UNIVERSITY MEDICINE • EXERCISE SHEET

3.3 Lower limb

Name: _____ Class: _____ Date: _____ **Total: 23 marks**

KEY WORDS compartment syndrome

Objective

Map leg compartments and nerves, and read ischaemia from pulses and pain.

1 Key knowledge and worked examples

■ **Four compartments, four nerves**

Anterior (dorsiflex), lateral (evert), superficial posterior (plantarflex), deep posterior (invert + toes). Common peroneal wraps the fibular neck.

■ **Worked example: the two signatures**

Foot drop with preserved inversion = peroneal at the fibular neck ✓. Pain on passive stretch + paraesthesia = compartment syndrome (pressure > ~30 mmHg) ✓.

2 Practice

2.1 Which nerve serves eversion, and in which compartment? [3]

2.2 Name the four palpable lower-limb pulses. [3]

2.3 Why does compartment pain worsen on PASSIVE stretch? [3]

3 Exam-style questions

3.1 A runner has a tense, painful calf after a fracture; toes paraesthetic; pain on passive toe extension.

Explain the mechanism (closed fascial sleeve, swelling, capillary shutdown > 30 mmHg). State what is NOT yet lost and why (distal pulses often preserved). State the treatment principle. [7]

3.2 A patient cannot dorsiflex or evert after sitting cross-legged; inversion and reflexes are intact.

Localise the lesion (common peroneal at the fibular neck). Explain the sensory loss pattern (dorsum of foot). Explain why inversion being intact excludes a deep posterior/L5 lesion. [7]