CONDITION

Hepatitis C - children

Hepatitis C is a blood-borne viral infection that can cause long-term liver inflammation in children.

WHAT IT IS
Viral infection that can inflame and scar the liver

BODY SYSTEM
Liver and digestive system

MAIN SYMPTOMS
Often none, tiredness, nausea, yellow skin or eyes

WHAT CAUSES IT
Infection with hepatitis C virus through blood

HOW IT IS DIAGNOSED
HCV RNA blood test; antibody testing after 18 months

MAIN TREATMENT
Direct-acting antiviral medicines from age 3

CAN IT BE CURED?
Yes - antiviral treatment cures most children

IS IT AN EMERGENCY?
Sometimes - confusion, vomiting blood, or black stools

LONG-TERM OUTLOOK
Usually excellent after cure; untreated infection can scar liver

Overview

Hepatitis C is an infection caused by the hepatitis C virus, often shortened to HCV. It mainly affects the liver, which processes nutrients, removes waste from the blood, and makes substances needed for digestion and blood clotting.

Most children with hepatitis C look and feel well. The infection can still cause mild, ongoing liver inflammation without obvious symptoms. Over many years, this inflammation may lead to fibrosis, meaning scar tissue in the liver. Severe liver scarring is uncommon during childhood but can become important later in life if the infection is not treated.

An infection lasting less than six months is called acute hepatitis C. Some children clear the virus without treatment, especially after infection around birth. When the virus remains for six months or longer, it is called chronic hepatitis C.

Modern antiviral medicines can cure most children who receive treatment. A cure means that hepatitis C virus is no longer found in the blood after treatment and is not expected to return unless the child is exposed again.

Symptoms

Most children with hepatitis C have no symptoms. The infection may be found only because a parent had hepatitis C during pregnancy, a blood test was abnormal, or the child had another known exposure to blood.

When symptoms occur, they can include:

These symptoms are not specific to hepatitis C. Many more common childhood conditions can cause similar problems.

Symptoms also do not reliably show how much the liver has been affected. A child who feels well may still need regular blood tests, while tiredness or nausea does not necessarily mean that serious liver damage is present.

- Tiredness or reduced energy
- Poor appetite, nausea, or abdominal discomfort
- Pain around the upper right side of the abdomen
- Dark urine or unusually pale stools
- Yellow skin or whites of the eyes, called jaundice
- Joint or muscle aches

Causes and risk factors

Hepatitis C spreads when blood containing the virus enters another person's bloodstream. It is not inherited through genes.

In children, the most common route is transmission from a pregnant parent who has hepatitis C. This can happen during pregnancy or childbirth. It does not mean that anyone did something wrong, and most exposed babies do not acquire the infection.

Other possible routes include:

Hepatitis C does not spread through hugging, coughing, sneezing, sharing food, or using the same toilet. It is not passed through ordinary play or classroom contact.

Breastfeeding does not usually transmit hepatitis C. A breastfeeding parent with cracked or

bleeding nipples should temporarily stop feeding from the affected breast and seek advice about expressing and discarding milk until it has healed.

- Sharing needles or other equipment used to inject drugs
- Needlestick injuries or contact with infected blood
- Tattoos or piercings done with equipment that was not properly sterilised
- Blood transfusions or medical procedures in places where blood screening and infection control are limited
- Sharing razors, toothbrushes, or other items that may have blood on them
- Sexual contact involving blood exposure, mainly as adolescents become older

Diagnosis

Blood tests are needed to diagnose hepatitis C. The timing and type of test depend on the child's age and possible exposure.

An HCV RNA test looks directly for the virus's genetic material in the blood. It can be used from 2 months of age in babies exposed during pregnancy. A detectable result usually needs appropriate follow-up to confirm and monitor infection.

An hepatitis C antibody test checks whether the immune system has encountered the virus. Antibodies from a pregnant parent can remain in a baby's blood for up to 18 months, so this test should not be used earlier to decide whether the baby is infected. At 18 months or older, a reactive antibody test is followed by an HCV RNA test to find out whether the virus is still present.

A positive antibody test alone does not always mean that a child currently has hepatitis C. Antibodies can remain after the body has cleared the infection or after successful treatment.

If infection is confirmed, further assessment may include:

Liver enzyme levels can rise and fall. Normal levels do not always rule out liver inflammation or scarring.

- Liver enzyme and liver function blood tests
- Tests for hepatitis A, hepatitis B, or HIV when appropriate
- Ultrasound or elastography, a painless scan that estimates liver stiffness
- Review of medicines, supplements, and possible blood exposures

Treatment and management

Direct-acting antivirals like acyclovir or oseltamivir are medicines that block hepatitis C from making copies of itself. Treatment is available for children aged 3 years and older, using age-appropriate tablets or granules. The exact medicine and length of treatment are chosen according to the child's age, weight, medical history, liver health, and local approvals.

These treatments are usually taken by mouth for a set number of weeks. They cure most treated children and generally cause fewer problems than older hepatitis C treatments.

Before treatment, the care team may check for other infections, assess liver scarring, and review all medicines and supplements. Some products can affect how antivirals work, so nothing should be started or stopped without checking with the child's prescribing team.

Blood testing after treatment checks whether HCV RNA remains undetectable. This is how cure is confirmed. Hepatitis C antibodies usually stay positive even after cure, so an antibody test cannot show whether treatment worked.

Children younger than 3 are generally monitored rather than treated with direct-acting antivirals. Some clear the virus naturally during the first few years of life, and currently approved treatment options begin at age 3 in many countries.

Ongoing care may also include vaccination against hepatitis A and hepatitis B if the child is not already immune. These vaccines do not prevent hepatitis C, but they help protect the liver from other infections.

Complications

Most children do not develop severe liver problems during childhood. However, untreated chronic hepatitis C can slowly cause fibrosis over years or decades.

Advanced fibrosis may progress to cirrhosis, which means extensive liver scarring. Cirrhosis can interfere with blood flow through the liver and reduce the liver's ability to work. Liver failure and liver cancer are rare in children with hepatitis C but become more relevant after many years of untreated infection, especially when cirrhosis is present.

Factors that may add to liver damage include hepatitis B or HIV infection, obesity-related fatty liver, and alcohol use during adolescence or adulthood.

Hepatitis C can occasionally affect parts of the body outside the liver, including the kidneys, skin, joints, blood vessels, or immune system. These problems are uncommon in children.

Prevention

There is no vaccine against hepatitis C, and transmission during pregnancy cannot always be prevented. Testing during each pregnancy helps identify exposed babies so that they receive the right follow-up.

To reduce blood exposure:

A child with hepatitis C does not need separate plates, towels, toilets, or classrooms. Normal household cleaning is appropriate unless blood has been spilled.

After cure, a child can acquire hepatitis C again through a new blood exposure. Antibodies from the earlier infection do not provide reliable protection.

- Do not share toothbrushes, razors, needles, or blood-testing equipment
- Cover open cuts and clean blood spills safely
- Use regulated tattoo and piercing services with sterile equipment
- Teach adolescents not to share equipment used to inject or prepare drugs
- Use standard precautions when handling another person's blood

Living with it and what to expect

Children with hepatitis C can usually attend school, take part in sport, travel, and spend time with friends without restrictions. The infection is not spread through sweat, shared swimming pools, ordinary physical contact, or communal meals.

Families should take sensible precautions when blood is present. Cuts should be covered, and personal items that might carry small amounts of blood should not be shared. Contact sports are not automatically excluded, although open wounds should be covered before returning to play.

Before treatment, follow-up may involve periodic blood tests and assessment of liver health. How often these are needed is based on the child's age, test results, and whether liver scarring is present.

After a confirmed cure, children without cirrhosis generally do not need long-term hepatitis C monitoring. Those with cirrhosis require ongoing liver follow-up even after cure because existing scar tissue may not fully disappear.

Hepatitis C can carry unfair stigma. It is safe for children to share ordinary spaces and activities with others. Families can discuss privacy and disclosure with the care team, especially when

dealing with schools, childcare, or sports organisations. Rules about medical information differ by location.

As children become teenagers, they can gradually learn how the infection spreads, what treatment involved, and how to protect themselves from future exposure. Most children who are cured can expect everyday life without ongoing effects from the virus.

When to get medical help

Arrange routine follow-up if your child has confirmed hepatitis C, was exposed during pregnancy, or missed a planned blood test. Contact the care team if treatment doses are being missed, side effects are troublesome, or a new medicine or supplement is being considered.

Seek prompt medical advice if your child develops yellow skin or eyes, dark urine, pale stools, persistent vomiting, unusual bruising, increasing abdominal swelling, or a major change in energy or appetite.

Seek emergency medical help if your child:

These symptoms are uncommon, particularly in children without advanced liver scarring, but they need urgent assessment.

- Vomits blood or material resembling coffee grounds
- Passes black, tar-like stools
- Becomes confused, extremely drowsy, or difficult to wake
- Has severe abdominal swelling with breathing difficulty
- Has heavy bleeding that does not stop

Common questions

Can my child go to school with hepatitis C?

Yes. Hepatitis C does not spread through ordinary classroom contact, shared food, coughing, hugging, or using the same bathroom. Cuts should be covered, as they should be for any child.

Will my child have hepatitis C for life?

Not usually. Some young children clear the virus naturally. For children aged 3 and older who remain infected, direct-acting antiviral treatment cures most cases. Follow-up blood testing is needed to confirm cure.

Can my child spread hepatitis C to family members?

Everyday household contact is safe. Transmission requires infected blood to enter another person's bloodstream. Family members should not share toothbrushes, razors, needles, or other items that may carry blood.

Can I breastfeed a baby exposed to hepatitis C?

Breastfeeding is generally considered safe. If a nipple is cracked or bleeding, temporarily avoid feeding from that breast and seek advice about milk expression and when to restart.

Does a positive antibody test mean my child still has the virus?

Not always. Antibodies can remain after natural clearance or successful treatment. In babies younger than 18 months, antibodies may also have come from the pregnant parent. An HCV RNA test shows whether the virus is currently present.

Can hepatitis C come back after treatment?

A confirmed cure is expected to last. However, treatment does not create immunity. A child can acquire a new hepatitis C infection after another exposure to infected blood.

Sources

- Centers for Disease Control and Prevention: Recommendations for Hepatitis C Testing Among Perinatally Exposed Infants and Children - United States, 2023
- Centers for Disease Control and Prevention: Clinical Screening and Diagnosis for Hepatitis C
- AASLD-IDSA HCV Guidance: HCV in Children
- World Health Organization: Hepatitis C fact sheet
- National Institute of Diabetes and Digestive and Kidney Diseases: Hepatitis C