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**Multisystem Inflammatory Syndrome in Children (MIS-C)**

Early reports of a multi-system inflammatory disorder in children with COVID-19 began in April 2020. Cases were first noted in the United Kingdom, then in New York. The illness is characterized by prolonged fever, evidence of inflammation in the body and involvement of one or more organ systems, and is now being called “Multisystem Inflammatory Syndrome in Children (MIS-C).”

Some children have experienced inflammation of the heart, vomiting, diarrhea, abdominal pain, kidney injury and/or rash. Severe respiratory symptoms are less common. Some affected children have some or all signs and symptoms seen in Toxic Shock Syndrome or Kawasaki Disease. Kawasaki Disease is a rare illness in children with symptoms of fever, rash, conjunctivitis, red or swollen hands or feet and red or cracked lips, and can result in enlargement or aneurysms of the coronary arteries.

The cause of this inflammatory syndrome is not yet known. Some children have tested positive for COVID-19 by nasal PCR testing (looks for RNA from the virus) or antibody testing (looks for the immune system’s response to an infection from the virus). So there is a possibility based on the time course and testing results that this illness could be associated with COVID-19.

Most affected children have done well. Treatments have included medications used to decrease inflammation, and many children have recovered with supportive care alone.

**Important information for families about COVID-19 and Multisystem Inflammatory Syndrome (MIS-C)**

1. COVID-19 is affecting a small portion of children:

* Approximately 3% of all children tested for COVID-19 have positive tests in our area
* Children 18 years old and younger account for approximately 2% of COVID-19 cases in our area)

1. The vast majority of children who do get COVID-19 have a very mild illness and rarely have severe symptoms requiring hospitalization.
2. We are still learning more about this multisystem inflammatory syndrome, but it has been seen in a small portion of children with COVID-19. So it is a rare complication of an already rare infection in children.
3. Parents or clinicians who suspect a child may have multisystem inflammatory syndrome should contact a pediatric infectious disease specialist (314-454-6050). The recommended evaluation may include:

* Blood tests to measure blood markers of inflammation, liver and kidney function as well as blood tests for antibodies SARS-CoV-2 (the virus that causes COVID-19).
* Some children may also have echocardiograms (ultrasounds of the heart) to look at heart function as well as the size of the coronary arteries.

SOURCES:

* [Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019 (COVID-19)](https://emergency.cdc.gov/han/2020/han00432.asp)
* [Guidance: Pediatric multisystem inflammatory syndrome temporally associated with COVID-19](https://www.rcpch.ac.uk/sites/default/files/2020-05/COVID-19-Paediatric-multisystem-%20inflammatory%20syndrome-20200501.pdf)
* [PICS Statement: Increased number of reported cases of novel presentation of multisystem inflammatory disease](https://picsociety.uk/wp-content/uploads/2020/04/PICS-statement-re-novel-KD-C19-presentation-v2-27042020.pdf)
* [Pediatric Multi-System Inflammatory Syndrome Potentially Associated with COVID-19](https://www1.nyc.gov/assets/doh/downloads/pdf/han/alert/2020/covid-19-pediatric-multi-system-inflammatory-syndrome.pdf)