CHAPTER 8
ARTICULATIONS AND MOVEMENT

CHAPTER OVERVIEW: This chapter describes and defines articulations, and analyzes movement at joints based on both the bony and soft tissue structures present at a joint. The anatomical features of different types of joints are described in detail. The types of body movements are discussed in general and in relation to the joints at which they normally occur.

OUTLINE (one or two fifty-min. lectures):
Seeley, A&P, 5/e

Chapt. Object.	Topic Outline, Chapter 8, 5/e	Figures & Tables	Transparency Acetates
1, 2	I. Naming Joints, p. 225	Predict Quest. 1	
	II. Classes of Joints , p. 225		
3	A. Fibrous Joints (Joined by Dense Regular CT)	Table 8.1, p.226	TA-147
	1. Sutures & Fontanels	Predict Quest. 2;	TA-147
	a. Fontanels	Fig. 8.1, p.227	
	2. Syndesmoses	Fig. 8.2, p.227	TA-148
	3. Gomphoses	Clinical Note, p.226	
4	B. Cartilaginous Joints (Joined by Cartilage)		
	1. Synchondroses (Hyaline Cartilage)	Fig. 8.3, p.228	TA-149
	2. Symphyses (Fibrocartilage)	Fig. 8.4, p.228 Clinical Note, p.229	TA-150
5	3. Synovial Joints		
	a. Specialized CT Structure of Joint	Fig. 8.5, p.229 Predict Quest. 3	TA-151
	1). Fibrous Capsule & Synovial Membrane 2). Articular Cartilages = Hyaline Cartilage		
6	3). Synovial Fluid & Bursae		
7	b. Types of Synovial Joints		

	1). Plane or Gliding (Monoaxial)	Fig. 8.6a, p.231
	2). Saddle (Biaxial)	Fig. 8.6b, p.231
	3). Hinge (Monoaxial)	Fig. 8.6c, p.231
	4). Pivot (Monoaxial)	Fig. 8.6d, p.231
	5). Ball and Socket (Multiaxial)	Fig. 8.6e, p.231
	6). Ellipsoid (Biaxial)	Fig. 8.6f, p.231
	III. Types of Body Movements, p. 230	
	A. Angular Movements	
8	1. Flexion and Extension	Fig. 8.7a-e, p.233
	a. Plantar Flexion & Dorsiflexion	Clinical Note, p.232 Fig. 8.7f, p.233
9	2. Abduction and Adduction	Fig. 8.7g, p.234
11	B. Circular Movements	
	1. Rotation	Fig. 8.7i, p.234
	2. Pronation and Supination	Fig. 8.7j, p.234
	3. Circumduction	Fig. 8.7k, p.234
	C. Special Movements	
	1. Elevation and Depression	Fig. 8.7l, p.235
	2. Protraction and Retraction	Fig. 8.7m, p.235
	3. Excursion	Fig. 8.7n, p.235
	4. Opposition and Reposition	Fig. 8.7o, p.235
10	5. Inversion and Eversion	Fig. 8.7p, p.235
	D. Combination Movements	Predict Quest. 4
	IV. Description of Selected Joints	Clinical Focus,

		pp.244-245	
12	A. Temporomandibular Joint (Mandible & Temporal Bone)	Clinical Note, p.236	
	1. Structure	Fig. 8.8, p.237	TA-152
12	B. Shoulder Joint (Humerus & Scapula)	Clinical Note, p.237 Predict Quest. 5	
	1. Structure	Table 8.2 , p.237	
	2. Ball & Socket; Rotator Cuff	Fig.8.9, p.238	TA-153
12	C. Hip Joint (Femur & Acetabulum of Os Coxa)	Clinical Note, p.239	
	1. Structure	Table 8.3, p. 239 Fig.8.10, p.239	TA-154
	2. Ball & Socket; Reinforcing Ligaments		
12, 13	D. Knee Joint (Femur & Tibia)	Clinical Note, p.241	
	1. Structure	Table 8.4, p.242 Fig. 8.11, pp.241	TA-155
	2. Analysis of Movement		
	a. Bone Surfaces - Hinge		
	b. Menisci and Patellar Ligaments		
	c. Range of Movement		
12, 14	E. Ankle Joint (Tibia, Fibula & Talus)	Clinical Note, p.242	
	1. Structure	Table 8.5, p. 243 Fig. 8.12, p.243	TA-156
	2. Analysis of Movement		
	a. Bone Surfaces - Modified Ball & Socket		
	b. Range of Movement		

12	F. Arches of the Foot (Metatarsals & Tarsals)	Clinical Note, p.243	
	1. Structure	Fig. 8.13, p.243	TA-157
	2. Functional Significance of the Arches		

IMPORTANT CONSIDERATIONS: The names of specific structures and parts of joints are best studied when the students can manipulate models and get a spatial sense for how the joints are constructed. This material can be combined with the material on the skeleton, so that the bones and their articulations are mentioned together. This material has two different logical splits. One split correlating joint structure and body movements and another between the general principles and the specific examples.

SEE INSTRUCTOR'S MANUAL AND COURSE SOLUTIONS MANUAL FOR ADDITIONAL REFERENCES.