

Lower Extremity Wound Pathway LOWER LEG ASSESSMENT FORM	Client info:
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Date of assessment:	Location of assessment:
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SOCIAL HISTORY:	HISTORY OF LEG ULCERS:
Occupation: _____	Previous history of leg ulcers <input type="checkbox"/> Yes <input type="checkbox"/> No
Lives: <input type="checkbox"/> alone <input type="checkbox"/> with spouse <input type="checkbox"/> long term care <input type="checkbox"/> with family (specify): _____ <input type="checkbox"/> other (specify): _____	If yes: Year of first occurrence _____ Date of onset of current ulcer: _____ Location: _____
Mobility: <input type="checkbox"/> Independent <input type="checkbox"/> Use of aid(s) _____ <input type="checkbox"/> Bed/chair bound <input type="checkbox"/> Assistance from another person Comment: _____	Previous use of compression bandages/stockings <input type="checkbox"/> Yes Age of stockings: _____ Comment: _____


HEALTH HISTORY that may be associated with Vascular Disease


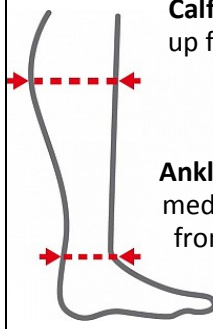
<input type="checkbox"/> Family history of leg ulcers	<input type="checkbox"/> Lower Extremity Arterial Disease	<input type="checkbox"/> CVA/TIA
<input type="checkbox"/> Varicose Veins	<input type="checkbox"/> Intermittent Claudication	<input type="checkbox"/> Diabetes
<input type="checkbox"/> DVT Affected Leg	<input type="checkbox"/> Vascular Surgery lower limbs	<input type="checkbox"/> Rheumatoid Arthritis
<input type="checkbox"/> DVT Unaffected Leg	<input type="checkbox"/> Rest Pain/night pain	<input type="checkbox"/> Renal Disease
<input type="checkbox"/> Venous surgery	<input type="checkbox"/> Hypertension	<input type="checkbox"/> Vasculitis
<input type="checkbox"/> Injection Sclerotherapy	<input type="checkbox"/> CHF	<input type="checkbox"/> Ulcerative Colitis/IBD/Crohn's
<input type="checkbox"/> Trauma/Fracture of leg(s)	<input type="checkbox"/> MI	<input type="checkbox"/> Amputation (<u>specify location</u>)
<input type="checkbox"/> Pulmonary embolism	<input type="checkbox"/> Angina	<input type="checkbox"/> Malignancy
<input type="checkbox"/> Pregnancies # _____	<input type="checkbox"/> Current Smoker: # cigarettes/day	
<input type="checkbox"/> Osteoarthritis	<input type="checkbox"/> Past Smoker: Quit When?	
<input type="checkbox"/> Phlebitis	<input type="checkbox"/> None of the above	

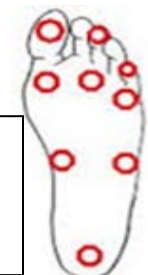
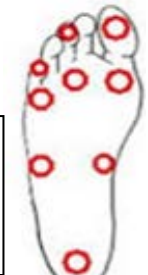
MEDICATIONS:

Medication prescribed for leg/foot pain? <input type="checkbox"/> Don't know <input type="checkbox"/> No <input type="checkbox"/> Yes (specify):
Other medications <input type="checkbox"/> see attached list/PIP <input type="checkbox"/> review medical reconciliation form
Allergy to latex <input type="checkbox"/> Yes <input type="checkbox"/> No Allergy to ointments/creams <input type="checkbox"/> Yes <input type="checkbox"/> No

LOWER LEG ASSESSMENT:

	Signs of Venous Disease	Signs of Arterial/Ischemic	Signs of Diabetic Neuropathy
TEMP 	<input type="checkbox"/> <input type="checkbox"/> Warm (may be cool with edema)	<input type="checkbox"/> <input type="checkbox"/> Cool/cold limb/foot in warm environment <input type="checkbox"/> <input type="checkbox"/> Lower temperature in one leg compared to other	<input type="checkbox"/> <input type="checkbox"/> Warm
COLOUR	<input type="checkbox"/> <input type="checkbox"/> Hemosiderin staining (brown staining)	<input type="checkbox"/> <input type="checkbox"/> Dependent rubor <input type="checkbox"/> <input type="checkbox"/> Bluish purple feet/toes <input type="checkbox"/> <input type="checkbox"/> Pallor on elevation	<input type="checkbox"/> <input type="checkbox"/> Normal Skin Tones
PAIN	<input type="checkbox"/> <input type="checkbox"/> Heavy, aching legs <input type="checkbox"/> <input type="checkbox"/> With deep palpitation <input type="checkbox"/> <input type="checkbox"/> Relieved by elevation/rest	<input type="checkbox"/> <input type="checkbox"/> Nocturnal pain <input type="checkbox"/> <input type="checkbox"/> Knife-like pain <input type="checkbox"/> <input type="checkbox"/> Pain at rest/ legs elevated <input type="checkbox"/> <input type="checkbox"/> Calf/leg pain caused by walking	<input type="checkbox"/> <input type="checkbox"/> Numbness <input type="checkbox"/> <input type="checkbox"/> Tingling <input type="checkbox"/> <input type="checkbox"/> Burning <input type="checkbox"/> <input type="checkbox"/> No pain/sensation
	<input type="checkbox"/> <input type="checkbox"/> No Pain <input type="checkbox"/> <input type="checkbox"/> Other pain (describe):		

Signs of Venous Disease		Signs of Arterial/Ischemic		Signs of Diabetic Neuropathy									
SKIN/ NAIL		<input type="checkbox"/> <input type="checkbox"/> Atrophe Blanche <input type="checkbox"/> <input type="checkbox"/> Lipodermatosclerosis (Woody fibrosis) <input type="checkbox"/> <input type="checkbox"/> Ankle Flare <input type="checkbox"/> <input type="checkbox"/> Stasis dermatitis	<input type="checkbox"/> <input type="checkbox"/> Shiny, thin skin <input type="checkbox"/> <input type="checkbox"/> Loss of hair growth <input type="checkbox"/> <input type="checkbox"/> Thickened nails <input type="checkbox"/> <input type="checkbox"/> Eschar (describe):	<input type="checkbox"/> <input type="checkbox"/> No sweating in feet <input type="checkbox"/> <input type="checkbox"/> Excessive sweating in feet <input type="checkbox"/> <input type="checkbox"/> Cracked, fissures <input type="checkbox"/> <input type="checkbox"/> Hyperkeratosis(callus)									
CAPILLARY REFILL	<input type="checkbox"/> <input type="checkbox"/> Less than 3 seconds	<input type="checkbox"/> <input type="checkbox"/> Greater than 3 seconds											
PULSES	<input type="checkbox"/> <input type="checkbox"/> Palpable pulses Dorsalis Pedis (DP) <input type="checkbox"/> <input type="checkbox"/> Palpable pulses Posterior tibial (PT)	<input type="checkbox"/> <input type="checkbox"/> Diminished or absent pulses DP <input type="checkbox"/> <input type="checkbox"/> Diminished or absent pulses PT	<input type="checkbox"/> <input type="checkbox"/> Bounding pulses DP <input type="checkbox"/> <input type="checkbox"/> Bounding pulses PT										
WOUND LOCATION	<input type="checkbox"/> <input type="checkbox"/> Gaiter Area (lower 1/3 of calf)	<input type="checkbox"/> <input type="checkbox"/> Foot <input type="checkbox"/> <input type="checkbox"/> Digits/toes	<input type="checkbox"/> <input type="checkbox"/> Beneath Callus/plantar <input type="checkbox"/> <input type="checkbox"/> Bony prominences										
INFECTION SUSPECTED: <input type="checkbox"/> <input type="checkbox"/> see page 4													
BASELINE WOUND MEASUREMENT: L X W			See Wound Record Flowsheet										
PROBABLE ETIOLOGY: <input type="checkbox"/> Venous <input type="checkbox"/> Arterial/Ischemic <input type="checkbox"/> Diabetic/ Neuropathic <input type="checkbox"/> Mixed <input type="checkbox"/> Other (specify)													
Range of Motion ANKLE		Range of Motion KNEE		Range of Motion GREAT TOE									
<input type="checkbox"/> <input type="checkbox"/> Normal <input type="checkbox"/> <input type="checkbox"/> Decreased	<input type="checkbox"/> <input type="checkbox"/> Normal <input type="checkbox"/> <input type="checkbox"/> Decreased	<input type="checkbox"/> <input type="checkbox"/> Normal <input type="checkbox"/> <input type="checkbox"/> Decreased	<input type="checkbox"/> <input type="checkbox"/> Normal <input type="checkbox"/> <input type="checkbox"/> Decreased/Halux rigidus (stiff toe)										
POSITIVE STEMMER'S SIGN <input type="checkbox"/> <input type="checkbox"/> Consider decongestive therapy referral for significant, unresolved lymphedema.													
EDEMA DISTRIBUTION		EDEMA SEVERITY		CIRCUMFERENCE MEASUREMENTS(CMS)									
<input type="checkbox"/> <input type="checkbox"/> Foot <input type="checkbox"/> <input type="checkbox"/> Up to Ankle <input type="checkbox"/> <input type="checkbox"/> Up to mid-calf <input type="checkbox"/> <input type="checkbox"/> Up to knee <input type="checkbox"/> <input type="checkbox"/> Up to groin <input type="checkbox"/> <input type="checkbox"/> No visible edema	<input type="checkbox"/> <input type="checkbox"/> Non-pitting <input type="checkbox"/> <input type="checkbox"/> Pitting <input type="checkbox"/> <input type="checkbox"/> Brawny induration/ edema	 <p>Calf: widest circumference ___ cm up from heel</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px;">Right</td> <td style="width: 50px;">Left</td> </tr> <tr> <td> </td> <td> </td> </tr> </table> <p>Ankle: circumference 5 cm above medial malleolus and ___ cm up from heel:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px;">Right</td> <td style="width: 50px;">Left</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>				Right	Left			Right	Left		
Right	Left												
Right	Left												
FOOT ASSESSMENT				TOENAIL ASSESSMENT									
<input type="checkbox"/> <input type="checkbox"/> Bunion(s) <input type="checkbox"/> <input type="checkbox"/> Callus(s) <input type="checkbox"/> <input type="checkbox"/> Corn(s) <input type="checkbox"/> <input type="checkbox"/> Dropped metatarsal head (s) <input type="checkbox"/> <input type="checkbox"/> Hammertoe(s) <input type="checkbox"/> <input type="checkbox"/> Crossed toes <input type="checkbox"/> <input type="checkbox"/> Fissures <input type="checkbox"/> <input type="checkbox"/> Cracks between toes	<input type="checkbox"/> <input type="checkbox"/> High arch/instep (Pes cavus) <input type="checkbox"/> <input type="checkbox"/> Abnormal skin dryness <input type="checkbox"/> <input type="checkbox"/> Acute Charcot presentation <input type="checkbox"/> <input type="checkbox"/> Chronic Charcot presentation <input type="checkbox"/> <input type="checkbox"/> Blister(s) <input type="checkbox"/> <input type="checkbox"/> Other	<input type="checkbox"/> <input type="checkbox"/> Incorrect length - short <input type="checkbox"/> <input type="checkbox"/> Incorrect length - long <input type="checkbox"/> <input type="checkbox"/> Ingrown/involved <input type="checkbox"/> <input type="checkbox"/> Thickened <input type="checkbox"/> <input type="checkbox"/> Discoloured <input type="checkbox"/> <input type="checkbox"/> Ridged/Brittle <input type="checkbox"/> <input type="checkbox"/> Diagnosed fungal infection											

FOOTWEAR			
<input type="checkbox"/> R <input type="checkbox"/> L	Orthotics/offloading footwear	<input type="checkbox"/> R <input type="checkbox"/> L	Areas of foot exposed to repetitive trauma
<input type="checkbox"/> R <input type="checkbox"/> L	Not worn at all times in/outdoor	<input type="checkbox"/> R <input type="checkbox"/> L	Evidence of wear/pressure points in footwear. Location:
<input type="checkbox"/> R <input type="checkbox"/> L	Poorly fitting/improper footwear		
PULSE: Dorsal pedis (doppler)		PULSE: Posterior tibial (doppler)	
<input type="checkbox"/> R <input type="checkbox"/> L	Present	<input type="checkbox"/> R <input type="checkbox"/> L	Present
<input type="checkbox"/> R <input type="checkbox"/> L	Diminished	<input type="checkbox"/> R <input type="checkbox"/> L	Diminished
<input type="checkbox"/> R <input type="checkbox"/> L	Not audible	<input type="checkbox"/> R <input type="checkbox"/> L	Not audible
<input type="checkbox"/> R <input type="checkbox"/> L	Triphasic	<input type="checkbox"/> R <input type="checkbox"/> L	Triphasic
<input type="checkbox"/> R <input type="checkbox"/> L	Biphasic	<input type="checkbox"/> R <input type="checkbox"/> L	Biphasic
<input type="checkbox"/> R <input type="checkbox"/> L	Monophasic	<input type="checkbox"/> R <input type="checkbox"/> L	Monophasic
SENSATION: Monofilament Test (10g)			
<input type="radio"/> Dorsum Score left: _____ /10		<input type="radio"/> Dorsum Score right: _____ /10	
			
CIRCULATION:			
<input type="checkbox"/> R <input type="checkbox"/> L	Unable to compress arteries		
Ankle brachial pressure index : ABPI= highest ankle pressure divided by the highest brachial pressure for each side			
Right Brachial Pressure:		Left Brachial Pressure:	
Right Ankle Pressure:		Left Ankle Pressure:	
Dorsalis pedis	Posterial tibial	Dorsalis pedis	Posterial tibial
Right ABPI score		Left ABPI score	
Toe brachial pressure index : TBI = highest toe pressure divided by the highest brachial pressure for each side			
Right Toe pressure		Left toe pressure	
Right TBI score		Left TBI score	
ATYPICAL ULCER PRESENTATION (describe location, pain, appearance etc):			
<input type="checkbox"/> Refer to WCN			
PSYCHOSOCIAL CONSIDERATIONS:			
Wound(s) affects : <input type="checkbox"/> quality of life <input type="checkbox"/> ability to work <input type="checkbox"/> interactions with family/friends <input type="checkbox"/> mental health <input type="checkbox"/> other			
COMMENTS:			
PREVIOUS PROFESSIONAL REFERRALS: Note date referred			
Foot callus, deformities, pressure: <input type="checkbox"/> OT <input type="checkbox"/> Podiatry <input type="checkbox"/> Orthotist <input type="checkbox"/> other : _____			
Compression garment or hosiery: <input type="checkbox"/> wound clinician nurse <input type="checkbox"/> OT/PT <input type="checkbox"/> Vendor <input type="checkbox"/> other: _____			
Referral for vascular assessment/treatment : via <input type="checkbox"/> physician/NP <input type="checkbox"/> wound clinician nurse _____			
Care & maintenance: <input type="checkbox"/> diabetes education centre <input type="checkbox"/> home care <input type="checkbox"/> community programs <input type="checkbox"/> other: _____			
Client concerns: <input type="checkbox"/> Dietitian <input type="checkbox"/> Social Work <input type="checkbox"/> other: _____			
Date (dd/mm/yy)	Time	Signature	Printed Name

Clinical Signs and Symptoms of Wound Infection in Diabetic Foot Ulcers (DFU)

In this immunocompromised population, infection needs to be recognized and treated early. Infection is a serious complication within the foot; the various compartments, tendon sheaths and neurovascular bundles favor the spread of infection¹ and can be rapidly limb threatening. If any of these signs/symptoms are present contact the wound clinician nurse, family physician/NP.

The presence of infection is defined by 2 or more classic findings of inflammation or purulence²

> 2 cm of redness ^{2 4}	Local inflammatory response (warmth, swelling) ^{2 4}	Increased pain ^{3 4}
Wound breakdown ³	Foul odor ^{2 3}	Increased amount of exudate ^{2 3}
Friable granulation tissue ³	Probe to bone ^{2 3 4}	Foul odor ^{2 3}

¹Lipsky B. *Infectious Problems of the Foot in Diabetic Patients*. In: Levin and O'Neal's *The Diabetic Foot* 6th ed. 2001. Mosby Inc.

²Lipsky et al. 2012 Infectious Diseases Society of America Clinical Practice Guideline for the Diagnosis and Treatment of Diabetic Foot Infections

³Botros et al. Best Practice Recommendations for the Prevention, Diagnosis and Treatment of Diabetic Foot Ulcers: Update 2010

⁴International Best Practice Guidelines: Wound management in Diabetic Foot Ulcers. Wound International. 2013.

Clinical Signs and Symptoms of Wound Infection in Venous Ulcers

3 or more signs and symptoms are sufficient for a clinical diagnosis of potential or actual wound infection

Increased Bacterial Bioburden	Localized Infection	Systemic Infection
<ul style="list-style-type: none"> <input type="checkbox"/> Non-healing (minimal change in wound measurements after 3 weeks of care) <input type="checkbox"/> Pale pink, non-pebbly tissue <input type="checkbox"/> Friable(bleeds easily) or hypergranulation (raised, deep/bright red, friable) tissue <input type="checkbox"/> New areas of necrotic slough (yellow/grey/cream colored tissue) <input type="checkbox"/> Increased amount of exudate <input type="checkbox"/> Change in characteristics of exudate from watery and serous to purulent (thickened, greenish or yellow/white fluid) <input type="checkbox"/> Odour after wound cleansing 	<ul style="list-style-type: none"> <input type="checkbox"/> Onset of wound pain or increasing pain <input type="checkbox"/> Peri wound induration (firm edema) greater than/equal to 2cm <input type="checkbox"/> Peri wound erythema (redness) greater than/equal to 2cm <input type="checkbox"/> Increased peri wound warmth <input type="checkbox"/> Increased wound size and / or the development of sinus tracts and / or satellite wounds next to the original wound <input type="checkbox"/> Purulent exudate (thickened, greenish or yellow/white fluid) <input type="checkbox"/> Increased dysreflexia(abnormal response to physiologic stimuli) or spasticity in clients with spinal cord injury 	<ul style="list-style-type: none"> <input type="checkbox"/> General malaise (predominantly in clients who are elderly, immunocompromised & children) <input type="checkbox"/> Fever (may be muted in clients who are elderly or immunocompromised) <input type="checkbox"/> Rigor / chills <input type="checkbox"/> Change in behaviour or cognition (especially in elderly clients) <input type="checkbox"/> Unexplained high blood sugar (in clients who are diabetic) <input type="checkbox"/> Septic shock potentially leading to multi organ failure <input type="checkbox"/> Wound probes to bone
<p>If 3 or more signs/symptoms present add a topical antimicrobial to the wound dressing and contact the wound clinician nurse</p>	<p>If 3 or more signs/symptoms present swab the wound for C&S, add a topical antimicrobial to the wound dressing and contact the wound clinician nurse and physician/surgeon</p>	<p>If any of these signs/symptoms are present contact the physician/ surgeon for review of the patient immediately or activate EMS</p>

Adapted from: Sibbald, G., et al. (2006). Increased bacterial burden and infection: The story of NERDS and STONES. *Advances in Skin and Wound Care*, 19(8): 158. From BC CLWK document on-line Guideline: Assessment and Treatment of Diabetic and Neuropathic Ulcers in Adults – May 2012

Interpretation of ABI/TBI in Determining Compression

ABPI Value	Interpretation/Clinical Significance	Compression Therapy*
>1.3	Abnormally high range, renders ABPI test - TBI indicated, contact wound clinician	Incompressible arteries
1.0 – 1.3	Normal	High compression
0.8 - .99	Borderline to mild obstruction/peripheral arterial disease	High compression
0.71 – 0.79	Mild to moderate obstruction/ peripheral arterial disease	Modified compression
≤0.7	Contact wound clinician or /physician/NP.	Contra-indicated unless ordered by specialist
TBI Value	Interpretation/Clinical Significance	Compression Therapy
≥ 0.7	Normal	High compression
.41-0.69	Mild to moderate peripheral arterial disease	Modified compression
≤ 0.4	Severe ischemia –contact wound clinician or /physician/NP	Contra-indicated

*Level of compression should never be solely based on ABPI results, which may be inaccurate due to clinician/ technician knowledge and experience, presence of diabetes, renal disease, atherosclerosis, significant lower limb edema and client's insight into current health and overall health history.

Level of compression applied may be modified and gradually increased based on patient comfort/tolerance. Compression must always include education and timely follow up regarding compression tolerance.