



Bulletin No. 25  
July 22, 1993  
Flu Clinics Focus on Feet

Diabetes is widely recognized as one of the leading causes of death and disability in the United States. The cost of diabetes in the country is estimated at more than \$40 billion annually. Medical complications from diabetes affect every part of the body causing blindness, cardiovascular disease, renal disease, neuropathy, and lower extremity amputation. People with diabetes can experience severe or life threatening complications from the influenza virus.

In the fall of 1992, the Alaska Diabetes Control Program collaborated with the Municipality of Anchorage Health Department, using influenza vaccination clinics to provide persons with diabetes an on-site foot examination. Education on foot care and annual health follow-up included the need for physical exams, dilated eye exams and dental exams. Clients with signs of vascular or sensory abnormalities were referred for medical treatment.

### Results

Of the 62 persons with diabetes who attended an influenza vaccination clinic, 85% were older than 50 years. Forty-eight (77%) were caucasian, six (10%) Asian; four (7%) Alaska Native; two (3%) black; and one (2%) was Hispanic.

Eighteen (29%) participants had not received a foot exam in the past 12 months. Of the 62 individuals who received on-site foot exams, 49 (79%) had at least one abnormal finding. Other complications reported by participants included hypertension (50%); cardiovascular disease (27%); peripheral vascular disease (40%); renal disease (7%); and blindness (3%).

Table 1. Foot Abnormalities of Flu Clinic  
Participants with Diabetes N=62

Abnormality	Number	%
Neuropathy	24	39%
Fungal Infections	22	35%
Callous	18	29%
Bunions	9	15%
Corns	9	15%
Hammertoe	8	13%
Ingrown Toenail	7	11%
Pain at Night	3	5%
Ulcers	3	5%
Breaks in Skin	1	2%
Previous Amputation	1	2%

**Thirteen (21%) persons were referred for a more comprehensive physical exam, 17 (27%) were referred for dilated eye exams, and 34 (55%) were referred for dental exams. Two referrals were made to diabetes educators for more in-depth preventive health counseling. One person was referred promptly for medical attention for signs of a bone infection.**

Comments: This project provided simple, cost-effective interventions which will reduce the morbidity associated with diabetes. It can be used as an intervention model for public health nurses, diabetes educators, physicians, and nursing students, and it can be applied anywhere people with diabetes convene. The foot exam takes only a few minutes, making it a realistic intervention for a busy clinic.

### Recommendations

1. Health-care providers should take advantage of every opportunity to educate patients about the complications of diabetes and how these problems can be averted or minimized.
2. A substantial proportion of persons with diabetes have multiple complications of the disease. Individuals seeking health care should receive a comprehensive assessment for all preventable complications of diabetes. Annual foot exams and education on daily foot care are vital to prevent amputation.
3. Persons aged 65 years and older are at increased risk for influenza-related problems should receive influenza vaccine annually and pneumococcal vaccine once.

(Acknowledgements: Thanks to Sue Anne Jenkerson, RNC, MSN, FNC; Donna Young, RN; Jeanne Roche, RN, CDE, MPH; Adele Suiter, RN.)

(Contributed by Janet Cismoski, RN, CDE and Judy Sberna, RN, Diabetes Control Program, Section of Epidemiology.)