

# Volume overload present in patients on peritoneal dialysis

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Volume overload is present before the start of peritoneal dialysis (PD),

and is associated with risk of death, according to a study published online May 23 in the *Clinical Journal of the American Society of Nephrology*.

Wim Van Biesen, M.D., Ph.D., from Ghent University Hospital in Belgium, and colleagues conducted a prospective study implemented in 135 study centers for 28 countries. Incident participants on PD were enrolled before starting PD. Volume status was measured before initiation of PD and thereafter in three-monthly intervals. The authors assessed the correlation between volume overload and time to death.

The researchers found that volume overload before the start of PD amounted to  $1.9 \pm 2.3$  L in the population of 1,054 participants, and decreased to  $1.2 \pm 1.8$  L during the first year. Men and participants with diabetes were at higher risk to be volume overloaded at all time points. During three years of observation, drop-out from PD by transfer to hemodialysis or transplantation was more prevalent than death (23 and 22 percent, respectively, versus 13 percent). Compared with relative volume overload  $\leq 17.3$  percent, relative volume overload  $> 17.3$  percent was independently associated with increased risk of [death](#) (adjusted hazard ratio, 1.59).

"Our study found that substantial [volume overload](#) was present in this incident cohort of participants on PD, with males and subjects with diabetes being more affected," the authors write.

Several authors disclosed financial ties to [medical device](#) and medical supplies companies, including Fresenius Medical Care, which partially funded the study.

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