



## Symptoms

Diabetic nephropathy is asymptomatic in early stages. Sustained microalbuminuria is the earliest warning sign. Hypertension and some measure of dependent edema eventually develop in most untreated patients. In later stages, patients may develop symptoms and signs of uremia (eg, nausea, vomiting, anorexia) earlier (ie, with higher glomerular filtration rate (GFR)) than do patients without diabetic nephropathy, possibly because the combination of end-organ damage due to diabetes (eg, neuropathy) and renal failure worsens symptoms.

## Treatment of Diabetic Nephropathy

Primary treatment is strict glucose control to maintain HbA1C < 7.0; maintenance of euglycemia reduces microalbuminuria but may not retard disease progression once diabetic nephropathy is well established. Glucose control must also be accompanied by strict control of BP to < 130/80 mm Hg, although some experts now recommend BP < 140/90 mm Hg. Some suggest BP should be 110 to 120/65 to 80 mm Hg, particularly in patients with protein excretion of > 1

g/day; however, others claim that BP values < 120/85 mm Hg are associated with increased cardiovascular mortality and heart failure [5].

## References

1. John A Wells, Adam R Glassman, Allison R Ayala, Lee M Jampol, Neil M Bressler et al. (2015) The Diabetic Retinopathy Clinical Research Network: Afibercept, bevacizumab, or ranibizumab for diabetic