Components of a Lower Leg Assessment

The following is intended to help assist authorizers and assessors in the lower leg assessment process for clients with Chronic Venous Insufficiency. It is recommended that you have your client in the supine position for 10-15 minutes prior to the Doppler reading. This is a good time to get all the client history and your visual assessment completed.

1. **History**
   - Family history of similar problems
   - Current medications
   - Patient's perception of their condition
   - Previous use of compression
   - Previous investigations
   - Previous limb fractures
   - Previous ulcers
   - Previous treatments used and the responses to those treatments
   - Pain – type, location, exacerbating and relieving factors
   - Effect on activities of daily living
   - If ulcerations are present, the clinician must determine when and how the ulcer started and how it has evolved
   - Other medical conditions that may impact the assessment or course of treatment

2. **Examination**
   - Presence, location, and type of edema
   - Presence or absence of varicosities
   - Hair patterns
   - Nail condition
   - Skin temperature and colour, including the presence of dependent rubor that blanches with elevation
   - Presence of dry skin, scaling, and/or calluses on the feet
   - Presence of skin conditions (i.e. lipodermatosclerosis, hemosiderin staining, or atrophie blanche)
   - Foot and ankle mobility or deformities, including Charcot changes
   - Observation of the client's footwear (i.e. size and degree of support)
   - Presence or absence of pulses
   - A complete assessment of any wounds, including: location, size, shape, appearance of wound bed, description of exudates, condition of wound edges, and

condition of the peri-ulcer skin as per the authorizer's regional wound care protocol

3. **Vascular Assessment – Ankle Brachial Index (ABI)**
   - The ankle brachial index (ABI) is a tool to assist the authorizer in determining if it is safe to apply compression
   - ABI results alone are not sufficient for diagnosis of CVI II
   - Clients with an ABI not within the therapeutic range of 0.8 to 1.2 are advised to have further clinical assessments by a specialist
   - Toe pressures are recommended for diabetic clients and clients that have a false positive ABI result (ABI >1.2)
   - If the authorizer is not able to perform toe pressures, it is recommended that the client be referred to a clinic and/or a specialist for this procedure

ABI Value	Interpretation	Clinical Significance
> 1.2	**Interpret with caution**, high compression therapy may be unsafe.	Calcification of calf vessels, fibrosis, or edema. Toe pressures should be assessed; further clinical assessment may be required.
0.8 – 1.2	**Normal**, safe to use high compression therapy	Pulses palpable; no signs of arterial disease.
0.6 – 0.8	**Moderate impairment** of arterial blood flow. Compression therapy may only be used with caution by vascular surgeons, wound care specialist, or diabetic clinics.	Often has no symptoms or clinical manifestations of arterial disease.
0.4 – 0.6	**Severe impairment** of arterial blood flow. Compression therapy is contraindicated. **Contact client's doctor. May require referral to vascular surgeon.**	Abnormal exam. May present with history of claudication pain.
< 0.4	**Significant impairment** of arterial blood flow. Compression therapy is <u>absolutely</u> contraindicated. **Contact client's doctor. May require referral to vascular surgeon.**	Abnormal exam. May present with history of rest pain.

4. **Neuropathy Testing – Monofilament Testing (10 gram)**
   - **Procedure for Using 10 Gram Monofilament**

     a) Position client comfortably in the recumbent position and explain that you are going to conduct a test for sensation in their feet.

b) Touch the 10 gram monofilament to client's forearm and ask if they can feel it. Explain that you will be touching their feet in a similar fashion.
c) Ask the client to say "yes" every time that they feel the monofilament touching their feet.
d) Ask client to close eyes.
e) Touch the monofilament perpendicular to the skin until the monofilament just bends. Sustain the pressure for about two seconds. If the client responds, move to the next site. If not, repeat twice more in the same place.
f) Repeat in each of these ten locations: first, third, and fifth toes; first, third and fifth metatarsal heads; medial and lateral foot; the heel and the dorsum of the foot.
g) If you are unsure of the response, ask the client to indicate the site where you were touching.
h) Record the number of positive locations.

- **Neuropathy Screening Questions**
  a) Are your feet ever numb?
  b) Do you ever feel electric shocks in your feet?
  c) Do your feet ever burn?
  d) Do you ever feel like insects are crawling on your feet?

If the client has failure to feel four or more of the test sites in combination with a positive answer to one of the four screening questions this implies *loss of protective sensation* and is predictive of foot complications. It is recommended that the client be referred to a specialist for further investigation.

5. **Edema Reduction – Possible Interventions**
   - Limit dietary sodium intake
   - Limit excess fluid intake
   - Limit sitting or standing for long periods of time
   - During travel, or when seated for long periods, try to walk around every hour or at least move legs and feet while seated to improve blood flow
   - Elevate limb above level of heart, provided there are no clinical contraindications
   - Refer to specialist and/or client's doctor for further assessment and intervention (i.e. diuretics)
   - Please be aware that AADL's provision of compression stockings is to maintain the limb once the edema has been reduced, they are NOT to be authorized to assist in the reduction of edema

Adapted from Canadian Association of Wound Care, *Best Practice Recommendations for Wound Management: Putting Knowledge into Practice*, 2005.