

Figure 2.1 Sketch of the human frame.

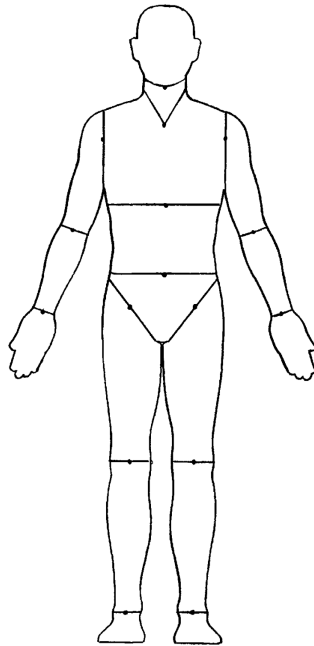


Figure 2.2 Major segments of the human frame.

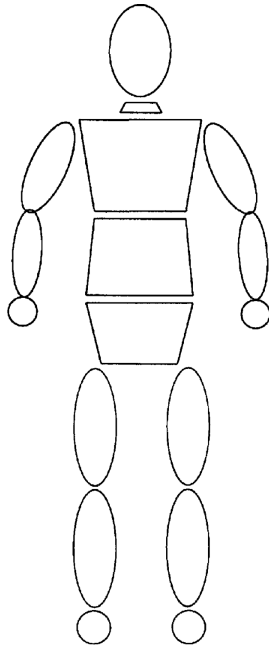


Figure 2.3 Modeling the human frame by ellipsoids and elliptical cones.

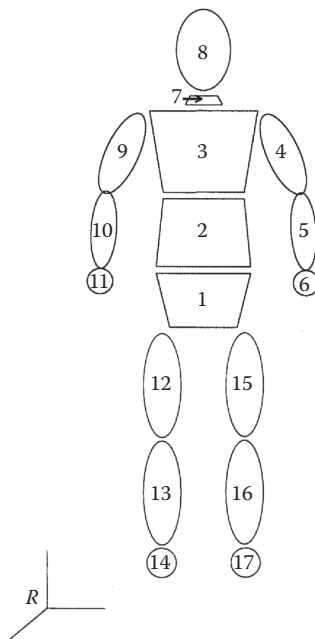


Figure 2.4 Numbering and labeling the human frame model.

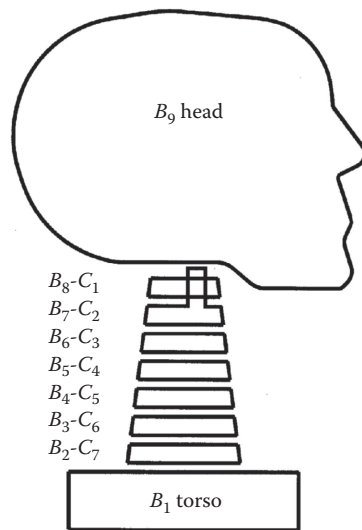


Figure 2.5 Head/neck model.

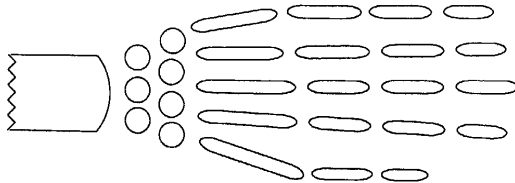


Figure 2.6 Model of the hand and wrist.

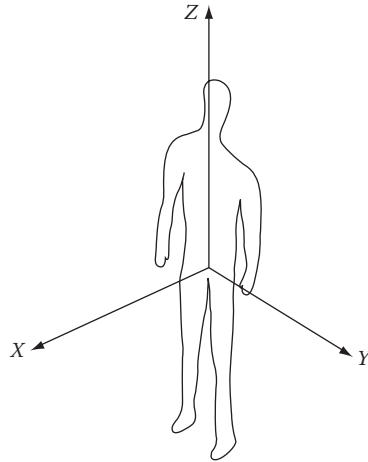


Figure 2.7 Coordinate axes for the body.

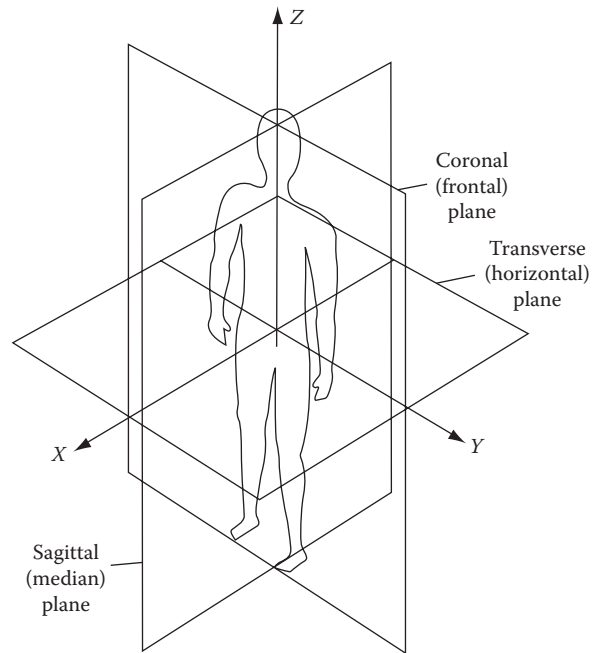


Figure 2.8 Principal planes of the human body.

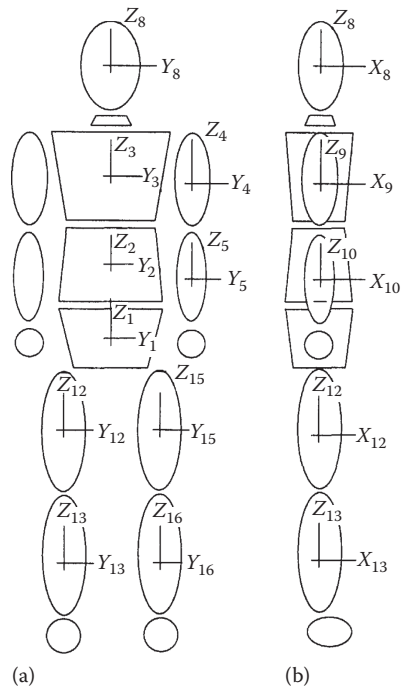


Figure 2.9 Coordinate axes of body segments: (a) front view and (b) side view.

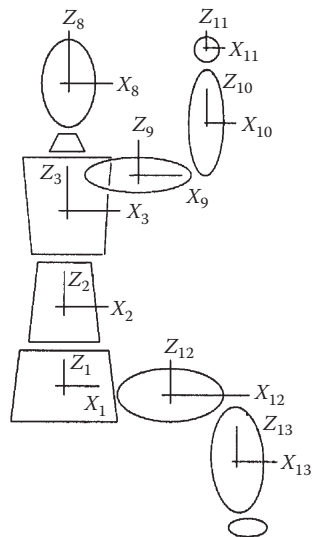


Figure 2.10 Reference configuration of a vehicle operator.

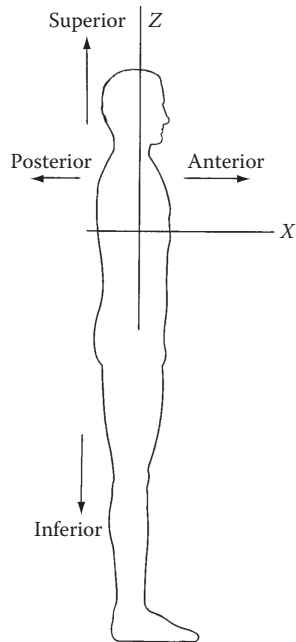


Figure 2.11 Superior/inferior and anterior/posterior directions.

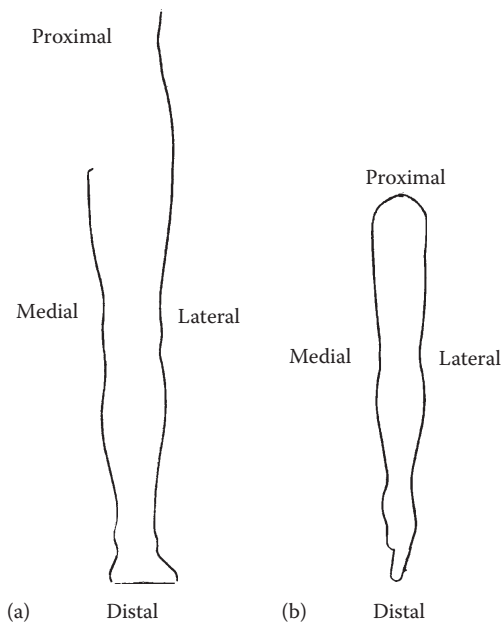


Figure 2.12 Lateral/medial and distal/proximal directions (Berol template): (a) left leg and (b) left arm.

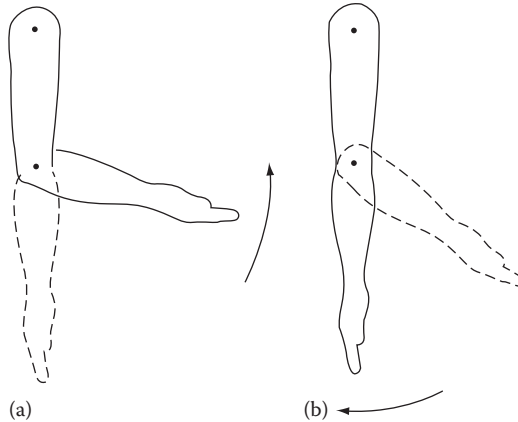


Figure 2.13 Arm flexion/extension (Berol template): (a) flexion and (b) extension.

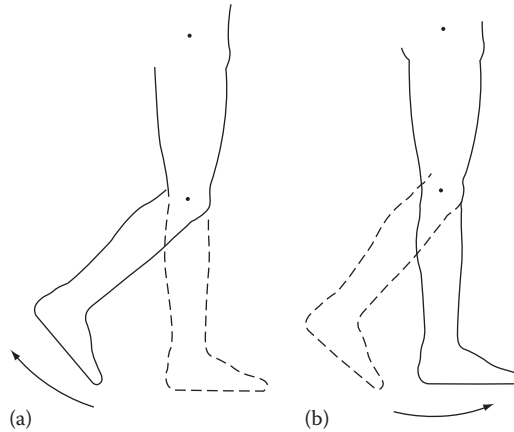


Figure 2.14 Leg flexion/extension (Berol template): (a) flexion and (b) extension.

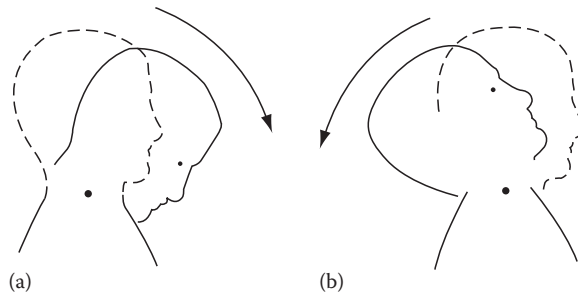


Figure 2.15 Head/neck flexion/extension (Berol template): (a) flexion and (b) extension.

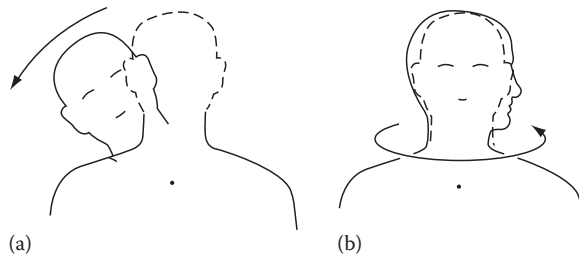


Figure 2.16 Head/neck lateral bending and rotation (twisting) (Berol template): (a) lateral bending and (b) rotation (twisting).

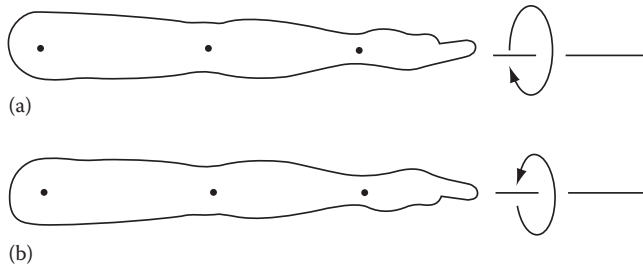


Figure 2.17 Forearm rotation (right arm) (Berol template): (a) supination and (b) pronation.

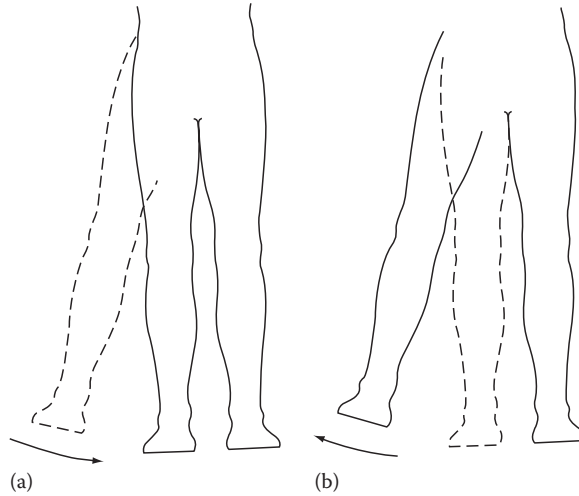


Figure 2.18 Adduction and abduction (Berol template): (a) adduction and (b) abduction.

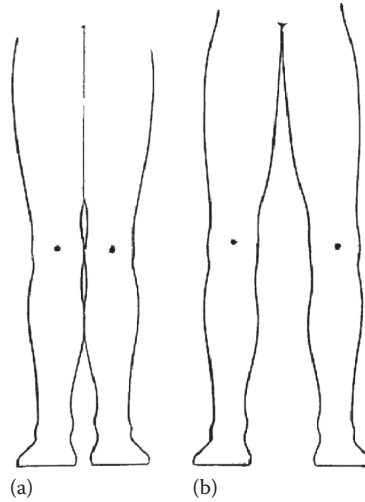


Figure 2.19 Varus and valgus leg configuration (Berol template): (a) varus and (b) valgus.

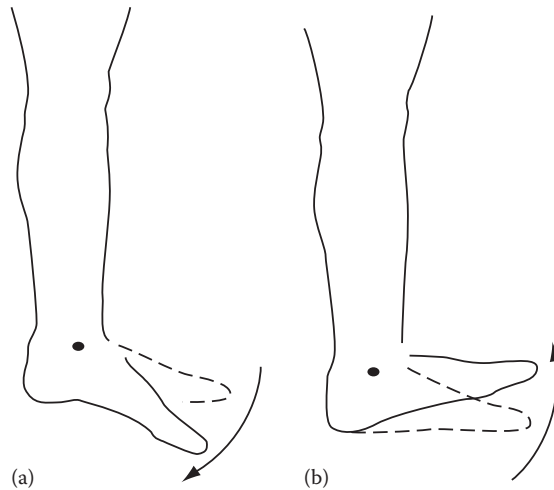


Figure 2.20 Plantarflexion and dorsiflexion foot movement (Berol template): (a) plantarflexion and (b) dorsiflexion.

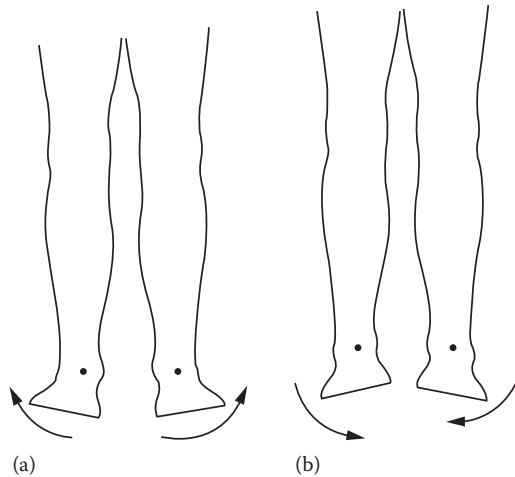


Figure 2.21 Eversion and inversion of the feet (Berol template): (a) eversion and (b) inversion.

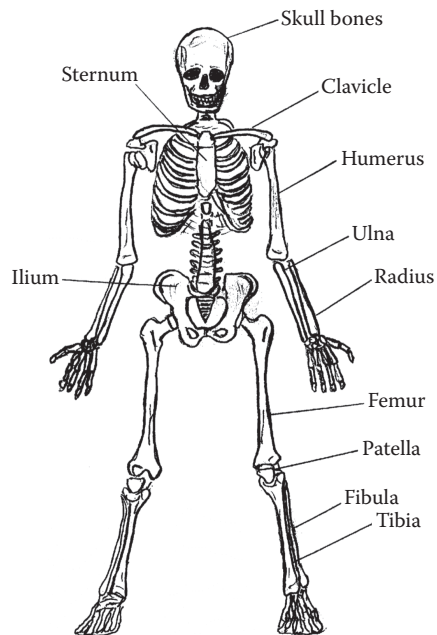


Figure 2.22 Human skeleton.

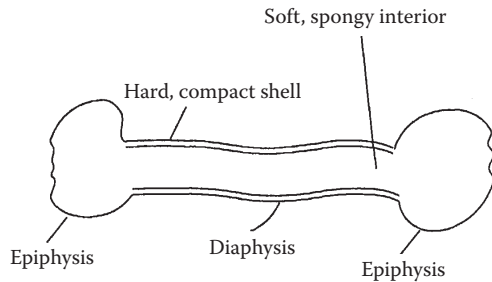


Figure 2.23 Sketch of a long bone.

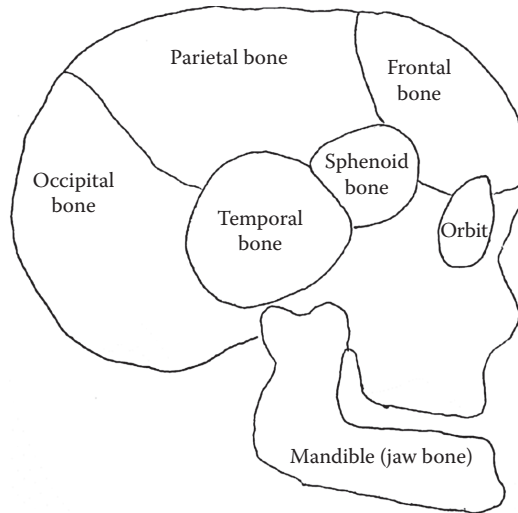


Figure 2.24 Skull bones and jaw.

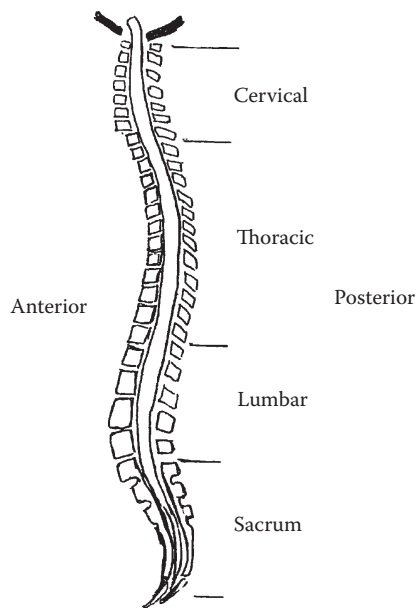


Figure 2.25 Sketch of the human spine.

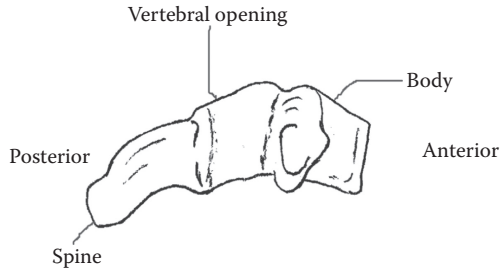


Figure 2.26 Typical cervical vertebra.

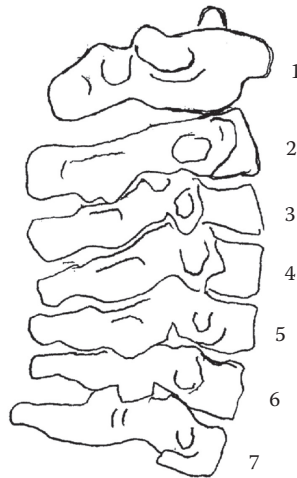


Figure 2.27 Sketch of the cervical spine: 1–7.

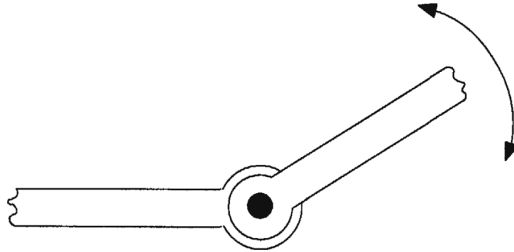


Figure 2.28 Pin, or hinge, joint.

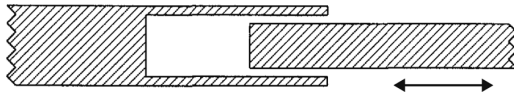


Figure 2.29 Slider joint.

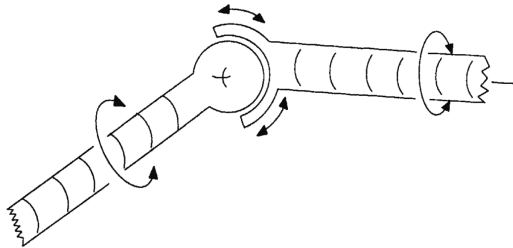


Figure 2.30 Ball-and-socket or spherical joint.

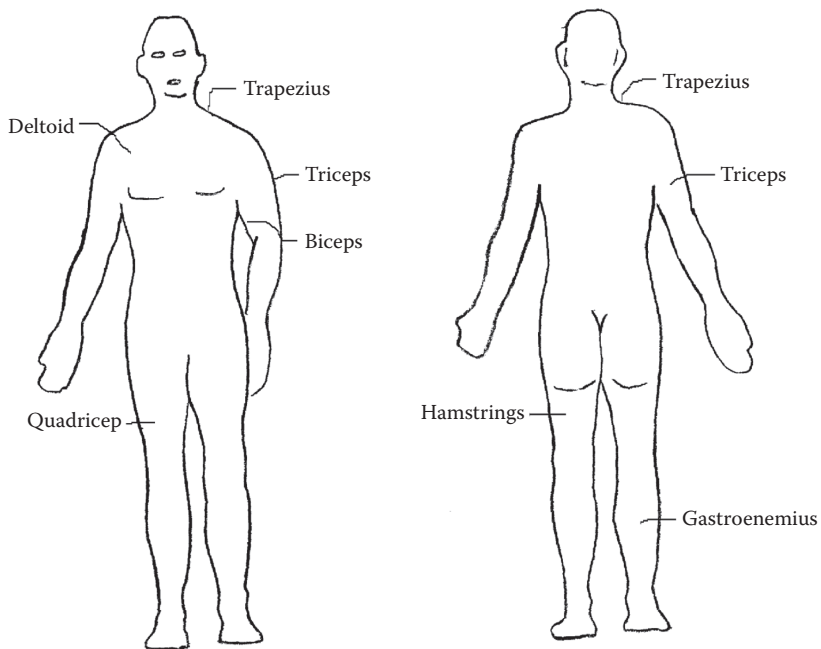


Figure 2.31 Major skeletal muscles.

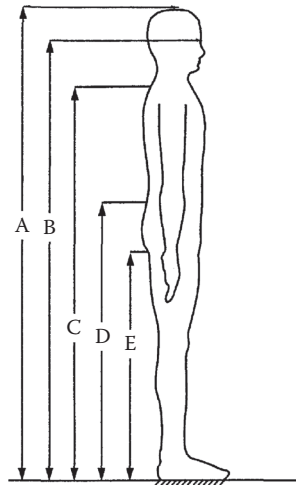


Figure 2.32 Standing dimensions: A, stature; B, eye height (standing); C, mid-shoulder height; D, waist height; E, buttocks height.

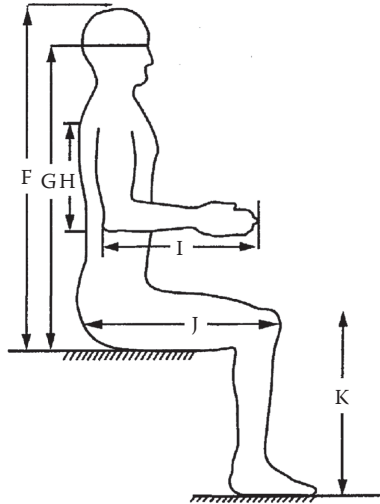


Figure 2.33 Sitting dimensions: F, sitting height; G, eye height (sitting); H, upper arm length; I, lower arm/hand length; J, upper leg length; K, lower leg length.