

# Obesity Increases the Chance of Contracting Covid

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## Introduction

According to a new study, people with a higher BMI are more likely to test positive for SARS-CoV-2, the virus that causes Covid-19.

The researchers from Israel's Chaim Sheba Medical Centre discovered that patients who were overweight or obese had a 22% higher chance of testing positive for SARS-CoV-2 than those with a normal BMI.

Class I obesity (BMI 30.0-34.9 kg/m<sup>2</sup>) was associated with a 27% greater chance of testing positive, which climbed to 38% for class II obesity (BMI 35.0-39.9 kg/m<sup>2</sup>) and an 86 percent increased risk for class III or morbid obesity (BMI at or above 40.0 kg/m<sup>2</sup>).

Obesity-related variables, such as changes in the innate and adaptive immune systems caused by obesity, are thought to be linked to a higher risk of catching numerous viral illnesses. According to the researchers, this link between BMI and viral infection risk suggests that a similar link could exist between an individual's BMI and their risk of developing SARS-CoV-2.

During the study period (March 16 to December 31, 2020), a total of 26,030 patients were tested, with 1,178 positive Covid-19 results.

The researchers discovered that every 1 kg/m<sup>2</sup> increase in a patient's BMI was connected with a 2% increase in the likelihood of testing positive for SARS-CoV-2.

Furthermore, the researchers discovered that persons with diabetes had a 30% higher chance of testing positive, while patients with hypertension had a nearly six-fold higher chance of testing positive.

Patients with a history of stroke (39%), IHD (55%), and CKD (45%), on the other hand, had a decreased chance of a positive test. The

study did not, however, explain why. The study also didn't examine at Covid mortality or outcomes; instead, it focused on the risk of testing positive.

## Obesity May Raise the Risk of Long-term Covid Problems

Obesity has been linked to a weakened immune system and a state of chronic inflammation. According to the study, these circumstances can lead to poor outcomes following an infection with SARS-CoV-2, the virus that causes Covid-19.

To our knowledge, this is the first study to demonstrate that patients with moderate to severe obesity are more likely to experience long-term Covid-19 problems after the acute phase.

The study, which was published online in the journal 'Diabetes, Obesity and Metabolism,' found that patients with moderate and severe obesity had a 28 percent and 30 percent higher risk of hospital admission, respectively, than individuals with a normal BMI.

The requirement for diagnostic tests to assess cardiac, pulmonary, vascular, renal, gastrointestinal, and mental health problems was considerably higher in individuals with a BMI of 35 or higher compared to patients with a normal BMI.

The findings of this study could be explained by the underlying mechanisms at action in obese patients, such as hyper-inflammation, immunological dysfunction, and comorbidities, according to the researchers. They went on to say that those factors can lead to poor results in the acute phase of Covid-19 in obese patients, as well as an elevated risk of long-term Covid-19 problems in this patient population.

A total of 2,839 individuals were included in the study who did not require ICU admission and survived the acute phase of Covid-19. As a baseline, the normal BMI group was used. Obesity is defined as a body mass index (BMI) of 30 or higher.

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