When Two Epidemics Collide: Obesity and COVID-19

COVID-19 HIGHLIGHTED THE VULNERABILITY OF PATIENTS WITH OBESITY[1]

Obesity **INCREASES THE RISK** of severe illness from COVID-19[1,a]

Based on data published between the start of the COVID-19 pandemic and January 2021, compared to people without obesity, people with obesity were...

72%

more likely to be hospitalized

Findings from this analysis also indicate that obesity is associated with a higher risk of ICU admission

WHAT ARE THE OUTCOMES OF PATIENTS WITH OBESITY WHO WERE INFECTED WITH COVID-19?

Moderate and severe obesity may be associated with a **GREATER RISK OF POST-ACUTE SEQUELAE** of COVID-19[2,b,c]

BMI 35-39 kg/m²

28% increased risk of hospital admission

25% increased risk of any diagnostic test[b]

BMI ≥40 kg/m²

30% increased risk of hospital admission

39% increased risk of any diagnostic test[b]

Has COVID-19 motivated you to treat your patients with obesity with greater urgency?

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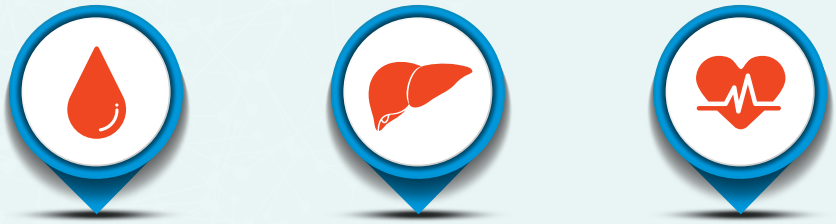
HOW HAS THE COVID-19 PANDEMIC INFLUENCED YOUR TREATMENT STRATEGIES FOR LONG-TERM WEIGHT MANAGEMENT?

Some weight-related comorbidities may also be **RISK FACTORS** for severe illness from COVID-19[3-7,d,e]



T2D **NAFLD** **Hypertension**

Greater weight loss **LEADS TO IMPROVEMENT** of some of these risk factors

	≥5% weight loss	≥10% weight loss	≥15% weight loss
T2D[7-9]	Reduced A1C and reduced need for diabetes medication		
Hypertension[7,8]	Reduced blood pressure and decreased need for hypertension medication		
NAFLD[7]		Reduction in inflammation, fibrosis, and NASH	

WHAT STRATEGIES ARE YOU CONSIDERING TO HELP YOUR PATIENTS WITH MANAGING THEIR WEIGHT?

Visit **www.rethinkobesity.com** for more resources for obesity management

A1C, glycated hemoglobin; AACE/ACE, American Association of Clinical Endocrinology/American College of Endocrinology; BMI, body mass index; COVID-19, coronavirus disease 2019; ICU, intensive care unit; NAFLD, nonalcoholic fatty liver disease; NASH, non-alcoholic steatohepatitis; T2D, type 2 diabetes.

[a]Based on a meta-analysis of 46 studies that were published from the beginning of the COVID-19 pandemic through January 2021. Five of these studies assessed the risk of hospitalization (N = 396,603), and 10 studies analyzed the risk of ICU admission (N = 3652) in people with obesity who were infected with COVID-19.

[b]In a retrospective analysis of a prospective, observational registry of patients within a health system, 2839 patients who tested positive for COVID-19 from March 11 to July 30, 2020 but did not require ICU admission during the acute phase of COVID-19 were followed for a median of 8 months (through January 2021) to track hospitalization, all-cause mortality, and the ordering of diagnostic tests that occurred ≥30 days after the first positive COVID-19 test. Diagnostic tests were selected as surrogate markers for symptoms and medical problems and included any test ordered related to the nervous, cardiac, pulmonary, vascular, renal, hepatic, gastrointestinal, endocrine, or hematologic systems or for mental health.

[c]In the analysis, possible indicators of post-acute events occurring ≥30 days after the first positive COVID-19 test included hospital admission, all-cause mortality, and the ordering of diagnostic tests.

[d]This was a retrospective, case-control study of 71 consecutive patients with laboratory confirmed COVID-19 who were hospitalized between March 15, 2020 and April 30, 2020.

[e]Meta-analysis of twelve studies with 2389 COVID-19 patients (674 severe cases) published up to March 20, 2020 were included for the disease severity analysis.

References: 1. Cai Z et al. *BMC Public Health.* 2021;21(1):1505. **2.** Aminian A et al. *Diabetes Obes Metab.* 2021;23(9):2183-2188. **3.** Centers for Disease Control and Prevention. Updated October 14, 2021. Accessed November 5, 2021. https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/underlying-evidence-table.html. **4.** Centers for Disease Control and Prevention. Updated October 14, 2021. Accessed December 10, 2021. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html#liver-disease **5.** Mahamid M et al. *Eur J Gastroenterol Hepatol.* 2021;33:1578-1581. **6.** Zhang J et al. *Epidemiol Infect.* 2020;148:1-7. **7.** Garvey WT et al. *Endocr Pract.* 2016;22(suppl 3):1-203. **8.** Durrer Schutz D et al. *Obesity Facts.* 2019;12(1):40-66. **9.** Ryan DH, Yockey SR. *Curr Obes Rep.* 2017;6(2):187-194.

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