

Prediabetes may not explain diabetic polyneuropathies

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In a reversal of two decades of medical reports, a Mayo Clinic study finds the frequency of nerve damage called diabetic polyneuropathy is similar in prediabetic patients and healthy people.

Physicians should seek explanations other than prediabetes for patients who have painful small fiber polyneuropathy, the researchers say. The study was published in the February issue of *Diabetes Care*.

Diabetic polyneuropathies, or DPN, are commonly associated with diabetes and chemical derangements related to [high blood sugar](#). The neuropathies can injure [nerve fibers](#) throughout the body, but usually affect the feet and legs. The [nerve damage](#) can create sensory, motor and bodily function problems. DPN can be painful and life-threatening.

"It is highly unlikely that impaired glucose or associated metabolic derangements cause polyneuropathy, at least not to the high frequency previously reported," says lead author Peter J. Dyck, M.D., a Mayo Clinic neurologist.

The five-year study, "Impaired Glycemia and Diabetic Polyneuropathy: The OC IG Survey," tested nearly 550 people representative of a community of older patients of Northern European extraction. Of these, 150 individuals were healthy subjects, 174 had prediabetes indicators, and 208 had newly developed type 2 diabetes. The study concluded that typical or atypical (a painful small-fiber variety) DPN was not more prevalent in prediabetics than in healthy people.

While the researchers agree that prediabetes is a precursor of type 2 diabetes, they found no evidence that it directly leads to greater prevalence of typical or atypical DPN. Attempts should be made to prevent the development of type 2 diabetes; however, considering the complications from overtreatment, the study suggests physicians should avoid treatment of [prediabetes](#) as diabetes

if their intention is to prevent the development of diabetic polyneuropathy, the researchers say.

Provided by Mayo Clinic

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