[ind out more >>](https://www.rch.org.au/rch/Coronavirus_(COVID-19)/)

[](https://www.rch.org.au/)

[**The Royal Children's Hospital Melbourne**](https://www.rch.org.au/)

* [Home](https://www.rch.org.au/home/)
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* [Contact](https://www.rch.org.au/rch/contact/)
* [My RCH Portal](https://myrchportal.rch.org.au/)

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* [Health Professionals](https://www.rch.org.au/rch/health-professionals/)
* [Patients and Families](https://www.rch.org.au/rch/patients-families/)
* [Departments and Services](https://www.rch.org.au/rch/departments/)
* [Research](https://www.rch.org.au/research/)

**Clinical Practice Guidelines**

In: <https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/>

[RCH](https://www.rch.org.au/)  >  [Health Professionals](https://www.rch.org.au/rch/health-professionals/)  >  [Clinical Practice Guidelines](https://www.rch.org.au/clinicalguide/)  >  COVID-19

**In this section**

* [Guidelines index](https://www.rch.org.au/clinicalguide/)
* [CPG information](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/)
* [Feedback](https://www.rch.org.au/clinicalguide/forms/feedback/)
* [Guidelines resources](https://www.rch.org.au/clinicalguide/about_rch_cpgs/Other_resources/)
* [Parent Resources](https://www.rch.org.au/clinicalguide/guideline_index/Parent_Resources/)
* [Retrieval services](https://www.rch.org.au/clinicalguide/guideline_index/Retrieval_services/)
* [Local Antimicrobial Guidelines](https://www.rch.org.au/clinicalguide/guideline_index/Local_Antimicrobial_Guidelines/)

**COVID-19**

* 
* **See also**

[**Bronchiolitis**](https://www.rch.org.au/clinicalguide/guideline_index/Bronchiolitis/)  
[**Community acquired pneumonia**](https://www.rch.org.au/clinicalguide/guideline_index/Community_acquired_pneumonia/)  
[**Croup**](https://www.rch.org.au/clinicalguide/guideline_index/Croup_Laryngotracheobronchitis/)

**Key Points**

* 1. Children appear to be less commonly and less severely affected by COVID-19 than adults
  2. Testing should be restricted to those who meet the current case definition\* and those with severe disease requiring respiratory support
  3. Children with croup and/or suspected upper airway obstruction should not be swabbed until it is deemed safe to do so by a senior clinician
  4. The use of high-flow nasal oxygen and nebuliser therapy may aerosolise virus; use should be avoided if other options are effective
  5. Appropriate respiratory support should not be withheld. For children with suspected or confirmed COVID-19 requiring high-flow oxygen or nebulised therapy, airborne precautions (full PPE including N95 mask) must be maintained and management must occur in the highest level of isolation available. This should be discussed with a senior clinician and/or ICU.

**\*Case definitions may differ in each State:**[**NSW**](https://www.health.nsw.gov.au/Infectious/diseases/Pages/2019-ncov-case-definition.aspx)[**Qld**](https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/novel-coronavirus-qld-clinicians/resources-for-clinicians)[**Vic**](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19)

**Background**

* 1. Coronaviruses are a large family of viruses that cause respiratory infections, including the common cold and more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS)
  2. The most recently discovered coronavirus (SARS-CoV-2) causes coronavirus disease (COVID-19)

**Assessment**

Triage child to a single room, negative pressure if available

**History**

The full clinical spectrum of disease remains uncertain – case definitions are changing frequently. Typical symptoms include:

* 1. Fever
  2. Cough
  3. Sore throat

**Examination**

* 1. Increased work of breathing/respiratory distress
  2. Tachypnoea
  3. Cyanosis

**Assessment of severity**

* 1. [severe respiratory distress](https://www.rch.org.au/clinicalguide/guideline_index/Assessment_of_severity_of_respiratory_conditions/)
  2. severe hypoxaemia or cyanosis
  3. marked tachycardia
  4. altered mental state

**Management**

**Investigations**

* 1. Testing for coronavirus should be restricted to those who meet the current case definition including those with severe disease (**\*Case definitions may differ in each State:**[**NSW**](https://www.health.nsw.gov.au/Infectious/diseases/Pages/2019-ncov-case-definition.aspx)[**Qld**](https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/novel-coronavirus-qld-clinicians/resources-for-clinicians)[**Vic**](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19))
  2. For children with bronchiolitis, croup and pneumonia who don’t meet the case definition, testing should only be done for those with worsening disease who are likely to require escalation of respiratory support
  3. PCR of throat and nasopharyngeal swab using same swab - tonsillar bed first, then nasopharynx (insert along the floor of the nasal cavity parallel to the palate about 1-2cm in until resistance is encountered, and rotate gently for 10-15 seconds; then withdraw and repeat the process in the other nostril
  4. For patients who fit the testing criteria and who require admission, two negative nasopharyngeal swabs (plus a lower respiratory tract specimen such as sputum if possible) are recommended to exclude COVID-19 infection. Further testing can also be considered if a patient deteriorates and clinical suspicion of COVID-19 remains high
  5. Children admitted to ICU should have a lower respiratory tract specimen collected
  6. Chest x-ray is not routinely recommended and may be normal
  7. CT has been used for diagnosis in adults; this is not recommended in children

**All confirmed cases must be notified to the**[**Health Department**](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/#additional-notes) (will assist with admission decisions or HITH follow up)

**Treatment**

**Mild to moderate disease** should be managed as per clinical syndrome (See [Bronchiolitis](https://www.rch.org.au/clinicalguide/guideline_index/Bronchiolitis/), [Croup](https://www.rch.org.au/clinicalguide/guideline_index/Croup_Laryngotracheobronchitis/), [Pneumonia](https://www.rch.org.au/clinicalguide/guideline_index/Community_acquired_pneumonia/))

* 1. Confirmed COVID-positive cases should be isolated
  2. Droplet and contact precautions (gloves, gown, surgical mask, eye wear) should be observed for **ALL**HCWs, family members and visitors
  3. High-flow nasal oxygen therapy should be avoided if possible due to risk of aerosolisation – **discuss with senior clinician and consider consultation with ICU**
  4. **Nebulised adrenaline should be reserved for severe**[**croup**](https://www.rch.org.au/clinicalguide/guideline_index/Croup_Laryngotracheobronchitis/)
  5. Confirmed cases may not require admission if respiratory and hydration status are stable. Decision to admit should be supported by clinical assessment (including risk factors), social and geographical factors, and phase of illness
  6. Consider Ambulatory/Hospital-in-the-Home (HITH) care if available

**Severe disease**

* 1. Respiratory support as required
  2. Airborne precautions (full PPE including N95 mask) must be maintained if child requires high-flow oxygen, non-invasive ventilation or nebulised therapy. **Do not withhold these therapies if indicated**
  3. Management must occur in the highest level of isolation available
  4. A number of antiviral and other medications have been suggested as possible treatments for severe COVID-19 - consult Infectious Diseases team

**Home-ventilated patients** on CPAP or BiPAP and those with tracheostomy (with or without ventilation) who have suspected viral respiratory tract infection should be tested for coronavirus, and managed with airborne precautions until confirmed to be negative

There is currently no evidence that ibuprofen can make COVID-19 worse.  There is insufficient evidence for ceasing any existing medication, including NSAIDs, immunosuppressants, angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs)

Airborne precautions should be maintained for children with respiratory illness requiring nitrous oxide for procedures; staff involved should use PPE

**Infection Control**  
[How to don and fit N95 masks](https://www.coordinare.org.au/assets/Uploads/Resources/resources/Principles-of-fit-checking-chart-masks.pdf)  
[How to don and remove PPE](https://www1.health.gov.au/internet/main/publishing.nsf/Content/how-to-fit-and-remove-personal-protective-equipment-in-the-correct-order)

Videos ([see below](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/#v1))

[PPE for Droplet Precautions](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/#v1)  
[PPE for Airborne Precautions](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/#v2)  
[P2/N95 masks](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/#v3)

[NSW Clinical Excellence Commission videos](http://www.cec.health.nsw.gov.au/keep-patients-safe/COVID-19/Personal-Protective-Equipment-PPE/covid-19-training-videos)

[Queensland Health PPE information](https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/novel-coronavirus-qld-clinicians/personal-protective-equipment-ppe)

**NB Care must be taken when removing PPE as contamination may occur**

**Consider consultation with local paediatric team when:**

Suspected or confirmed cases of COVID-19 requiring respiratory support – consider consultation with respiratory medicine and/or ICU

**Consider transfer when:**

Confirmed case with severe or worsening moderate disease

**For emergency advice and paediatric or neonatal ICU transfers, see**[**Retrieval Services**](https://www.rch.org.au/clinicalguide/guideline_index/Retrieval_services/)**.**

**Consider discharge when:**

All suspected or confirmed cases who do not require respiratory support. These cases must remain in home isolation as per local [health department](https://www.rch.org.au/clinicalguide/guideline_index/COVID-19/#additional-notes) recommendations

**Parent information**

[Coronavirus and children in Australia](https://raisingchildren.net.au/toddlers/health-daily-care/health-concerns/coronavirus-and-children-in-australia)  
[Translated resources](https://www.dhhs.vic.gov.au/translated-resources-coronavirus-disease-covid-19)  
[COVID-19 and immunosuppressed patients](https://www.rch.org.au/uploadedFiles/Main/Content/clinicalguide/guideline_index/Coronavirus%20COVID-19%20RCH%20Immunosuppression%20infor%20v1%2012%20March%202020%20adapted%20for%20all.pdf)

**Additional notes**

**Health Department resources**  
[NSW Health information](https://www.health.nsw.gov.au/Infectious/diseases/Pages/coronavirus.aspx)  
[Queensland Health information](https://www.qld.gov.au/health/conditions/health-alerts/coronavirus-covid-19)  
[Victorian DHHS information](https://www.dhhs.vic.gov.au/coronavirus)

**Other resources**  
[Paediatrics.Online](https://paediatrics.online/covid-19/)  
[Don’t Forget The Bubbles. An evidence summary of paediatric COVID-19 literature](https://dontforgetthebubbles.com/evidence-summary-paediatric-covid-19-literature/)  
[UpToDate](https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19)  
[RCH COVID-19 information](https://www.rch.org.au/infection_control/resources/Novel_Coronavirus_information/) (intranet only)

**PPE for Droplet Precautions**