

Richard A. Sherman, MD

Synopsis from the article: [Sherman RA. Modifying the dialysis prescription to reduce intradialytic hypotension. *American Journal of Kidney Diseases* 2001;38 \(Suppl 4\):S18-25.](#)

The dialysis prescription plays an important role in determining the frequency of intradialytic hypotension (IDH). Higher rates of ultrafiltration favor IDH and can be minimized by lower interdialytic weight gains and/or longer treatment times. Eating during treatment dilates enteral vasculature and increases the likelihood of IDH. Cooler dialysate temperature (as tolerated), higher hemoglobin levels, higher dialysate sodium levels, and choosing target weights above true dry weight all reduce IDH, though the latter two options have significant downsides as well. A high (>2.5 mEq/L) dialysate calcium has a modest beneficial effect on IDH, while the effect of holding BP medications before dialysis is of variable benefit and has not been adequately studied.

Commentary by Todd S. Ing, MD

Dr. Sherman gives us an exemplary and very well organized approach to curb intradialytic hypotension, which not uncommonly occurs in thrice-weekly, conventionally dialyzed patients who have high ultrafiltration requirements due to high dietary sodium intakes. Intradialytic hypotension can also take place, though less frequently, during short daily dialysis treatments if aggressive ultrafiltration is needed to combat gross overhydration. Dietary sodium restriction to a level of 5 grams of sodium chloride (85 mmoles of sodium) daily has been recommended for the majority of dialysis patients so that overhydration can be minimized. In the absence of overhydration, there is no need to ultrafilter vigorously and, hence, there is no major reason for intradialytic hypotension to occur (1).

Reference:

1. Clinical practice guidelines for hemodialysis adequacy, update 2006. Guideline 5: Control of volume and blood pressure. *Am J Kidney Dis* 2006;48 (Suppl 1);S33-9.