Skeletal System - Joint Actions and Articulations and Quiz

Skeletal System - Joint Actions and Articulations and Quiz Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
20 minutes	17a Quiz
10 minutes	Lecture: AOI- Occipitalis, Frontalis, Temporalis, Masseter
25 minutes	Lecture:
60 minutes	Total

Skeletal System - Joint Actions and Articulations and Quiz Class Reminders

Assignments:

17a Review Questions (A: 131-140) DUE NOW!!

Quizzes and Exams:

- 17a Quiz (study all material from classes 9a, 9b, 11a, 12a, and 13b) TODAY!
- 17b Kinesiology Quiz (biceps, coracobrachialis, SCM, levator, scalenes, occipitofrontalis, temporalis, masseter)
- 19a Quiz
 (study all material from classes 13a, 15a, 16a, 17a, and 18a)
- 21a Exam
 (1b, 2a, 2b, 3a, 3b, 4a, 5a, 6a, 7a, 8b, 9a, 9b, 11a, 12a, 13a, 13b, 15a, 16a, 17a, 17b, and 18a)

Preparation for upcoming classes:

- 18a H&H: Therapeutic Relationships- Conflict, Transference, Dual Relationship, and Sexual Misconduct
- 18b Swedish: Technique Review and Practice Chest, Arms, Neck, Face, and Scalp
 - Packet F: 55-56, and 58
- 21b CPR / First Aid: This class cannot cannot be made in the make-up room. To schedule a sit-in, students should contact the Student Administrator. To be exempt, bring a copy of your CPR & first aid certificate.

Classroom Rules

Punctuality - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

The following are not allowed:

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

You will receive one verbal warning, then you'll have to leave the room.



Classmarker

Grading your Quiz/Exam

- Classmarker will automatically grade your assignment and email you a copy of your completed test.
- Retakes. If you did not pass a test you may reserve space in the make-up room.
 If you are not making up hours, your time there will be at no cost. Retakes may
 be done at anytime before a student graduates. You may retake it for a grade up
 to a 70. These are done on paper copies.
- Please refer to your assignment grid on pages A: 29-32.

Frontalis and Occipitalis Trail Guide, Page 258



Lateral View

Frontalis and Occipitalis together form the occipitofrontalis.

They are responsible for raising the forehead into an expression of surprise.

Although they are superficial, their thin fibers cannot be isolated.

Frontalis:

Raise the eyebrows and wrinkle the forehead

Occipitalis:

Anchor and retract the galea posteriorly

Both: Galea aponeurotica

Frontalis: Skin superior to eyebrows

Occipitalis: Superior nuchal line of the occiput





Frontalis:

Raise the eyebrows and wrinkle the forehead

Occipitalis: Anchor and retract the galea posteriorly

Both: Galea aponeurotica

Frontalis: Skin superior to eyebrows

Occipitalis: Superior nuchal line of the occiput





Frontalis:

Raise the eyebrows and wrinkle the forehead

Occipitalis:

Anchor and retract the galea posteriorly

Both: Galea aponeurotica

Frontalis: Skin superior to eyebrows

Occipitalis: Superior nuchal line of the occiput





Frontalis:

Raise the eyebrows and wrinkle the forehead

Occipitalis:

Anchor and retract the galea posteriorly

Both: Galea aponeurotica

Frontalis: Skin superior to eyebrows

Occipitalis: Superior nuchal line of the occiput





Frontalis:

Raise the eyebrows and wrinkle the forehead

Occipitalis:

Anchor and retract the galea posteriorly



Both: Galea aponeurotica

Frontalis: Skin superior to eyebrows

Occipitalis: Superior nuchal line of the occiput





Temporalis is located on the temporal aspect of the cranium with its broad origin attaching to the frontal, temporal, and parietal bones.

Actions of the Temporalis



Elevation of the mandible



Retraction of the mandible



Elevate the mandible (temporomandibular joint)

Retract the mandible (temporomandibular joint)

Temporal fossa Temporal fascia





Lateral View



Elevate the mandible (temporomandibular joint)

Retract the mandible (temporomandibular joint)

Temporal fossa Temporal fascia





Lateral View

Elevate the mandible (temporomandibular joint)

Retract the mandible (temporomandibular joint)

Temporal fossa Temporal fascia



Lateral View



Elevate the mandible (temporomandibular joint)

Retract the mandible (temporomandibular joint)

Temporal fossa Temporal fascia



Lateral View





Masseter is the strongest muscle in the body relative to its size.

The two masseters together exert nearly one-hundred-fifty pounds of pressure.

Along with temporalis, masseter is a muscle of mastication.

Actions of the Masseter



Elevation of the mandible



Protraction of the mandible

Elevate the mandible (temporomandibular joint)

May assist to **protract** the mandible (TM joint)



Angle of the mandible Ramus of the mandible







Elevate the mandible (temporomandibular joint)

May assist to **protract** the mandible (TM joint)

Zygomatic arch

Angle of the mandible Ramus of the mandible







Elevate the mandible (temporomandibular joint)

May assist to **protract** the mandible (TM joint)

O Zygomatic arch

Angle of the mandible Ramus of the mandible







Elevate the mandible (temporomandibular joint)

May assist to **protract** the mandible (TM joint)



Angle of the mandible Ramus of the mandible



Lateral View





Elevate the mandible (temporomandibular joint)

May assist to **protract** the mandible (TM joint)



Angle of the mandible Ramus of the mandible



Lateral View









17a A&P: Skeletal System - Joint Actions and Articulations and Written Exam Prep Quiz E-25



Flexion Bending or decreasing the <u>angle</u> of a joint.

Extension Straightening or increasing the angle of a <u>joint</u>.





Flexion Bending or decreasing the <u>angle</u> of a joint.

Extension Straightening or increasing the angle of a <u>joint</u>.









Flexion Bending or decreasing the <u>angle</u> of a joint.

Extension Straightening or increasing the angle of a <u>joint</u>.





Hyperextension A continuation of extension <u>beyond</u> anatomic position.





Abduction Movement <u>away</u> from the median plane.

Adduction Movement toward the median plane.









Abduction Movement <u>away</u> from the median plane.

Adduction Movement toward the median plane.









Supination Lateral rotation of the forearm so that the palm is turned <u>up</u>.

Pronation Medial rotation of the forearm so that the palm is turned <u>down</u>.





٠

Actions and Articulations

PlantarflexionExtension of theankle such that the toes arepointing downward

Dorsiflexion Flexing the ankle dorsally. Toes are moving toward the <u>shin</u>.





InversionElevation of the medial,
edge of the foot. Sole is turnedEversionElevation of the lateral,
the foot. Sole is turned outward.

Inversion Eversion



Circumduction <u>Cone</u> -shaped range of motion that occurs when the distal end moves in a circle and the proximal end is fixed.









Rotation Circular movement when a bone moves around its own central <u>axis</u>.



Left and right rotation Rotation for joints within the <u>median</u> axis.







Lateral and medial rotation Rotation for joints outside of the median axis.







Upward and downward rotation Rotation of the <u>scapula</u> so that the glenoid fossa faces either upward or downward.





Elevation Raising or lifting a body part, moving <u>superiorly</u>.

Depression Lowering or dropping a body part, moving <u>inferiorly</u>.







Protraction Movement forward or <u>anteriorly</u>.

Retraction Movement backward or <u>posteriorly</u>.









Anterior pelvic tilt Entire pelvis tilted <u>forward</u> in the frontal plane. **Posterior pelvic tilt** Entire pelvis tilted backward in the frontal plane.





Synovial Joints: Ball and Socket

Glenohumeral Shoulder joint.





Synovial Joints: Ball and Socket

Coxal / Iliofemoral Hip joint.





Humeroulnar Elbow joint.





Humeroradial Elbow joint.





Tibiofemoral Knee joint.





Talocrural Ankle joint.





Interphalangeal IP joint.





Temporomandibular TMJ, jaw joint.





Synovial Joints: Pivot

Atlantoaxial "No-no" joint.





Synovial Joints: Pivot

Radioulnar (proximal) Joint between the radius and the ulna.





Synovial Joints: Saddle

Carpometacarpal of the thumb





Synovial Joints: Ellipsoidal

Radiocarpal Wrist joint.





Synovial Joints: Ellipsoidal

Metacarpophalangeal Large knuckle joints of the hand.





Synovial Joints: Ellipsoidal and Gliding

Atlantooccipital Joint between atlas (C1) and occiput. "Yes-yes" joint.



Posterior View



Acromioclavicular





Sternoclavicular





Intercarpal Joints between carpals.





Patellofemoral Patella – Femur.





Intertarsal Joints between tarsals.



Skeletal System - Joint Actions and Articulations and Quiz