

ESPE Patient Information Leaflet on COVID-19 and Pediatric Endocrine Diseases

Disease specific information and advice: **OBESITY**

This flyer aims to provide guidance on prevention and treatment of COVID-19 in patients with a pediatric endocrine disease. It summarizes facts about COVID-19, and what children with endocrine diseases and their parents need to know regarding their health and well-being. These recommendations are based on the latest knowledge and expert opinion. If, after reading, you still have concerns or questions, please contact your physician or healthcare provider.

What is COVID-19?

Infection by coronavirus can lead to disease COVID-19, a flu-like illness. On March 11, 2020, the World Health Organization publicly characterized COVID-19 as a pandemic. People who are confirmed to have COVID-19 have exhibited mild to severe respiratory illness with fever, coughing and shortness of breath. Additional symptoms include chills, muscle pain, sore throat, loss of taste or smell and possibly gastrointestinal symptoms like nausea, vomiting or diarrhea, skin rash, or discoloration of fingers or toes. Symptoms may appear 2–14 days after exposure to the virus. Risk on severe course of COVID-19 is associated with increasing age, being overweight or obese, male gender, high blood pressure and diabetes with health conditions or comorbidities.

Children and COVID-19

In children, disease course of COVID-19 is generally mild. Usually no special treatment is required, other than simple supportive measures (drink enough water, use paracetamol). Few children have complaints that are so serious that hospitalization is necessary and deaths from COVID-19 in children are extremely rare. Children who have COVID-19 and have symptoms such as fever and cough are thought to be able to spread the virus in a similar way to adults. Many children with COVID-19 have no symptoms and it is not known if they can spread the virus.

Are children with obesity at increased risk of corona infection or severe course in COVID-19?

Adults with obesity have increased risk of severe course of COVID infection. In children absolute the risk of severe course of COVID infection is extremely low. There is still little data about children with genetic or syndromic obesity and COVID-19 in medical literature. Information from medical specialists from national and international networks is reassuring with no indication to be more concerned than with other common cold viruses in this group of patients. Those at greatest risk seem adolescents aged >16 with severe obesity (BMI>40 kg/m²) and comorbidities like diabetes or hypertension.

What should children with obesity do to protect themselves?

For COVID-19, there is not yet a vaccine. To prevent coronavirus from spreading, there are several general recommendations. Wash your hands often with soap and water for at least 20 seconds; do not touch your eyes, nose and mouth with unwashed hands; avoid close contact with people who

are sick; stay home when you are sick; and disinfect frequently touched objects and surfaces. Strict adherence to COVID-19 prevention measures, like social distancing, is necessary. Be prepared, just in case. Have your doctor's phone numbers ready, including how to reach them at night and on weekends or holidays.

Wearing of masks or face coverings: you should follow advice from local authorities in your area. The World Health Organization recommends that children over 12 should wear a mask under the same conditions as adults. For children 5 years and below the WHO recommend that they should not be required to wear masks. For children aged 6-11 years the decision on whether to wear a mask will depend on a number of factors

- Ability of the child to tolerate wearing a mask
- The rate of local transmission of COVID-19
- Adult supervision for putting on, taking off and wearing mask
- Potential impact of wearing a mask on learning and psychosocial development
- Interactions the child has with other people who are at high risk of developing serious illness, such as the elderly and those with other underlying health conditions

Do the corona measures differ for children with obesity compared to the general population?

The corona measures under are no different for children with obesity than for healthy children. No extra precautions are needed other than the usual advice. They should go to school when permitted by the general corona measures. The corona virus will be around for a long time, it is important for development and for well-being of children to go to school. The SARS-CoV2 will be around for a long time; therefore, it is important for children to attend school regularly to obtain adequate education, while promoting their normal development and general well-being. It is also especially important to continue to have physical activity during the pandemic. Especially children with obesity are strongly encouraged to integrate physical activity in their daily routine even during lockdowns. Cycling, walking, playing with other family members around the house and in the garden and even participating in house cleaning are all part of being physically active.

What is the advice on the regular monitoring of children with obesity?

Regular monitoring regarding obesity should continue and should overcome restricted access to healthcare facilities. Consultancies may change to telephone or video-calls. When on medication, this should not independently be adjusted. Ensure that there are enough medical supplies on hand and have access to refills in the event of quarantine.

Disclaimer: Due to the emerging nature of the COVID-19 crisis this document is not based on extensive systematic review or meta-analysis, but on literature review and expert opinion. The document should be considered as guidance only; it is not intended to determine an absolute standard of medical care. Healthcare staff need to consider individual circumstances in their management for patients.

References:

<https://www.who.int>

<https://easo.org/covid-19-and-obesity/>

Ping-Ing lee, Ya-LiHu Po, YenChen Yhu, CheringHuang Po, RenHsueh. Are children less susceptible to COVID-19? Microbiology, immunology and infection, published online february 25th 2020.

Cao Q. Chen YC, Chen CL, Chiu CH. SARS-CoV-2 infection in children: transmission dynamics and clinical characteristics. J. Formos Med Assoc 2020, Mar 2. (Epub ahead of print)

Shen K, Yang Y, Wang T et al. Diagnosis, treatment, and prevention of 2019 novel coronavirus infection in children: experts' consensus statement. World Journal of pediatrics 2020.

Shekerdemian et al. JAMA Ped 2020. Characteristics and Outcomes of Children With Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units. <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2766037>

Cummings et al. Epidemiology, clinical course, and outcomes of critically ill adults with COVID-19 in New York City: a prospective cohort study. Lancet may 2020