



Mysterious Hepatitis Outbreak Hitting Kids in U.K. and U.S.

The current leading suspect is an adenovirus, but much more remains to be learned.

April 15, 2022 By [Liz Highleyman](#)

Public health officials, doctors and parents are racing to pinpoint the cause of dozens of cases of unexplained hepatitis among young children, first reported in the United Kingdom but now cropping up elsewhere. While the reason for the outbreak remains unknown, experts do not think it is directly caused by SARS-CoV-2, the virus responsible for COVID-19.

Hepatitis simply means inflammation of the liver, and it can have many different causes. Viral hepatitis (including [hepatitis A](#), [hepatitis B](#) and [hepatitis C](#)) is most familiar. It can also be caused by [fatty liver disease](#), [heavy alcohol use](#), toxins and certain inherited conditions.

With UK health authorities investigating an unusually high number of hepatitis cases in children (in which usual viruses HepA to HepE have been excluded), the [@ECDC_EU](#) has called on clinicians in European countries to look out for and report similar cases: <https://t.co/flhlzeVDEO>

— Kai Kupferschmidt (@kakape) [April 13, 2022](#)

On April 12, the European Centers for Disease Prevention and Control [reported an increase](#) in cases of acute hepatitis among children in the U.K. Approximately 60 cases in England were under investigation at the time of that report, mostly among children ages 2 to 5 years. Two days later, [Eurosurveillance published a report](#) providing further details about 13 cases identified in Scotland

between January 1 and mid-April.

The affected children had markedly elevated liver enzymes and often had jaundice (yellowing of the skin and eyes); some experienced gastrointestinal symptoms, including vomiting. While most of the children recovered, some progressed to acute liver failure, and a small number underwent liver transplants.

And the outbreak is not confined to the U.K. In Alabama, nine cases have been reported since last fall, [STAT reports](#). Cases are also being investigated in Spain, Denmark and the Netherlands.

1. ICYMI: The US is among a growing — though still small — list of countries reporting unusual cases of severe [#hepatitis](#) in young children. England, Scotland, Spain have also reported cases; Northern Ireland is investigating some possible cases.

<https://t.co/CIOIEfgCUT>

— Helen Branswell ?????????? (@HelenBranswell) [April 15, 2022](#)

The U.S. Centers for Disease Control and Prevention (CDC) is keeping tabs on the outbreak.

“CDC is aware of and working with the Alabama Department of Public Health to investigate nine cases of hepatitis in children—ranging in age from 1 to 6 years old—who also tested positive for adenovirus since October 2021,” CDC spokesperson Kristen Nordlund said in a statement quoted by STAT.

Hepatitis Cause Remains Unknown

All the affected children tested negative for the well-known hepatitis viruses (A, B, C, D and E). However, many of them did test positive for adenoviruses, best known for causing the common cold.

This family of viruses is transmitted through the respiratory route or by touching contaminated surfaces. Adenoviruses can lead to a wide range of symptoms, including nasal congestion, sore throat, cough, vomiting and diarrhea. They don't typically cause hepatitis, but it is a known rare

complication, [according to the U.K. Health Security Agency](#).

To date, health investigators in the U.K. and Alabama have not seen links between the cases that would suggest a transmission network. Experts are working to genetically sequence adenovirus samples from the affected children to determine whether a specific known type—or perhaps even a new type—might be implicated.

Some people have speculated that the mysterious ailment might be caused by the SARS-CoV-2 coronavirus, which has been [linked to liver problems](#) in some adults. However, while some of the children hospitalized in England did test positive for SARS-CoV-2, others did not.

Experts stress that the liver problems are not attributable to COVID-19 vaccines, noting that young children are not yet eligible to be vaccinated. In fact, none of the kids with confirmed hepatitis cases in the new outbreaks have been vaccinated.

But the COVID-19 pandemic may play a role in another way. Some experts suggest that without the usual exposure to germs during COVID-19 lockdowns, children may have been left with inadequate immunity.

“At the time of publication, the leading hypotheses center around adenovirus—either a new variant with a distinct clinical syndrome or a routinely circulating variant that is more severely impacting younger children who are immunologically naive,” Kimberly Marsh, of Public Health Scotland, and colleagues wrote in the [Eurosurveillance report](#). “The latter scenario may be the result of restricted social mixing during the COVID-19 pandemic.”

Typical symptoms of hepatitis—regardless of cause—can include fatigue, fever, flu-like symptoms, gastrointestinal symptoms, loss of appetite, abdominal pain, jaundice, dark-colored urine and pale-colored stools.

While further investigation is underway, public health officials are urging clinicians to report hepatitis cases in children to local health authorities. Now that providers and parents are aware of what to look for, more cases may turn up in more places.

Click here for more news about [liver disease](#).