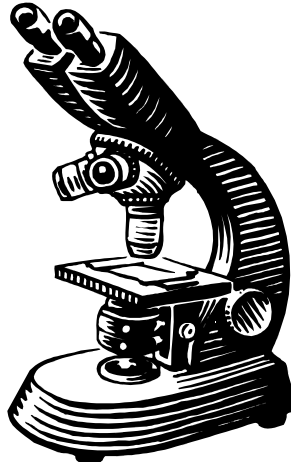
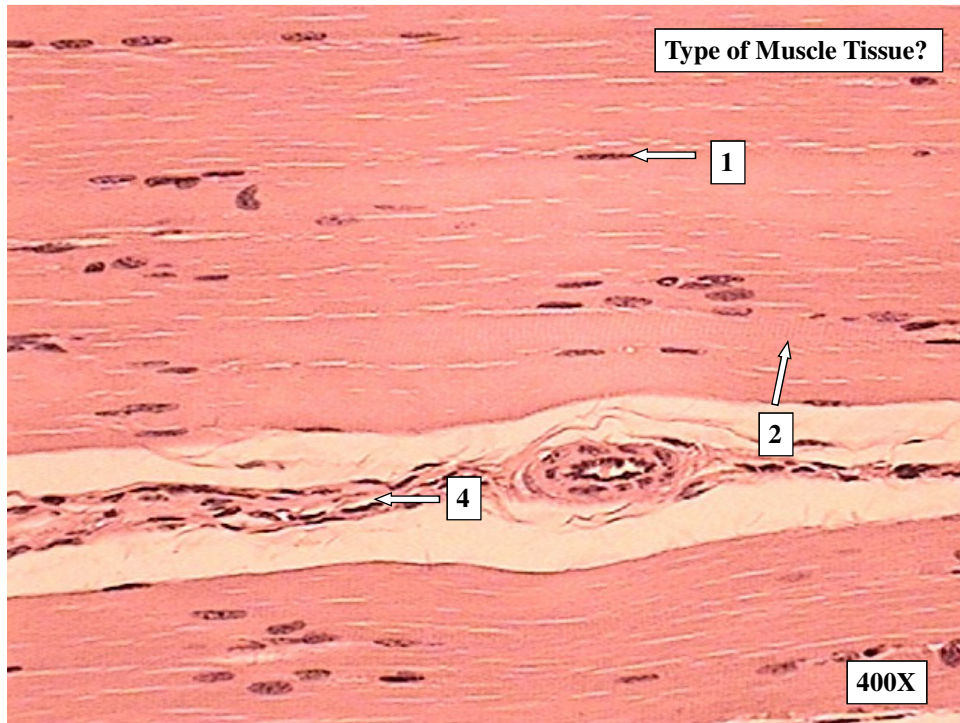
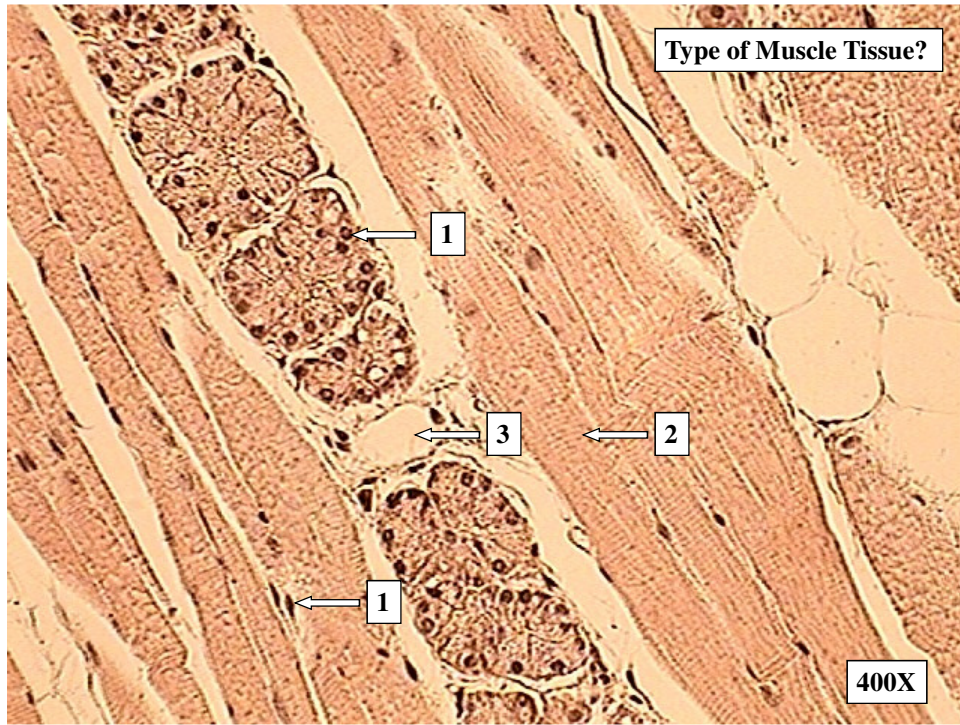


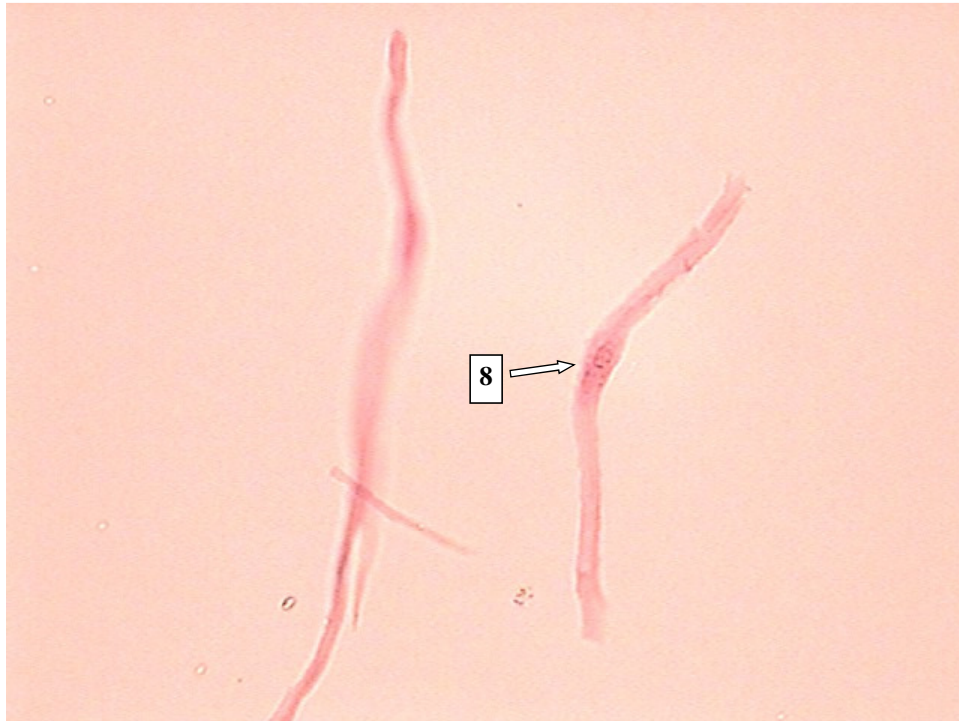
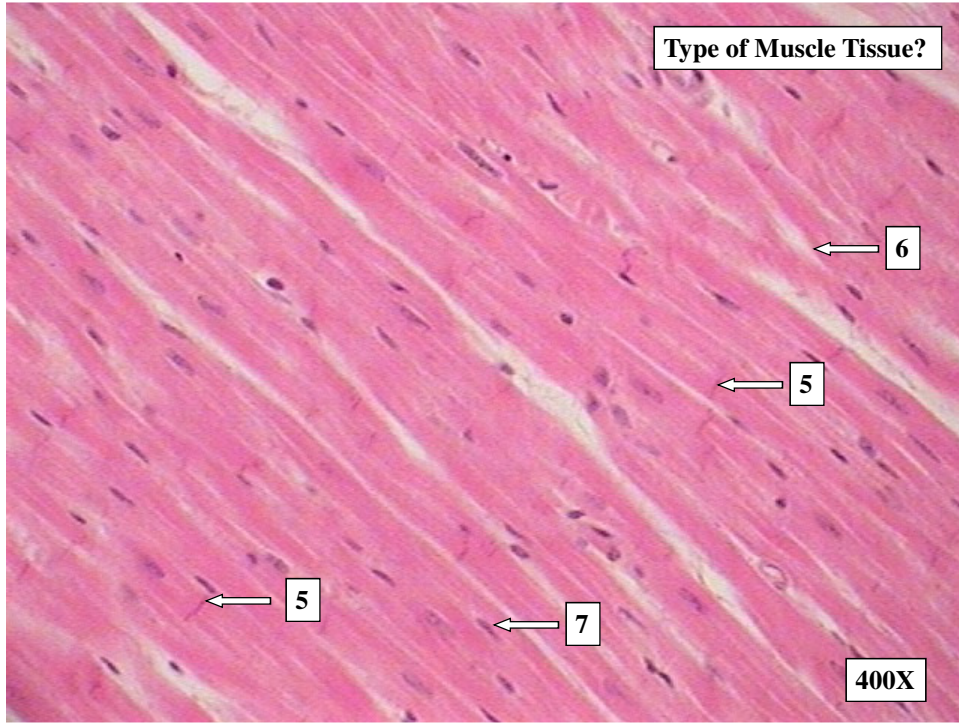
Bio & 241 A&P 1
Unit 3 Lab 4

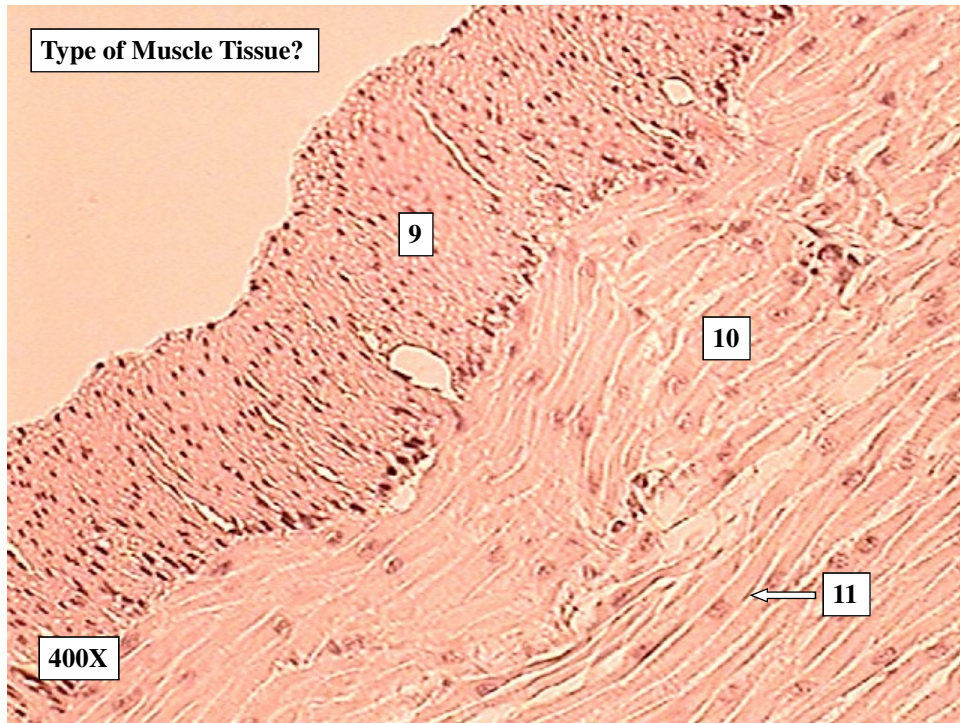
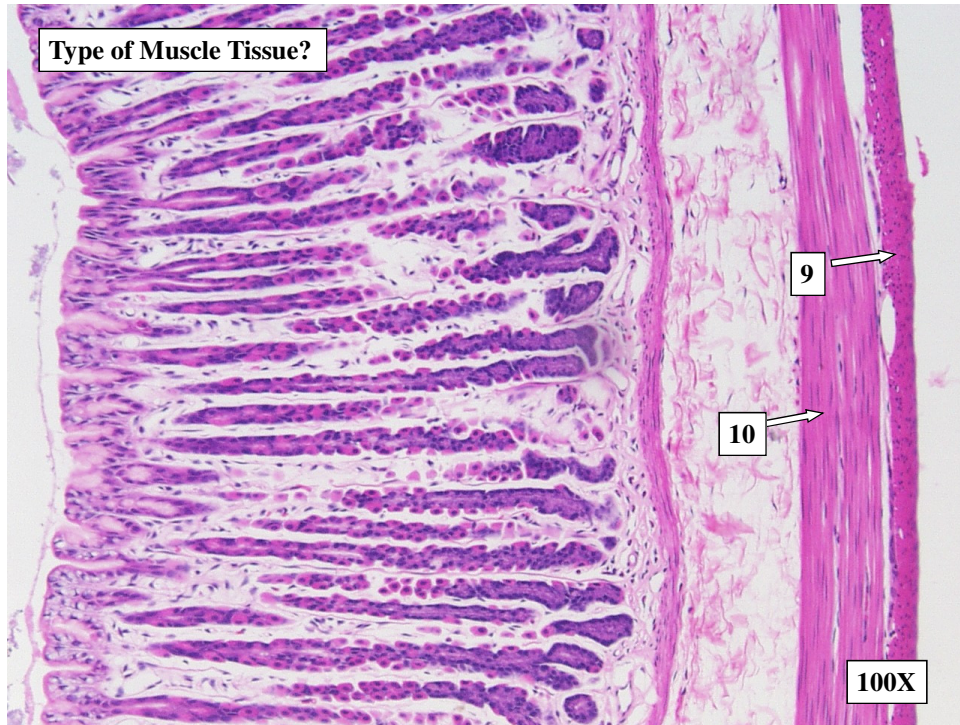


Histology Slides for Muscle Tissues

- **Slides are presented in order of magnification if different view are presented.**
- **As you view the following slides, make sure you can accomplish these goals:**
 - 1. Can you identify the tissue observable on the slides?**
 - 2. Can you identify the specific structures or layers indicated by the numbered arrows or brackets?**
- **At the end of a sequence, you will find the answers to the above for each slide.**







Answers to Slides 2 through 7

Slide 2: Skeletal Muscle showing both longitudinal and transverse views

Slide 3: Skeletal Muscle in longitudinal view

Slide 4: Cardiac Muscle in longitudinal view

Slide 5: Individual smooth muscle cell

Slide 6: Transverse section of the GI tract showing muscle layers

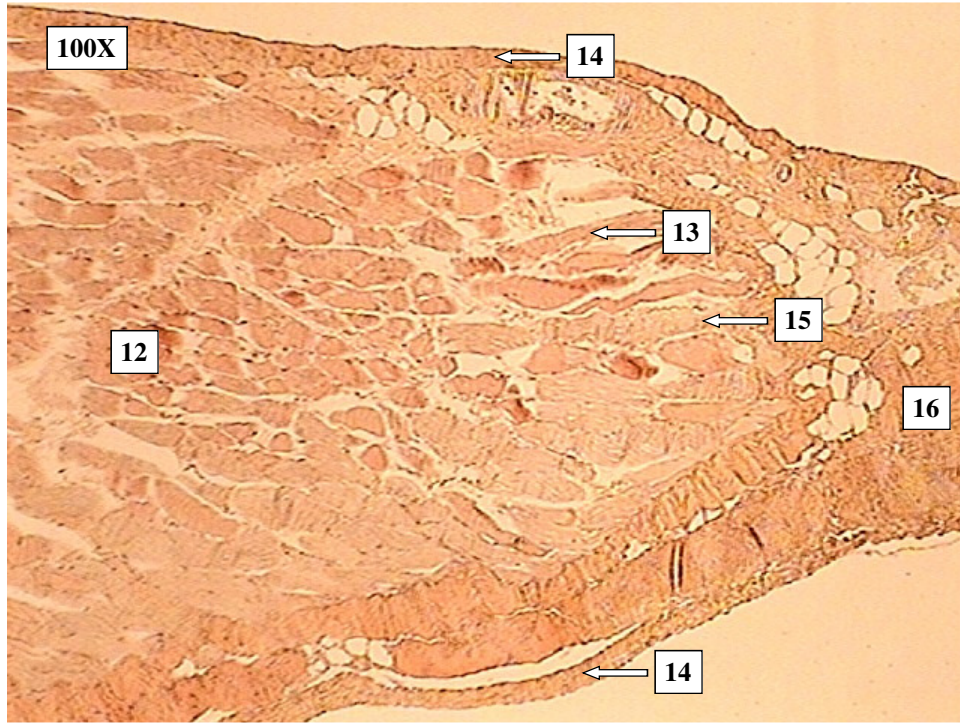
Slide 7: High power view of transverse section of the GI tract showing muscle layers

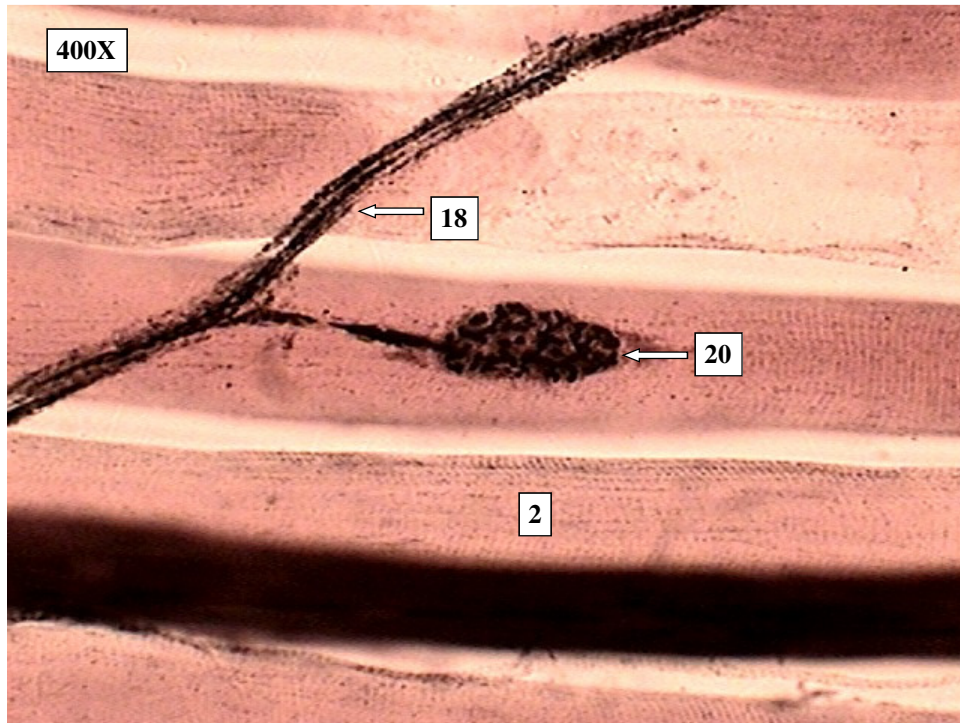
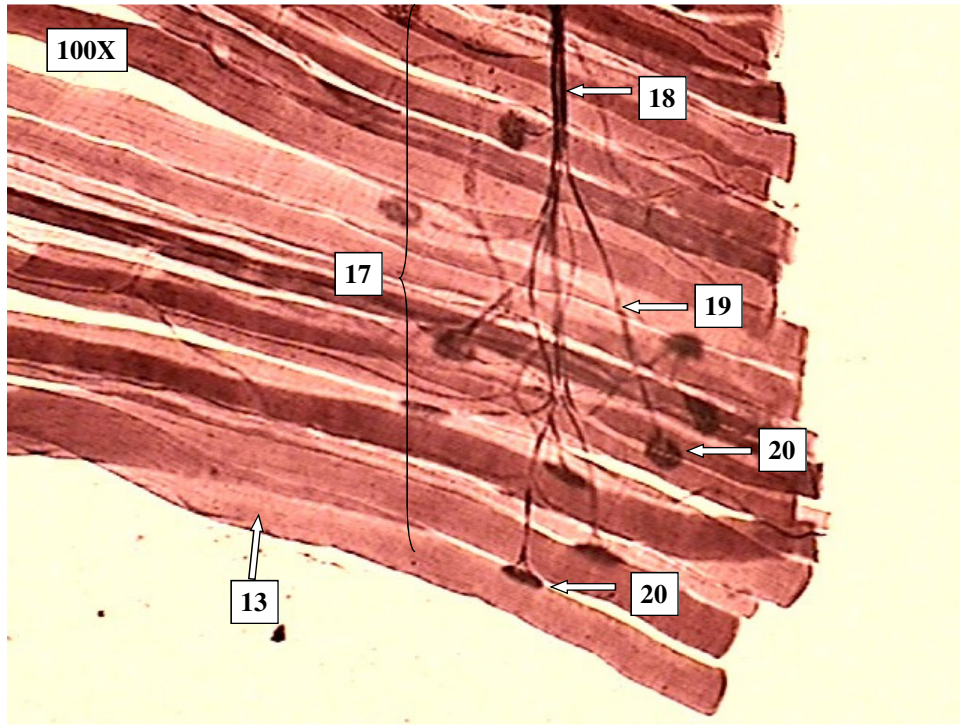
Numbered arrows:

- 1. Peripheral nuclei of skeletal muscle cells. Note multiple nuclei associated with each cell**
- 2. A and I bands of a skeletal muscle fiber**
- 3. Blood vessel in the perimysium**
- 4. Perimysium between muscle fascicles**
- 5. Intercalated discs**
- 6. Branching fibers**

Answers to Slides 2 through 7

- 7. Centrally located nucleus**
- 8. Isolated single smooth muscle cells with nucleus**
- 9. Longitudinal smooth muscle layer of GI tract wall**
- 10. Circular smooth muscle layer of the GI tract wall**
- 11. Spindle-shaped smooth muscle cells**





Answers to Slides 10 through 13

Slide 10: Muscle-Tendon intersection low power

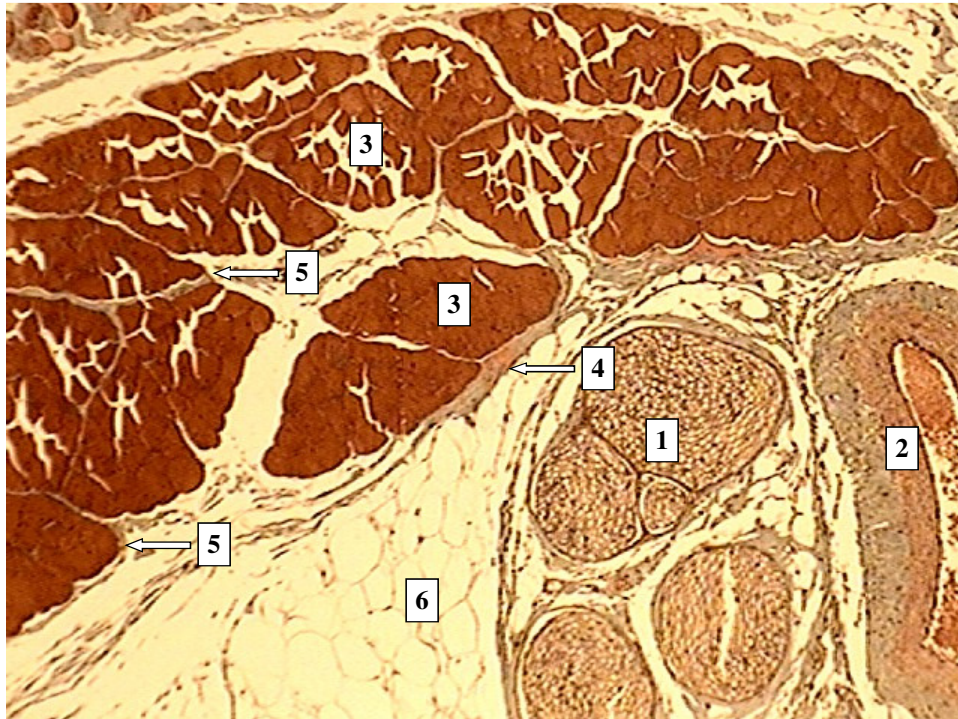
Slide 11: Muscle-Tendon intersection high power

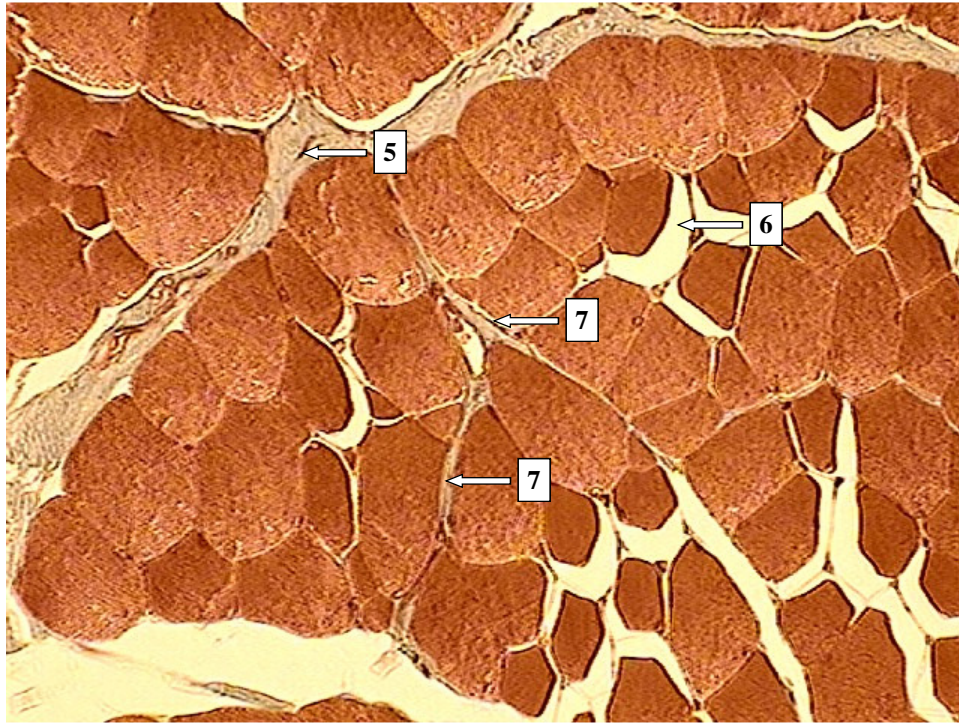
Slide 12: Neuromuscular junction low power

Slide 13: Neuromuscular junction high power

Numbered arrows:

12. **Skeletal Muscle**
13. **Skeletal muscle cell**
14. **Epimysium surrounding muscle**
15. **Endomysium joining the tendon**
16. **Tendon**
17. **Portion of a Motor unit of a muscle**
18. **Motor nerve**
19. **Axon from a motor nerve**
20. **Neuromuscular junction with Ach vesicles**





Answers to slides 15 through 13

Slide 15-16: Nerve artery vein slide with Masson stain for connective tissue

Numbered Arrows:

1. Transverse section through a nerve
2. Vein
3. Transverse section through a muscle fascicle
4. Epimysium covering the muscle
5. Perimysium surrounding a muscle fascicle
6. Adipose Tissue
7. Endomysium surrounding muscle fibers