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Fat patients found to have an edge when critically ill

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Fat people have a survival edge over skinnier people in the face of critical illness, new research shows.

In the latest example of the phenomenon known as the "obesity survival paradox," American researchers found that while critically ill obese patients spend more days on mechanical ventilators and in intensive care units than thinner ICU patients, they're more likely to survive.

And there are several theories as to why. One holds that an abundant supply of fat tissue acts like a factory, churning out chemicals called adipokines that help fight inflammation and infections such as sepsis -- overwhelming bloodstream infections that are the leading cause of death in an ICU.

In addition, during severe illnesses, the body breaks down muscle protein and glycogen, the body's primary source of stored energy. Obese people may be better able to cope because of greater nutritional reserves.

"With the increased rates of obesity, we're seeing more and more morbidly obese patients in the intensive care unit," says lead author Dr. Folu Akinnusi, of the University of Buffalo's division of pulmonary, critical care and sleep medicine.

"We thought, if they were at increased risk and likely to die, we needed to do something, we needed a different kind of intervention to try and reduce or stem that wave of increased mortality."

Instead, they found the opposite to be true. Akinnusi hopes the findings will make doctors think twice about "subconsciously writing off the obese."

"A lot of times, people have less of an expectation" that they will survive, he says. "If we know they're not at greater risk then you're very likely to give them as much of a chance as everyone else and do the most you can for them."

The study is the latest to show how the very condition that causes multiple health problems -- including high blood pressure, heart disease, stroke and diabetes -- may protect people during serious illness or injury.

Other researchers have found that obese people with kidney failure, heart failure and chronic obstructive lung disease do better than skinnier patients.

No one is suggesting obesity is a good thing, Akinnusi says. "What we're saying is, if it happens it may not necessarily be such a detriment to the patient's outcome."

His study appears in the recent issue of the journal Critical Care Medicine.

According to the most recent estimate from the 2004 Canadian Community Health Survey, 59 per cent of the adult population is overweight and one in four, or 23 percent is obese.

While the new study suggests obesity isn't a significant risk factor for death for someone admitted to a medical or surgical intensive care unit, "this doesn't mean in the long term you're going to do better," says Dr. Arya Sharma, professor of medicine and chair for cardiovascular obesity research and management at the University of Alberta.

"Obesity doesn't kill you overnight."

Akinnusi and his co-authors pooled data from 14 studies that compared the outcomes in obese and non-obese critically ill patients in intensive care units. There were 62,045 critically ill patients in total, 15,347 of whom were obese.

They found obesity was not associated with an increased risk of death, although obese people spent, on average, 1.48 days longer in intensive care units and on mechanical ventilators.

When they dug deeper, they found obese people -- those with a body mass index between 30 and 40 -- were 14 per cent more likely to survive.

Heavier people, those with a BMI of 40 or greater, the "morbidly obese," tend to have more respiratory problems that keep them on ventilators longer, putting them at increased risk of pneumonia, sepsis and other infections.

"They stand a higher risk [of death] than people who are just obese," Akinnusi says.

It's not known from the studies how many of the critically ill patients who were underweight had a chronic illness such as cancer that would have increased their risk of dying in an ICU.

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