

## Short people fare worse in ICUs: study

December 27 2018, by Steven Reinberg, Healthday Reporter

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(HealthDay)—Shorter patients in hospital intensive care units (ICUs) are more likely to die during treatment than taller ones, a new study suggests.

Among more than 400,000 critically ill adults, the shortest patients (4 feet, 6 inches) were 29 percent (men) and 24 percent (women) more likely to die in the hospital than the tallest—6 feet, 6 inches, the study found.

Among the tallest, the risk of dying in the hospital ranged from 21 percent for men and 17 percent for women.

The study does not prove height was totally responsible for the increase in deaths, only that the two appear to be linked.

The study was launched because ICUs tend to base treatment on an ideal patient of average weight and height, said lead researcher Dr. Hannah Wunsch, a critical care doctor at Sunnybrook Hospital in Toronto.

"There are often devices and tubes that are put into people that come in one size or can't easily be varied to accommodate different size individuals," she said.

Wunsch's team thought that these constraints might affect [patient care](#).

"Sure enough, we found that even after we accounted for other factors that we know account for someone dying in the hospital, there was a pretty strong relationship between the height of an individual and their mortality," Wunsch said.

"We can't say for sure why this is happening," she said. "It's speculative that all the things we do to people might in some way be harmful to patients who are smaller."

For doctors, Wunsch said both height and weight may be worth taking into account when treating patients.

"There is limited ability to change things right now," she said. "It opens up a new avenue for awareness and future research."

For the study, Wunsch and her colleagues collected data on patients in 210 ICUs in the United Kingdom between 2009 and 2015. The data included about 233,000 men and 184,000 women.

Of those patients, 45 percent had their height measured.

Increases in height were linked to decreases in deaths, the study found. Researchers also found that height predicted leaving the [hospital](#) for home.

Though differences in treatment might account for the findings, no difference in deaths was seen among [patients](#) on mechanical ventilators. These breathing devices must be adjusted to a patient's height.

The researchers couldn't determine if [height](#) was influenced by childhood disease, such as cancer, which can affect life expectancy. Nor could they account for differences in care in individual ICUs that might affect outcomes.

Dr. Mark Astiz, chairman of critical care medicine at Lenox Hill Hospital in New York City, said these findings aren't conclusive enough to change clinical practice.

"The results of this study need to be confirmed," said Astiz, who wasn't involved with the research. "Also, investigation into the patient characteristics that may be contributing to these differences needs to be done."

The report was published Dec. 23 in the journal *Intensive Care Medicine*.

**More information:** Hannah Wunsch, M.D., Department of Critical Care Medicine, Sunnybrook Hospital, Toronto, Ontario, Canada; Mark Astiz, M.D., chairman, Critical Care Medicine, Lenox Hill Hospital, New York City; *Intensive Care Medicine*, Dec. 23, 2018.

The U.S. National Library of Medicine has more about [critical care](#).

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