Soft tissue trauma

- Ligaments (bone to bone)
- Tendons (muscle to bone)
- Muscle
- Fat, joint capsules, other connective tissue…

Common traumas

- Sprain
- Strain
- Contusions
- Tendonitis
- Bursitis

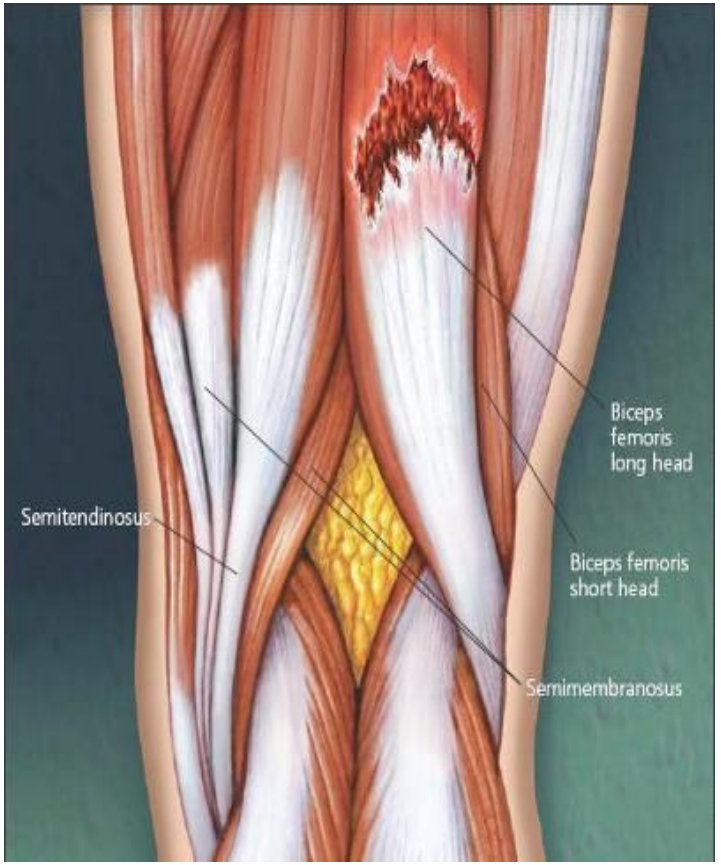
Sprains

- Ankle, knee, wrists…
- Stretch or complete or partial tear of a ligament
- Over extension of joint

Strains

- Equivalent injury of sprain, to a muscle or tendon.

- Stretch or complete/partial tear of a muscle or tendon



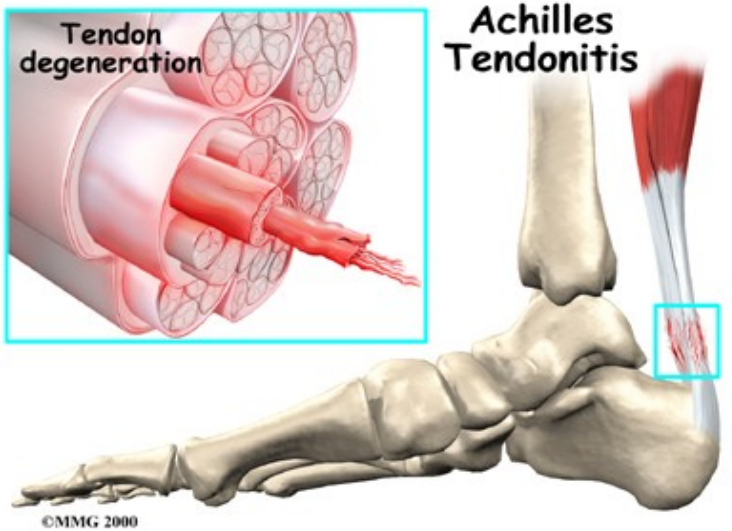
Contusions

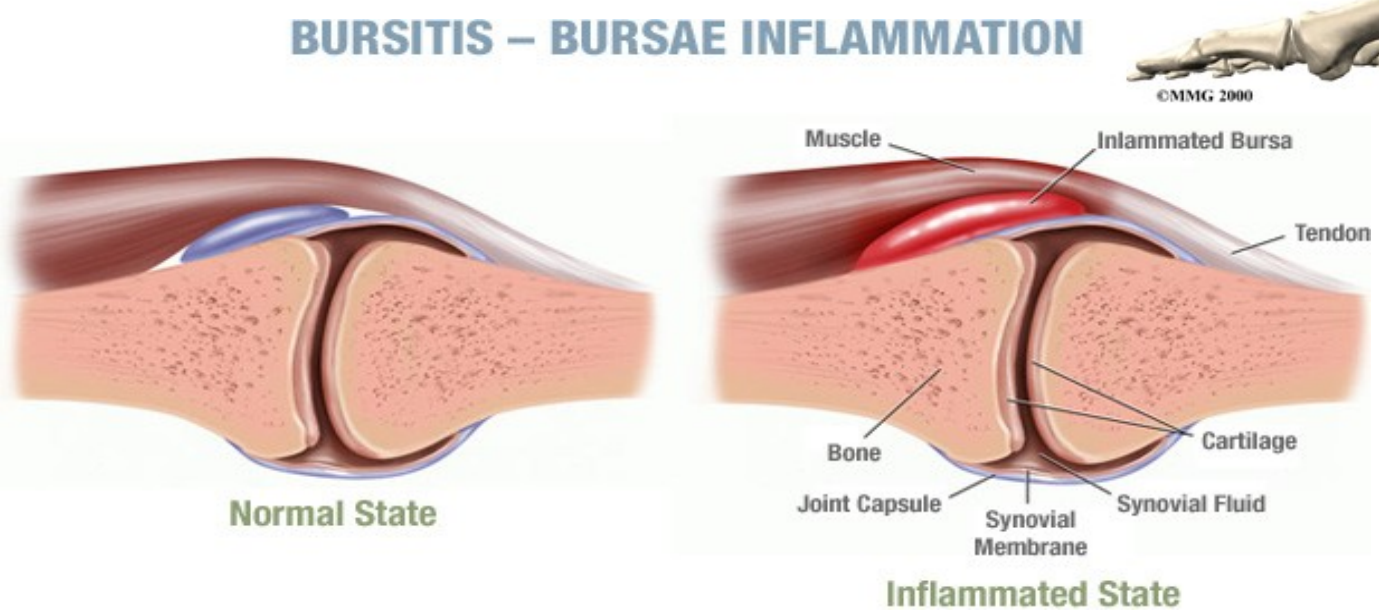
- Bruise caused by a blow to muscle, tendon, or ligament.

- Blood pools under the skin leading to discoloration, swelling and pain.

Tendonitis and bursitis

- Inflammation
- Caused by series of small stresses (overuse) or injury





Management

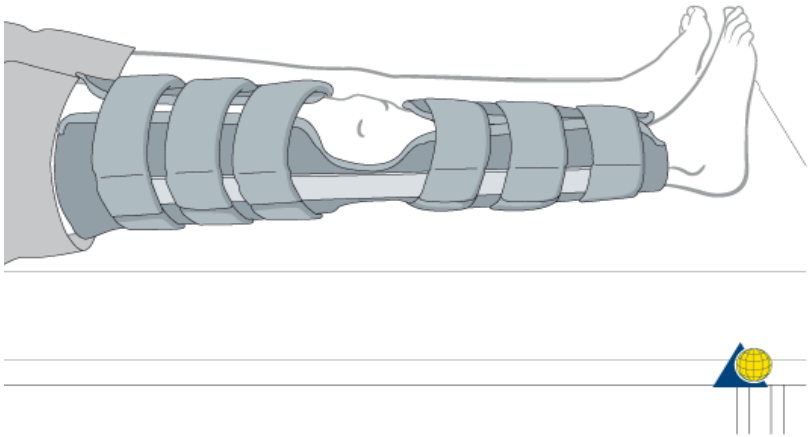
- Minimize pain, swelling, hemorrhage, inflammation and muscle spasm.
- Protection and immobilization of the damaged tissue.
- Preventing joint deformity, stiffness, muscle atrophy and tight adhesions.
- Eventually controlled mobilization, simulation of activity stress and finally complete recovery.

Management

- Immediately after the injury occurs one should apply the PRICE principle to minimize the local tissue damage, prevent further trauma and reduce inflammation.

- PRICE stands for: Protection, Rest, Ice, Compression and Elevation

- **Protection:** removing hazards away from the individual and preventing movement (often by splinting)
- **Rest:** avoid activity causing discomfort, usually imobilizing injury area by splinting and casting and avoiding weight bearing by the use of crutches.

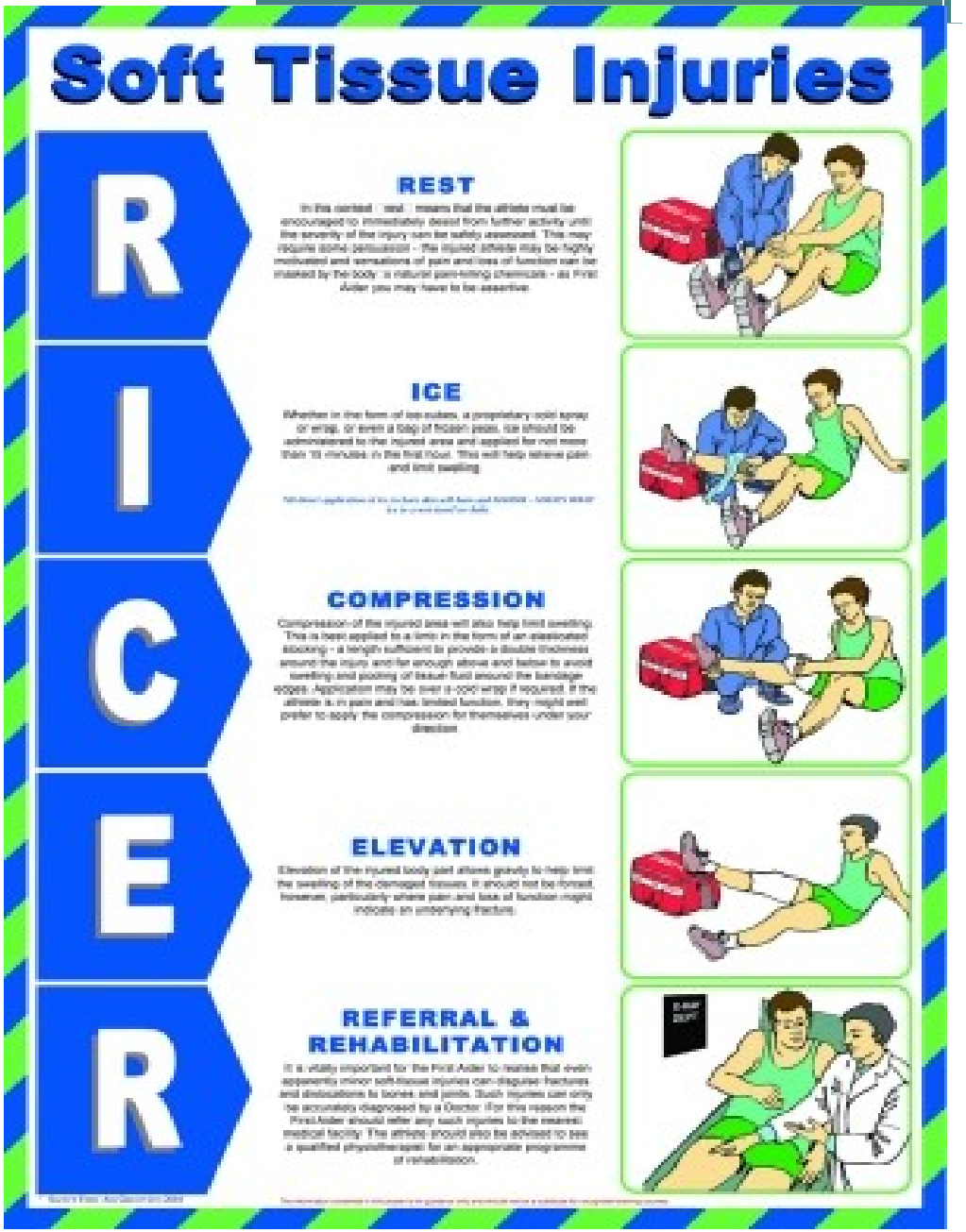


- **Ice:** for the first 72 hours, controls swelling and minimizes pain and inflammation symptoms. Recommended for 15 minutes every 4 hours.

- **Compression:** application of pressure over the injured area. Controls initial bleeding and reduces residual swelling. The bandage should be firm but not so tight as to cause pain.

- **Elevation:** also minimizes bleeding, swelling and general inflammation.

Ideally above heart level.



- If severe pain persists nerve conduction studies may also be used to localize nerve dysfunction, assess severity and help with prognosis. Electrodiagnosis also helps differentiate between myopathy and neuropathy.

- Anti-inflammatory medication may also be used in combination with PRICE.

- More severe soft tissue trauma may require surgical intervention:

- Repair of torn tissues
- Replacement or reconstruction
- Reattachment and transposition