HEALTH BASICS

Dirt - swallowing

Swallowing dirt means accidentally or intentionally eating soil, clay, sand, or similar material.

WHAT IT IS
Taking soil or earth into the mouth and swallowing it

WHERE IT COMES UP
Accidental exposure, childhood mouthing, or repeated soil eating

WHY IT MATTERS
Possible exposure to germs, toxins, or choking hazards

WHAT IT IS NOT
Not a disease or diagnosis

WHO TO ASK
Poison control, primary care, or a pediatric service

HOW IT IS CHECKED
Exposure history and targeted blood, stool, or imaging tests

Overview

Dirt swallowing means taking soil, clay, sand, compost, or similar material into the mouth and swallowing it. It may happen accidentally, especially when young children play outdoors. It can also happen after a fall, during gardening, or when soil gets onto food or hands.

A small, one-time amount of ordinary soil often passes through the digestive system without causing a serious problem. The risk depends on what was swallowed, how much, where it came from, and whether it contained chemicals, animal waste, sharp material, or other contaminants.

Repeatedly eating soil is called geophagia . It can be a form of pica , which is persistent eating of items that are not food. Pica is a diagnosis, but swallowing dirt once is not. Repeated soil eating may be connected with iron deficiency, pregnancy, developmental differences, mental health conditions, cultural practices, or difficulty accessing suitable food.

How it works

After dirt is swallowed, it moves through the stomach and intestines. Most solid particles that cannot be digested leave the body in stool. Stomach acid kills some germs, but it does not

make contaminated soil completely safe.

What happens next depends on the contents of the dirt. Soil may contain bacteria, parasite eggs, lead or other metals, pesticides, fertilizers, pieces of glass, or animal feces. Potting mix and compost can contain different materials from ordinary garden soil.

Some contaminants can be absorbed into the bloodstream. Lead is one example. Lead exposure may occur when contaminated soil or dust is repeatedly swallowed, particularly in young children who often put their hands or objects in their mouths.

Parasite eggs may also be swallowed from soil contaminated by animal or human feces. For example, toxocariasis is an infection caused by roundworms commonly associated with dogs and cats. Risk differs by location, sanitation, animal access, and soil treatment.

Large amounts of clay or soil can sometimes collect in the digestive tract. This may contribute to constipation or, less commonly, a blockage. A stone, stick, glass fragment, or other solid object can cause a separate choking or injury risk.

Why it matters for your health

The main concern is not the dirt itself, but what may be mixed into it.

Ordinary outdoor soil may have been exposed to old paint, industrial pollution, vehicle emissions, animal feces, or chemicals used on gardens and lawns. Soil near older buildings may contain lead from past use of lead-based paint. Contamination cannot always be seen, smelled, or tasted.

The amount and pattern of exposure matter. A brief accidental taste is different from repeatedly swallowing handfuls of soil. Repeated exposure gives substances such as lead more opportunity to build up in the body.

Age and health also affect risk. Young children are more likely to experience choking and may be more vulnerable to lead's effects on the developing brain. Someone who is pregnant, has a weakened immune system, or has ongoing digestive problems may need more individualized advice.

Regular cravings for dirt also matter because they can point to an unmet health need. Iron deficiency is one possible association, but it should not be assumed without testing. Dirt is not a safe iron treatment and may interfere with nutrition or expose you to contaminants.

What can go wrong

Possible conditions or situations related to dirt swallowing include:

These outcomes are not expected after every exposure. The source and amount of dirt are important. Commercial potting mix, chemically treated soil, soil from a contaminated worksite, and dirt containing animal waste deserve more caution than a tiny amount of ordinary soil.

- Choking or airway blockage: A clump of dirt, stone, or other object may block breathing.
- Chemical poisoning: Soil may contain pesticide, fertilizer, fuel, cleaning products, or industrial chemicals.
- Lead exposure: Repeatedly swallowing contaminated soil or dust can raise blood lead levels.
- Parasitic infection: Soil contaminated with feces may carry roundworm or other parasite eggs.
- Digestive blockage: Large or repeated amounts of soil or clay can contribute to severe constipation or intestinal obstruction.
- Cuts or internal injury: Glass, metal, thorns, or sharp stones may injure the mouth or digestive tract.
- Pica: Persistent, developmentally inappropriate soil eating may be part of this eating disorder.
- Iron deficiency: Repeated dirt cravings can occur alongside low iron, although testing is needed to establish this.

What you can do

After a small accidental exposure, remove any remaining dirt from the mouth and rinse the mouth with water. Small sips of water are reasonable if the person is awake and swallowing normally.

Do not make someone vomit. Vomiting can cause choking and does not reliably remove a harmful substance.

Record what happened. Useful details include:

Contact a poison control service promptly if the soil may contain chemicals, lead, an unknown substance, or a large amount of fertilizer. In the United States, Poison Control can be reached at 1-800-222-1222. Elsewhere, use your local poison information service.

Seek emergency help for trouble breathing, choking, collapse, a seizure, severe confusion, or inability to wake. Do not wait for a poison control call if breathing is affected.

Arrange urgent medical assessment for severe or increasing abdominal pain, repeated vomiting, blood in vomit or stool, marked difficulty swallowing, or possible swallowing of glass or another sharp object. Persistent diarrhea or fever after exposure to soil contaminated with feces also needs medical advice.

Routine follow-up is appropriate when dirt swallowing is repeated, intentional, or linked with strong cravings. A primary care or pediatric clinician can review the pattern and decide whether testing is useful. Possible tests include a blood lead level, a blood count and iron studies, or tests for infection based on the exposure and any health effects. There is no single test that checks for every possible soil contaminant.

- The time and estimated amount swallowed
- Where the dirt came from
- Whether fertilizer, pesticide, fuel, paint debris, or animal waste was present
- Any packaging or product name
- Any stones, glass, metal, or other objects that may have been swallowed

Common questions

Is swallowing a little dirt always dangerous?

No. A small accidental amount of ordinary soil often causes no serious harm. Greater concern is warranted when the amount is large or the soil may contain chemicals, lead, animal feces, or sharp objects.

Should I request a parasite test?

Not after every exposure. Testing is usually considered according to the location, amount, repeated exposure, contact with animal feces, travel history, and later health concerns. Ask a clinician whether a blood or stool test would answer a specific concern.

What if a child keeps eating dirt?

Keep a record of when and where it happens, how much is eaten, and whether the child also eats other non-food items. Arrange routine pediatric follow-up. Ask whether lead exposure, iron deficiency, nutrition, development, or pica should be assessed.

Does a dirt craving mean iron is low?

Not necessarily. Dirt cravings can occur with iron deficiency, but they can have other explanations. A blood test is needed to check iron status. Do not start high-dose iron solely because of a craving.

Is houseplant soil safer than outdoor soil?

Not automatically. Potting mix may contain fertilizer, compost, moisture-retaining materials, or other additives. Keep the package if available and contact poison control if more than a small amount was swallowed or the ingredients are concerning.

Can soil be made safe to eat by baking or washing it?

No home method can reliably remove metals, chemicals, sharp fragments, or every infectious organism. Soil should not be treated as food.

Sources

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