

COVID-19: Impact of Childhood Obesity on Health Outcomes



A Resource for Improving Measurable Impact
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Key Findings:

Childhood obesity is linked to worse outcomes from COVID-19

- Obesity is a risk factor for hospitalization and mechanical ventilation from COVID-19 among children.¹⁻³ One study demonstrated that obesity was the **strongest risk factor for mechanical ventilation** among children ages two years or older with COVID-19.³

Prevalence of childhood obesity is growing across the U.S.⁴

- Texas has the **8th highest rate** of childhood and adolescent (ages 10-17) obesity according to the most recent (2019-2020) national data estimate from the National Survey of Children's Health.^{5,6}

Minority youth are at risk

- In Texas, Hispanic and Black children have nearly twice the rate of obesity compared to non-Hispanic white children.⁷

Stay-at-home orders impact healthy habits

- During stay-at-home orders, youth reported more physical inactivity, sedentary behavior, and consumption of unhealthy foods and sugar-sweetened beverages – all of which increase risk for weight gain.⁸⁻¹⁰

Health behaviors persist into adulthood

- Poor health behaviors in childhood increase lifetime risk for serious conditions like obesity and diabetes.^{10,11}

Telemedicine can reduce barriers to care during the pandemic

- Chronic disease management requires frequent interactions with healthcare teams. Telemedicine ensures continuity of care for youth with obesity.¹²

Impact of Obesity on COVID-19 Outcomes:

- As of October 14, 2021, children and adolescents accounted for 16.4% (6,177,946/37,611,563) of U.S. COVID-19 cases.¹³
- As of October 20, 2021 the Centers for Disease Control and Prevention (CDC) reported that among 3,829 children hospitalized with COVID-19 and known condition status, 54% had an underlying health condition. The most common conditions included obesity (35.2%), asthma (15%), and neurologic conditions (14.1%)¹⁴
- Severe obesity is an even higher risk for COVID-19 complications among children.¹⁵

Impact of COVID-19 on Obesity:

Studies indicate the pandemic and stay-at-home orders are impacting child health behaviors related to obesity.⁹

- During stay-at-home orders, children and adolescents:^{8,10}
 - Decreased time spent playing sports and participating in physical activity
 - Increased sedentary time and screen time
 - Increased consumption of sugar-sweetened beverages and unhealthy foods
- Socioeconomic inequities may be exacerbated by COVID-19, as many families have limited resources available to purchase healthy foods and exercise at home during lockdowns.^{10,16,17}
- A recent study conducted by the CDC found that the rate of increase in body mass index (BMI) among children and adolescents ages 2-19 years doubled during the pandemic (March-November 2020) compared to before the pandemic (January 2018-February 2020).¹⁸

Mitigation & Prevention Recommendations:

Improve access to healthcare:

- Enhance telehealth infrastructure for screening, prevention and treatment of obesity.¹⁹ Telemedicine can be an effective approach for multidisciplinary teams to provide care to youth with obesity – especially during COVID-19 – by reducing travel barriers, building trust with healthcare providers, and ensuring continuity of care.^{9,12}

Promote healthy habits:

- Strengthen nutrition education, opportunities for physical activity, and availability of healthy foods in schools, early childhood, and afterschool programs.^{5,6,19,20}
- Expand availability of resources to support the use of evidence-based childhood obesity prevention programs.^{6,19,20}
- At the individual level, children and adolescents should participate in 60 minutes of physical activity each day, eat a variety of healthy foods, limit sedentary screen time, and get enough sleep each night to promote physical and emotional health.^{6,9,21-24}

Summary:

Though COVID-19 infections remain low in younger populations, children with obesity are at greater risk for hospitalization and mechanical ventilation from COVID-19. Moreover, stay-at-home orders are affecting health behaviors associated with weight gain and obesity among children, including poor dietary habits and physical inactivity. Recommendations include supporting telemedicine to coordinate care for youth with obesity, strengthening school- and community-based efforts to promote healthy eating and physical activity, and reinforcing COVID-19 prevention efforts in childcare centers and schools.

TX RPC Network Member Content Experts

Deanna Hoelscher, PhD, RDN, LD, CNS, FISBNPA

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health in Austin

Alexandra van den Berg, PhD, MPH

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health in Austin

Shreela Sharma, PhD, RD, LD

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health in Houston

Sarah Messiah, PhD, MPH

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health in Dallas

Emily Dhurandhar, PhD

Metabologix, LLC

Belinda Reininger, DrPH

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health in Brownsville

Leah Whigham, PhD, FTOS

The University of Texas Health Science Center at Houston (UTHealth) School of Public

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