COMPARTMENT SYNDROME

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Compartment syndrome is raised pressure in a fascial compart - ment to a level that compromises tissue perfusion. There are several causes of compartment syndrome, fractures being the most common (70%), followed by soft-tissue contusions (23%). Rarer causes include: bleeding disorders, including anti - coagula tion; burns (particularly circumferential third-degree burns); postischaemic swelling (reperfusion injury); tight casts/ - dressings; and extravasation of intravenous infusions (contrast under pressur e). The pathophysiology involves increased tissue pressure, - which leads to reduced microperfusion, resulting in tissue isch - aemia and irreversible muscle damage from cellular anoxia. Compartment syndr ome is a clinical diagnosis character - ised by pain out of proportion, increasing pain, and pain on passive stretch, with paraesthesia possible. Paralysis, numbness and pallor are /uni00A0 late signs and pulselessness is an extremely late - sign. Compartment pressure monitoring ma y be useful in cases - of diagnostic uncertainty and in patients with altered levels of consciousness (intubated, head injury). Measure multiple sites near but not in the fracture site, in all the compartments of the a ff ected limb. Generally accepted pressur e thresholds include an absolute pressure greater than or equal to 30 /uni00A0 mmHg or pressure di ff erence (diastolic pres - sure /uni00A0 – /uni00A0 compartment pressure) less than or equal to 30 /uni00A0 mmHg. Emergency treatment involves splitting casts and/or dress - ings to the skin and elevating the extremity . Senior input should be sought and arrangements put in place to perform definitive treatment with fasciotomies. There are some common pitfalls to remember. The inci - dence of compartment syndrome associa ted with high- and low-energy injuries is nearly equal. Compartment syndrome can occur in open fractures. Have a high index of suspicion and be particularly vigilant in patients with an altered level of consciousness. COMPARTMENT SYNDROME

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Revision #1
Created 2025-12-31 15:13:26 UTC by Omar Ayman
Updated 2025-12-31 15:13:26 UTC by Omar Ayman