Diabetic Peripheral Neuropathy: The Forgotten Complication of Diabetes

The publication of this infographic was supported by Viatris.

### Disease Burden of Diabetes

Diabetes is one of the fastest-growing global health emergencies of the 21st century.

Number of People with Diabetes Worldwide and per IDF Region in 2021-2045 (20-79 years)

- **World**
  - 2045: 783 Million
  - 2030: 642 Million
  - 2021: 537 Million

- **North America & Caribbean**
  - 2045: 63 Million
  - 2030: 57 Million
  - 2021: 51 Million

- **Europe**
  - 2045: 69 Million
  - 2030: 67 Million
  - 2021: 61 Million

- **South & Central America**
  - 2045: 55 Million
  - 2030: 33 Million
  - 2021: 24 Million

- **Africa**
  - 2045: 135 Million
  - 2030: 95 Million
  - 2021: 73 Million

- **Middle East & North Africa**
  - 2045: 152 Million
  - 2030: 113 Million
  - 2021: 90 Million

- **Southeast Asia**
  - 2045: 260 Million
  - 2030: 238 Million
  - 2021: 200 Million

- **Western Pacific**
  - 2045: 126 Million
  - 2030: 105 Million
  - 2021: 81 Million

### Complications of Neuropathy

Diabetic neuropathy is a highly prevalent, disabling condition, the management of which is associated with significant complications that come with substantial human burden and financial costs.

Diabetic foot is a leading cause of global burden of disability and poor quality of life.

- Foot ulcer prevalence:
  - Rest of world: 20%
  - Australia: 1%
  - Canada: 15%
  - Europe: 5%
  - Asia: 6%
  - Africa: 7%
  - North America: 13%

- The cost of diabetic foot management in the USA from 2007-2015:
  - $837–962 million

- Five-year survival rate of diabetic foot patients with major amputations:
  - 30%

### Opportunities for Improved Screening and Treatment

Early multifactorial interventions offer the best prospect for managing diabetes and diabetic microvascular complications.

- Intensive glucose control and CV risk intervention
- Lifestyle modifications (exercise, weight loss, and reduced sedentary behaviour)

For diabetes generally:

- Computed tomography
- Magnetic resonance imaging
- Ultrasound

For the screening and management of diabetic neuropathy:

- Composite scoring systems (LANSS, DN4, PanDiTECT)
- Thermal and vibration perception thresholds
- Corneal confocal microscopy
- Evoked potentials
- Microneurography
- DPN Check
- Skin biopsy
- Sudecan
- Neuropad

Co-ordinated screening programmes for measuring diabetic microvascular complications and monitoring risk factors are pivotal to effective diabetes management.

For more information on challenges of living well with diabetes and diabetic neuropathy, consider patient-centric resources, including GLAA, Diabetes.

### References: click here

### Microvascular Complications in Diabetes

Diabetic neuropathy

- Neuropathy most commonly presents in the feet initially, and progresses in a distal to proximal manner as the microvascular complication worsens.

Neuropathy of different types may be asymptomatic, emphasizing the need for extensive screening, as a lack of preventative foot care increases risk of injury.

- Of patients with diabetic neuropathy:
  - 50% will develop foot ulcers during their lifetime
  - 50% will develop neuropathic pain

### The patient can experience:

- Burning/Tingling
- Electric/Shocks
- Pins and Needles
- Painful Cost

Once a patient has been recognised as having diabetic neuropathy that is accompanied by pain, ADA guidelines recognise that only pharmacotherapy is considered as being useful.

### Key

- **ADA**: American Diabetes Association
- **CV**: cardiovascular
- **DN**: diabetic neuropathy
- **DPN**: diabetic peripheral neuropathy
- **GLAA**: Global Alliance for the Audit of Diabetes
- **IDF**: International Diabetes Federation
- **LANS**: Leeds Assessment of Neuropathic Symptoms
- **T1D**: Type 1 diabetes
- **T2D**: Type 2 diabetes

This content has been funded by Viatris.