

## An Application to the Health-Related Professions

### TRACTION as an Application of the Use of Forces

*Traction* is force applied in a specific direction. To apply the force needed to overcome the natural force or pull of muscle groups, we use a system of ropes, pulleys, and weights. Traction may be applied to the skin or the skeletal system.

#### ***Purposes***

1. To reduce and immobilize a fracture.
2. To regain normal length and alignment of an injured extremity.
3. To lessen or eliminate muscle spasm.
4. To prevent fracture deformity.
5. To give the patient freedom for “in bed” activities.
6. To reduce pain.

#### ***Methods***

- A. *Skin Traction accomplished* by a weight that pulls on tape, sponge, rubber, or plastic materials attached to the skin or a special device (boots); traction on the skin transmits traction to the musculoskeletal structures.
  1. Skin traction is used as a temporary measure in adults; used prior to surgery in treatment of intertrochanteric hip fracture (Buck’s extension); Russell’s traction is used for applying traction to the femoral shaft with the knee flexed. Skin traction may be used definitively to treat fractures in children.
- B. *Skeletal Traction* is traction applied to bone using wires, pins, or tongs placed through bones; this is the most effective means of traction. It is applied by the orthopedic surgeon under aseptic conditions.
  1. Skeletal traction is used most frequently in treating fractures of the femur, humerus (supracondylar fractures), tibia, and cervical spine.