

PIMS: the COVID-19 linked syndrome affecting children - information for families

Most children and teenagers do not become seriously ill with COVID-19. But doctors have seen a very small number of patients with an unusual condition which seems to be linked to the virus.

This syndrome is very rare, and most children will not be seriously affected. If you're worried, seek help.

This guide is for parents, carers, teachers and others who look after children and young people. It's written by doctors and based on the current evidence.

Status

[RCPCH](#)

Last modified

25 January 2021

Post date

5 June 2020

Table of contents

- [PIMS - the COVID-19 linked syndrome affecting children](#)
- [What is PIMS?](#)
- [Can PIMS be treated?](#)
- [What symptoms should I look out for?](#)
- [How many children have been affected?](#)
- [Have any children died from PIMS?](#)
- [Is PIMS caused by COVID-19?](#)
- [How can doctors tell if a child has PIMS?](#)
- [Are Black or Asian children more likely to be affected?](#)
- [What should I do if my child is unwell?](#)

PIMS - the COVID-19 linked syndrome affecting children

Most children don't become seriously unwell with COVID-19. Despite increased rates of infections in children over the autumn of 2020 (3% of secondary school age children and adolescents tested positive for COVID-19), rates of hospital admission remain very low in

these age groups. Between 1 and 5 children in 100,000 need admission to hospital for COVID-19 and even fewer of these require admission to an intensive care unit.

Doctors have seen a small number of children and teenagers who develop a rare inflammatory condition which appears to be linked to the virus, unusually occurring two to four weeks after having COVID-19.

Paediatric Multisystem Inflammatory Syndrome (called **PIMS-TS** or **PIMS** for short) is very rare. It occurs in less than 0.5% of children who have (or who have had) COVID-19. Most children with the condition will not be seriously affected but, in a very small number of cases, it can be serious.

Children and young people who are seriously affected will have symptoms which are very similar to other life-threatening conditions such as sepsis or meningitis.

What is PIMS?

In April 2020, doctors in the UK first started to see children with serious inflammation throughout their body, which seemed to be linked to COVID-19. Inflammation is a normal response of the body's immune system to fight infection. But sometimes the immune system can go into overdrive and begin to attack the body. If this happens, it is important that children receive urgent medical attention.

Doctors are concerned that in some children with PIMS the inflammation can affect the blood vessels (vasculitis), particularly those around the heart. If untreated, the inflammation can cause tissue damage, poor function of vital organs or potentially even death.

Some of the symptoms of PIMS can overlap with other rare conditions, such as Kawasaki disease and Toxic Shock Syndrome which is why it has been described as 'Kawasaki-like'. Complications from each of these conditions can cause damage to the heart. Kawasaki tends to affect children under five whereas PIMS seems to affect older children and teenagers.

Can PIMS be treated?

Yes. Doctors know what to look out for and will do tests to diagnose what's wrong and what treatment to give the child. Even where doctors aren't 100% sure whether a child or teenager has PIMS, they know how to treat the symptoms associated with it. Treatments to reduce inflammation in the body may need to be given.

Researchers are working to find out more about PIMS and which treatments are the most suitable treatments for each patient.

What symptoms should I look out for?

All children with PIMS will have a fever, which persists over several days. There's a very wide range of other symptoms that children might have, including: tummy pain, diarrhoea, vomiting, rash, cold hands and feet and red eyes. These symptoms can be found in other illnesses too.

While most won't be seriously unwell, some children may be severely affected by the syndrome. The most important thing is to remember that **any child who is seriously unwell needs to be treated quickly** – whatever the illness.

If the child has a temperature of 38° or higher, cold hands and feet and is sleepy, call your GP or 111. If symptoms persist and you have not been able to speak to either a GP or 111, take your child to the nearest A&E.

If your child doesn't have these signs of being seriously unwell but you are still concerned, talk to your GP.

How many children have been affected?

It's difficult to say because doctors are still in the process of reporting back – and also because there isn't a definitive test. However, between April and June 2020, doctors reported seeing around 200 children with the condition. We are now in the second wave of COVID-19 and doctors expect to see more cases of PIMS over the next few months as the numbers of people in the country with COVID-19 is currently high.

Doctors are continuing to collect information about the ways that PIMS affects children. It is possible that more children have had the condition but were very mildly affected and recovered without seeing a doctor.

Have any children died from PIMS?

We don't know for sure because there isn't a test for this condition, however this would be extremely rare. Most children would be expected to make a full recovery. All children with PIMS will receive a medical follow up. Doctors think two children may have died with PIMS in the UK, but they can't be certain that there weren't other reasons why the children died. Doctors believe deaths in children related to PIMS, throughout the world, are exceptionally rare. In the UK, many more children die of other infections such as flu or even chicken pox every year.

Is PIMS caused by COVID-19?

PIMS seems to be linked to COVID-19 because most of the children either had the virus or tested positive for antibodies indicating they had been infected (even if they hadn't seemed ill at the time). But a very small number of the children with PIMS symptoms didn't test positive for either.

How can doctors tell if a child has PIMS?

There currently isn't a test which can tell doctors whether a child definitely has the syndrome. A syndrome is a collection of many different symptoms which, together, can give doctors an indication of whether or not someone has a particular illness. Doctors will look for a pattern of symptoms relating to PIMS and then do more tests, such as blood pressure and blood analysis, to make a diagnosis.

Are Black or Asian children more likely to be affected?

Children from all ethnic minority backgrounds have been affected by PIMS. There have been more children affected by PIMS who are from Black and Asian backgrounds, but it is not clear what the reasons for this are at the current time. It is possible that this is because there were higher numbers of COVID-19 cases in these communities. But it is important for families with all ethnic backgrounds to be aware of the signs and symptoms of the condition, however rare.

Doctors are learning more and more about this condition all the time and we hope to have more information over the next weeks and months. We will update our guidance regularly.

What should I do if my child is unwell?

It can be confusing to know what to do when your baby or child is unwell during the coronavirus pandemic. Remember that the NHS is still providing safe care.

We've developed posters for families living in England, Scotland, Wales (in English and Welsh languages) and Northern Ireland about when and how to get medical help for your child, or for your young baby - or for yourself as a young person.

You can find out more about when to seek advice about a sick child during COVID-19 on our advice posters.

[See advice posters for parents and young people](#)