

Orthopaedic surgery

Orthopaedic surgery

Neurovascular supply to the extremity Patients who have undergone extremity surgery , for example open reduction and internal fixation of a fracture, require regular neurovascular observations, both in recovery and on the ward (this will usually follow a local or national guideline). Moreover, if a tourniquet has been used, the restoration of the distal neurovascular supply should be established. Careful documentation of findings before and after surgery will allow comparison. Concern about the neurovascular status requires urgent and experienced surgical review and further management. Circumferential casts can be split and dressings cut down to skin to improve the blood supply to the limb. Raised pressure in an osseofascial compartment can manifest after surgical intervention to a limb and can prevent adequate tissue perfusion. Patients with compartment syndrome complain of pain that is (i) out of proportion to that expected, (ii) increasing in intensity , and (iii) worse on passive stretching of the muscles in the affected compartment. Other symptoms that relate to pressure on nerves (paralysis, paraesthesia) and blood vessels (pallor and pulselessness) may only be noticed after irretrievable injury to the limb has occurred from the ischaemia. Extreme vigilance and early intervention is necessary to identify and manage compartment syndrome. When suspected, prompt senior input is required. In terms of initial management, circumferential casts can be split, dressings cut - down to skin and the limb elevated. Further management will require experienced judgement and may include compartment pressure monitoring and/or fasciotomies. Compartment syndrome is considered more extensively in Chapters 3 and 32 . - Summary box 24.10 Compartment syndrome symptoms and signs

Pain out of proportion to that expected Pain that is increasing Pain on passive stretching of the muscles in the affected compartment Paralysis, paraesthesia, pallor and pulselessness generally occur late

Orthopaedic surgery

Neurovascular supply to the extremity Patients who have undergone extremity surgery , for example open reduction and internal fixation of a fracture, require regular neurovascular observations, both in recovery and on the ward (this will usually follow a local or national guideline). Moreover, if a tourniquet has been used, the restoration of the distal neurovascular supply should be established. Careful documentation of findings before and after surgery will allow comparison. Concern about the neurovascular status requires urgent and experienced surgical review and further management. Circumferential casts can be split and dressings cut down to skin to improve the blood supply to the limb. Raised pressure in an osseofascial compartment can manifest after surgical intervention to a limb and can prevent adequate tissue perfusion. Patients with compartment syndrome complain of pain that is (i) out of proportion to that expected, (ii) increasing in intensity , and (iii) worse on passive stretching of the muscles in the affected

compartment. Other symptoms that relate to pressure on nerves (paralysis, paraesthesia) and blood vessels (pallor and pulselessness) may only be noticed after irretrievable injury to the limb has occurred from the ischaemia. Extreme vigilance and early intervention is necessary to identify and manage compartment syndrome. When suspected, prompt senior input is required. In terms of initial management, circumferential casts can be split, dressings cut - down to skin and the limb elevated. Further management will require experienced judgement and may include compartment pressure monitoring and/or fasciotomies. Compartment syndrome is considered more extensively in Chapters 3 and 32 . - Summary box 24.10 Compartment syndrome symptoms and signs

Pain out of proportion to that expected
Pain that is increasing
Pain on passive stretching of the muscles in the affected compartment
Paralysis, paraesthesia, pallor and pulselessness generally occur late

Revision #1

Created 2025-12-31 15:11:22 UTC by Omar Ayman

Updated 2025-12-31 15:11:22 UTC by Omar Ayman