

# Tallness linked to increased risk of premature death for patients on dialysis

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Although tall people in the general population tend to live longer than shorter people, the opposite appears to be true for patients receiving dialysis. The findings, which are published in a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN), could provide valuable information for kidney specialists.

Patients with kidney failure who are on dialysis have life spans that may be one-fifth that of the general population, and it is important to identify individual patient characteristics that are associated with longer survival. While studies in the general population have shown that taller individuals tend to live longer, few studies have described the relationship between adult height and survival in [patients](#) undergoing dialysis in the United States.

By analyzing data on 1, 171,842 patients who began dialysis in the United States from 1995 to 2008 were followed for an average for 1.6 years, Mohamed Elsayed, MD, John Ferguson, PhD, and Austin Stack, MD (University of Limerick, in Ireland) have now conducted the largest study to date on the relationship between height and premature mortality risk in [dialysis patients](#).

Among the major findings:

- In contrast to studies in the general population, tallness was associated with higher premature mortality risk and shorter life spans.

- Overall, patients in the tallest categories had the highest risk of dying prematurely, although the association was stronger in men than in women, and the association was observed in white, Asian, and American Indian/Alaskan native patients, but not in black patients. (In fact, for black patients, increasing height was associated with a lower risk of [premature death](#), as seen in the general population.)
- This overall paradoxical relationship between height and premature death was not explained by concurrent illness, socioeconomic status, or differences in care provided to patients prior to or after initiating dialysis.
- The duration of the [dialysis treatment](#) influenced the height-mortality association with higher mortality risks for taller patients who had received shorter treatment times.
- The results also persisted when follow-up was extended to 5 years.

"Dialysis patients have extremely high premature death rates that are between 10- and 100-fold higher than in the [general population](#), and height exerts an important quantifiable effect on dialysis patient survival. It is an easily measured physical trait and our study shows that it is an important prognostic marker for survival," said Dr. Stack. "As height is a component of body mass index, the relationship of [body mass index](#) with mortality in [dialysis](#) may be influenced by the prognostic contribution of height."

In an accompanying editorial, John Daugirdas, MD (University of Illinois, Chicago) notes that the results are intriguing, but "at this point, it is not at all clear what the physiology of increased mortality risk associated with taller stature might be, nor how this new knowledge might affect clinical practice."

**More information:** The article, entitled "Association of Height with

Elevated Mortality Risk in ESRD: Variation by Race and Gender," will appear online at [jasn.asnjournals.org/](http://jasn.asnjournals.org/) on October 1, 2015.

The editorial, entitled "You're Not Big—You're Just Tall, That's All!" will appear online at [jasn.asnjournals.org/](http://jasn.asnjournals.org/) on October 1, 2015.

Provided by American Society of Nephrology

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