Obesity ups odds for severe COVID-19 in younger patients

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It's clear that age and chronic disease make bouts of the pandemic

coronavirus more severe—and even deadly—but obesity might also put even younger people at higher risk, a pair of new studies suggest.

The researchers suspect that inflammation throughout the body linked to obesity could be a powerful factor in the severity of COVID-19, the disease caused by the coronavirus.

And, they added, it could even be more significant than heart or lung disease.

"This has relevance in the U.S., where 40% of Americans are obese, and will no doubt contribute to increased morbidity and likely mortality, compared to other countries," said Dr. Jennifer Lighter, co-author of one of the studies. Lighter is an assistant professor of pediatric infectious diseases at NYU School of Medicine in New York City.

Though people under age 60 are generally considered at low risk for COVID-19, her team found that those who are obese are twice as likely to be hospitalized for the disease.

And, compared to patients whose weight is normal, those who are morbidly obese are twice as likely to need acute care and three times more likely to be confined to the intensive care unit, the study found.

Though patients studied were obese, none had diabetes or heart disease, Lighter said, but they might be on the verge of them.

"They have higher rates of obstructive sleep apnea, asthma, restrictive lung disease reflux that may be affecting the respiratory system, which takes a hit from an infection like coronavirus," she said.

Younger people who are obese are at high risk, she added. So, they should be reminded to wash hands frequently, practice social distancing

and wear a face mask when they go out, Lighter said.

The second study, led by Dr. Christopher Petrilli of NYU Grossman School of Medicine in New York City, suggested the link with obesity may owe to its role in causing inflammation. Chronic inflammation is a factor in many diseases, including type 2 diabetes, heart disease and cancer.

According to Dr. David Katz, founding director of the Yale-Griffin Prevention Research Center in Derby, Conn., "Age and prior health status are important predictors of the risks of severe coronavirus infection and death."

Basing analyses only on those people with symptoms severe enough to warrant medical attention is not sufficient, Katz said.

"We need random sampling of the general population to know what's relevant," he said. "How many people in each category by age, health and weight were infected, with or without symptoms?"

Older age, obesity and chronic illness increase health risks in this pandemic, Katz said, calling for national policies that support a "stay safe and get healthier" campaign.

"The acute threat of coronavirus highlights some chronic threats to our health that may suddenly matter more, along with an urgent timeline," Katz explained.

Meanwhile, anything you can do to improve your health while in lockdown might pay big dividends, he suggested.

"We can't change our chronological age, but even short-term efforts to improve health and weight while sheltering in place may enhance our

ability to get through this safely," Katz said.

The reports were published online April 9 in the journal *Clinical Infectious Diseases* and April 11 at *medRxiv*.

More information: To learn more about coronavirus, visit the U.S. Centers for Disease Control and Prevention.