

Survey of Socioeconomic and Medical Implications of Diabetes and the Lower Limb

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One of the most common chronic diseases in our society is diabetes mellitus. Most people with this disease are older and, with a growing aging population, its prevalence can be expected to increase. Since people with diabetes make up a large part of many podiatric medical practices, the profession has a major potential influence on the natural history of the disease, particularly because of the effect of diabetes on the lower extremities.

During this time when rapid changes in health care delivery and financing are occurring and are anticipated to continue into the 21st century, podiatric physicians can be expected to be in a position that requires them to justify their role as health care providers and to demonstrate the cost effectiveness of podiatric medical services.

This presentation provides a focused bibliography derived from sources outside the profession, along with brief citations from these articles. These were selected because of the documentation they provide about the socioeconomic and medical implications of diabetes, particularly with regard to the devastating complications occurring in the lower extremities. This is especially timely because of the goal set by the US Public Health Service in the National Health Objectives for the Year 2000 to reduce lower extremity amputations caused by diabetes from 8 per 1,000 to 4.8 per 1,000 patients with diabetes.

Focused Bibliography

Each year more than 500,000 new cases of diabetes are diagnosed. Patients with diabetes account for 24 million hospital days each year, with the majority of that cost absorbed by the federal government.

NATIONAL INSTITUTES OF HEALTH: *National Diabetes Advisory Board 1988 Annual Report*, Publication No 88-1667, March, 1988.

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With the number of new cases of diabetes increasing at the rate of 6% per year, the total number of diabetics could exceed 20 million by the year 2000. Twenty-five percent of the patients diagnosed as having diabetes develop foot problems related to their disease.

DUFFY JC, PATOOT CA: Management of the insensitive foot in diabetes: lessons learned from Hansen's disease. *Mill Med* 188: 570, 1990.

The rate of lower limb amputation is 15 times greater in diabetic patients than in nondiabetic patients. In addition, the incidence of second leg amputation within the first 4 years after the loss of the first leg exceeds 50%.

VETES A, VAN ROSS ER, BOULYON AJ: Foot pressure measurements in diabetic and nondiabetic amputees. *Diabetes Care* 15: 905, 1992.

It is possible to decrease amputation rates by 50% to 70% by providing foot care. Of the approximately 14 million diabetics in the US, most are over 40 years of age and are likely to have peripheral vascular disease and peripheral neuropathy.

LEVIN ME: The diabetic foot: a primer for nephrologists. *Semin Dialysis* 4: 258, 1991.

Forty-five to seventy percent of all nontraumatic lower extremity amputations are performed on diabetics. Despite diagnostic and surgical advances, 60,000 to 118,000 lower extremity amputations are performed annually in the US.

DOUGHERTY MDK, ELLIOTT F, EMMERTON DR: Amputation prevention in a high-risk population through comprehensive wound-healing protocol. *Arch Phys Med Rehabil* 70: 780, 1989.

Five to fifteen percent of diabetics require an amputation at some time in their lives.

MORF RS, SOROCK P: Epidemiology of lower extremity amputations in diabetic individuals. *Diabetes Care* 6: 87, 1983.

Diabetics, aged 65 years or older, are five times more likely to suffer a leg amputation than diabetics under 45 years of age.

BURGESS EM, MATERNI FA III, WYSE CR, ET AL: Segmental