

H13: Soft Tissue Trauma

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Reviewed:

Introduction

Paramedics may be called upon to care for patients with a variety of soft tissue injuries related to both minor and major trauma. The term encompasses a broad range of conditions such as contusions, sprains, strains, tendinitis and bursitis. The most commonly injured soft tissues include muscles, tendons and ligaments; complex injuries may involve multiple structures. Common causes include falls, sports injuries, motor vehicle accidents or assaults.

Essentials

- Paramedics should differentiate between acute and chronic injuries. The latter are likely due to overuse, or may indicate a chronic pain syndrome. Acute pain is generally less than six weeks duration. Careful history taking is recommended.
- In acute injuries, maintain high index of suspicion for an associated fracture or dislocation
- If a fracture or dislocation is suspected, apply appropriate splinting and transport promptly
- Assess for neurovascular impairment and transport promptly if present
- In the case of head, back or neck injury apply spinal motion restriction guidelines as indicated

Additional Treatment Information

- Primary treatment consists of rest, ice, compression and elevation
- If open wounds are associated with the injury, irrigate with sterile saline and before applying appropriate sterile dressings
- Consider paramedic scope appropriate analgesia as indicated

Referral Information

Patients with minor injuries may meet local transport criteria for waiting room offload as directed by current policy.

General Information

- Conduct ongoing monitoring of neurovascular function and observe for signs of compartment syndrome
 - The anterior compartment of the lower leg is the most common site for development of compartment syndrome
 - The 6 P's of compartment syndrome are a late sign (pain, pallor, pulselessness, paresthesia, paralysis, and pokilothermia)
- Avoid applying ice packs directly to the skin
- If the injury involves an ankle, assess using the Ottawa Ankle Rules

Interventions

Emergency Medical Responder – All FR interventions, plus:

- Assess affected area closely and monitor for signs of neurovascular impairment
- Provide spinal motion restriction if indicated
 - → [H05: Spinal Cord Injuries](#)
- Irrigate any associated wounds with sterile saline and dress with appropriate sterile dressings
- If an associated fracture or dislocation is suspected, provide appropriate splinting
- Apply RICE (Rest/Ice/Compression/Elevation) if applicable to anatomical site of injury

- Consider analgesia
 - → [E08: Pain Management](#)

Evidence Based Practice

[Minor Trauma](#)

References

1. Alberta Health Services. AHS Medical Control Protocols. 2020. [\[Link\]](#)
2. Greaves I et al., editors. The trauma care pre-hospital manual. 2018.
3. Campbell JE et al. International trauma life support for emergency care providers. 8th ed. 2016.
4. Ambulance Victoria. Clinical Practice Guidelines: Ambulance and MICA Paramedics. 2018. [\[Link\]](#)

