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Review article

## Comprehensive review on molecular mechanisms of neuropathic pain

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### **Abstract**

Neuropathic pain is caused by functional abnormalities of structural lesions in the peripheral or central nervous system. Various diseases, such as postherpetic neuralgia, trigeminal neuralgia, diabetic neuropathy, spinal cord injury, cancer, stroke, and degenerative neurological diseases are responsible for producing neuropathic pain. Its symptoms include spontaneous and stimulus evoked painful sensations such as mechanical hyperalgesia, thermal and cold allodynia. Several maladaptive mechanisms underlying these symptoms have been identified in recent years which include peripheral sensitization of nociception, abnormal excitability of afferent neurons, central sensitization comprising pronociceptive facilitation, dis-inhibition of nociception, central reorganization processes, alterations in various ion channels. This review focuses on these pathophysiological principles, focussing on specific cellular and molecular changes that affect membrane excitability and are responsible for neuropathic pain.

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