

# Characteristics of Painful Diabetic Peripheral Neuropathy in Adult Patients with Type 2 Diabetes Mellitus

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## Description

Diabetes is a common chronic medical condition present worldwide, because of the changes in behavioral and lifestyle modifications; for example, appropriate eating patterns, and exercises. The complications of type 2 diabetes mellitus (T2DM) create a main public health problem, which is affecting individuals in developed and developing countries that have high rates of mortality and morbidity related to diabetes mellitus.

As a cost of urbanization, the overall status of DM according to International Diabetic Federation (IDF) estimates in 2017 indicated that there are now four hundred twenty-five million adult patients with DM and three hundred fifty-two million adult patients with impaired glucose tolerance (IGT) worldwide. In Jordan, impaired fasting glucose (IFG) and the prevalence of T2DM were 7.8% and 17.1% respectively. While in the Middle East region, the prevalence of diabetes is rising. In the Kingdom of Saudi Arabia, the prevalence of diabetes was 30% in Saudi Arabia, Kuwait and Qatar have placed them into the top ten with the prevalence of 24%, 23%, and 23% respectively.

Individuals with DM are at raised risk for progressing accelerated complications (micro vascular and macro vascular) one of the most commonly linked complications of diabetes are the development of diabetic peripheral neuropathy (DPN). More recent research carried in Europe to evaluate the prevalence of the DPN range is between 40% and 50% of diabetic individuals. Clinically, DPN is described as an appearance of signs or/and symptoms of peripheral nerve dysfunction in individuals with DM. The damage to peripheral neuropathy can be permanent, with damage of sensation leading to lower limbs amputation, as this condition develops. Also, it is connected with significant mortality and morbidity, and it is a very usual cause of raised hospitalization with health-related costs, lower limbs amputation, and non-traumatic amputations.

Painful Diabetic Peripheral Neuropathy (PDPN) is a serious problem among patients who have T2DM A 6,779 new cases of PDPN were classified, according to statistics from cohort

research among almost 7.5 million persons contributing 38,118,838 personal years of evaluations in the UK, with a prevalence rate of 17.8 per hundred thousand personal years. Generally, PDPN is described as a direct consequence of deformities in the peripheral nervous system that cause pain for individuals with DM, is the most common manifestation could be aching, burning etc.

Neuropathic pain usually interferes with activities of daily living (e.g. housework, study, work, leisure, or family activities), mood, work, mobility, and social relations. Additionally, the impaired patients' health could have a negative impact on the patients' quality of life (QoL) and may cause in some cases sleep disruption, discomfort, anxiety, and depression. This latter complication may take the greatest attention due to its dreadful possible outcome of amputation, with its negative consequences on the patient, family, society, and healthcare system. The main problem in adult patients with PDPN management is to prevent micro vascular and macro vascular complications and to decrease mortality, economic costs lower limb amputation, and non-traumatic amputations. To achieve these objectives, PDPN patients have to engage in their self-care activities, such as a healthy diet, regular exercise, regular use of medications and blood glucose monitoring. Consequently, the American Diabetes Association (ADA) recommends that patients should undergo regular screening for neuropathy and regular foot investigation which contains annual checks for appropriate pain management, neuropathic symptoms, assessment of peripheral sensation and pulse in order to improve results outcomes in those patients.

The mainstay of management for PDPN patients are pain management, while glycemic control is the only disease adjusting therapy. Although there is an enhancing awareness among health care specialists regarding neuropathy, still there's a lack of data that is important for improving PDPN and pain management. Besides, the need for further research on this subject rises because PDPN is an often undertreated and underdiagnosed disease.