist or poison centre promptly. Seek emergency help if symptoms are severe.

How soon do overdose symptoms start?

Many symptoms begin within several hours. Delayed-release and extended-release products may take longer to cause symptoms. Kidney or liver changes can also appear later, which is why observation or repeat testing may be recommended.

Can I sleep after taking too much diclofenac?

Do not simply go to sleep without getting poison advice. Drowsiness may be a symptom, and someone who becomes difficult to wake needs emergency care. A poison specialist can advise whether home monitoring or hospital assessment is appropriate.

Can drinking water or milk flush diclofenac out?

No. Water or milk does not neutralise diclofenac or reliably prevent injury. Drinking a large

amount may also worsen vomiting. Follow instructions from a poison centre or emergency healthcare team instead.

Will a diclofenac overdose cause permanent damage?

Most people recover without permanent damage, particularly after prompt assessment and supportive care. Severe kidney failure, liver injury, major bleeding, or lack of oxygen can cause lasting problems, but these outcomes are not inevitable.

Sources

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