

There are five stages of diabetes nephropathy:

Stage 1	Stage of hyperfunction (very high GFR)
Stage 2	Silent phase: GFR normal
Stage 3	GFR begins to fall
Stage 4	GFR < normal
Stage 5	GFR = 0-10; urgent need for dialysis

Diabetic Neuropathy

Diabetic Neuropathy can be peripheral or autonomic

Gastrointestinal effects of DN (all alter quality of life)

- Problems swallowing solids
- Oesophageal dysmotility
- Gastroparesis diabeticorum
- Constipation/ Diarrhea
- Fecal incontinence: innervation of sphincter is affected

Cardiovascular effects of DN

- Heart rate changes
- Orthostatic hypotension
- Silent ischaemia
- Loss of circadian patterns e.g. testosterone patterns
- Exercise intolerance: feels sick when exercises and passes out

GU system

- Urinary incontinence
- Neurogenic bladder
- Erectile dysfunction

Diabetic Retinopathy

Diabetes retinopathy is the most common cause of blindness worldwide.

Get venous bleeding

Macrovascular complications of Diabetes Mellitus

MI, stroke (carotid and cerebral arteries) and peripheral vascular disease can result from DM

Pro-inflammatory state → vascular inflammation and vascular dysfunction

Other DM complications

Sympathetic Overactivity

Diabetic and metabolic syndromes such as obesity and sleep apnea result in sympathetic overactivity, which in turn activates the CNS sympathetics and enhances the responsiveness of the nervous system.

Sympathetic overstimulation results in decreased sodium delivery and perfusion of the kidney; renin increases and the RAA system becomes permanently activated (consequently causing hypertension).

Patients complain of salt and water retention, which result in hypertension and increased blood volume.

Systemic vasoconstriction as a result of angiotensin II

Cardiac hypertrophy

Aldosterone production → salt and water retention, and stimulates the pituitary to produce ADH; patient feels bloated due to overloading