



Course Name: Paediatric Minor Illness Course

Lecturer Details: Dr Sam Thenabadu (He/Him)

MBBS MRCP DRCOG DCH MA Clin Ed FRCEM MSc (Paed) FHEA
FAcadMed

Programme Director MBBS, Deputy Dean GKT School Of Medicine

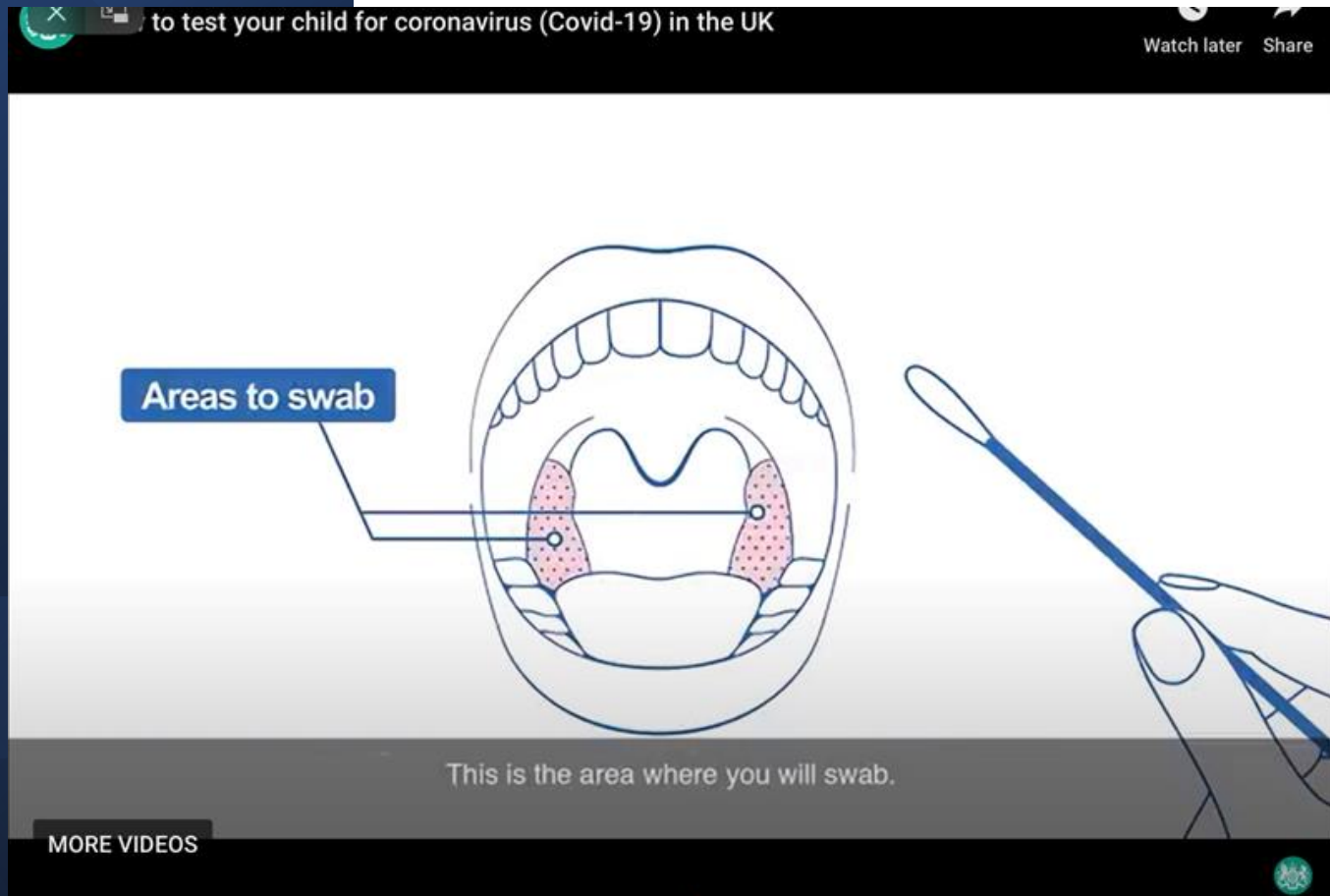
Honorary Reader in Medical Education

Consultant Adult & Paediatric Emergency Medicine

SUMMER 2020— SUPER SPREADERS?



SWABS





READING


BMJ Journals [Subscribe](#) [Log In](#) [Basket](#)


Archives of Disease in Childhood [Latest content](#) [Current issue](#)

[Home](#) / [Archive](#) / Volume 105, Issue 7



Article Text


Article info



Citation Tools


Share

Viewpoint

Children are not COVID-19 super spreaders: time to go back to school 


FREE

 Alasdair P S Munro^{1,2}, Saul N Faust^{1,2}


[Author affiliations +](#)

[View Full Text](#)

<http://dx.doi.org/10.1136/archdischild-2020-319474>

Don't Forget The Bubbles 

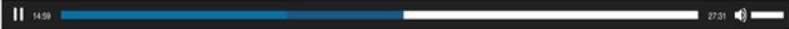
[GET STARTED](#) [SKIN DEEP](#) [DFTB MODULES](#) [COVID](#) [QUICK REF](#) [X-RAYS](#) [BUBBLE WRAP](#) [OUR CONFERENCE](#) [PODCAST](#) [ABOUT US](#)



COVID-19 TRANSMISSION IN CHILDREN

[Tessa Davis](#)

Damian catches up with Alasdair to discuss the evidence pertaining to transmission of COVID19 in children. They discuss the evidence as it stands and how its interpretation has been a focus for challenging scientific discussion and public discourse.



[Download file](#) | [Play in new window](#) | Duration: 00:27:31

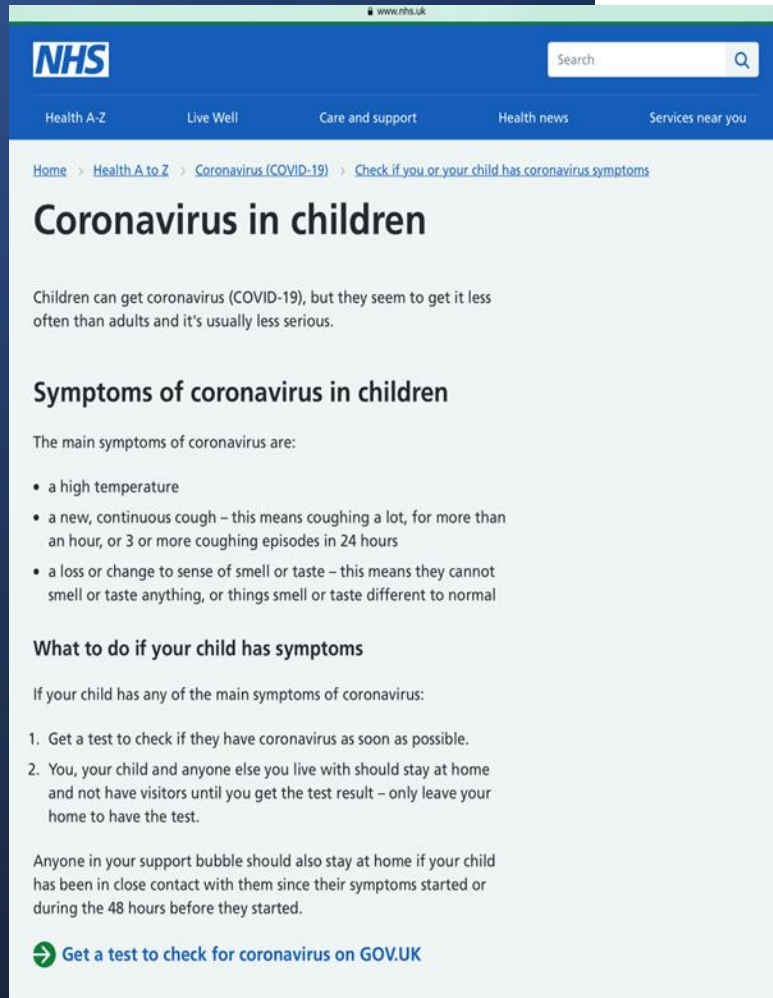
If you enjoyed this post, why not check out our online courses at [DFTB Digital](#)

About Tessa Davis

Tessa Davis is a Consultant in Paediatric Emergency Medicine at the Royal London Hospital and a Senior Lecturer at Queen Mary University of London.

[View all posts by Tessa Davis](#) | [Website](#)

2020



The screenshot shows the NHS website interface from 2020. The top navigation bar includes the NHS logo, a search bar, and links for 'Health A-Z', 'Live Well', 'Care and support', 'Health news', and 'Services near you'. The breadcrumb trail reads: Home > Health A to Z > Coronavirus (COVID-19) > Check if you or your child has coronavirus symptoms. The main heading is 'Coronavirus in children'. Below it, a paragraph states: 'Children can get coronavirus (COVID-19), but they seem to get it less often than adults and it's usually less serious.' The section 'Symptoms of coronavirus in children' follows, with a sub-heading 'The main symptoms of coronavirus are:' and a bulleted list: a high temperature; a new, continuous cough – this means coughing a lot, for more than an hour, or 3 or more coughing episodes in 24 hours; and a loss or change to sense of smell or taste – this means they cannot smell or taste anything, or things smell or taste different to normal. The next section is 'What to do if your child has symptoms', with a sub-heading 'If your child has any of the main symptoms of coronavirus:' and a numbered list: 1. Get a test to check if they have coronavirus as soon as possible. 2. You, your child and anyone else you live with should stay at home and not have visitors until you get the test result – only leave your home to have the test. A final paragraph states: 'Anyone in your support bubble should also stay at home if your child has been in close contact with them since their symptoms started or during the 48 hours before they started.' At the bottom, there is a green arrow icon and the text 'Get a test to check for coronavirus on GOV.UK'.

www.nhs.uk

NHS Search

Health A-Z Live Well Care and support Health news Services near you

Home > Health A to Z > Coronavirus (COVID-19) > Check if you or your child has coronavirus symptoms

Coronavirus in children

Children can get coronavirus (COVID-19), but they seem to get it less often than adults and it's usually less serious.

Symptoms of coronavirus in children

The main symptoms of coronavirus are:

- a high temperature
- a new, continuous cough – this means coughing a lot, for more than an hour, or 3 or more coughing episodes in 24 hours
- a loss or change to sense of smell or taste – this means they cannot smell or taste anything, or things smell or taste different to normal

What to do if your child has symptoms

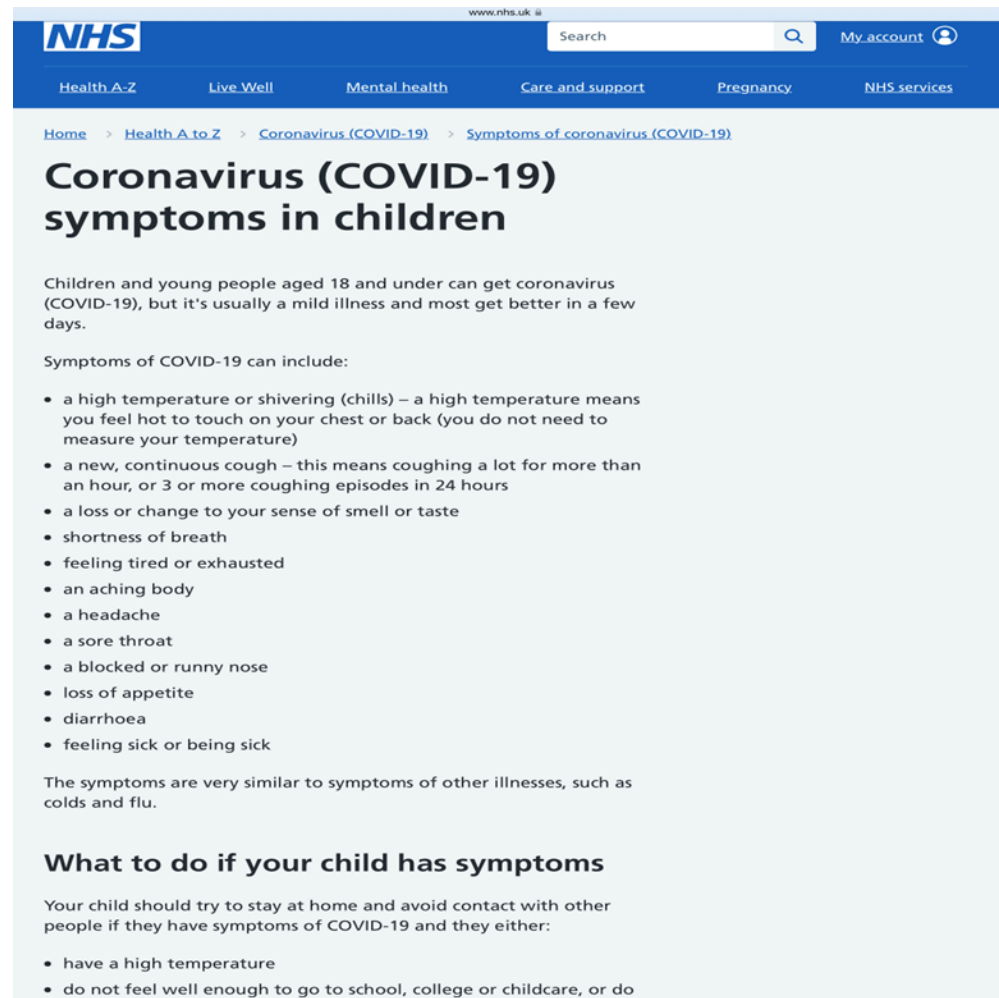
If your child has any of the main symptoms of coronavirus:

1. Get a test to check if they have coronavirus as soon as possible.
2. You, your child and anyone else you live with should stay at home and not have visitors until you get the test result – only leave your home to have the test.

Anyone in your support bubble should also stay at home if your child has been in close contact with them since their symptoms started or during the 48 hours before they started.

➔ [Get a test to check for coronavirus on GOV.UK](#)

2022



The screenshot shows the NHS website interface from 2022. The top navigation bar includes the NHS logo, a search bar, and links for 'Health A-Z', 'Live Well', 'Mental health', 'Care and support', 'Pregnancy', and 'NHS services'. The breadcrumb trail reads: Home > Health A to Z > Coronavirus (COVID-19) > Symptoms of coronavirus (COVID-19). The main heading is 'Coronavirus (COVID-19) symptoms in children'. Below it, a paragraph states: 'Children and young people aged 18 and under can get coronavirus (COVID-19), but it's usually a mild illness and most get better in a few days.' The section 'Symptoms of COVID-19 can include:' follows, with a bulleted list: a high temperature or shivering (chills) – a high temperature means you feel hot to touch on your chest or back (you do not need to measure your temperature); a new, continuous cough – this means coughing a lot for more than an hour, or 3 or more coughing episodes in 24 hours; a loss or change to your sense of smell or taste; shortness of breath; feeling tired or exhausted; an aching body; a headache; a sore throat; a blocked or runny nose; loss of appetite; diarrhoea; and feeling sick or being sick. The next paragraph states: 'The symptoms are very similar to symptoms of other illnesses, such as colds and flu.' The section 'What to do if your child has symptoms' follows, with a paragraph: 'Your child should try to stay at home and avoid contact with other people if they have symptoms of COVID-19 and they either:' and a bulleted list: have a high temperature; and do not feel well enough to go to school, college or childcare, or do

www.nhs.uk

NHS Search My account

Health A-Z Live Well Mental health Care and support Pregnancy NHS services

Home > Health A to Z > Coronavirus (COVID-19) > Symptoms of coronavirus (COVID-19)

Coronavirus (COVID-19) symptoms in children

Children and young people aged 18 and under can get coronavirus (COVID-19), but it's usually a mild illness and most get better in a few days.

Symptoms of COVID-19 can include:

- a high temperature or shivering (chills) – a high temperature means you feel hot to touch on your chest or back (you do not need to measure your temperature)
- a new, continuous cough – this means coughing a lot for more than an hour, or 3 or more coughing episodes in 24 hours
- a loss or change to your sense of smell or taste
- shortness of breath
- feeling tired or exhausted
- an aching body
- a headache
- a sore throat
- a blocked or runny nose
- loss of appetite
- diarrhoea
- feeling sick or being sick

The symptoms are very similar to symptoms of other illnesses, such as colds and flu.

What to do if your child has symptoms

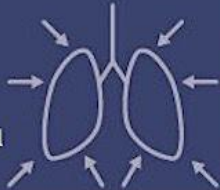
Your child should try to stay at home and avoid contact with other people if they have symptoms of COVID-19 and they either:

- have a high temperature
- do not feel well enough to go to school, college or childcare, or do

KNOW THE SYMPTOMS

Coronavirus*

- › Cough
- › Shortness of breath or difficulty breathing
- › Or at least two of these symptoms:
 - › Fever
 - › Chills
 - › Repeated shaking with chills
 - › Muscle pain
 - › Headache
 - › Sore throat
 - › New loss of taste or smell



Cold

- › Sore throat
- › Runny nose
- › Coughing
- › Sneezing
- › Headaches
- › Body aches



Flu

- › Sudden fever
- › Dry cough
- › Headache
- › Muscle and joint pain
- › Runny or stuffy nose
- › Sore throat



Allergies

- › Sneezing
- › Coughing
- › Red, watery or itchy eyes
- › Runny or stuffy nose



Sources:
CDC, NIH

*This is not all possible symptoms. GI symptoms like nausea, vomiting and diarrhea are sometimes reported.

Advice for parents during coronavirus

Whilst coronavirus is infectious to children it is rarely serious. If your child is unwell it is likely to be a non-coronavirus illness, rather than coronavirus itself.

Whilst it is extremely important to follow Government advice to stay at home during this period, it can be confusing to know what to do when your child is unwell or injured. Remember that NHS 111, GPs and hospitals are still providing the same safe care that they have always done. Here is some advice to help:



RED

If your child has any of the following:

- Becomes pale, mottled and feels abnormally cold to the touch
- Has pauses in their breathing (apnoeas), has an irregular breathing pattern or starts **grunting**
- Severe difficulty in breathing becoming agitated or unresponsive
- Is going blue round the lips
- Has a fit/seizure
- Becomes extremely distressed (crying inconsolably despite distraction), confused, very lethargic (difficult to wake) or unresponsive
- Develops a rash that does not disappear with pressure (the 'Glass test')
- Has testicular pain, especially in teenage boys

You need urgent help:

Go to the nearest A&E department or phone 999



AMBER

If your child has any of the following:

- Is finding it hard to breathe including drawing in of the muscles below their lower ribs, at their neck or between their ribs (**recession**) or **head bobbing**
- Seems dehydrated (dry mouth, sunken eyes, no tears, drowsy or passing less urine than usual)
- Is becoming drowsy (excessively sleepy) or irritable (unable to settle them with toys, TV, food or picking up) - especially if they remain drowsy or irritable despite their fever coming down
- Has extreme shivering or complains of muscle pain
- Babies under 3 months of age with a temperature above 38°C / 100.4°F
- Infants 3-6 months of age with a temperature above 39°C / 102.2°F
- For all infants and children with a fever above 38°C for more than 5 days.
- Is getting worse or if you are worried
- Has persistent vomiting and/or persistent severe abdominal pain
- Has blood in their poo or wee
- Any limb injury causing reduced movement, persistent pain or head injury causing persistent crying or drowsiness

You need to contact a doctor or nurse today.

Please ring your GP surgery or call NHS 111 - dial 111

The NHS is working for you. However, we recognise during the current coronavirus crisis at peak times, access to a health care professional may be delayed. If symptoms persist for 4 hours or more and you have not been able to speak to either a GP or 111, then take your child to the nearest A&E



GREEN

If none of the above features are present

- You can continue to provide your child care at home. Information is also available on NHS Choices
- Additional **advice** is available to families for coping with crying of well babies
- Additional **advice** is available for children with complex health needs and disabilities.



Self care

Continue providing your child's care at home. If you are still concerned about your child, call NHS 111 - dial 111

EUROPEAN PAEDIATRIC LEADS

COVID-19 and Children

A call from paediatric leaders across Europe

Protection.

Vaccination rates have fallen

We call for

- Pan-European cooperation on vaccine supply
- Funding to train health care providers to vaccinate
- Europe-wide campaigning to raise awareness and address vaccine hesitancy

What does success look like?

- Increase vaccine uptake across Europe with all European countries reaching measles free status.

2 Physical and emotional safety has been compromised

We call for

- Increased psychological support for young people and families
- Improved training in recognition of family dysfunction for health care workers
- Prioritising health care access for children with chronic conditions
- Give young people power and leadership to decide for themselves how to make up for not being able to do these things in person

20% Worldwide increase in domestic violence during the pandemic

What does success look like?

- Reduction in the incidence and severity of abusive injuries
- All children protected from harm
- National registers of the incidence of neglect and emotional abuse
- Reduced self-harm
- Improved outcomes of chronic conditions

Long term dangers

We call for

- Poverty reduction targets in all countries for vulnerable children and poor families
- A 'child health in all policies' approach to all policy development
- Targeted resources for at risk families

What does success look like?

- Improving social equality across Europe
- Stable unemployment figures without increasing poverty

COVID-19 and Children

A call from paediatric leaders across Europe

Play.

Play and exercise is critical for development

We call for

- Improved education for families encouraging explorative play
- Focused funding for vulnerable families
- Relaxation of social distancing rules for children
- Promotion and facilitation of exercise in children
- Increased provision of child friendly sport and leisure access

What does success look like?

- Reducing levels of obesity
- All schools open and functioning normally

2 Adolescents are very much invested in social connections and in separating from their parents

We call for

- Involvement of young people in policy development
- Specific policies developed for adolescents

What does success look like?

- Direct involvement of adolescents and young adults in policy development

Foster requests in the UK are up by **+30%**

However offers of places are down by **-20%**

COVID-19 and Children

A call from paediatric leaders across Europe

Education.

School closure affects families hugely with a disproportionate effect on the underprivileged

We call for

- Opening schools for all ages
- Supporting the development of internet access and online teaching resources
- Training teachers and parents in recognising psychological problems

What does success look like?

- Optimal psychological, educational and health development of all children

2 Many children are struggling to work through lockdown and this will impact further education and training, and job possibilities

We call for

- Providing resources and funding to allow catch-up education
- Ensuring full internet coverage for all areas of Europe

What does success look like?

- Full internet access for children and schools

11% of families in Europe have no access to the internet

Young people are losing daily structure and motivation for learning. This affects their ability to schedule effectively and work efficiently

We call for

- Improved career guidance support in higher education establishments
- Supporting self-directed learning and scheduling teaching

What does success look like?

- Increasing employment levels and job satisfaction

Don't Forget The Bubble!

LOW

Don't Forget The Bubble!

LOW

Don't Forget The Bubble!

LOW

kawasaki disease

bilateral conjunctivitis

cervical lymphadenopathy

polymorphous rash

oropharyngeal involvement

hyperaemia → desquamation of extremities

&

persistent fever

*many variants occur



PIMSTS

PIMS and COVID-19


A Guide for Families

Pediatric Inflammatory Multisystem Syndrome (PIMS)
Multisystem Inflammatory Syndrome in Children Associated with COVID-19 (MIS-C)


PIMS/MIS-C is a rare inflammatory illness that affects children and young adults.

The symptoms of this illness resemble Kawasaki disease or toxic shock syndrome.


Many children diagnosed with PIMS or MIS-C had the virus that causes COVID-19.




Fever




Rash



Difficulty Breathing



Red Eyes



Abdominal Pain

Diagnosis	Treatment	Important Notes
<ul style="list-style-type: none"> - Blood tests - Blood clot tests - Echocardiogram - Chest X-ray - Abdominal ultrasound - Kidney function tests - Gut health tests - COVID-19 antibody tests 	<ul style="list-style-type: none"> - Fluids - Anticoagulants - Plasma transfusion - Antibody treatment - Corticosteroids - Vasopressors 	<ul style="list-style-type: none"> - Develops 2-6 weeks after COVID-19 infection. - Most children do not have underlying health conditions. - May cause immediate damage to the heart. - May cause permanent organ damage.

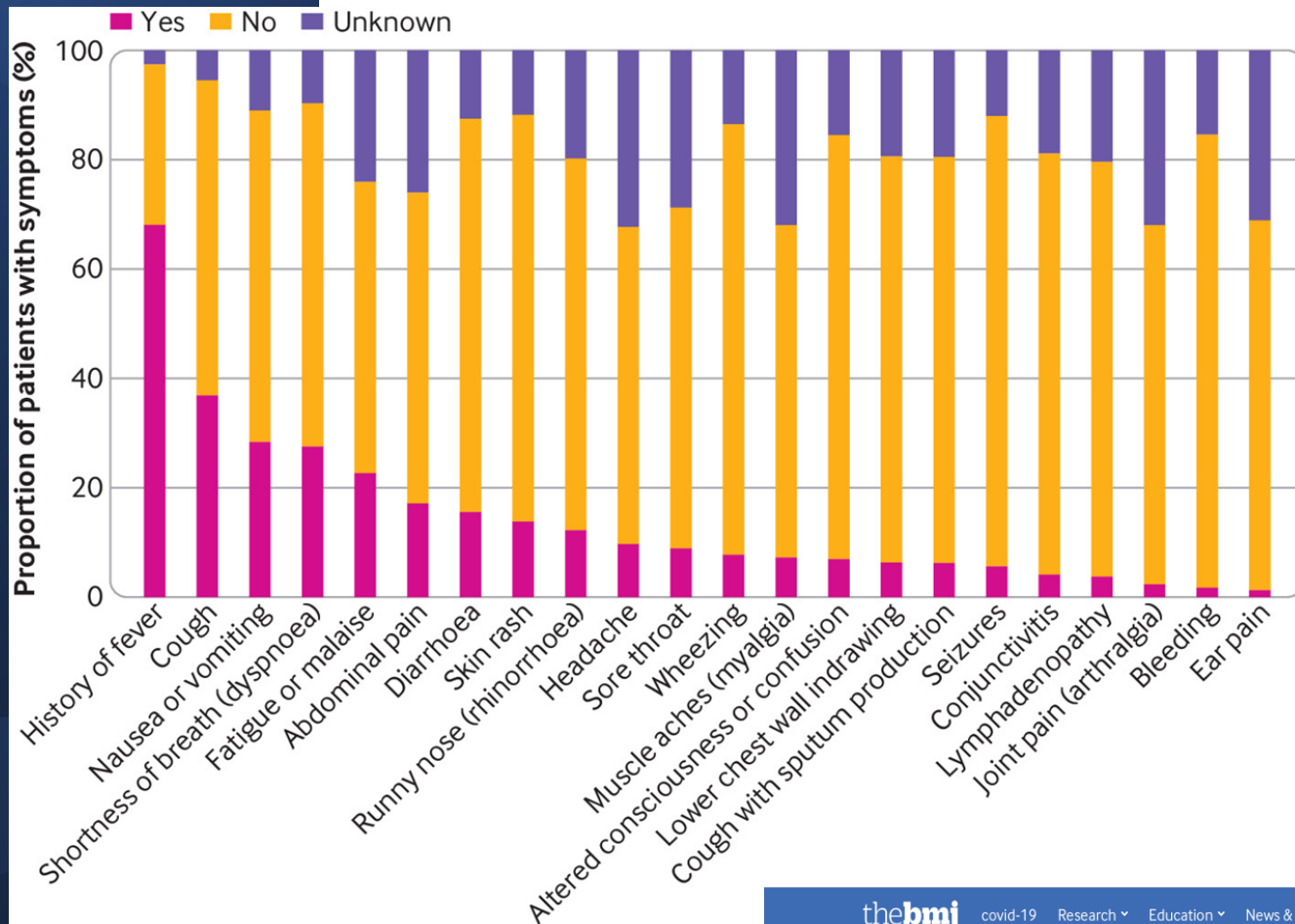
Graphic courtesy of Birth Injury Guide
Learn more about PIMS/MIS-C at <https://www.birthinjuryguide.org/coronavirus-impact-on-children-significant-outbreak-pims/>

RCPCH Case Definition ¹

1. A child presenting with persistent fever, inflammation (neutrophilia, elevated CRP and lymphopaenia) and evidence of single or multi-organ dysfunction (shock, cardiac, respiratory, renal, gastrointestinal or neurological disorder) with additional features. This may include children fulfilling full or partial criteria for Kawasaki disease.
2. Exclusion of any other microbial cause, including bacterial sepsis, staphylococcal or streptococcal shock syndromes, infections associated with myocarditis such as enterovirus (waiting for results of these investigations should not delay seeking expert advice).
3. SARS-CoV-2 PCR testing may be positive or negative.

All stable children should be discussed as soon as possible with specialist services (paediatric intensive care, paediatric infectious disease, cardiology, rheumatology/immunology), and there should be a low threshold for referral to Paediatric Intensive Care **through normal pathways**. Clinical, laboratory features, and list of initial investigations are set out in the [RCPCH guidance](#)

651 children



thebmj

covid-19 Research Education News & Views Campaigns Jobs

Research

Clinical characteristics of children and young people admitted to hospital with covid-19 in United Kingdom: prospective multicentre observational cohort study

BMJ 2020 ; 370 doi: <https://doi.org/10.1136/bmj.m3249> (Published 27 August 2020)

Cite this as: BMJ 2020;370:m3249

PIMs TS TAKE HOME MESSAGE

Median age 4.6yrs

35% of children <12 months

18% of children admitted to ICU

Conclusions Children and young people have less severe acute covid-19 than adults. A systemic mucocutaneous-enteric symptom cluster was also identified in acute cases that shares features with MIS-C. This study provides additional evidence for refining the WHO MIS-C preliminary case definition. Children meeting the MIS-C criteria have different demographic and clinical features depending on whether they have acute SARS-CoV-2 infection (polymerase chain reaction positive) or are post-acute (antibody positive).

Advice for parents/carers of babies less than three months old during coronavirus

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

GP practices and hospitals have made changes to help reduce the risk of infection. Only one parent/carer will be able to attend A&E with their child. Please use the hand sanitisers provided, wear a face covering in enclosed spaces and maintain social distancing.

Remember: if your baby is unwell, seek advice and medical attention. Here is some advice to help:



RED

If your baby has any of the following signs:

- Pale, mottled (blotchy) skin which feels unusually cold.
- Is stiff or rigid for a long time or makes repeated, jerky movement of arms or legs that doesn't stop when you hold them (a fit or seizure).
- Is difficult to wake.
- Has a rash that does not disappear when a glass is gently pressed against the skin.
- Has a hot chest, face or back and is sweaty or clammy (a temperature of 38°C / 100.4°F or higher) unless this is within two days of vaccinations and there are no other signs from this box or the **AMBER** box below.
- Is too breathless to feed, has pauses in their breathing lasting more than 10 seconds and is grunting or going blue.
- Green vomit (like the colour of spinach or green washing up liquid).

Please seek urgent help if you are frightened because your baby looks very unwell.

You need urgent help

Go to the nearest A&E department or call 999



AMBER

If your baby has any of the following signs:

- Difficulty breathing, including: breathing fast all the time; widening their nostrils or pulling in the muscles below the ribs when breathing.
- Not interested in feeding and/or looks dehydrated (dry mouth, sunken eyes, no tears, or no wet nappies in the last 8 hours).
- Is increasingly sleepy or irritable (crying continuously and won't calm down).
- Has yellow skin or whites of their eyes, which is quickly becoming worse.
- Blood in the poo.
- Very pale (white or grey) poo - keep a sample to show the doctor.
- Shivering.
- Keeps being sick.

Please seek advice if your baby is getting worse or if you are worried.

Immediately contact your GP and make an appointment for your baby to be seen that day or call NHS 111 - dial 111

During the current pandemic, it may be more difficult to get advice. If, after 4 hours or more, your baby hasn't improved or has got worse and you haven't been able to speak to either someone from your GP practice or to NHS 111, you may need to take them to the nearest A&E department.



GREEN

If your baby DOESN'T have any signs from the RED or AMBER boxes, the following are normal:

- Your baby is less than two weeks old (or three weeks old and breastfed) and looks slightly yellow, mainly on the face. (This may slowly increase over a day or two but will then start to fade).
- Has four to six wet nappies a day.
- Has green, brown, orange, yellow or black poo. (The poo of breastfed babies is usually yellow and can often look 'seedy' - it's a sign your baby is healthy).
- Continues to feed well with breast or formula milk.
- Baby wakes up often and cries to be fed.

Continue looking after your child at home

If you are still concerned about your baby contact your Health Visitor or NHS 111 - visit 111.nhs.uk or dial 111.

If your baby seems well but is still crying a lot, you can find more advice here: <https://iconscope.org/>

Coronavirus: Parent information for newborn babies

Although the risks are very low, you may be concerned that your baby could get coronavirus. This leaflet tells you what to look out for. Do not delay seeking help if you have concerns.

How will I know if my baby has coronavirus?

Many babies with the virus will not show signs of illness and will recover fully. Some can develop an unstable temperature and/or a cough. Babies with infections do not always develop a fever.

- If your baby has a cough, fever or feels unusually hot or cold, but otherwise well, then call NHS 111.
- If your baby is jaundiced or feeding poorly call your midwifery team
- If your baby shows any signs which concern you in relation to their breathing, colour or movement, then call 999 straight away.

(See more in 'Illness in newborn babies' leaflet)



How to help

Reduce your baby's risk of catching coronavirus by:

- Hand washing before touching the baby, breast pumps or bottles
- Hand washing after nappy changes and contact with other members of the family
- Avoiding coughing or sneezing on the baby whilst feeding
- Following pump cleaning recommendations after each use
- If you feel unwell, ask someone who is well to feed your baby with expressed milk
- If using a bottle follow sterilisation guide-lines fully

Is my baby at risk?

Babies can potentially catch coronavirus after birth from anyone infected with the virus, even if that person does not feel unwell. It is recommended that you take your baby home as soon as it is safe for you to do so, and follow government advice for self-isolation and social-distancing.

In particular you should keep your baby away from people with a cough, fever or other viral symptoms such as a runny nose, vomiting or diarrhoea.



Please turn over for more information

VACCINATIONS FOR CHILDREN



NHS

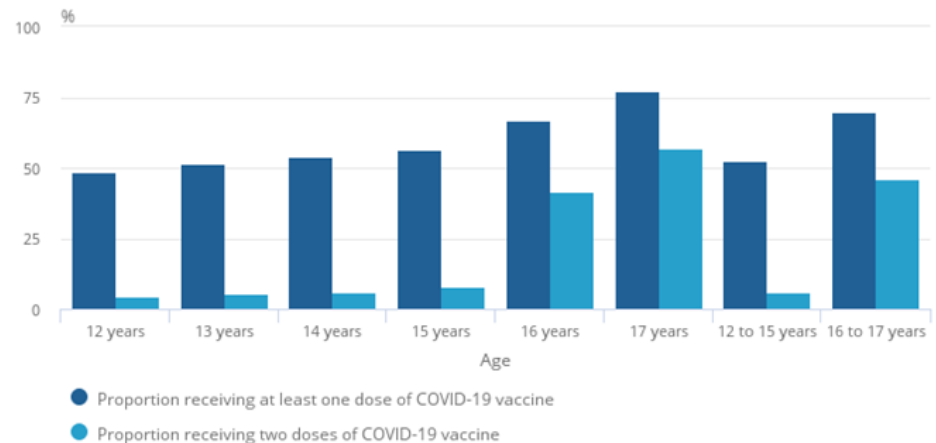
TIME TO PROTECT!

The National Booking Service (NBS) is here to help you book your child's free Covid-19 vaccination

Find out more about Covid-19 vaccinations for children aged 5-11 at [nhs.uk](https://www.nhs.uk)

Figure 1: The coronavirus vaccination uptake among those aged 12 to 17 years increases with age for both first and second doses

Percentage of pupils aged 12 to 17 years in state-funded schools who have been vaccinated by age and number of doses, England, up to 9 January 2022.

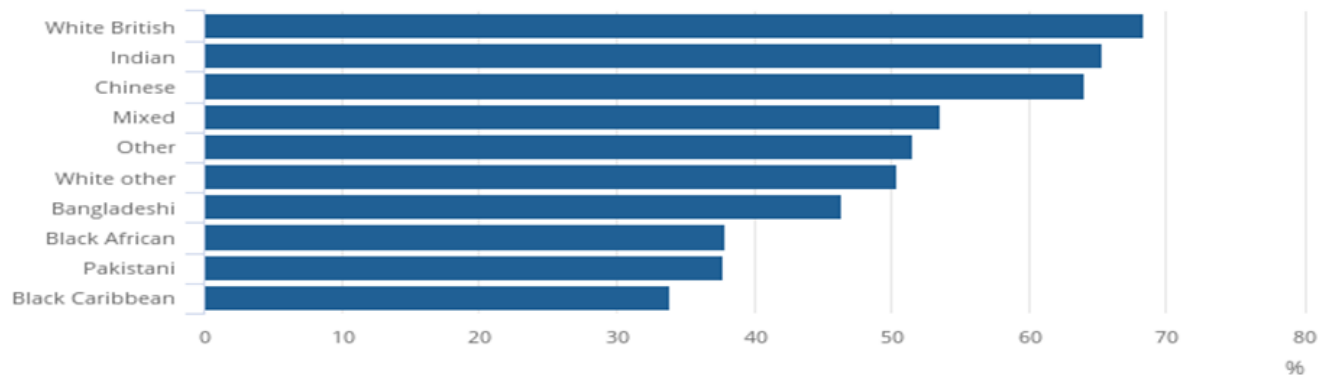


Source: Office for National Statistics - Linked English Schools Census (DfE) and National Immunisation Management System (NIMS) dataset

VACCINATIONS AND ETHNICITY

Figure 1: The proportion of people who had received three vaccinations was lower for all ethnic groups compared with the White British group

Age-standardised proportion of people aged 18 years and over who had received three vaccinations, by ethnic group, England: 16 September 2021 to 31 December 2021



Source: Office for National Statistics - Public Health Data Asset, National Immunisation Management Service

[Home](#) > [Health and social care](#) > [Public health](#) > [Health protection](#)

Press release

Parents warned about dangers of children missing vaccines

UKHSA is warning parents and guardians of the serious health risks from children missing routine immunisations.

From: [UK Health Security Agency](#)

Published 29 September 2022



The UK Health Security Agency (UKHSA) is urging parents and guardians to ensure their children are up to date with all their routine childhood immunisations including polio and measles, mumps and rubella (MMR) vaccinations. This comes as new data shows vaccination coverage for young

Related content

[Cover of vaccination evaluated rapidly \(COVER\) programme 2015 to 2016: quarterly data](#)

[Seasonal influenza vaccine uptake in frontline healthcare workers \(HCWs\) in England: winter season 2021 to 2022](#)

[Adolescent vaccine coverage: user guidance](#)

[Cover of vaccination evaluated rapidly \(COVER\) programme 2014 to 2015: quarterly data](#)

[Meningococcal B immunisation](#)

WINTER
IS
COMING

ANY?
QUESTIONS

CONTACT INFO



+44 207 692 8709



admin@belmatt.co.uk
info@belmatt.co.uk



www.belmatt.co.uk



Suite 570, 405 Kings Road
Chelsea
SW10 0BB