Anatomage Table Integration

Table 6

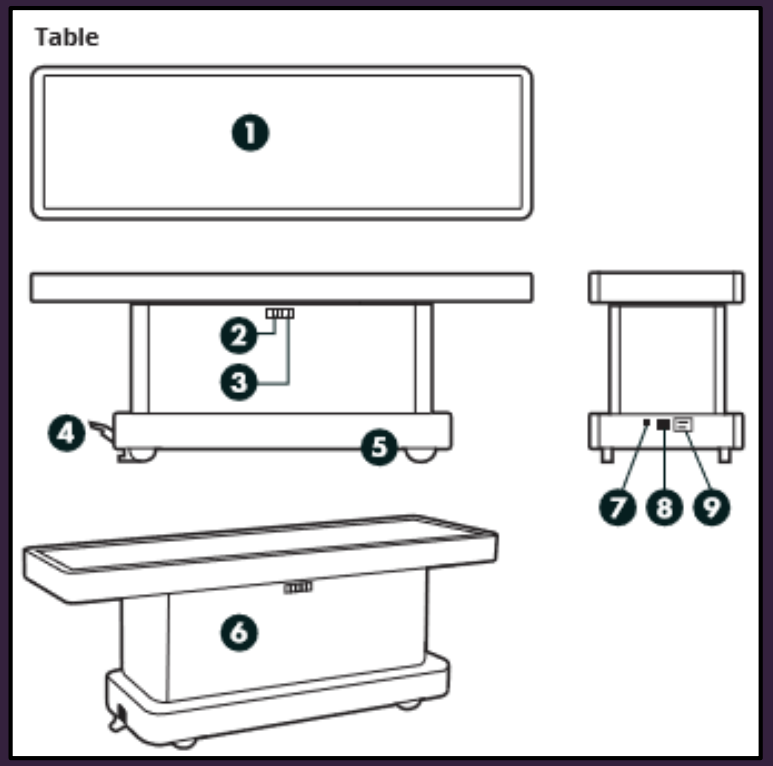
2018

Anatomage

Presentation Outline

- Table Hardware and Content
- Logistics to Consider
- Integration Ideas
- Invivo and MD Studio
- Resources

Table Hardware



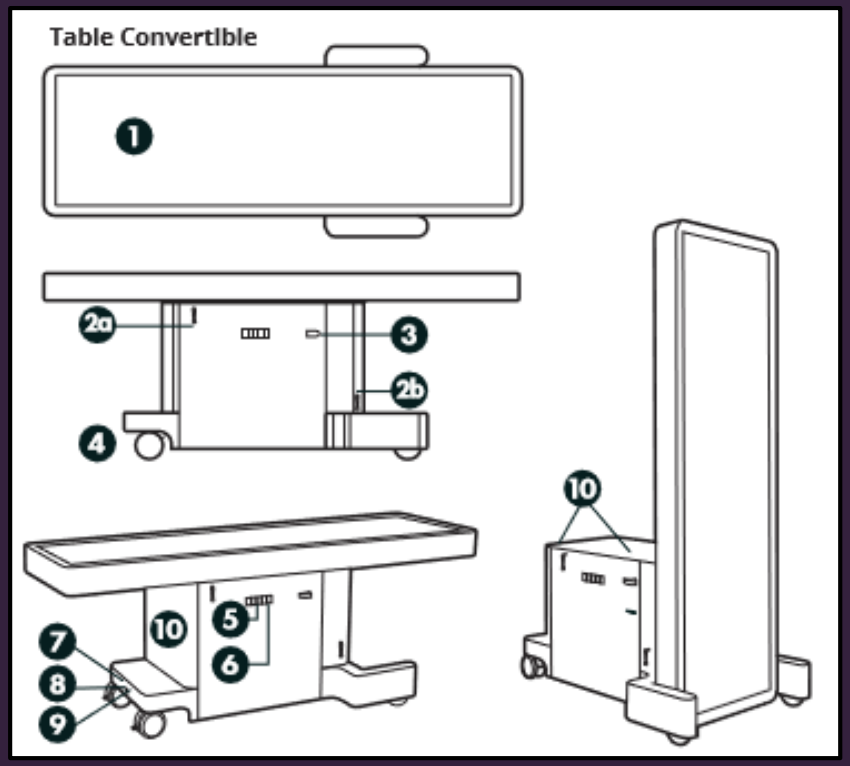


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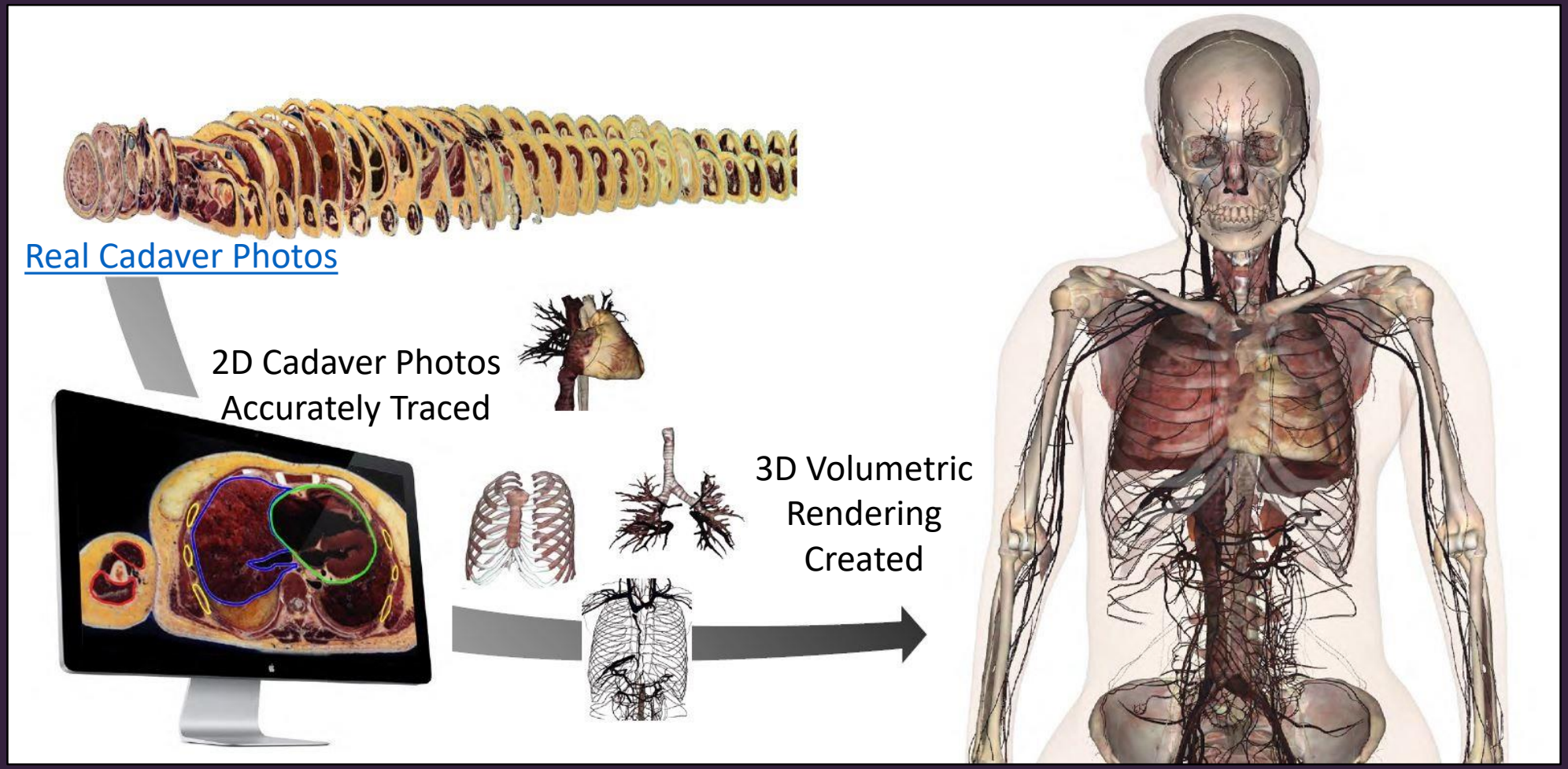
Table Content: How are the cadavers created?



Logistics: Questions to Consider

- **Location**
  - Easy accessibility
  - Usage type
  - Projection capabilities
- **Utilization**
  - Usage Priority
  - Who? How long?
- **Internet**
  - Anti-virus
- **Procedures**
  - Moving the Table
  - Before and after use of the Table
- **Community**
  - Allowed to use?
  - Tours
- **Training**
  - Required before use?
- **Institution Table Expert(s)**
  - Faculty/staff members to train and assist other instructors with Table

Logistics: Projecting the Table

The Table can be projected for an interactive lecture.

- HDMI connection to projector or external monitor(s)
  - One cable = one side of Table (re-size the application to one screen)
  - Two cables = full Table
- Screensharing via software (ex: GoToMeeting, Zoom)
  - Internet connection required

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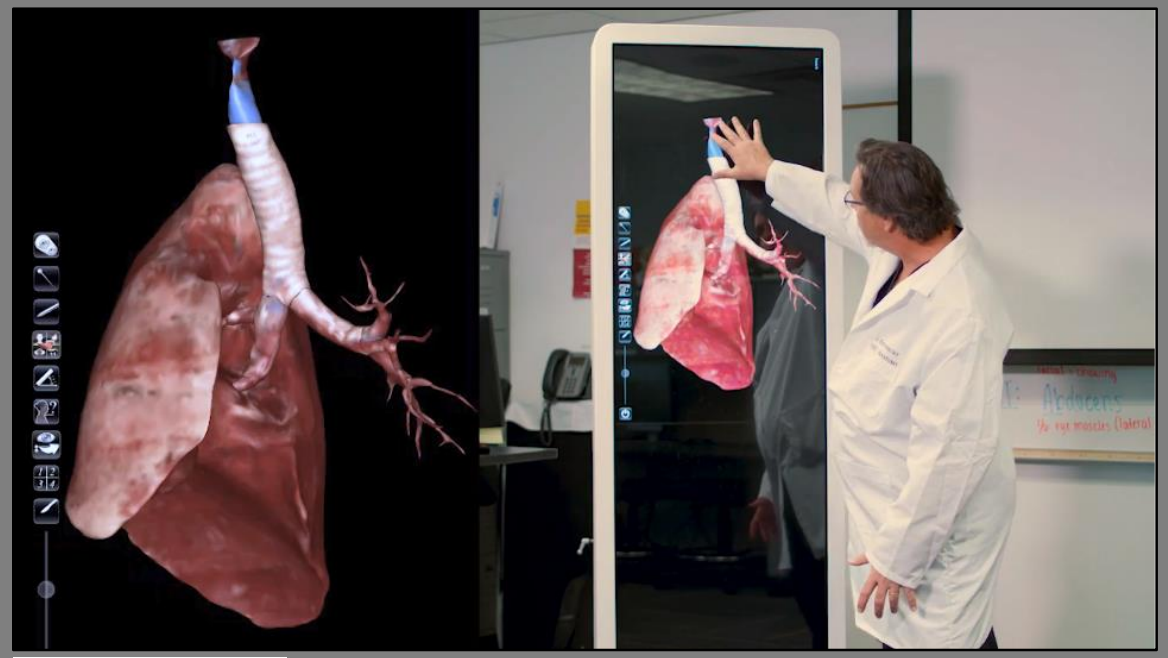
Logistics: Lecture Format

- Table usually projected or standing in vertical mode
  - Project traditional lecture slides side-by-side with Table
  - Record Table screen during lecture with a third party screen recording software



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Logistics: Lecture Format

- Example: Dr. Alan Detton (Stanford University) using the Table to teach in a lecture format. (Video)

Logistics: Small Group Format

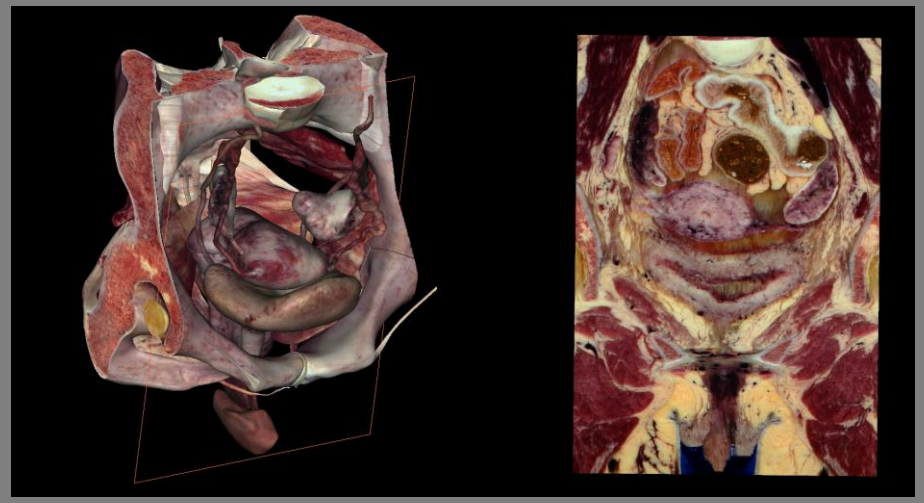
The Table is often used to teach in a small group format.

- 4-12 students
- Lab station system
- Instructor or student driven activities

Logistics: TA-Led Session

TAs often use the Table to lead review sessions.

- Work with instructor to develop presets, outlines, etc.
- Facilitate study groups

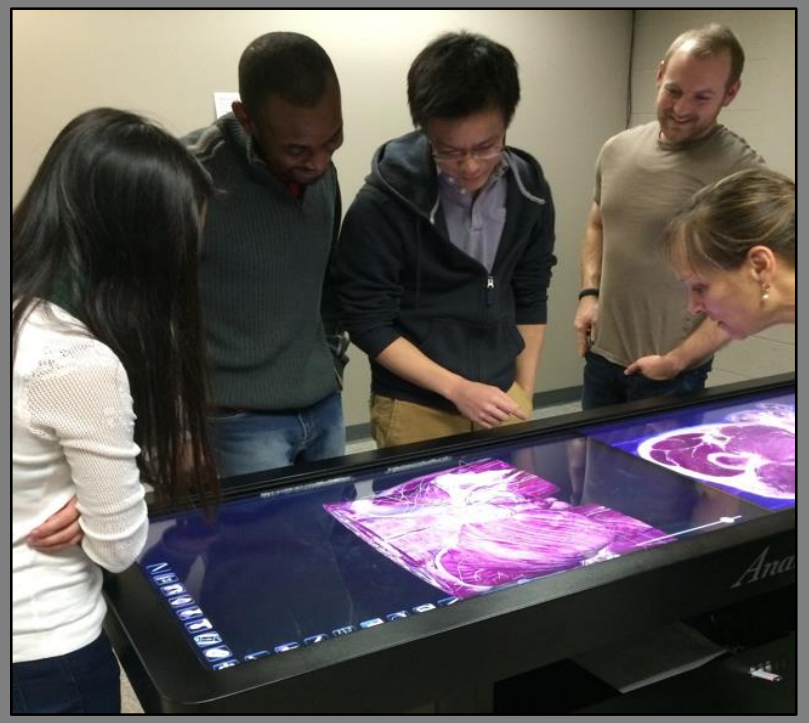


University of Massachusetts Medical School
UMASS
iCELS interprofessional Center for Experiential Learning and Simulation

Logistics: Independent Use

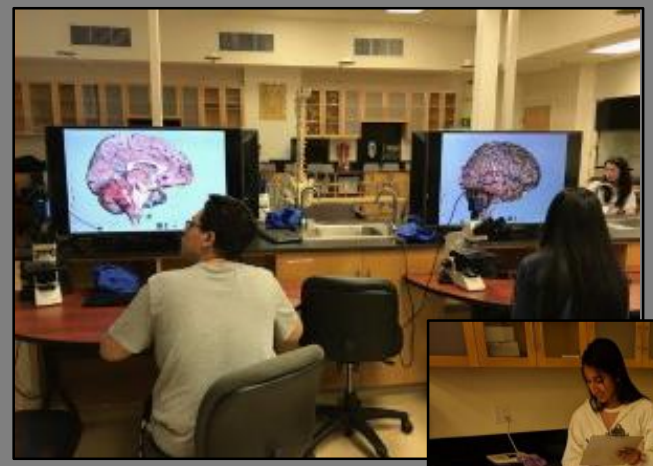
Many institutions allow students to use the Table without supervision. If allowing independent access, consider:

- Using a reservation system for students to schedule time.
- Creating a guest Windows account if you want to save quiz preset files (VPF) on the Table.



Logistics: Assessments

- Project for all students to see at once.
  - Screen shots
  - Quiz Mode: *Highlight Quiz Type*
- Use Table as a station
  - Feature lock with presets and pins or flat color.



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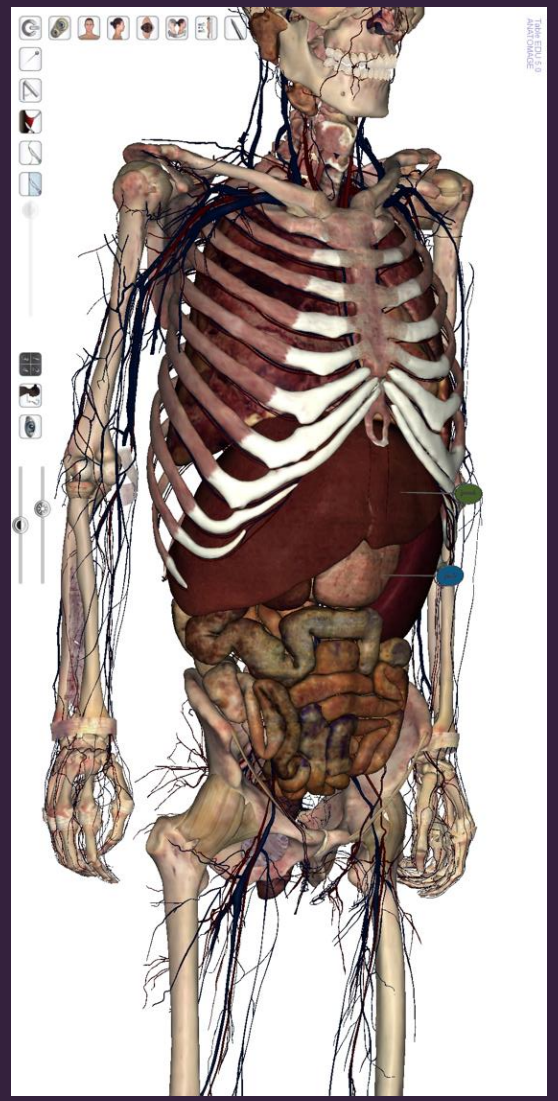
Integration Ideas

Steps to incorporating Student Learning Outcome(s) with Table:

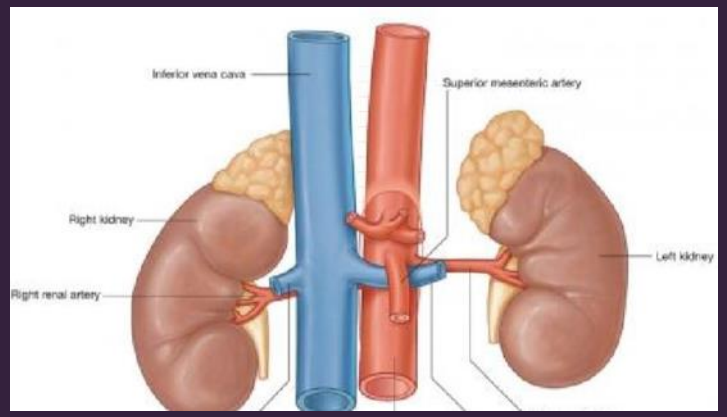
- Decide format (small group, lecture, independent, quiz)
- Choose most appropriate data set
- Prep (save presets, capture images, create any guides)
  - Remember to save your work (**export** presets)

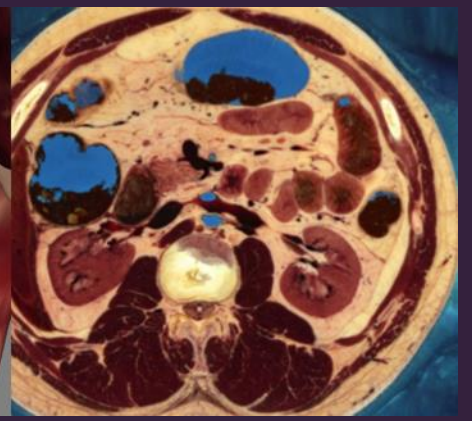
What topics do students struggle with comprehending and how can you use the Table to show the topics in a new light?

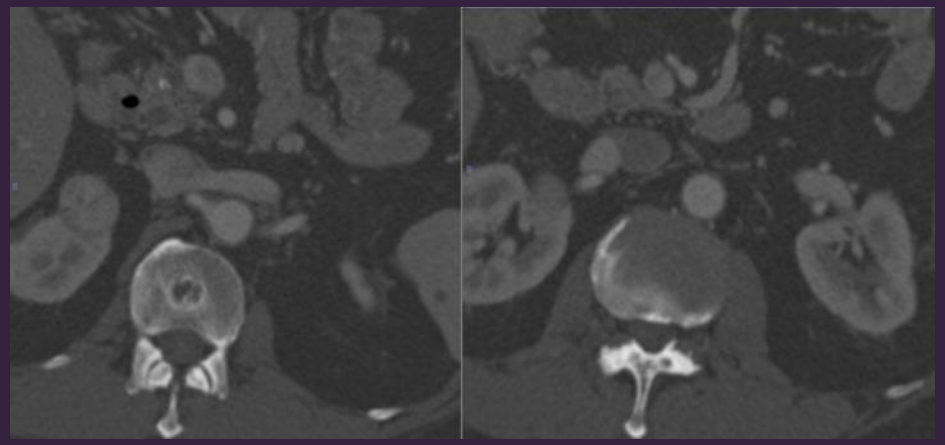


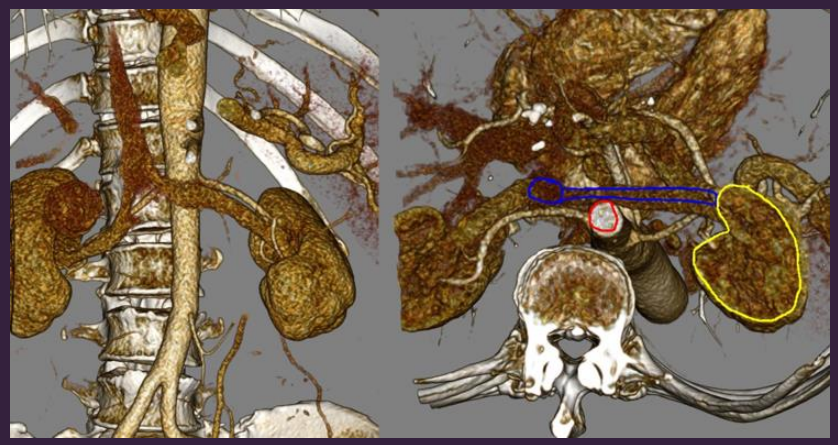
Integration Ideas

Topic Example: Course of the left renal vein





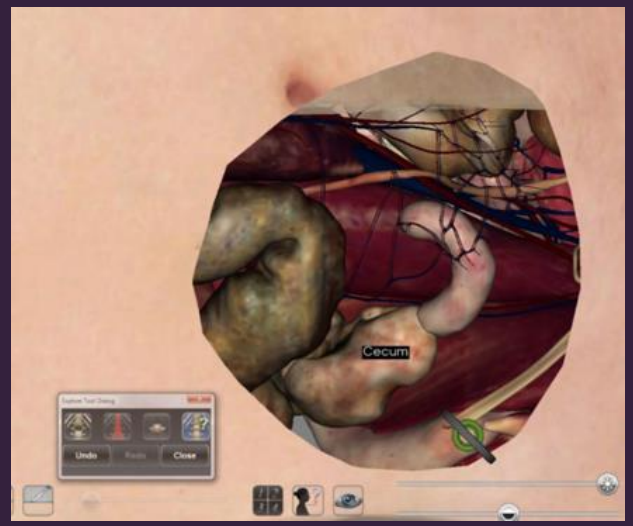




Integration Ideas

Topic Example: Procedures

Lumbar Puncture



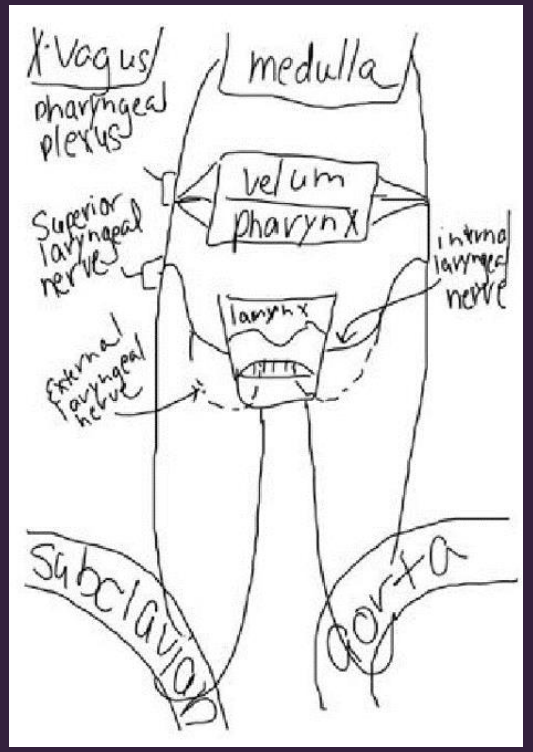
Appendectomy

Lap Band Placement

Integration Ideas

Topic Example: Vagus Nerve

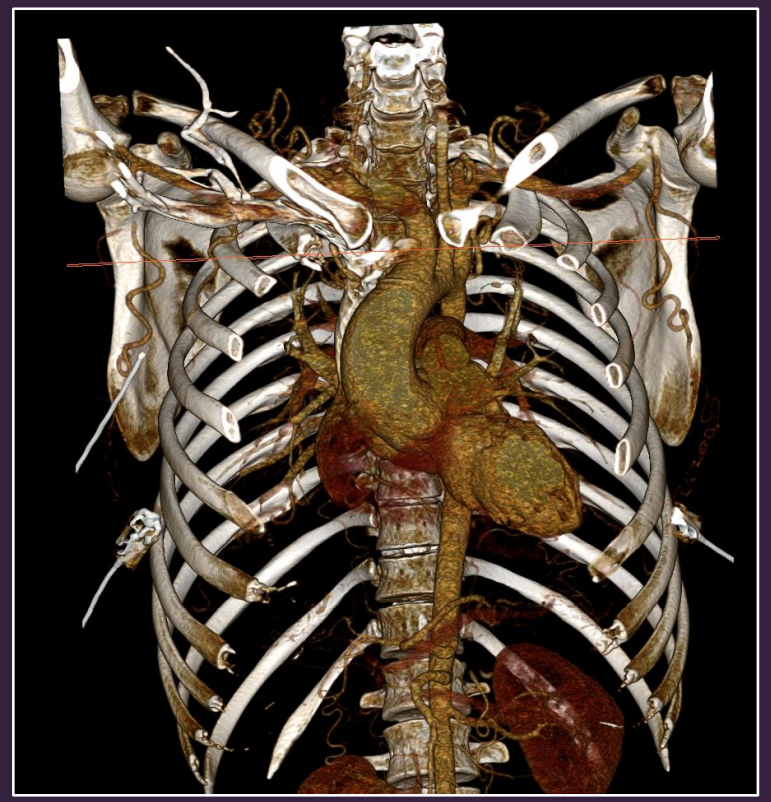
Pre-Table Professor Drawing



Post-Table Student Creation

Integration Ideas

Instructional Example: Using anatomic landmarks, show where this CT section is located on the patient.



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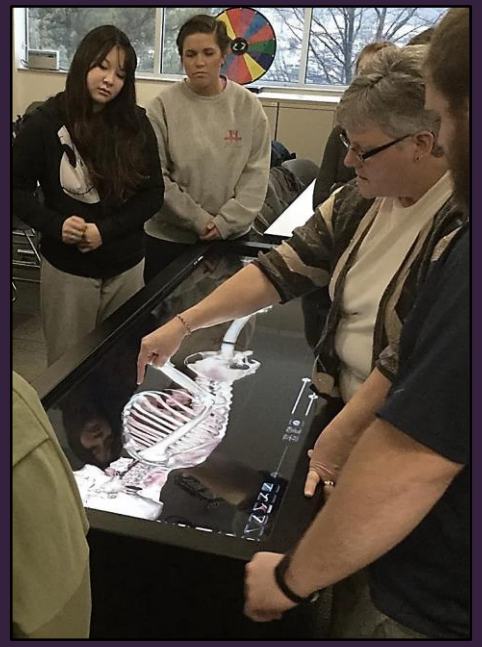
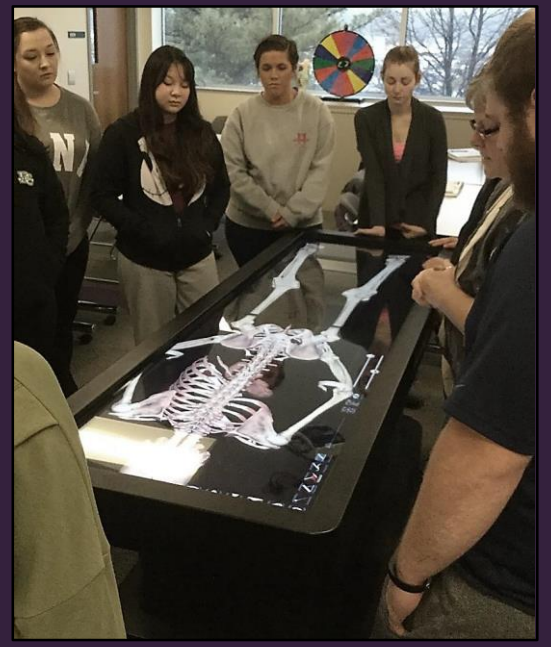
Integration Ideas

Instructional Example: Simulated Radiographic Procedure for Upper GI

Place patient in correct position for fluoroscopy *Air Contrast Upper GI*. Use anatomical markers to view stomach.



Place patient in Left Lateral position. Where is the Barium? Where are the fizzy crystal bubbles?



Roll the patient so barium coats stomach and ulcers are visible. In prone position, where is the Barium?

Delta College

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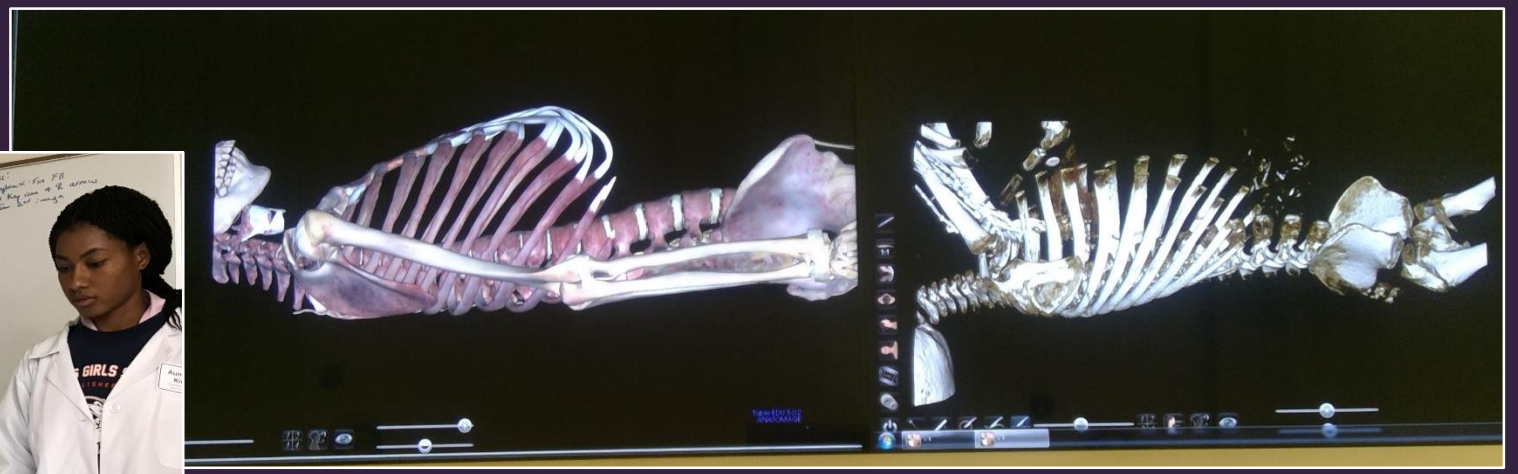
Integration Ideas

Instructional Example: Surgery Suite Project



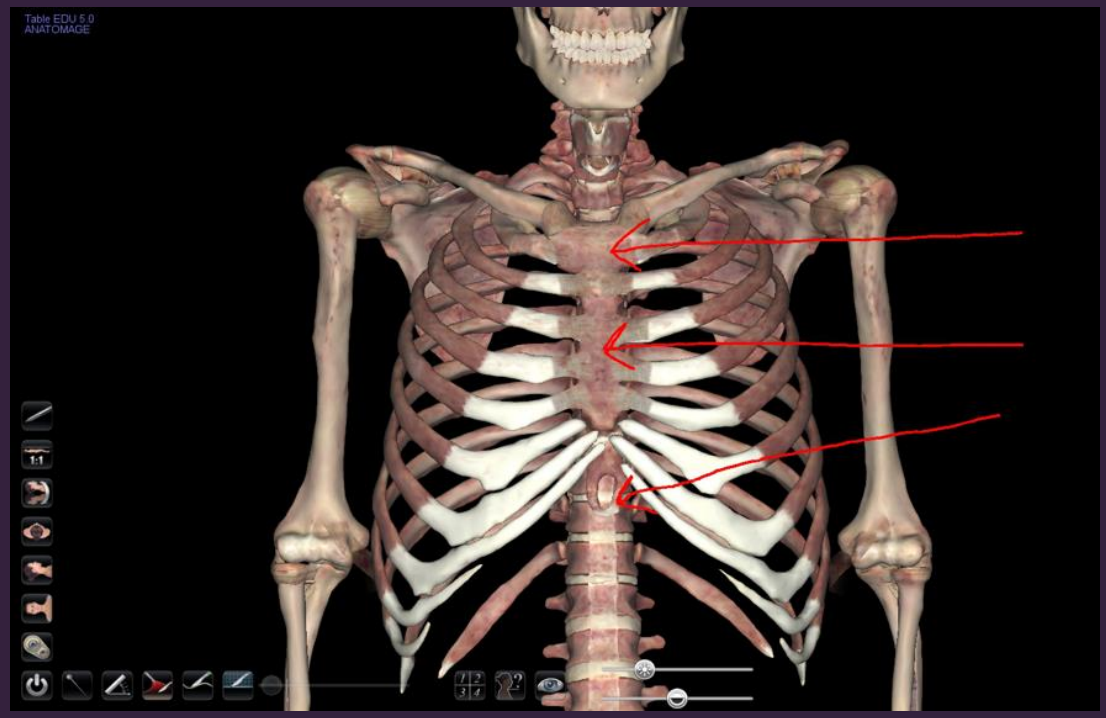
- *Decide surgical plan to separate conjoined twins*
- *Meant to encourage thought process, team work, ability to think in 3D, and problem solving skills.*
- *Present plan to attending doctors*

Integration Ideas

Instructional Example: Labeling Activity

Students are asked questions regarding position and anatomy and use the Pen tool to label each structure. Students add images to word doc and submit via Blackboard.

- Positions:
  - AP/PA ribs
  - PA ribs
- Rib Anatomy
  - Anterior v Posterior ribs
  - True/False/Floating ribs
- Sternum Anatomy
  - Manubrium
  - Xiphoid Process



Tarrant County College
SUCCESS WITHIN REACH.

Integration Ideas

Instructional Example: Cadaver

Students are given a guide to dissecting the cadaver. Students are asked questions regarding structure and function. Guide shows comparison images from textbook and cadaver.

Dissection of the anterior compartment of the upper arm

Rotate the prosection around using one finger so you are looking at the anterior compartment of the arm.

The biceps brachii, coracobrachialis and brachialis forms the anterior compartment of the arm.

Identify these muscles using the button

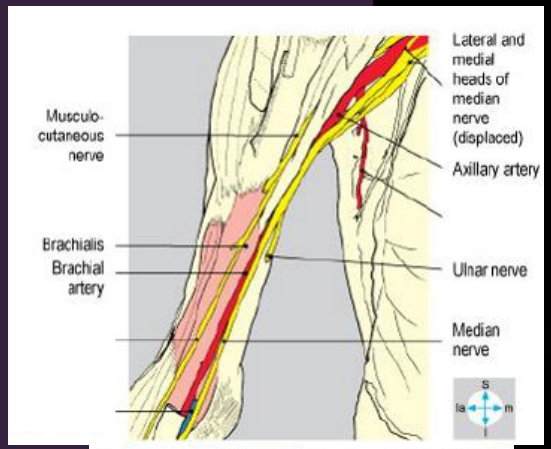
- Biceps brachii
- Coracobrachialis
- Brachialis

Remove these three muscles using the button.

The nerve that supplies these muscles is highlighted in yellow, can you recall its name? Discover its name and then remove it using the buttons.

Recall the nerve roots that contribute to this nerve.

Answer: Swipe left



Integration Ideas

Instructional Example: Library Scans

Students are given a guide with a series of CT scans to study with instructions on how to interact with them.

- Open Coronary Angiogram (0286) from Image Library.
- Observe and cut from cranial side to caudal side.
- Use grayscale filter.
- Show and measure the diameters of the Ascending Aorta, Pulmonary Vein, and Vena Cava.

Integration Ideas

Instructional Example: Library Scans

Students are assigned a Coronary Arteriography assignment and must submit a completed worksheet and set of images.

- Open Basilar Aneurysm (0183) from Case Library.
- Find the vessels that lead to the Circle of Willis. What areas of the brain does this supply?
- What could a patient suffer from if the following arteries were to be obstructed:
  - Anterior Cerebral
  - Medial Cerebral
  - Posterior Cerebral

Integration Ideas

Built-In Curriculum

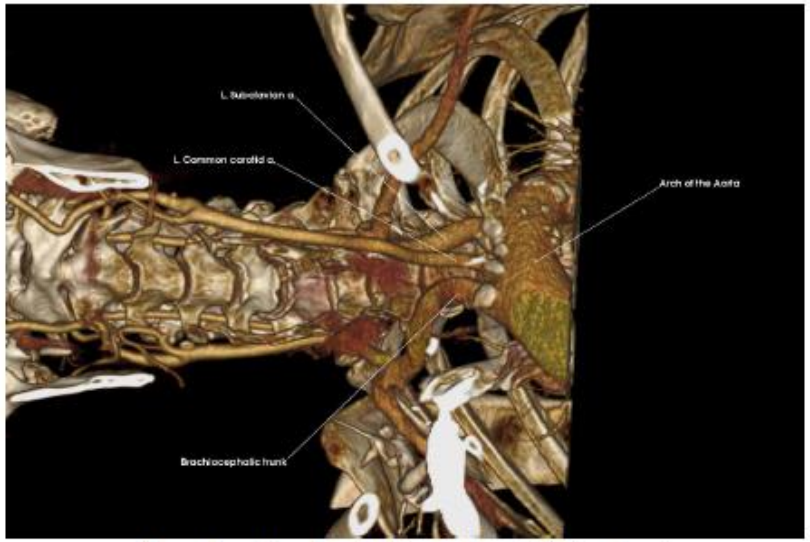
- PDF
- Physical Book
- Customizable

Examples of Use:

- Lecture material
- Instructor-led small group
- Independent student review

1: Arterial Supply to the Neck

- Describe the arteries and their branching patterns from within the thorax to the neck
- Identify the common carotid artery on both the right and left and name its two main branches



1. a. Aortic Arch Branches (Anterior)

Arch of the aorta
Brachiocephalic trunk
L. Common carotid a.
L. Subclavian a.

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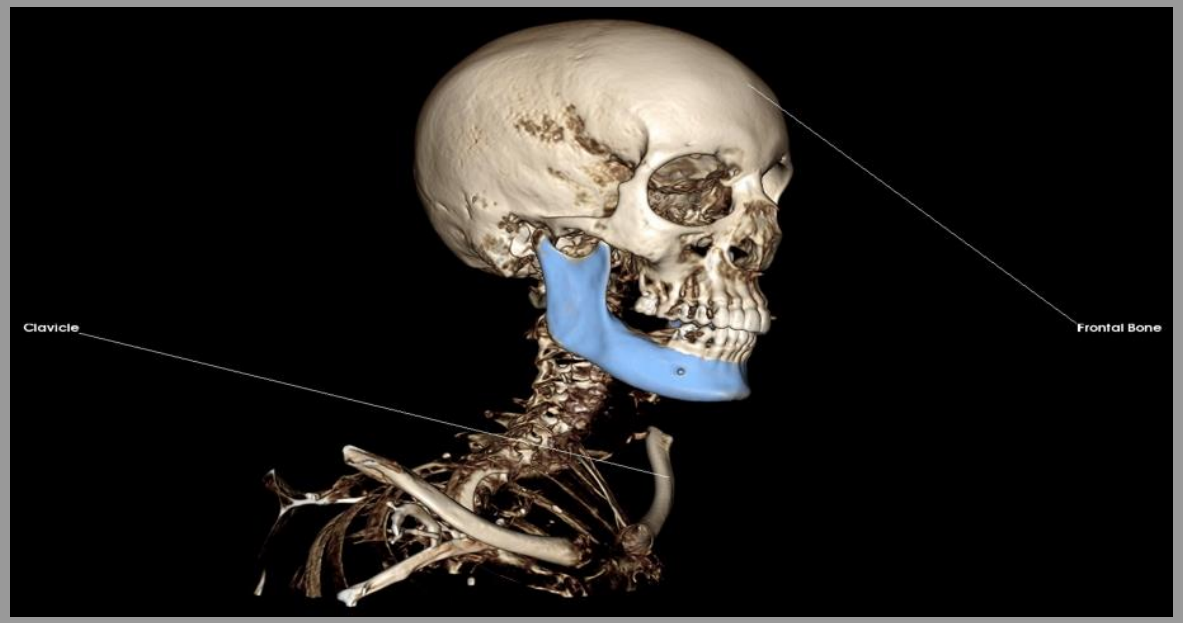
Medical Design Studio & Invivo

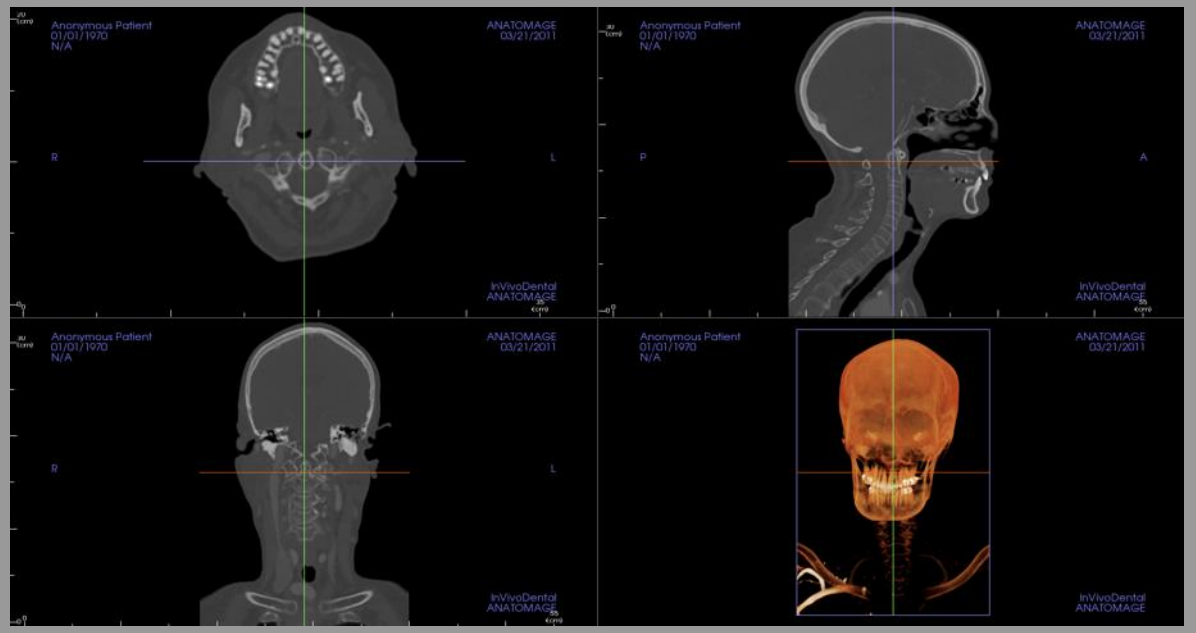
MD Studio/Invivo6 - Advanced 3D Imaging Software

- Complementary with the Anatomage Table.
- Load your own scans.
- Create 3D models for 3D printing.
- Create videos for educational or clinical use.



Medical Design Studio & Invivo

- Invivo can be used to create take-home material for students.
- Students can use the free Invivo viewer to open any CT/MRI scan from their home computers.
- Instructors can create a series of annotated slides with measurements to form a study guide or quiz for students.



Invivo

Scenario: *Students are given an assignment that requires studying a new CT scan. The scan can be viewed via the Invivo Viewer on their home computers or via the Table by reserving time with the professor.*

Oncology Sectional Anatomy & Pathology

Assignment Instructions:

For this assignment, you can work independently or with one other student. Be sure to put BOTH student names on the completed document before you turn it in. You can use the Anatomage Table during class time or you can complete the assignment outside of class using the Invivo Viewer that has been posted to Bb. Distance students will need to use the Invivo Viewer. See the week #6 recording for further information on how to access the Invivo Viewer. The radiologist report along with some basic patient information has also been provided below to assist you.

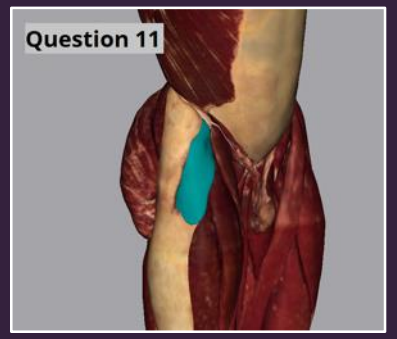
To complete the assignment, you will need to locate the six items listed below within the patient CT scan. Once you find the items, create a document (powerpoint works best) with annotated images of each item. Your finished document should have 6 different images, each labeled & depicting the items as listed below.

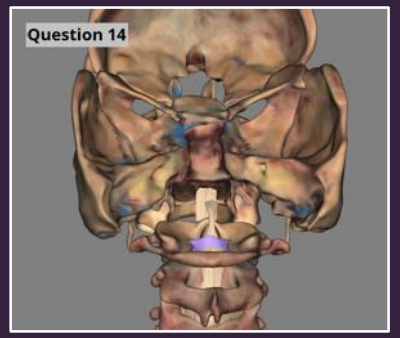
1. Large necrotic-appearing mass within the mediastinum
2. Invasion of the distal trachea
3. Invasion of the left mainstem bronchus proximally
4. Mild narrowing of the pulmonary artery (extra credit)
5. Invasion of the esophagus causing luminal occlusion
6. Secondary mass in the left upper lobe along the mediastinal border

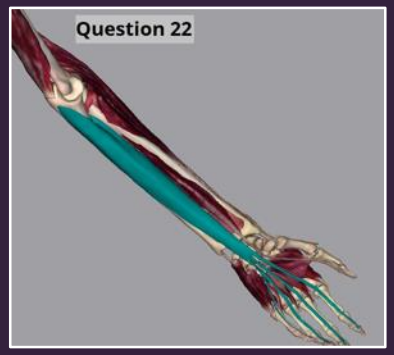
Anatomage Resources

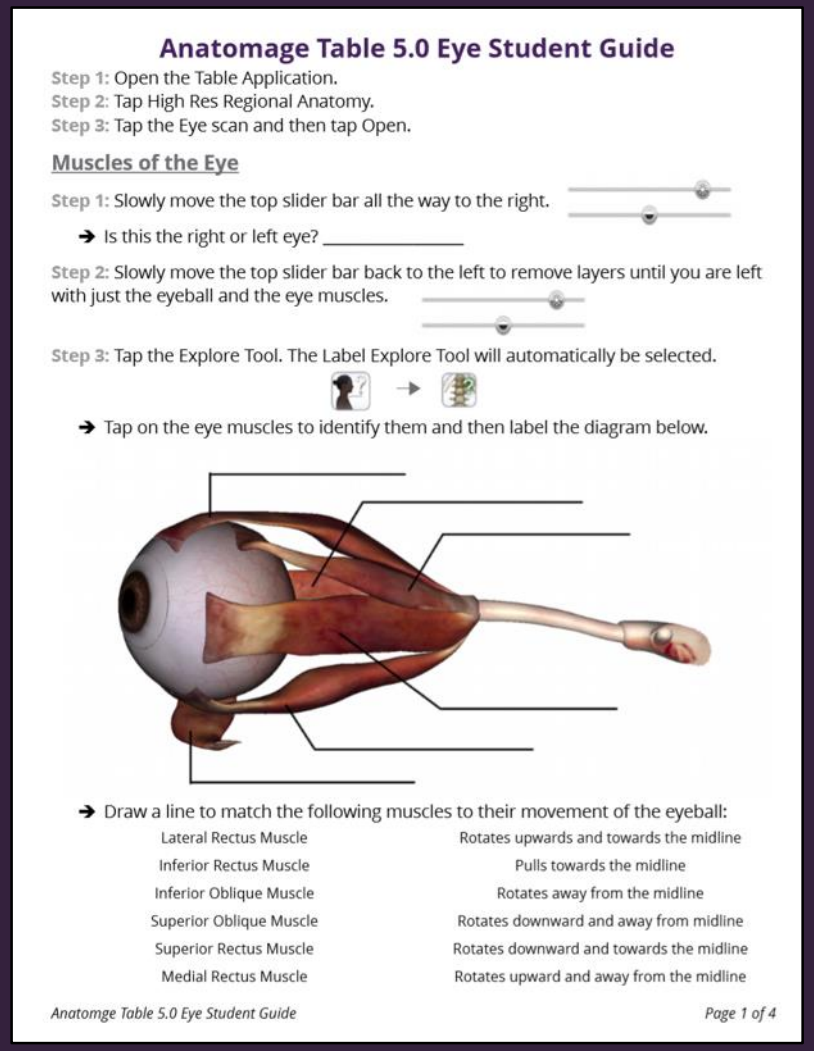
Content Creation Examples

- Quiz presets or imag
- Student activity guid
- Preset creation
- Custom videos









Anatomage Table 5.0 Eye Student Guide

Step 1: Open the Table Application.
Step 2: Tap High Res Regional Anatomy.
Step 3: Tap the Eye scan and then tap Open.

Muscles of the Eye

Step 1: Slowly move the top slider bar all the way to the right.

➔ Is this the right or left eye? _____

Step 2: Slowly move the top slider bar back to the left to remove layers until you are left with just the eyeball and the eye muscles.

Step 3: Tap the Explore Tool. The Label Explore Tool will automatically be selected.

➔ Tap on the eye muscles to identify them and then label the diagram below.

➔ Draw a line to match the following muscles to their movement of the eyeball:

Lateral Rectus Muscle	Rotates upwards and towards the midline
Inferior Rectus Muscle	Pulls towards the midline
Inferior Oblique Muscle	Rotates away from the midline
Superior Oblique Muscle	Rotates downward and away from midline
Superior Rectus Muscle	Rotates downward and towards the midline
Medial Rectus Muscle	Rotates upward and away from the midline

Anatomge Table 5.0 Eye Student Guide *Page 1 of 4*

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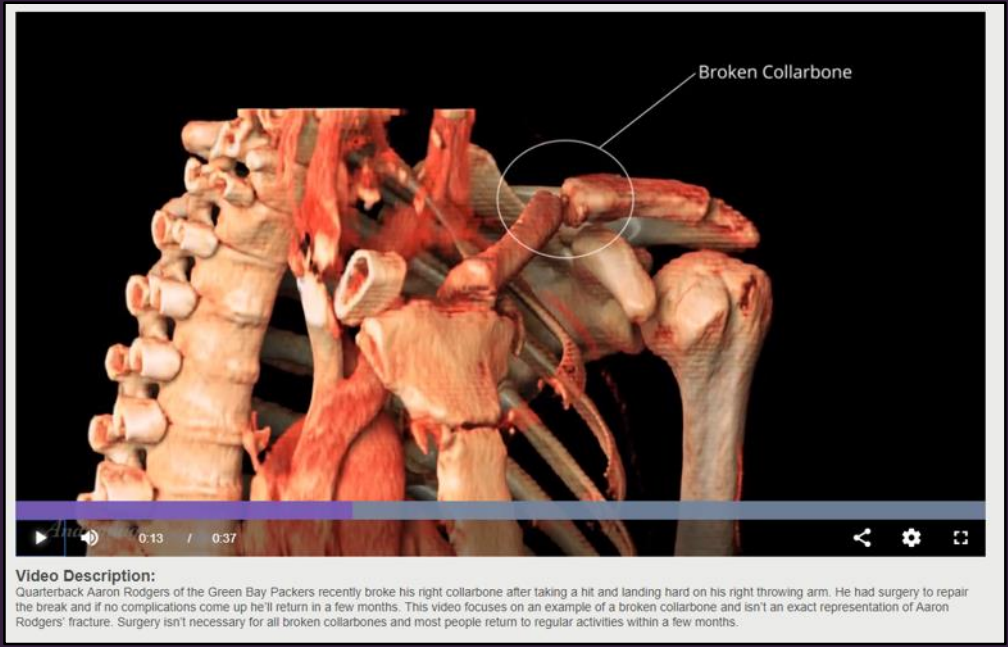
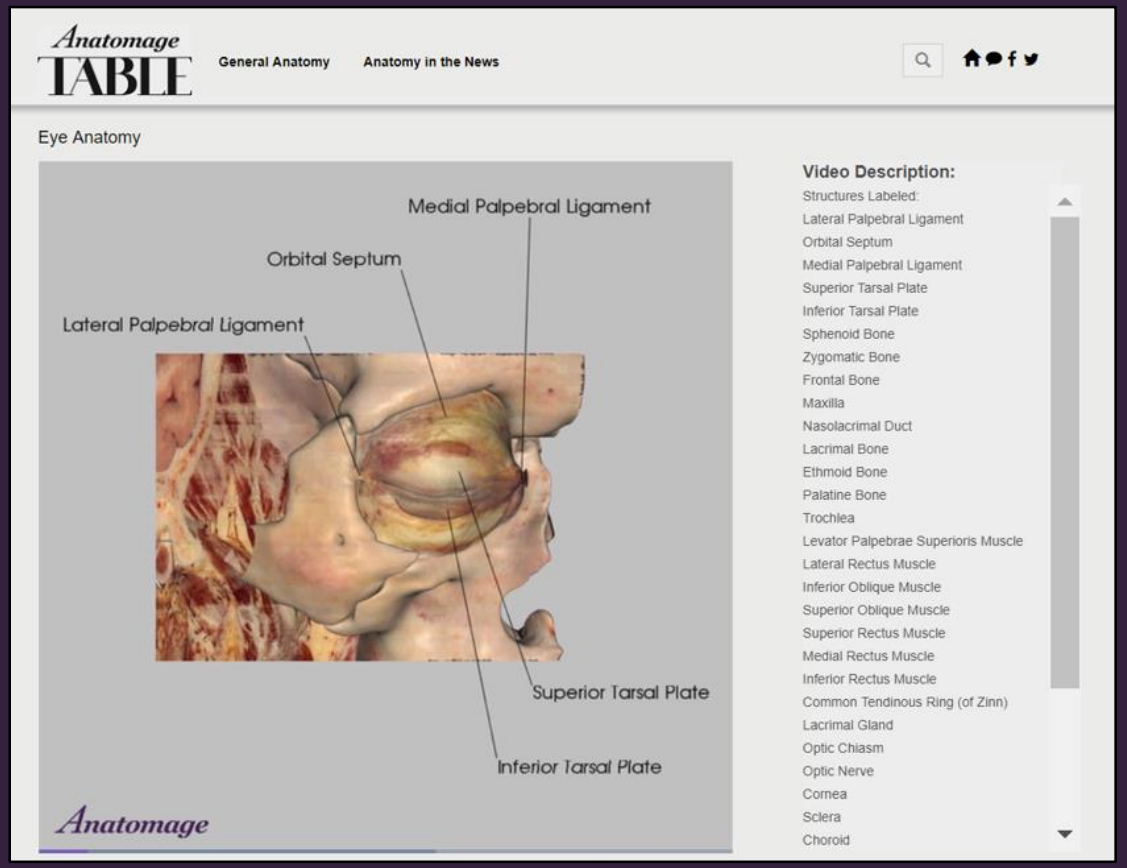
Anatomage Resources

AnatomageTable.com

- General Anatomy
- Anatomy in the News





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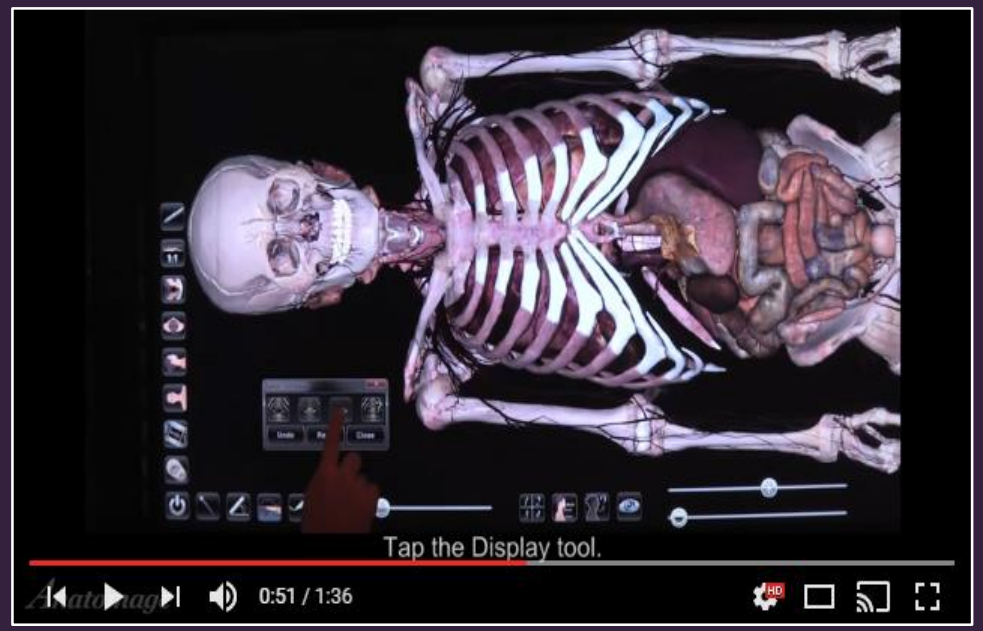
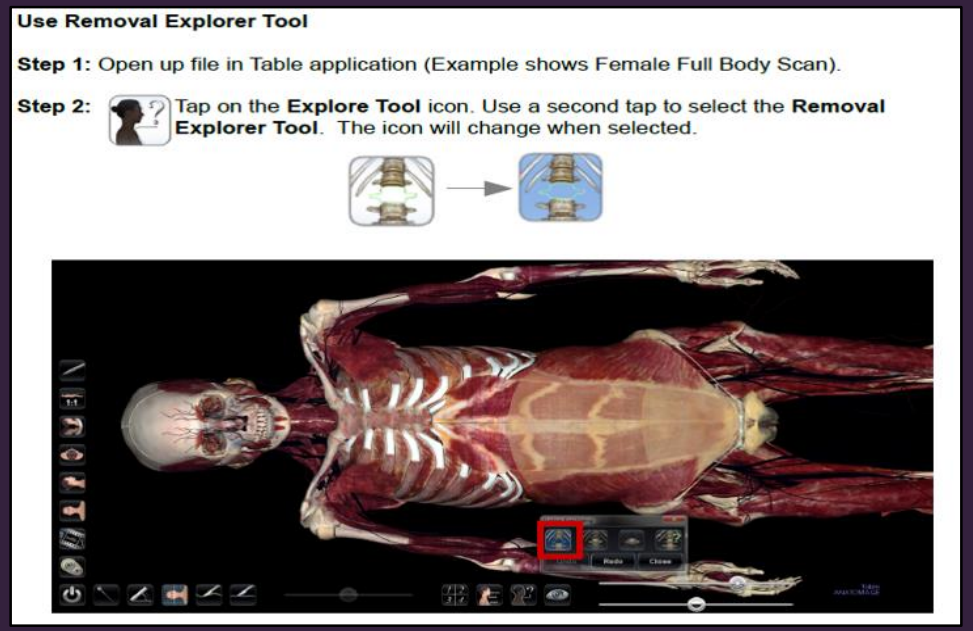
Anatomage Resources

- Online Trainings
- YouTube Tutorial Videos



- Manuals and How To Guides
- Quick Interface Guide



Connect With Other Table Users

Join us next summer for our annual Table Users Group Meeting!

- Speakers, networking, workshops, and training sessions
- Summer 2019 in Silicon Valley, California

Thank You

Thank you to the following Table users who have contributed their own teaching material for this presentation.

- Brian Spence; Tarrant County College Trinity River East Campus Tanya Custer, Kim Michaels; University of Nebraska Medical Center
- Dr. Siobhan Moyes, Lauren Carr; Peninsula Medical School
- Deirdre Reeves, Dr. Laura Gregory; Queensland University of Technology
- Sara Doll; Heidelberg University
- Adam Olsen; Sacred Heart University
- David Richards; Chapman University
- Lori Kloc; Delta College
- Anne Gilroy; UMass Medical School
- Piper Moyer-Shad; The Bolles School
- Misercordia University