BI 199 APWT Discussion 13

I. Announcements  Poster presentation scoring. Q?

II. American College of Sports Medicine (ACSM) American Heart Association (AHA), US Government/Centers for Disease Control (CDC) Guidelines: How Much Exercise is Enough?
A. Endurance training
B. Strength training

III. Anatomy Lab Skulls & Vertebrae Group Work

A. Are deep squats a safe & viable exercise?
   B Schoenfeld & M Williams.
B. Exploring the front squat. SP Bird & S Casey.
The phantom did a beautiful job! I really liked his color choices and the layout of his poster. He also knocked us out in the Q & A session! Fabulous effort!!
How much aerobic?

Continuous exercise
≥ 50% muscle mass
Moderate?
≥ 30 min/d, ≥ 5 d/wk
Vigorous?
≥ 20 min/d, ≥ 3 d/wk
Guidelines: Healthy Adults < 65 yr

Do moderately intense aerobic exercise
≥ 30 min/d, 5 d/wk

OR

Do vigorously intense aerobic exercise
≥ 20 min/d, 3 d/wk

AND

Do 8-10 strength-training exercises
8-12 repetitions/each exercise, 2 d/wk
How much strength?

• 2-3 days/wk

• 8-10 exercises for major muscle groups

• ≥ 1 set/exercise

• 8-12 (most) or 10-15 (frail/> 50-60 yr) repetitions/set

http://www.acsm.org/access-public-information/position-stands
Federal exercise guidelines include strength training for all!


**Adults:** Moderate to Vigorous Exercise
≥ 30 min, 5 d/wk

**Children:** Moderate to Vigorous Exercise
≥ 60 min, 5 d/wk
Skull – Anterior view, 25 yr old male

Source: Francis & Martin, 1975. Illustration by Helen Williams.
Skull – Lateral view, 25 yr old male

- Coronal suture
- Frontal bone
- Supraorbital margin
- Sphenoid bone
- Nasal bone
- Zygomatic bone
- Maxilla
- Mandible
- Parietal bone
- Squamous suture
- Temporal bone
- Lambdaoidal suture
- Occipital bone
- External auditory meatus
- Mastoid process
- Styloid process (broken)

Source: Francis & Martin, 1975. Illustration by Helen Williams.
Name the colored bones!

Source: Francis & Martin, 1975. Illustration by Helen Williams.
Identify these sutures! Why present?

Source: Francis & Martin, 1975. Illustration by Helen Williams.
Cranial cavity floor, 25 yr old male

Source: Francis & Martin, 1975. Illustration by Helen Williams.
Spenoid – Butterfly! Pat’s favorite!

Source: Francis & Martin, 1975. Illustration by Helen Williams.
Vertebral column numbers!

7 Cervical

Breakfast at 7 a.m.

12 Thoracic

Lunch at 12 noon

5 Lumbar

Dinner at 5 p.m.

Sacrum

Coccyx
Atlas (C-1) & Axis (C-2) support & rotate the world!

"Thoracic giraffe"
In this postero-lateral view, the posterior portion of a lumbar vertebra looks like the head of a giraffe.

"Lumbering moose"
In the lateral view, the posterior portion of a lumbar vertebra looks like the head of a moose.

Feel this bump on the back of your neck!

Where many have problems with disc herniations!

Source: Francis & Martin, 1975.
Problems with herniated disc!

Illustration Source: http://www.tumblerockranch.com/apps/blog/
MRI 061307
Lumbar spine
Axial view
9.4 x 8.1 mm
Protrusion
Oregon Imaging