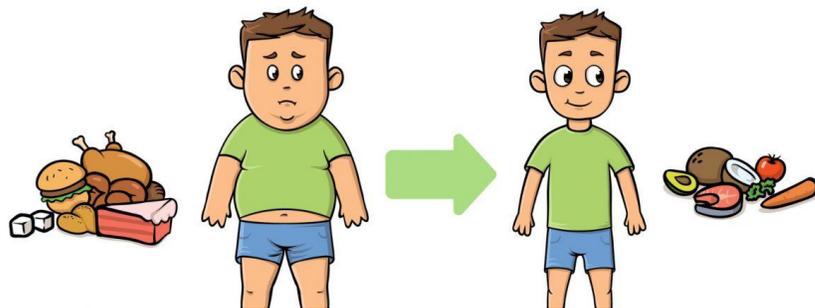


Childhood Obesity Is a Serious Problem. COVID-19 Isn't Helping.

Childhood obesity is a serious, growing problem in the United States. Childhood obesity has been on the rise since the 1980s when obesity among children and teens tripled from nearly 5% to approximately 15%. Currently, nearly a third of US children between the ages of 2 and 19 are overweight or obese. But, obesity also comes with societal and economic consequences. The CDC claims that in 2008, obesity-related medical care cost the United States an estimated \$147 billion.

According to the Childhood Obesity Foundation of Canada, if a child or adolescent stores too much fat they can be classified as overweight or obese. One sign of childhood obesity is a weight well above the average for a child's height and age. Children and youth are classified as either being overweight or obese based on their Body Mass Index (BMI).



If left untreated, childhood obesity more than likely will lead to high blood pressure and high cholesterol, type 2 diabetes, and asthma. But, don't pass off obesity in a child as something the child will outgrow. In a study done by the New England Journal of Medicine, the researcher's models predicted that given the current level of childhood obesity, a majority of today's children will be obese at the age of 35 years, and roughly half of the projected prevalence will also experience childhood obesity. They also found that for children with severe obesity, the chance they will no longer be obese at the age of 35 years fell from 21.0% at the age of 2 years to 6.1%

at the age of 19 years. Meaning that the younger you are when you're diagnosed with obesity, the more chance you have of not continuing to be obese at the age of 35. The younger you are, the more time you have to try to reverse your obesity because it is harder to lose weight as you age.

Like most diseases, there are ways to prevent childhood obesity. Obesity is considered a lifestyle disease, meaning that it is caused by the way we live. You don't need a fancy program, or some expensive equipment to make positive changes for your child and their future. There are three components to losing weight, reversing insulin resistance, avoiding heart disease, and living well. These three components are nutrition, activity, and sleep.

So, what happens when a pandemic hits and regular physical activity is hard to come by and staying inside watching tv is now considered being safe?

COVID-19 was declared a pandemic in March 2020 by the World Health Organization. Obesity is identified as an independent risk factor for severe COVID-19 cases. Children with obesity may also experience a more severe COVID-19 trajectory, including the need for respiratory support.

At the beginning of the pandemic, the WHO announced precautions to take in order to stay safe. This included wearing a mask, social distancing, washing your hands, and keeping rooms well ventilated. They also recommended that schools close worldwide. According to the UN Educational, Scientific, and Cultural organization, these closures affected 80% of children worldwide. It is believed that these school closures will have serious social and health consequences for children, especially those in underserved communities.

The WHO recommends that each child gets 60 minutes of activity a day. That time not only contributes to their physical health but also provides brain benefits like increased ability to focus on schoolwork and better sleep patterns, which we know is an important factor to living a

healthy life. So, how exactly were children expected to get their recommended amount of daily activity when the places they normally get it are suddenly closed?

Many organizations around the world sent out “programs” at the start of the pandemic that included tips to help parents keep their kids active while also working from home. Some of those activities included making recess a priority, kids yoga, and freeze dancing. They also told families how to venture outdoors, cautiously. Those activities included taking family walks, family field days, and hopscotch. While the recommendations and support were there to help keep kids active during all of this, COVID seems to have had a negative effect on obesity rates.

It is abundantly clear that obesity is a major risk factor for severe COVID cases and even death. The U.S., where obesity rates are extremely high, has the highest number of COVID infections and deaths. Similarly, the United Kingdom, where obesity rates are the highest in Europe, has a higher death rate for COVID than other countries in the EU.

According to the State of Childhood Obesity, early evidence is also beginning to show that COVID-19, and the economic consequences of the pandemic, are increasing the risk for obesity. Factors such as limited access to affordable, healthy food, fewer places or chances to be physically active, or uncertain access to healthy school meals, can increase a child’s risk for obesity.

But, despite the staggering differences in obesity rates in children in the U.S compared to other countries, COVID has seemingly taken the same toll on children all around the world. A study was conducted in Verona, Italy that focused on the eating behaviors and lifestyles of children between the ages of 2 and 11 during COVID.

The researchers prefaced the survey by saying “children are probably among the sections of the population most affected by the consequences of this pandemic and have had to pay a very

high price due to the sharp and sudden change in their lifestyle and forced removal from their usual world: school, sports centers, public parks, and friendships.” With that statement, it’s almost as if the researchers knew EXACTLY what results they were going to see. If they expected anything like this, well they were right, they found that 44.5% of respondents had increased consumption of sweets, and 44% of respondents mentioned weight gain due to higher calorie intake related and lower levels of physical activity

When speaking to the State Of Childhood Obesity, Drs. Punam Ohri-Vachaspati, Professor of Nutrition at the College of Health Solutions at Arizona State University, said “COVID-19 is likely to affect obesity rates in children in a significant way...Children and their families most certainly need support now and will continue to do so over time—this is necessary to protect children from long-term negative impacts of the pandemic.” Obesity is not only a ‘personal problem’ but also a problem the government needs to be addressing and helping. But has any of this data from the last year and beyond done anything to boost government action against this other epidemic that is childhood obesity?

The answer is yes, some things are being done now, but it’s not nearly enough and if they want to fight this growing epidemic that is only getting worse, governments need more assistance and guidance. This is why a group of obesity experts and The World Obesity Federation wrote an open letter to the WHO in June of 2020 and asked for more COVID-19 guidance on obesity. The letter addressed the need for assistance to “highlight the need to increase weight surveillance, protect people with obesity, and take steps to ensure food and nutrition security, opportunities for physical activity, and mental health support.”

The WHO has a ‘build back better’ plan which includes addressing non-communicable diseases and the effect they have on complications and mortality with COVID-19 cases. But, not

once does it address obesity. The doctors wrote in the letter “with close to 1 billion people affected by obesity globally, no country is on track to meet the 2025 WHO Global Targets and the greatest increase in obesity prevalence is being seen in low-and middle-income countries.” This makes now a perfect time for the WHO to address this epidemic and provide guidance for countries all over the world since we know every country is now dealing with childhood obesity and it seems it’s only going to continue to get worse.

Obesity is a chronic disease, and like all others, there’s not one root cause. Despite the stigma that surrounds obesity that people think it is due to laziness, there’s not one main cause of obesity. That makes treating it that much harder. The approach to how we deal with obesity and treat it needs to be fixed.

Despite the programs that many developed at the start of the pandemic to encourage keeping kids active, programs created pre-pandemic, like PsycINFO, CINAHL, ClinicalTrials.gov still lack the major components needed for positive effects on child obesity prevention and treatment.

A study conducted in 2015 for Obesity Reviews studied the effectiveness of multiple home-based interventions for obesity prevention. They chose 6 studies, 3 combined interventions, 1 diet intervention, 1 combined intervention with primary care and consumer health informatics components, and 1 combined intervention with school and community components. Of the 6 studies, none of them had a significant effect on weight-based results but, they found a moderate effectiveness of school-based interventions on preventing childhood obesity.

Most readers would see those findings above and think it’s an easy fix: just implement more strategies in schools to combat childhood obesity. But, it’s not that easy. A lot of schools

lack basic funding to spend on this one health issue, so they must also work with the broader health community and government to tackle the problem. This brings us back to our earlier problem: there is no government action happening to address this epidemic and help decrease it.

So, The World Obesity Federation has put together its own ‘framework for action’ called **ROOTS**. Which stands for **R**ecognize obesity, **O**besity monitoring, **O**besity prevention, **T**reatment of obesity, and **S**ystems-based approach. This framework has been developed by obesity experts and organizations all across the world and it provides suggestions for obesity policy and advocacy that can be changed for each nation and their needs.

The National Collaborative on Childhood Obesity Research also has two of its own resources: a measures registry for children at high risk of obesity and their newest resource, a guide to methods for assessing childhood obesity.

The guide assists users in choosing the correct obesity measurement method, goes in-depth to describe six common methods for assessing children’s body composition and includes case studies. David Berrigan, NCCOR Program Director, spoke on a webinar in February 2020 and said this about the guide “there is a desire in the community for good, clear, authoritative resources about these kinds of measurements.”

Obesity is a societal and global problem, so it is going to take a major societal and nationwide response. Every country’s response is going to be different, but they will rely on organizations like the WHO for guidance. It’s “easy” (I say that *very* lightly) to encourage more time for physical activity and change nutrition in schools as Michelle Obama did, but once those kids go home or school is let out for the summer, there’s still a need for government intervention. So, now all eyes are on governments and health organizations to take the next step.

Data surrounding COVID cases and how they affected those who are obese should be a big enough wake-up call for immediate action. But, there's always a risk for future pandemics and those will be even harder to control than COVID has been if there's no control over the current obesity epidemic. Let us all hope it encourages all the necessary parties to act fast or this epidemic will be too out of control to reverse and it comes with far too many consequences.

REFERENCES

- Addressing obesity as part of COVID-19 Responses – vital for 'BUILDING back better'. (2020, July 07). Retrieved March, 2021, from <https://ncdalliance.org/news-events/blog/addressing-obesity-as-part-of-covid-19-responses-vital-for-%E2%80%98building-back-better%E2%80%99>
- Adult obesity causes & consequences. (2020, September 17). Retrieved 2021, from <https://www.cdc.gov/obesity/adult/causes.html>
- Browne, N., Snethen, J., Greenberg, C., Frenn, M., Kilanowski, J., Gance-Cleveland, B., . . . Lewandowski, L. (2021). When pandemics collide: The impact of covid-19 on childhood obesity. Retrieved March, 2021, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7657263/#bb0540>
- CDC Grand Rounds: Childhood obesity in the United States. (2011). Retrieved 2021, from <https://www.cdc.gov/mmwr/preview/mmwrhtml>
- Childhood obesity facts. (2021, February 11). Retrieved 2021, from <https://www.cdc.gov/obesity/data/childhood.html>
- Cibo, stili di vita & bambini AL TEMPO DEL Covid19: CHE COSA È CAMBIATO? (2021). Retrieved from <https://www.crea.gov.it/-/cibo-stili-di-vita-e-bambini-al-tempo-del-covid19-che-cos-a-%C3%A8-cambiato->
- A guide to methods for assessing childhood obesity. (2020). Retrieved March, 2021, from <https://www.nccor.org/tools-assessingobesity-guide/>
- Obesity and COVID-19: Policy statement. (n.d.). Retrieved 2021, from <https://www.worldobesity.org/news/obesity-and-covid-19-policy-statement>
- Ohri-Vachaspati, D., & Turner, L. (2020, October 01). Impact of THE covid-19 pandemic on Childhood OBESITY . Retrieved 2021, from <https://stateofchildhoodobesity.org/stories/impact-of-the-pandemic-on-childhood-obesity/>
- Open letter to the World Health Organization. (2020). Retrieved March, 2021, from <https://www.worldobesity.org/resources/resource-library/open-letter-to-the-world-health-organization>
- The roots of obesity. (2021). Retrieved March, 2021, from <https://www.worldobesity.org/what-we-do/our-policy-priorities/the-roots-of-obesity>
- Wang, Y., Cai, L., Wu, Y., Wilson, R., Weston, C., Fawole, O., . . . Segal, J. (2015, July). What childhood obesity prevention programmes work? A systematic review and

meta-analysis. Retrieved March, 2021, from
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4561621/>

Ward, Z., & Al., E. (2021, March 16). Simulation of growth trajectories of childhood obesity into adulthood: *Nejm*. Retrieved from
<https://www.nejm.org/doi/full/10.1056/NEJMoa1703860>

What is childhood obesity? Who is at risk? (2019, October 24). Retrieved 2021, from
<https://childhoodobesityfoundation.ca/what-is-childhood-obesity/>

Wise, J. (2021). Covid-19: Highest death rates seen in countries with most overweight populations. *BMJ*. doi:10.1136/bmj.n623