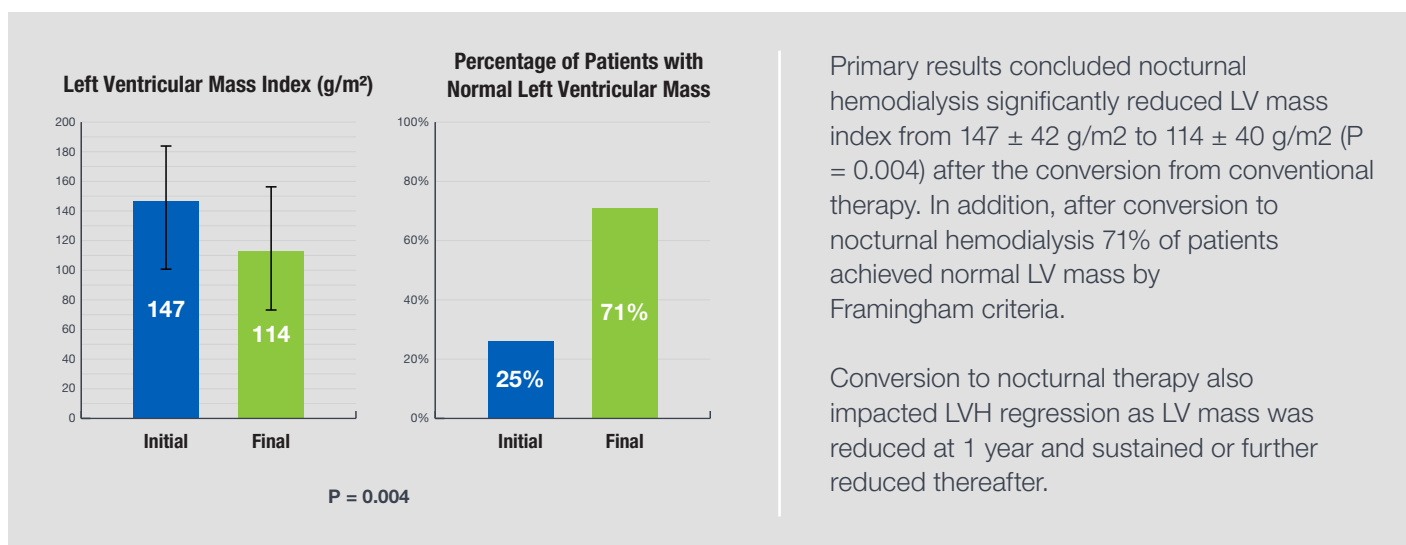


## Significant reduction in left ventricular mass and blood pressure in patients prescribed nocturnal hemodialysis.<sup>1</sup>

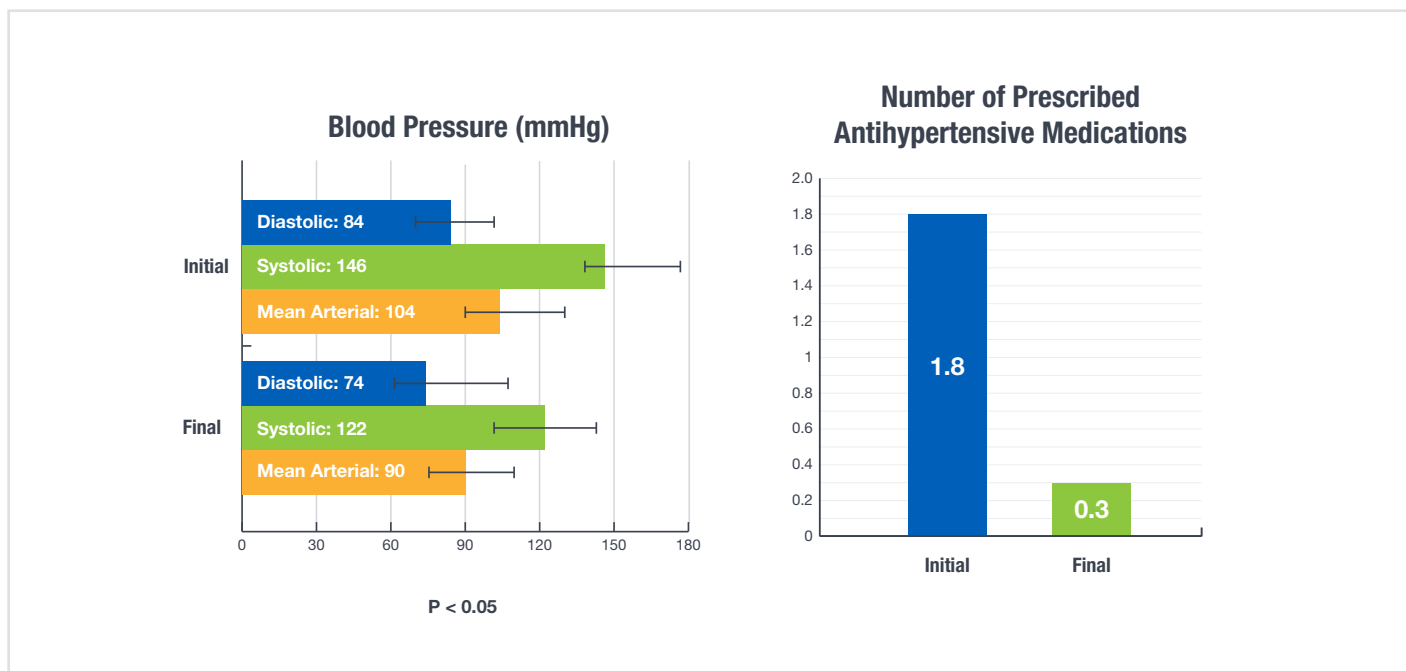
Chan CT, Floras JS, Miller JA, Richardson RMA, Pierratos A. Regression of left ventricular hypertrophy after conversion to nocturnal hemodialysis. *Kidney International*. 2002;61:2235-2239.

This study examined whether there was an observed reduction in left ventricular mass following conversion of End Stage Renal Disease (ESRD) patients from conventional to nocturnal hemodialysis. Left ventricular (LV) mass reduction was also observed for a relationship to one or more of lower blood pressure, improvement in anemia, or a decrease in extracellular volume.

### Nocturnal hemodialysis significantly reduced LV mass index by 22%.



### Nocturnal hemodialysis was associated with significant reductions in blood pressure with fewer prescribed antihypertensive medications.



Left ventricular hypertrophy (LVH) has many contributing factors and is an independent risk factor for mortality, and extremely prevalent in the dialysis population. This study highlights how nocturnal hemodialysis may help to reduce blood pressure and LVH. This suggests nocturnal may ultimately improve their long-term hemodialysis patient survival.

**Study Design:** All patients who were participating in the Nocturnal Hemodialysis demonstration project in Toronto for at least 2 years, beginning in November of 1993 were included in this observational cohort analysis. 28 patients were assessed every 3 months across a variety of parameters including weight, height, BP and hemoglobin concentration. Left ventricular mass measurements were obtained annually, interpreted blindly and calculated from two-dimensional echocardiographs according to the Devereux and Reichek formula.

**Important Information:** The reported benefits of home hemodialysis (HHD) may not be experienced by all patients. The NxStage System is a prescription device. All forms of hemodialysis involve some risks. Certain risks associated with hemodialysis treatment are increased when performing nocturnal therapy due to the length of treatment time and because the patient and care partner are sleeping

**References: 1.** Chan CT, Floras JS, Miller JA, Richardson RMA, Pierratos A. Regression of left ventricular hypertrophy after conversion to nocturnal hemodialysis. *Kidney Int.* 2002;61:2235-2239.



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