

What is the effect of lower blood pressure targets for people with chronic renal disease?

Clinical Question	What is the effect of lowering blood pressure (BP) targets in people with chronic kidney disease (CKD) on mortality and morbidity outcomes?
Bottom Line	<p>Intensive BP targets (less than 130/80 mmHg) compared to standard targets (less than 140 to 160/90 to 100 mmHg) likely do not reduce total mortality, serious adverse events, or cardiovascular events. Lower targets may not decrease cardiovascular mortality or progression to end-stage renal disease (ESRD).</p> <p>There were minimal differences between groups in participant withdrawals due to adverse effects or in the number of participants with a doubling of serum creatinine or a 50% reduction in glomerular filtration rate. After one year, the lower target groups had a greater mean decrease in BP but fewer participants reached target levels compared to standard target groups. Intensive target groups required more antihypertensive drugs (mean 2.75) than standard target groups (mean 1.98).</p> <p>Overall, current evidence suggests little to no net health benefit from lowering BP below standard targets in hypertensive CKD patients. Further studies are needed to provide additional insights.</p>
Caveat	<p>This review shows robust methodology as all six studies provided IPD for the population of interest for the review with all six studies providing data on total mortality, total serious adverse events, and cardiovascular mortality.</p> <p>Participants in all 6 included studies achieved the standard blood pressure target, but only participants in 3 studies also achieved the lower blood pressure target. This highlights the difficulty of reaching low targets as observed in real life.</p>
Context	<p>CKD affects about 10% of the global population. Hypertension is a common comorbidity, affecting up to 80% of CKD patients in advanced stages. Elevated BP is a major risk factor for cardiovascular events. Managing CKD often involves antihypertensive therapy, but optimal BP targets remain unclear. Lowering BP can reduce cardiovascular risks but may also lead to adverse effects, especially with intensive treatment strategies. This balance is crucial in CKD management.</p>
Cochrane Systematic Review	<p>Erviti J, Saiz LC, Leache L, Pijoan JI, Menéndez Orenga M, Salzwedel DM, Méndez-López I. Blood pressure targets for hypertension in people with chronic renal disease. Cochrane Database of Systematic Reviews 2024, Issue 10. Art. No.: CD008564. DOI: 10.1002/14651858.CD008564.pub3. This review contains 6 trials which included 7348 people.</p>

Pearls No. 758, October 2024, written by Assoc Professor Vanessa MB Jordan.

Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD008564.pub3/full>