COMPARTMENT SYNDROMES

Symptoms:
- Disproportional pain
- Pain on muscle stretch
- Loss of sensation

Diagnosis Difficult in:
- Children
- Unconsciousness
- After regional block

Diagnosis helped by pressure measurement. Differential between diastolic and inter-compartment pressure of less than 30mm Hg indicates need for fasciotomy

Causes:
- Burns
- Exercise
- Trauma
- Revascularisation procedures

Sustained elevation of tissue pressure

Leads to decrease in capillary perfusion, decreased tissue viability with fast & irreversible muscle & nerve damage

Good outcome
- Early (< 8 hrs)
- Adequate fasciotomy

Treatment:
Long fasciotomies
- Too late (>35 hrs)
- Poorly performed

Morbidity Death

Osteofascial compartments
- Anterior
- Fibular
- Deep posterior
- Superficial posterior
COMPARTMENT SYNDROMES OF LOWER LEG

SITE
Between tough deep fascia, intermuscular septa, bones and interosseous membrane

CAUSE
Trauma/infection leads to swelling, increased pressure, decreased perfusion, then ischaemia and tissue death

SYMPTOMS & SIGNS
Pain, particularly on passive movement, decreased muscle & nerve function and loss of sensation. Pulse may be lost but often late in the course of events. A differential pressure between diastolic blood pressure and inter-compartmental pressure of 30mmHg or less is enough to cause damage and indicate the need for an operation

ANTERIOR
Pain, decreased dorsiflexion, extension of toes, loss of sensation in first dorsal skin cleft

LATERAL
Pain, decreased plantar flexion, inversion, loss of sensation of dorsal foot and toes

POSTERIOR
Divided by deep transverse intermuscular septum into superficial and deep syndromes. Superficial gives decreased plantar flexion and loss of sural nerve sensation. Deep gives decreased plantar & toe flexion, loss of tibial nerve sensation