ASSESSMENT OF THE DIABETIC FOOT

Should be performed by a trained professional such as physician, podiatrist, or wound care specialist.

1. **Conduct A History**
   - Age
   - Chief concern
   - Present illness
   - Allergies
   - Co-morbidities
   - Medications
   - Previous surgeries (focus on the lower limb)
   - Wound problems
   - Infection or ulceration
   - Previous amputation
   - Glycemic control
   - Nutrition
   - Occupation
   - Lifestyle such as alcohol, tobacco, activity level
   - Mechanism of injury

2. **Conduct A Physical Exam Of The Lower Limb** including musculoskeletal, skin, neurologic and vascular:

   a) **Musculoskeletal Examination**
      - Biomechanical abnormalities:
        - Orthopedic abnormalities:
          - Hammer toes
          - Bunion(s) or Tailor’s bunion(s)
          - Flat or high-arched feet
          - Charcot deformities
          - Latrogenic deformities (e.g., amputations)
        - Limited joint mobility
        - Tendo-achilles contractures/equinus
      - Gait evaluation:
        - Rearfoot position
        - Forefoot to rearfoot relationship
        - Femoral range of motion
        - Knee position
        - Tibial angle (torsion)
        - Leg length discrepancies
        - Angle of gait
      - Muscle group strength testing:
        - Passive and active, non-weightbearing and weightbearing
        - Foot drop
        - Atrophy- intrinsic muscle atrophy
b) Vascular Examination
- Palpation of pulses (e.g. dorsalis pedis, posterior tibial, popliteal, femoral)
- Capillary refill time (normal ≤ 3 seconds)
- Venous filling time (normal ≤ 20 seconds)
- Colour changes:
  - Cyanosis
  - Dependant rubor
  - Erythema
- Presence of edema
- Temperature gradient
- Dermal thermometry
- Integumental changes consistent with ischemia:
  - Skin atrophy
  - Nail atrophy
  - Abnormal wrinkling
  - Diminished pedal hair

c) Neurologic Examination
- Vibration perception: tuning fork 128 Hz (cps); measurement of vibration perception threshold (Biothesiometer)
- Light pressure: Semmes-Weinstein (5.07 gauge) 10-gram monofilament
- Light touch: cotton wool
- Two-point discrimination
- Pain: pinprick
- Temperature perception: hot and cold
- Deep tendon reflexes: ankle, knee
- Babinski test
- Rhomberg’s test

d) Dermatologic Examination
- Skin appearance:
  - Colour, texture, turgor, quality
  - Dry skin
- Calluses:
  - Discoloration
  - Subcallus hemorrhage
- Fissures (especially posterior heels)
- Nail appearance:
  - Onychomycosis
  - Dystrophic
  - Atrophic
  - Hypertrophic
  - Paronychia
- Presence of hair
- Ulceration, gangrene, infection (note location, size, depth, infection status, etc.)
- Interdigital lesions
- Tinea pedis
- Markers of diabetes:
  - Shin spots- diabetic dermopathy
  - Necrobiosis lipoidica diabeticorum
  - Bullosum diabeticorum
  - Granuloma annulare

e) Wound Description
- Wound location
- Wound dimensions including depth
- Quality of the wound bed
- Describe wound edges including undermining/tracking
- Edema
- Exudate, type, amount, odor, colour
- Presence of necrosis
- Surrounding erythema/cellulitis
- Mechanism of injury (history)
- Penetration to deep structures
- Signs of infection
- Sinus tracking
- Induration

Classify wound according to a recognized wound classification system examples: University of Texas Foot Wound Classification System or Wagner Ulcer Classification Tool (Appendix 5).

Provider should identify which classification tool is being used.

3. **Assess For Ischemia**
   - Non-invasive vascular testing (i.e., toe brachial pressure index, pulse palpation, capillary refill)
   - Vascular lab studies

4. **Examine Footwear**
   - Type of shoes
   - Fit of shoes
   - Patterns of wear on the lining and sole of the shoes
   - Presence of foreign bodies in shoes
   - Insoles, orthoses