

Acute Limb Compartment Syndrome Observation Chart

Patients at risk

- Tibial, forearm or high-energy distal radius fractures.
- Orthopaedic injury/intervention combined with known coagulopathies/patient taking anticoagulants.
- Crush injuries.
- High impact trauma, including open fractures.

Monitor hourly for the first 24 hours. From 24 to 48 hours monitor 4 hourly. However, if suspicions arise at any point revert back to hourly monitoring.

Other patients may be monitored following individual assessment. In particular, consider the risk from newly applied traction, a restrictive cast or a tight circumferential bandage which does not allow for swelling. Patients who start reporting pain out of proportion to the injury/treatment, especially on passive movement, should also be considered for monitoring.

Pain out of proportion to the injury/treatment and pain on passive movement of the muscles of the involved compartment are the key clinical findings.

Patients who have had an anaesthetic nerve block or epidural may not be able to report the pain associated with compartment syndrome. In addition the 'pain' section should not be used in situations where the patient has an impaired ability to report this symptom, for example, when the patient is unconscious.

Changes in pulse, sensation and skin colour are late symptoms of neurovascular compromise and should not be relied upon to diagnose compartment syndrome. However, these may be recorded as part of a 'well limb' assessment.



Passive movement of the fingers

Place your fingers underneath the patient's fingers and gently extend the fingers.

Passive movement of the toes

Place your fingers underneath the patient's toes and gently extend the toes.



An increase in pain when carrying out this test may indicate a developing compartment syndrome and should be recorded appropriately on the chart overleaf.

A second chart will be required to provide a minimum of 48 hours monitoring.