

# Abstract

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## Neurovascular disease, antioxidants and glycation in diabetes.

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**BACKGROUND:** People with diabetes are ten to fifteen times more likely to have a lower limb amputation (LLA) than non-diabetic individuals. Fifteen percent of people with diabetes will develop a foot ulcer during their lifetime, the rate of major amputation amongst diabetic individuals continues to rise, foot problems remain the commonest reason for diabetes-related hospitalisation and recurrence rates in patients with previous foot ulcers are 50% or more.

**DISCUSSION:** Hyperglycaemia-induced oxidative stress has been shown to result in decreased nerve conduction velocity, and decreased endoneural blood flow-both precursors for neuropathy. Vitamin antioxidants have been shown to be effective therapy in experimental models in reducing free radical species and inhibiting the oxidative process in diabetes subjects. Little work has been published, however, regarding the dietary use of antioxidants from foods, and their specific effects on neurovascular disease and glycation within the diabetes population.

**CONCLUSION:** Aetiological and prevention studies with dietary antioxidants from foods aimed at the complex nature of foot problems in diabetes are needed.

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