PREVENTION AND EDUCATION

The prevention of diabetic foot complications requires a proactive approach involving the person with diabetes, family/care giver and an interdisciplinary team of health care providers. Education is an essential element in the empowerment of people with diabetes, helping to develop an effective partnership between healthcare professionals and the individual, which is key to achieving effective care. Optimal diabetes management, daily foot care, education for the person with diabetes and their family, along with screening and risk assessment by trained care providers are all critical aspects for prevention of diabetic foot complications.

Prevention of diabetic foot complications has the following requirements:

1. **Optimal diabetes management**
   Prevention needs good overall diabetes management as well as specific foot care. Preventive education and care should include referral to a Regional Diabetes Education service (Referral Template Appendix 3) as well as the following components:
   - Optimal glycemic control
   - Control of hyperlipidemia
   - Control of hypertension
   - Treatment of renal disease
   - Treatment of peripheral vascular disease
   - Optimal nutritional status
   - Smoking cessation
   - Identification and management of:
     - Neuropathy
     - Retinopathy

   For further information regarding diabetes management, see the Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. 9 See www.diabetes.ca

2. **Patient self management of the feet**
   Basic foot care should be considered an important part of self-care in people with diabetes, and as much part of a self-care routine as blood glucose control or meal planning.

3. **Patient and family education**
   Education about foot care should be provided to all people with diabetes and their families/caregivers. Patient education should be tailored to meet each individual’s needs and risk factors, using the principles of adult education. Education should be provided in several sessions over time, using a variety of teaching methods. It is essential to evaluate whether the patient has understood the message, is motivated to act and has sufficient self-care skills.
A person with diabetes should expect to be offered information about the following:

- Self-care and monitoring of diabetes
- The potential impact of diabetes on the feet
- Daily examination of feet for problems and when to seek advice from a healthcare professional e.g. if any color change, swelling, breaks in the skin, pain or numbness is found, or if self-care and monitoring is not possible or difficult
- Implications of loss of protective sensation
- Possible consequences of neglecting the feet
- Methods to help self-examination/monitoring (for example, the use of mirrors if mobility is limited
- Hygiene (daily washing and careful drying)
- Skin care (moisturizer use)
- Nail care
- Dangers associated with inappropriate mechanical and chemical skin removal
- Footwear (the importance of well fitting shoes and hosiery)
- Injury prevention and the importance of not walking barefoot when reduced sensation is present
- Annual foot exam by trained professional to assess for neuropathy and vascular disease
- Prompt detection and management of any problems are important, thus the importance of seeking help as soon as possible

Note: A client brochure “Why People With Diabetes Need To Take Care Of Their Feet” has been developed for use as a teaching tool and client information. Additional information is provided in Appendix 4.

4. Management of non ulcerative pathology
   All persons living with diabetes should have access to health care providers to help them (as needed) with the following:
   - Foot inspection/examination and risk assessment
   - Nail care
   - Callus care
   - Skin care
   - Foot hygiene
   - Podiatric management
   - Pressure reduction to foot (off-loading)
   - Appropriate selection of protective footwear which includes:
     - commercially available shoes with proper design characteristics may be adequate for low-risk patients
     - added depth shoes should be recommended for high-risk patients who have sensory loss, vascular insufficiency and/or mild to moderate foot deformity (a custom molded inlay may be added to these shoes to further enhance pressure distribution)
     - custom molded shoes with custom inlays should be recommended for high-risk patients with advanced deformity
5. **Interdisciplinary approach**
   Effective care involves a partnership between the individual with diabetes and health care providers. All decision-making should be shared. The maintenance of foot health in the person with diabetes is best achieved by a consistent, preventative strategy that is implemented with an interdisciplinary approach involving a team of specialists and personnel who provide a coordinated process of care.

6. **Appropriate footwear**
   Inappropriate footwear is a major cause of ulceration. Appropriate footwear (adapted to the altered biomechanics and deformities) is essential for prevention. Individuals without loss of protective sensation can select off-the-shelf footwear by themselves. Individuals, who have neuropathy and or ischemia, must take extra care with the fitting of footwear, especially when foot deformities are present.

7. **Other issues that influence diabetes management and the prevention of complications associated with diabetes:**
   - Other chronic conditions
   - Financial resources/support
   - Emotional support
   - Educational level
   - Literacy level
   - Cultural and spiritual background
   - Service access
   - Social support

   An effective prevention and management strategy must address these issues for each individual and their family.