CONDITION

Umbilical hernia

An umbilical hernia is a bulge caused by tissue pushing through an opening near the navel.

WHAT IT IS
Abdominal tissue pushing through an opening near the navel

BODY SYSTEM
Abdominal wall

MAIN SYMPTOMS
Navel bulge, pressure, tenderness, pain

WHAT CAUSES IT
Incomplete closure or weakening around the navel

HOW IT IS DIAGNOSED
Physical examination, sometimes ultrasound or CT

MAIN TREATMENT
Observation in children; surgical repair when needed

CAN IT BE CURED?
Yes - surgery closes the opening, though recurrence can occur

IS IT AN EMERGENCY?
Sometimes - sudden pain or a trapped, discolored bulge

LONG-TERM OUTLOOK
Usually excellent after childhood closure or surgical repair

Overview

An umbilical hernia is an opening or weak area in the abdominal wall at or near the navel, also called the belly button or umbilicus. Fat, fluid, or part of the intestine can push through this opening and form a soft bulge.

Umbilical hernias are common in babies. Before birth, the umbilical cord passes through an opening in the baby's abdominal muscles. That opening usually closes after birth. If it remains partly open, a hernia can appear.

In adults, the area may weaken or stretch over time. Increased pressure inside the abdomen can then push tissue through it.

Many umbilical hernias are painless. In children, they often close without treatment during the first few years of life. Adult hernias do not usually close by themselves and may slowly become

larger.

The main concern is that tissue can occasionally become trapped. If trapped intestine loses its blood supply, urgent surgery is needed. This is uncommon, but knowing the warning signs is important.

Symptoms

The usual sign is a bulge in or beside the navel. Its size may change during the day.

In a baby or child, the bulge may be easier to see when they cry, cough, laugh, or strain. It may flatten when the child is calm or lying down. Most childhood umbilical hernias do not cause pain.

Adults may notice:

A reducible hernia is one that flattens when you lie down or can move back through the opening with very gentle pressure. An incarcerated hernia is trapped and cannot move back. Incarceration may block the intestine or cut off its blood supply.

Sudden severe pain, vomiting, abdominal swelling, or a bulge that becomes hard, very tender, red, purple, or dark can signal a complication. These symptoms need urgent assessment.

- A soft or firm bulge around the navel
- Pressure, aching, or tenderness
- Discomfort during coughing, lifting, exercise, or straining
- A bulge that becomes larger over time

Causes and risk factors

In babies, an umbilical hernia develops because the natural opening for the umbilical cord has not completely closed. Premature babies and babies with a low birth weight are more likely to have one. Nothing a parent did during pregnancy or after birth causes this opening to remain.

In adults, the navel is a naturally weaker part of the abdominal wall. A hernia can form when the tissues weaken or when pressure inside the abdomen increases.

Factors linked with adult umbilical hernias include:

A hernia is not caused by the intestine tearing. The opening is in the muscle and connective tissue that support the abdominal wall.

- Pregnancy, especially repeated pregnancies
- Higher body weight
- Long-term coughing
- Frequent straining from constipation
- Repeated heavy physical strain
- Fluid collecting in the abdomen, called ascites
- Previous surgery near the navel

Diagnosis

A healthcare professional can usually diagnose an umbilical hernia by examining the abdomen. You may be asked to stand, cough, or tighten your abdominal muscles so the bulge is easier to feel.

The examination helps determine where the opening is, whether the hernia is tender, and whether it moves back into the abdomen. The size of the visible bulge is not always the same as the size of the opening underneath it.

Imaging is not always needed. An ultrasound may be used when the diagnosis is uncertain, especially in children or during pregnancy. A CT scan can show the abdominal wall and the tissue inside the hernia in more detail. It may be used in adults, in people with a larger body size, or when a complication or another condition is suspected.

A healthcare professional may also check for other causes of a navel-area bulge. These include a collection of fluid, a fatty lump, or separation of the abdominal muscles known as diastasis recti . Diastasis recti is not a true hernia because there is no distinct hole in the abdominal wall.

Treatment and management

Treatment is different for children and adults.

In children, observation is often appropriate because many umbilical hernias close naturally by around age 4 or 5. Regular check-ups allow a healthcare professional to follow the size of the opening and look for symptoms.

Surgery may be considered sooner if a child's hernia is painful, traps tissue, affects the overlying skin, or has other concerning features. Repair may also be discussed when the opening has not closed by the expected age.

Coins, adhesive tape, tight bands, and hernia belts should not be placed over a child's navel. They do not close the opening and can injure or irritate the skin.

Adult umbilical hernias do not normally heal without surgery. A small, painless hernia that moves back easily may sometimes be monitored. Surgery is more likely to be discussed if the hernia is painful, growing, difficult to push back, or limiting daily activities.

During a repair, the surgeon returns the tissue to the abdomen and closes the opening. This may be done through an incision near the navel or, in selected cases, through several small incisions using keyhole surgery.

Children's hernias are usually closed with stitches. In adults, surgical mesh is often used to strengthen the area and reduce the chance of another hernia. The approach depends on the hernia's size and location, previous operations, general health, and whether the procedure is planned or urgent.

Recovery time differs between people and procedures. Walking is usually encouraged after surgery, but lifting and strenuous activity may be limited for a period. The surgical team provides instructions based on the repair performed.

Complications

Most childhood umbilical hernias do not cause serious problems. Complications are more likely in adults, although many adult hernias remain uncomplicated.

Possible problems include:

Strangulation can damage the intestine and requires emergency treatment. Warning signs include worsening pain, vomiting, a hard or discolored bulge, and inability to pass stool or gas.

Surgical repair also has risks, including bleeding, infection, fluid collecting near the repair, long-lasting discomfort, and recurrence. Your surgical team can explain which risks are most relevant to the planned procedure.

- Incarceration: Fat or intestine becomes trapped in the opening
- Bowel obstruction: Trapped intestine blocks food, fluid, and gas
- Strangulation: Blood flow to trapped tissue is cut off
- Skin damage: Pressure stretches, thins, or breaks the skin
- Hernia enlargement: The opening and bulge grow over time

Prevention

A childhood umbilical hernia cannot be prevented. It results from an opening that did not fully close after the umbilical cord separated. It is not caused by crying, feeding, or how the cord stump was cared for.

There is no guaranteed way to prevent an adult umbilical hernia. Maintaining a weight that is healthy for you and getting help for persistent coughing or constipation may reduce repeated pressure on the abdominal wall. These steps cannot remove every risk.

Normal activity does not need to be avoided solely out of fear of developing a hernia. Use appropriate lifting techniques and get help with loads that are too heavy to manage safely.

After a repair, following the surgical team's wound-care and activity guidance may support healing. Even with careful treatment, a hernia can return.

Living with it and what to expect

A child's umbilical hernia may become less noticeable as the abdominal muscles grow and the opening closes. The bulge can still appear during crying or straining while closure is taking place. Routine follow-up is usually enough when the child is comfortable and the hernia remains soft.

If a childhood hernia stays open beyond the early years, surgery can usually repair it. After healing, most children can return to their usual play and activities.

In adults, the opening usually remains unless it is surgically repaired. Some small hernias stay much the same for months or years. Others become larger or more uncomfortable. Changes in weight, pregnancy, abdominal fluid, coughing, or repeated strain may affect the bulge.

If an adult hernia is being monitored, pay attention to changes in pain, size, firmness, skin colour, and whether it still flattens. Routine reviews can help reassess whether continued observation or planned repair is more suitable.

After surgery, many people return to their usual work, exercise, and daily activities. Recovery may take longer after a large or emergency repair. Some people have numbness, pulling, or tenderness around the scar while tissues heal. A repaired hernia can recur, particularly if the abdominal wall remains under increased pressure.

When to get medical help

Arrange a routine medical appointment if you or your child develops a new bulge around the

navel. An examination can confirm whether it is a hernia and whether monitoring or treatment is appropriate.

Seek a prompt appointment if:

Seek urgent or emergency care if the bulge suddenly becomes very painful, hard, red, purple, or dark, especially if it no longer flattens. Vomiting, a swollen abdomen, fever, or inability to pass stool or gas are also urgent warning signs.

Do not repeatedly or forcefully push a painful, firm, or discolored hernia. This could delay assessment of trapped tissue.

- The hernia is becoming larger or more painful
- It is becoming harder to move back into the abdomen
- The skin over it is sore, stretched, or repeatedly irritated
- It interferes with eating, exercise, work, sleep, or daily activities
- A child's hernia remains present as they approach school age

Common questions

Can an umbilical hernia go away on its own?

In babies and young children, it often closes as the abdominal wall develops. Adult umbilical hernias do not usually close naturally. Surgery is the only treatment that closes an adult hernia opening, although not every small, painless hernia needs immediate repair.

Is an "outie" belly button always a hernia?

No. An outward-projecting navel can be a normal variation. A hernia is an opening in the abdominal wall that allows tissue to bulge through. An examination can tell the difference.

Can I exercise with an umbilical hernia?

Some people with a small, painless hernia can remain active. Stop an activity if it causes pain, a rapidly enlarging bulge, or a bulge that no longer flattens. There is no single safe lifting limit for everyone. After surgery, follow the activity plan provided by the surgical team.

Should I push my umbilical hernia back in?

A painless hernia may flatten when you lie down or with very gentle pressure. Do not force it. A hernia that is painful, firm, discolored, or newly unable to move back needs urgent medical assessment.

Will a hernia belt or binder fix it?

No. A belt may temporarily support the area or hide the bulge, but it does not close the opening. It can also rub the skin or give a false sense that the hernia has been treated.

Can pregnancy affect an umbilical hernia?

Pregnancy increases pressure on the abdominal wall and may reveal or enlarge a hernia. A small, comfortable hernia may be monitored during pregnancy. Pain, skin changes, vomiting, or a firm bulge that does not flatten needs prompt assessment. The timing of any planned repair is considered individually.

Sources

- American College of Surgeons. Adult Umbilical Hernia
- American College of Surgeons. Pediatric Umbilical Hernia
- NHS. Umbilical hernia
- American Academy of Pediatrics, HealthyChildren.org. Umbilical Hernia in Babies and Children
- Henriksen NA, Montgomery A, Kaufmann R, et al. Guidelines for treatment of umbilical and epigastric hernias from the European Hernia Society and Americas Hernia Society. British Journal of Surgery. 2020;107(3):171-190