

Peripheral Neuropathy Nerve Compression Disorders - Bombay Spine Clinic

- Peripheral Neuropathy & Nerve Compression Disorders

What Is It?

- Peripheral Neuropathy refers to damage or dysfunction of the peripheral nerves, which carry signals between the brain, spinal cord and the rest of the body. Nerve Compression Disorders occur when a nerve is compressed, irritated or trapped along its course.
- Patients often present with symptoms such as tingling, numbness, burning sensations or weakness in the hands or feet. While many people assume these symptoms originate from the spine, they may also result from conditions affecting the peripheral nerves themselves.
- Common examples include Carpal Tunnel Syndrome, Cubital Tunnel Syndrome, Diabetic Neuropathy and nerve compression due to spinal disorders.
- Accurate diagnosis is important because treatment depends on identifying the exact source of nerve dysfunction.
- Common Symptoms
 - Patients may experience:
 - Sensory Symptoms
 - Tingling ("Pins and Needles")
 - Numbness
 - Burning sensation
 - Electric shock-like sensations
 - Reduced sensation to touch
 - Increased sensitivity to touch
 - Motor Symptoms
 - Weakness in the hands or feet
 - Difficulty gripping objects
 - Frequent dropping of objects
 - Difficulty walking
 - Foot drop
 - Other Symptoms
 - Balance problems
 - Difficulty with fine hand movements

- Muscle wasting in advanced cases
- Night-time worsening of symptoms

Symptoms may affect:

- Hands
- Feet
- Arms
- Legs
- Or a combination of these regions

Causes & Risk Factors

- Peripheral Neuropathy
- Common causes include:
 - Diabetes Mellitus
 - Vitamin B12 deficiency
 - Alcohol-related nerve damage
 - Thyroid disorders
 - Kidney disease
 - Certain medications
 - Autoimmune disorders
 - Infections
- Nerve Compression Disorders
 - Common causes include:
 - Carpal Tunnel Syndrome
 - Cubital Tunnel Syndrome
 - Cervical Disc Herniation
 - Cervical Spondylosis
 - Lumbar Disc Herniation
 - Lumbar Canal Stenosis
 - Trauma
 - Repetitive strain injuries
 - Risk factors include:
 - Diabetes
 - Obesity
 - Repetitive hand activities
 - Smoking
 - Age-related degeneration

- Poor ergonomics
- When Should You Seek Medical Advice?
- Medical evaluation is recommended if:
- Numbness persists or worsens
- Tingling affects daily activities
- Weakness develops
- Balance becomes impaired

Symptoms interfere with sleep

Symptoms spread to additional areas

- Hand function deteriorates
- Walking becomes difficult
- Seek Immediate Medical Attention If:
- Sudden weakness develops
- Foot drop occurs
- Rapid neurological deterioration occurs
- Bladder or bowel symptoms develop
- Significant walking difficulty develops
- How Is It Diagnosed?
- Clinical Examination
- A detailed neurological examination helps determine whether symptoms originate from:
- Peripheral nerves
- Nerve roots
- Spinal cord
- Brain
- X-Ray
- May be useful when spinal degeneration is suspected.
- MRI
- MRI may be required to identify:
- Cervical disc prolapse
- Lumbar disc prolapse
- Nerve compression
- Spinal cord compression
- CT Scan
- Occasionally used for detailed assessment of bony structures.
- Blood Tests

- May help identify:
- Diabetes
- Vitamin deficiencies
- Thyroid disorders
- Autoimmune diseases
- Infections
- Nerve Conduction Studies (NCS) & EMG
- These tests evaluate nerve and muscle function and are often extremely helpful in diagnosing neuropathy and nerve compression disorders.

Treatment Options

- Non-Surgical Treatment

Treatment depends on the underlying cause.

- Management may include:

Treatment of diabetes

- Vitamin supplementation
- Physiotherapy
- Ergonomic modifications
- Activity modification
- Nerve gliding exercises
- Medications for nerve pain
- Lifestyle modifications
- The primary goal is to address the underlying cause while improving symptoms and function.
- Surgical Treatment
- Surgery may be considered when:
- Significant nerve compression is present
- Progressive weakness develops
- Conservative treatment fails
- Functional impairment becomes significant
- Examples include:
- Carpal Tunnel Release
- Cubital Tunnel Release
- Cervical Decompression Surgery
- Lumbar Decompression Surgery
- Endoscopic Spine Surgery

- The appropriate procedure depends on the location and cause of nerve compression.

Frequently Asked Questions

- 1. What is Peripheral Neuropathy?
- Peripheral neuropathy refers to damage or dysfunction of the nerves outside the brain and spinal cord.
- 2. What causes tingling and numbness in the hands and feet?
- Common causes include diabetes, vitamin deficiencies, nerve compression and spinal disorders.
- 3. Is numbness always caused by a spinal problem?
- No. Many cases arise from peripheral nerve disorders rather than the spine.
- 4. What is Carpal Tunnel Syndrome?
- It is a nerve compression disorder affecting the median nerve at the wrist.
- 5. Can diabetes cause nerve damage?
- Yes. Diabetic neuropathy is one of the most common causes of peripheral nerve dysfunction.
- 6. What are Nerve Conduction Studies?
- These tests measure how well nerves transmit electrical signals and help identify nerve damage.
- 7. Can neuropathy be reversed?
- Some causes are reversible if identified and treated early, while others may require long-term management.
- 8. Can vitamin deficiency cause numbness?
- Yes. Vitamin B12 deficiency is a common and treatable cause of neuropathy.
- 9. When should I worry about numbness?
- Progressive weakness, balance problems or worsening neurological symptoms require prompt evaluation.
- 10. Does every nerve compression disorder need surgery?
- No. Many patients improve with conservative treatment and lifestyle modifications.
- Related Conditions
- Cervical Spondylosis
- Slip Disc (Disc Herniation)
- Sciatica
- Lumbar Canal Stenosis
- Myelopathy
- Spinal Tumor
- When Should You Consult a Spine Specialist?
- If you have persistent numbness, tingling, burning sensations, weakness or difficulty walking, a detailed evaluation can help determine whether the symptoms originate from the spine, peripheral nerves or another underlying condition.
- Early diagnosis is important to prevent permanent nerve damage and optimize treatment outcomes.
- Need Expert Advice?
- Book a consultation with Dr. Siddharth Katkade or upload your MRI/report for review through our Patient Resource Centre.

Need Clinical Evaluation or Second Opinion?

This educational document was prepared by **Dr. Siddharth Katkade**. For appointments or to share MRI scan reports for clinical review, call **+91 88507 73095** or consult at Byculla (E) / Khar (W) clinics.