CONDITION

Intussusception - children

Intussusception happens when one part of a child's bowel slides into another, causing a blockage.

WHAT IT IS
Bowel folding into itself and causing blockage

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Cramping belly pain, vomiting, lethargy, bloody mucus stool

WHAT CAUSES IT
Usually unknown; sometimes a bowel abnormality

HOW IT IS DIAGNOSED
Abdominal ultrasound, sometimes air or contrast enema

MAIN TREATMENT
Air enema or surgery, with supportive hospital care

CAN IT BE CURED?
Yes - prompt reduction usually corrects blockage

IS IT AN EMERGENCY?
Yes - suspected symptoms need immediate assessment

LONG-TERM OUTLOOK
Most children recover fully after prompt treatment

Overview

Intussusception happens when one section of the bowel slides inside the section next to it. It is sometimes described as the bowel "telescoping" into itself.

This blocks food, fluid, and gas from moving normally through the bowel. It can also squeeze the blood vessels supplying the affected area. Without treatment, the bowel may become injured or develop a hole, called a perforation.

Intussusception most often affects babies and young children, although it can occur at any age. It usually involves the end of the small bowel sliding into the large bowel.

This condition needs urgent hospital assessment. Treatment is often successful, particularly before the bowel has been damaged.

Symptoms

Symptoms may begin suddenly. Pain often comes in waves because the bowel repeatedly contracts against the blockage.

During an episode, a baby or young child may:

The painful episodes may become more frequent or last longer as the blockage continues.

Other possible symptoms include vomiting, a swollen or tender belly, reduced feeding, and unusual tiredness. Vomit may become green if it contains bile, a digestive fluid. Green vomit in a child needs immediate medical assessment.

Some children become very sleepy, floppy, weak, or less responsive. In a baby, marked lethargy may be the main sign even when obvious pain is not seen.

Blood and mucus may pass from the bottom, sometimes producing a dark red, jelly-like stool traditionally called a "red currant jelly" stool. This can be a later sign. Waiting for blood to appear can delay treatment.

Not every child has the full group of pain, vomiting, and bloody stool. A child may also continue to pass normal-looking stool early in the condition.

- Cry suddenly and be difficult to comfort
- Pull their knees toward their chest
- Become pale, sweaty, or distressed
- Settle between episodes, sometimes appearing almost well

Causes and risk factors

In many young children, no single cause is found. The bowel may telescope after lymph tissue in its wall becomes enlarged, sometimes during or after a viral infection.

Less often, an abnormal area inside or beside the bowel acts as a "lead point" that pulls one section inward. Examples include a bowel polyp, a small pouch called a Meckel diverticulum, or another structural abnormality. A lead point is more likely to be considered in an older child or when intussusception returns repeatedly.

Intussusception can occasionally happen after abdominal surgery.

Rotavirus vaccination has been associated with a small increased risk of intussusception, mainly during the first week after the first or second dose. The overall risk is low, and rotavirus vaccination protects children from a potentially serious diarrhoeal infection. Seek urgent care

if concerning symptoms develop after vaccination, but do not assume that common brief crying or mild stomach upset means a child has intussusception.

Having had intussusception before increases the chance that it can happen again.

Diagnosis

A clinician will ask how the symptoms began and whether they come and go. They will examine the child's abdomen and assess hydration, alertness, circulation, and signs of bowel irritation.

An abdominal ultrasound is usually the main test. Sound waves create pictures of the bowel without using radiation. Intussusception often produces a recognisable ring or "target" appearance on ultrasound.

An abdominal X-ray may be used to look for signs of blockage or a perforation. A normal X-ray does not reliably rule out intussusception.

An air or liquid contrast enema may confirm the diagnosis while also treating it. During this procedure, air or contrast material is passed gently into the large bowel through a small tube in the rectum. Imaging is used to guide the procedure and monitor whether the bowel returns to its normal position.

Blood tests may be taken to assess dehydration, infection, or the effects of prolonged illness. They do not confirm intussusception by themselves.

Treatment and management

Treatment takes place in hospital. The immediate priorities are supporting the child and relieving the bowel blockage.

The child may temporarily stop eating and drinking. Fluids are often given through a vein to treat or prevent dehydration. Pain relief and medicines for nausea may also be used. A tube passed through the nose into the stomach is sometimes needed to drain fluid and reduce pressure.

For many children, an air or liquid contrast enema is the first treatment. Controlled pressure from the enema gently pushes the telescoped bowel back into place. The child is monitored closely because the procedure does not work in every case and there is a small risk of bowel perforation.

An enema may not be suitable if the child is medically unstable or there are signs of perforation, severe bowel injury, or inflammation throughout the abdomen.

Surgery may be needed when:

During surgery, the surgeon gently separates the bowel. If part of it has been badly damaged, that section may need to be removed and the healthy ends joined together. Any lead point may also be treated.

After successful treatment, the healthcare team will watch for returning pain, vomiting, bleeding, or other signs that the bowel has telescoped again.

- An enema does not correct the blockage
- The bowel has perforated or lost its blood supply
- The child is too unwell for an enema
- A structural lead point is suspected
- The affected type or location cannot be treated by enema

Complications

The trapped bowel can become swollen and lose its blood supply. This may damage or kill bowel tissue.

A severely injured bowel can develop a hole. Bowel contents can then leak into the abdomen, causing peritonitis, which is serious inflammation and infection inside the abdominal cavity. Infection may spread through the bloodstream and cause sepsis.

Other possible complications include dehydration and disturbances in body salts caused by vomiting and reduced feeding.

Intussusception may return after either enema treatment or surgery. Recurrence is often recognised through another episode of the same wave-like pain, vomiting, lethargy, or bloody mucus. It needs urgent reassessment.

Surgery has additional risks, including wound infection, scar tissue, and later bowel blockage. The surgical team can explain which risks apply to the procedure the child has had.

Prevention

Most cases cannot be prevented because no clear cause is found.

There is no diet, activity, or home treatment known to stop the usual childhood form from developing. Structural lead points cannot generally be prevented, although treating one may reduce the chance of further episodes.

Rotavirus vaccination prevents serious rotavirus illness but carries a small associated risk of intussusception. Public health authorities continue to recommend vaccination because its benefits outweigh this risk. Parents and caregivers should know the warning signs and seek urgent care if they appear.

Living with it and what to expect

Intussusception is usually a short, sudden illness rather than a continuing condition. Many children recover fully after the bowel has been returned to its normal position.

After an enema, the child may stay in hospital for observation. Feeding is restarted when the treating team considers it safe. The length of observation is based on symptoms, the child's overall condition, and local hospital practice.

Recovery takes longer after surgery, particularly if damaged bowel was removed. The child may need time before eating normally and may have temporary limits on bathing, lifting, or active play while the wound heals.

Most children do not have lasting digestive problems. Long-term follow-up may be needed if doctors found a lead point, removed part of the bowel, or are concerned about repeated episodes.

Recurrence can happen even after successful treatment. Families are usually advised to watch for the return of sudden wave-like pain, vomiting, unusual lethargy, or blood and mucus in the stool. These symptoms require urgent reassessment rather than waiting for a routine appointment.

A routine follow-up may cover recovery, feeding, the surgical wound, test results, and whether further investigation is needed. New constipation or minor appetite changes without pain or vomiting can usually be discussed through routine care, unless the child is becoming unwell.

When to get medical help

Go to an emergency department immediately if a child has symptoms that could be intussusception. Do not wait for every typical symptom to appear.

Emergency warning signs include:

Call emergency services if the child is difficult to wake, collapses, has trouble breathing, or appears severely unwell.

Do not give food or drink while travelling for urgent assessment unless emergency

professionals advise otherwise. Do not use laxatives or enemas at home for these symptoms.

Routine follow-up is appropriate after recovery if there are questions about appetite, bowel habits, activity, or wound care and the child is otherwise comfortable and well. Fever, worsening pain, repeated vomiting, wound discharge, or renewed symptoms need more urgent advice.

- Sudden, repeated episodes of severe belly pain or distressed crying
- Pulling the knees up during painful episodes
- Green vomit
- Blood or dark red mucus in the stool
- Unusual sleepiness, weakness, floppiness, or reduced responsiveness
- A swollen, very tender, or rigid abdomen
- Fainting, difficulty waking, or pale and mottled skin
- Similar symptoms after recent treatment for intussusception

Common questions

What does intussusception pain look like in a child?

The pain often starts suddenly and comes in waves. A young child may scream, become pale, or draw their knees toward their chest, then appear better between episodes. The pattern may become less clear as the child becomes tired or more unwell.

Can a child have intussusception without bloody stool?

Yes. Blood and mucus may appear later or not be noticed at all. Wave-like pain, vomiting, or unexplained lethargy can still require urgent assessment.

Can my child still poop with intussusception?

Yes, especially early on. Stool already beyond the blockage can still pass. Passing stool does not rule out intussusception.

Can intussusception fix itself?

Some brief cases may reduce without treatment, but it is not safe to wait for this at home. The bowel can lose its blood supply, so suspected symptoms need immediate hospital assessment.

Will intussusception come back?

It can return after successful treatment. Recurrence may happen soon afterward or later. The return of similar pain, vomiting, lethargy, or bloody mucus needs urgent medical assessment.

How long does recovery take?

Recovery after a successful enema is often quicker than after surgery. The time needed depends on whether the bowel was injured, whether a section was removed, and how well the child is eating and drinking afterward.

Sources

- National Institute of Diabetes and Digestive and Kidney Diseases - Intussusception
- NHS - Intussusception
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