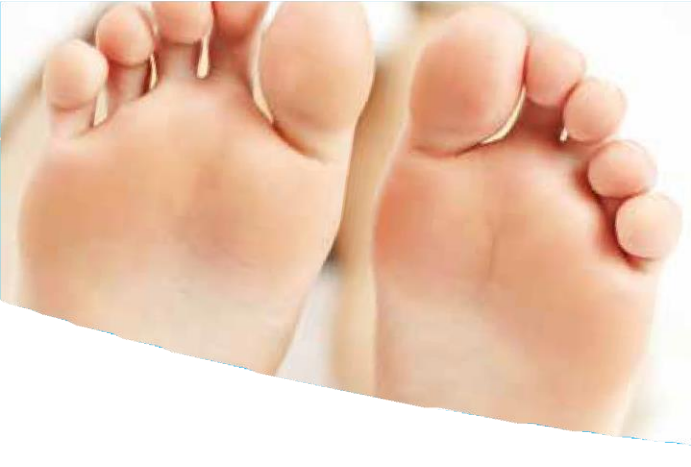

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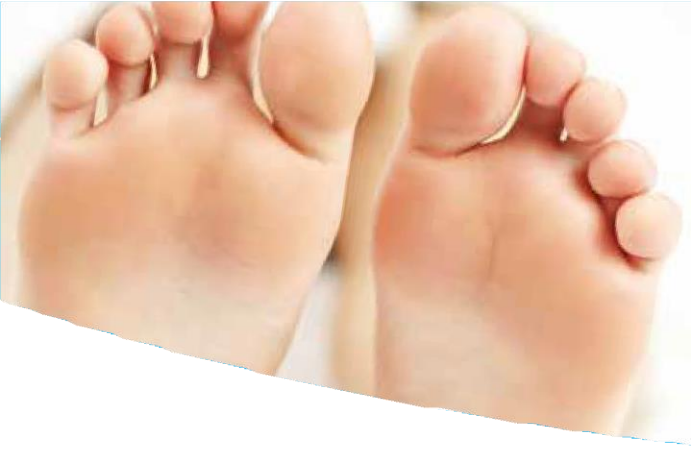
Peripheral Neuropathy

The term peripheral neuropathy (PN), or polyneuropathy, refers to generalised damage to, or disease of, the peripheral nerves. Peripheral neuropathy can be a manifestation of systemic illness but there are a wide range of other possible causes. Most commonly PN presents as numbness or paraesthesia in the feet. It is likely that registrars will not have much experience with assessing patients with PN, and supervisors can therefore support the development of a careful and systematic approach.

TEACHING AND LEARNING AREAS		• Anatomy and physiology of the peripheral nerves • Common general practice causes of peripheral neuropathy – systemic, nutritional, medications, toxins, genetic, idiopathic • Clinical presentation – common symptoms and signs, and atypical features • Clinical examination of the peripheral nervous system (a not uncommon OSCE question!) • Appropriate investigations • Treatment options, especially for neuropathic pain • Indications and local pathways for referral • Screening for PN in patients at high risk e.g. diabetes
PRE- SESSION ACTIVITIES		• Read the 2015 AFP article – Paraesthesia and peripheral neuropathy
TEACHING TIPS AND TRAPS		• The most common treatable causes of PN are DM, hypothyroidism and B12 deficiency • PN is usually symmetrical and initially involves the lower limbs– consider compression or vasculitic causes in atypical presentations • Autonomic nervous system involvement can results in less common symptoms e.g. urinary symptoms, postural hypotension • Ask about the patients occupation and hobbies • Rapidly progressive polyneuropathy requires urgent review • Electro-diagnostic studies (NCS and EMG) can help differentiate axonal from demyelinating conditions
RESOURCES	**Read**	• 2018 NPS MedicineWise article - Neuropathic pain: diagnosis and treatment today • 2015 Mayo Clinic Proceedings article Peripheral Neuropathy: A Practical Approach to Diagnosis and Symptom Management
	Watch	YouTube Lower Limbs Peripheral Nerve Examination
FOLLOW UP & EXTENSION ACTIVITIES		Conduct an audit of 10 patients with a documented history of PN for completeness of diagnostic work-up and clinical management



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Peripheral Neuropathy

Clinical Reasoning Challenge

Lyn is a 59 year old retired accountant who presents with a 12 month history of numbness in both feet which is slowly getting worse. She denies any weakness or pain, and describes no other symptoms of any kind. She is otherwise generally healthy with no significant PMHx. Lyn is a non-smoker.

QUESTION 1. What are the MOST IMPORTANT areas of history to explore? List as many as appropriate.

QUESTION 2. Further history taking is unremarkable and examination shows a mild loss of light touch in both feet. What investigations should be requested at this point? List as many as appropriate.

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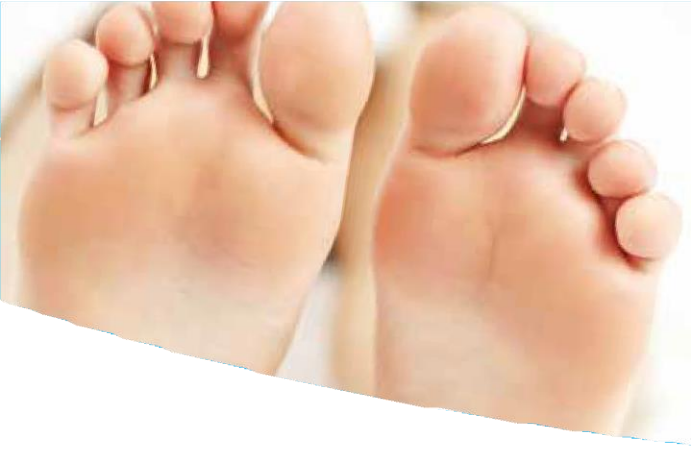

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Peripheral Neuropathy

ANSWERS

QUESTION 1

What are the MOST IMPORTANT areas of history to explore? List as many as appropriate.

- Occupational history (risk of exposure to toxins and BBVs)
- Lifestyle (risk of exposure to toxins and BBVs, nutrition)
- Alcohol use
- Medications (prescribed, OTC and CAMS)
- Family history

QUESTION 2

Further history taking is unremarkable and examination shows a mild loss of light touch in both feet. What investigations should be requested at this point? List as many as appropriate.

BMJ Best Practice recommends the following as initial testing:

- FBC
- EUC/LFT
- Fasting glucose level
- Lipids
- TSH
- Vitamin B12 levels
- Serum and urine immuno-electrophoresis
- Hepatitis B and C, HIV, (Lyme), and syphilis serology
- ESR, antinuclear antibodies (including SS-A and SS-B), extractable nuclear antibodies
- Nerve conduction studies and needle EMG

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