

# Common Long COVID Symptoms and Health Conditions in Children

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## This research at a glance

### Main Questions

**What were the most common Long COVID symptoms and health conditions in children?**

**What were the most common medicines prescribed to children?**

**How many children had Long COVID?**

### Answers

The most common symptoms were changes in their smell or taste, and hair loss. The most common health conditions were inflammation (swelling) in the heart muscle or muscles, and trouble breathing.

The most common were cough and cold medicines, medicines to relieve a stuffy nose, and steroid medicines.

About 4% of the children who had COVID may have gotten Long COVID.

The researchers learned that Long COVID is uncommon in children, and happens in about 4% of children with COVID compared to about 5% to 21% of adults with COVID. They also learned that different Long COVID symptoms and health conditions happen more often in children than in adults.



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### Why was this research needed?

Researchers want to learn more about how Long COVID affects children and if it differs from adults. **Long COVID** is a condition in which a person is sick many months after getting COVID. It can cause new, repeating, or ongoing symptoms, such as trouble breathing or cough, and problems with certain organs, such as the heart. Long COVID is also called PASC (post-acute sequelae of COVID).

In this study, researchers wanted to learn how many children who had COVID got Long COVID, and the symptoms and health problems Long COVID causes in children.

#### The goal of this research was to answer this questions:

- What were the most common Long COVID symptoms in children?
- What were the most common Long COVID health conditions in children?
- What were the most common medicines prescribed to children?
- How many children had Long COVID?



## What happened during this research?

Researchers used data in electronic health records (EHRs) from 9 children's hospitals that were a part of the National Pediatric Learning Health System Network (PEDSnet).

Researchers looked at the children's EHRs from about 1 to 6 months after children had a COVID test. They compared children who did and didn't have COVID by looking at:

- Symptoms they had that could be related to Long COVID
- Health conditions they had that could be related to Long COVID
- Medicines they were prescribed that could be used to treat Long COVID
- Other information about the children, such as their age, gender, and other health conditions they had before COVID

### Whose data was included in this research?

Researchers looked at data from about 660,000 children younger than 21 years old who had a COVID test between March 2020 and October 2021. Researchers compared 2 groups of children:



About 60,000  
children who had COVID  
(tested positive)



About 600,000  
children who did not have  
COVID (tested negative)



## What were the main results?

### What were the most common Long COVID symptoms in children?

The researchers looked at how many children had symptoms that could be related to Long COVID in the 1 to 6 months after their COVID test.

Compared to children who did not have COVID, children who had COVID were more likely to have:



**Changes in their  
smell or taste**



**Loss of smell**



**Hair loss**

### **What were the most common Long COVID health conditions in children?**

The researchers looked at how many children had health conditions that could be related to Long COVID in the 1 to 6 months after their COVID test. Compared to children who did not have COVID, children who had COVID were more likely to have:



**Inflammation (swelling)  
in the heart muscle  
(myocarditis)**



**Trouble breathing (acute  
respiratory distress)**



**Inflammation in the  
muscles (myositis)**

### **What were the most common medicines prescribed to children?**

The researchers looked at how many children were prescribed medicines that could be used to treat Long COVID in the 1 to 6 months after their COVID test. Compared to children who did not have COVID, children who had COVID were more likely to get:



**Cough and cold  
medicines**



**Medicines to relieve  
a stuffy nose  
(decongestants)**



**Steroid medicines  
(corticosteroids with  
antiseptics)**

### How many children had Long COVID?

The researchers compared the percent of children who had any sign of Long COVID, such as one or more Long COVID symptoms, health conditions, or medicines. Since many of these symptoms and conditions are common regardless of COVID, the researchers compared children who had COVID to those who did not have COVID.

They found that the percent of children who had any sign of Long COVID was about:

- 42% in children who had COVID
- 38% in children who did not have COVID

### Percent of children who had any Long COVID symptom, health condition, or medicine



The researchers concluded this could mean that about 4% of the children who had COVID got Long COVID. This is lower than the percent of adults who have gotten Long COVID in past studies, which ranged from 5% to 21%.

They also looked at which children were more likely to have any sign of Long COVID in their EHR. They found that children with signs of Long COVID in their EHR were more likely to:

- Be younger than 5 years old
- Have been treated in the intensive care unit when they had COVID
- Have had a complex, long-term health condition before they got COVID, such as asthma or other lung diseases



## How has this research helped?

The researchers learned that Long COVID is uncommon in children, happening in about 4% of children with COVID compared to 5% to 21% of adults with COVID. Children who had signs of Long COVID in their EHR were more likely to be younger than 5 years old, be treated in the intensive care unit for COVID, and have long-term health conditions before they got COVID.

They also learned that common symptoms and health conditions in children include changes in smell and taste, hair loss, inflammation of the heart and muscle, and trouble breathing. Some Long COVID symptoms and health conditions are more common in children than in adults, including inflammation of the heart and muscle.



## Where can I learn more about this research?

Read the full paper published in JAMA Pediatrics on August 22, 2022 at <https://jamanetwork.com/journals/jamapediatrics/article-abstract/2795569>

### Full paper title:

Clinical Features and Burden of Postacute Sequelae of SARS-CoV-2 Infection in Children and Adolescents

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## About RECOVER

RECOVER is a research project that aims to learn about the long-term health effects of COVID. We're hopeful that this project will help us better prevent and treat Long COVID in the future. RECOVER is paid for by the National Institutes of Health (NIH).

Learn more at: [RECOVERcovid.org](https://RECOVERcovid.org)