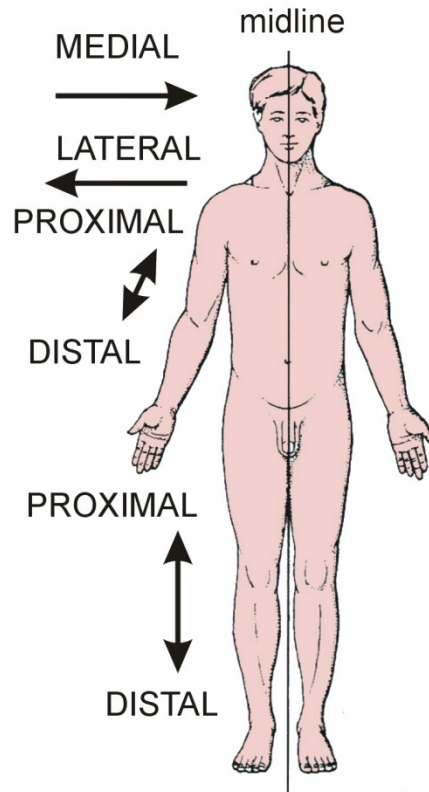


**INTRODUCTION TO GROSS  
ANATOMY AND NERVOUS  
SYSTEM - PART 1-  
ANATOMY: TERMINOLOGY OF  
ANATOMICAL POSITION AND  
PLANES - 2023**

**CLINICAL - ANATOMY AND  
ORIENTATION IN CT AND MRI  
IMAGES; DESCRIPTION OF  
LOCATIONS OF LESION**

# TERMINOLOGY: ANATOMICAL POSITION

## ANTERIOR VIEW OF ANATOMICAL POSITION



**ANATOMICAL POSITION - Standing erect, feet together, face forward, arms at side, palms forward.**

MEDIAL - toward midline

LATERAL - away from midline

ANTERIOR = VENTRAL - front of body (nose is anterior)

POSTERIOR = DORSAL - back of body

SUPERIOR (ROSTRAL) - toward top of head

INFERIOR (CAUDAL) - toward bottom of feet

PROXIMAL - closer to trunk or origin of structure

DISTAL - farther from trunk or origin of structure

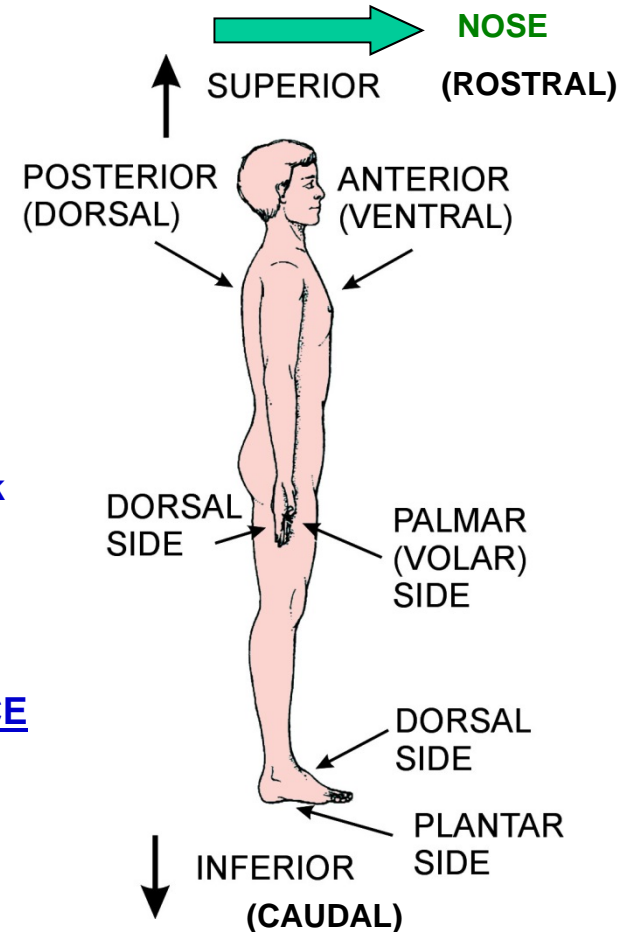
PALMAR (VOLAR) SURFACE OF HAND - palm side

DORSAL SURFACE OF HAND - back side of hand

PLANTAR SURFACE OF FOOT - sole of foot

DORSAL SURFACE OF FOOT - top of foot

## LATERAL VIEW OF ANATOMICAL POSITION

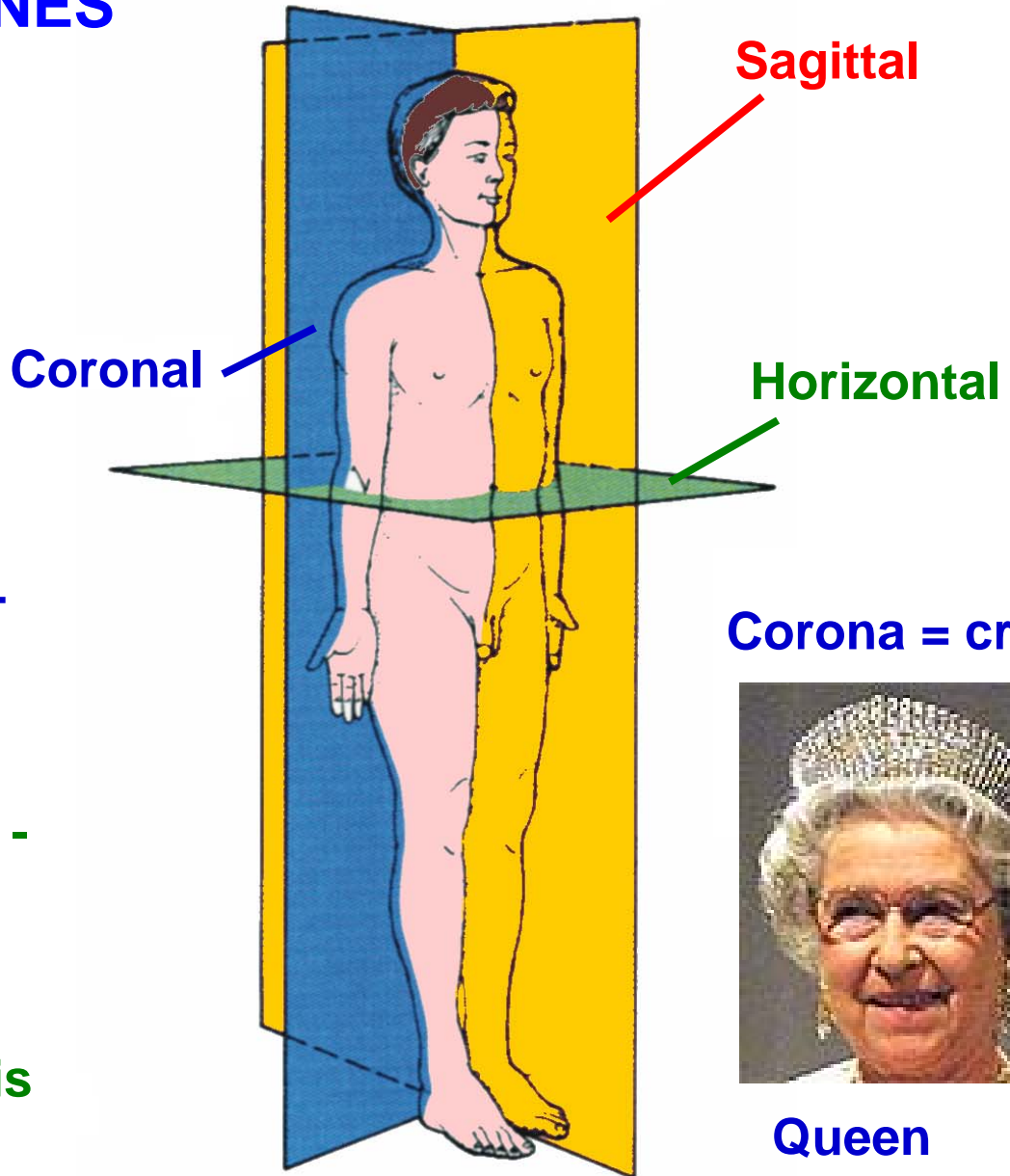


# ANATOMICAL PLANES

1) **SAGITTAL PLANE** - divides body in **RIGHT** and **LEFT** parts (Median Sagittal Plane-divides body into right and left halves)

2) **CORONAL PLANE** - divides body into **FRONT** and **BACK** parts

3) **HORIZONTAL PLANE**  
Plane = transverse plane - cross section- divides body into **TOP** and **BOTTOM** parts  
perpendicular to long axis of body



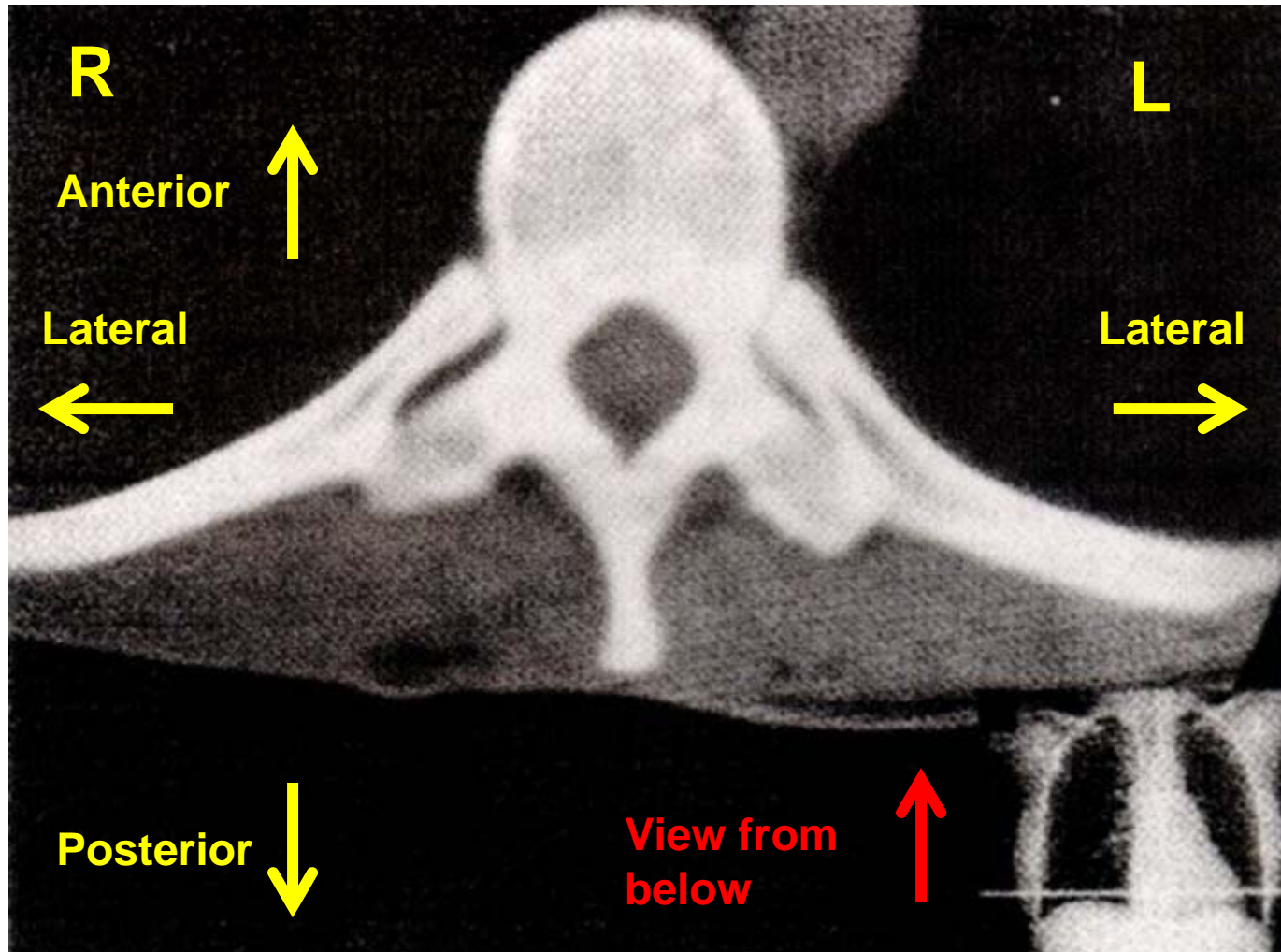
Corona = crown



Queen Elizabeth

(Zillanatomy.com - See Dictionary of Word Roots)

## EXERCISE : CONVENTIONAL CT OF THORACIC VERTEBRA

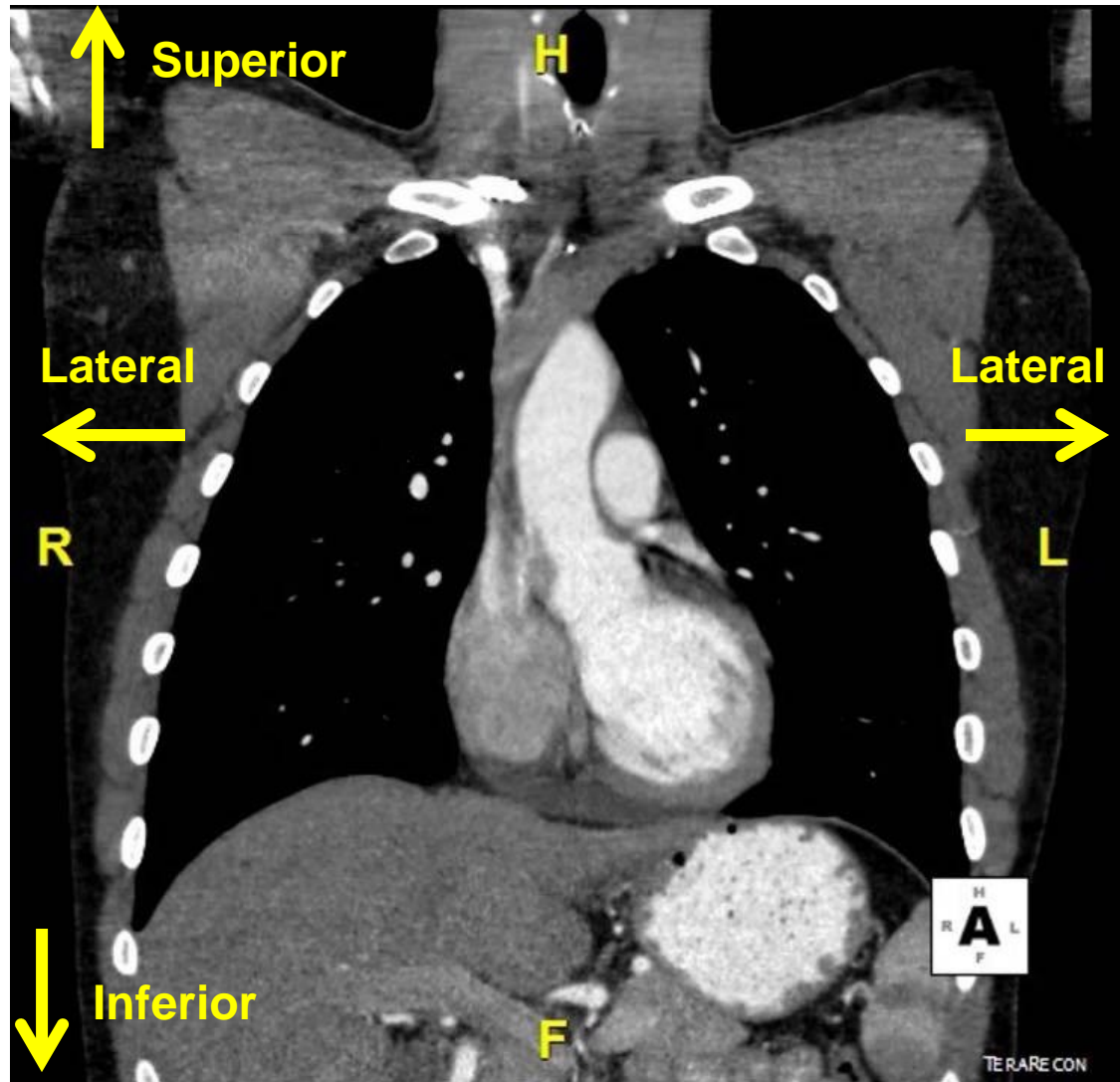


THIS IS A CT  
IMAGE  
(SECTION)  
OF A  
THORACIC  
VERTEBRA -  
convention  
sections  
viewed from  
below

bone and  
metal  
appear  
white, air is  
black; soft  
tissues  
appear grey

**QUESTION: LOOK AT THE ORIENTING ARROWS. GIVEN THE ORIENTATION, IN WHAT ANATOMICAL PLANE WAS THE SECTION TAKEN? IN WHICH DIRECTION WOULD THE PATIENT'S NOSE BE POINTING (EX. TOWARD BOTTOM OF IMAGE)?**

# EXERCISE : NON-CONVENTIONAL IMAGE OF THORAX

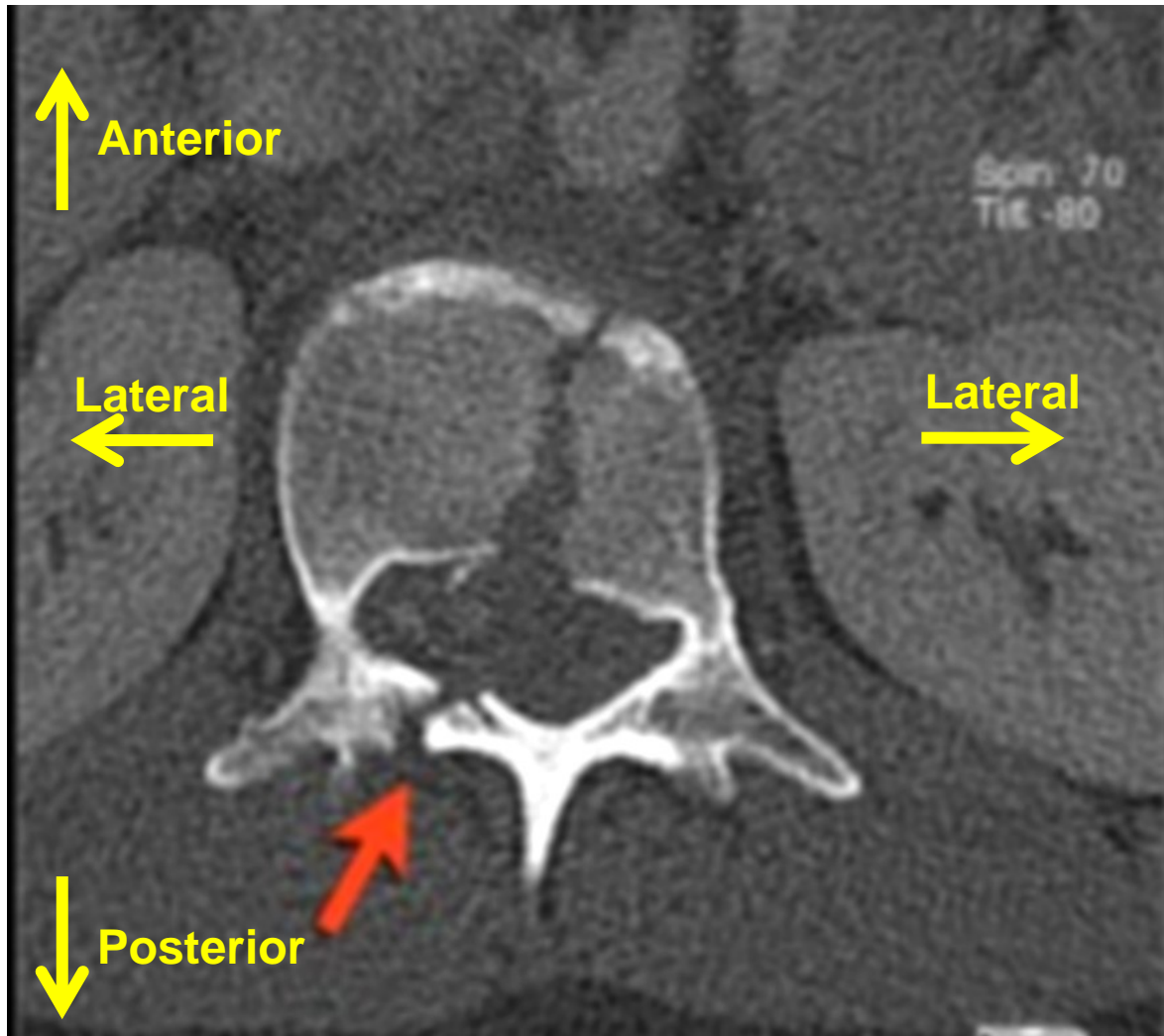


Note: In radiographic images (CT= Computed Tomography and X rays) bone and metal appear white, air is black; soft tissues appear grey; however, in this image contrast material has been injected to the patients blood stream and swallowed by the patient.

**QUESTION: LOOK AT THE ORIENTING ARROWS. GIVEN THE ORIENTATION, IN WHAT ANATOMICAL PLANE OF THE SECTION? EXTRA CREDIT: WHAT ARE THE BLACK AREAS WITH SMALL WHITE DOTS IN THEM?**



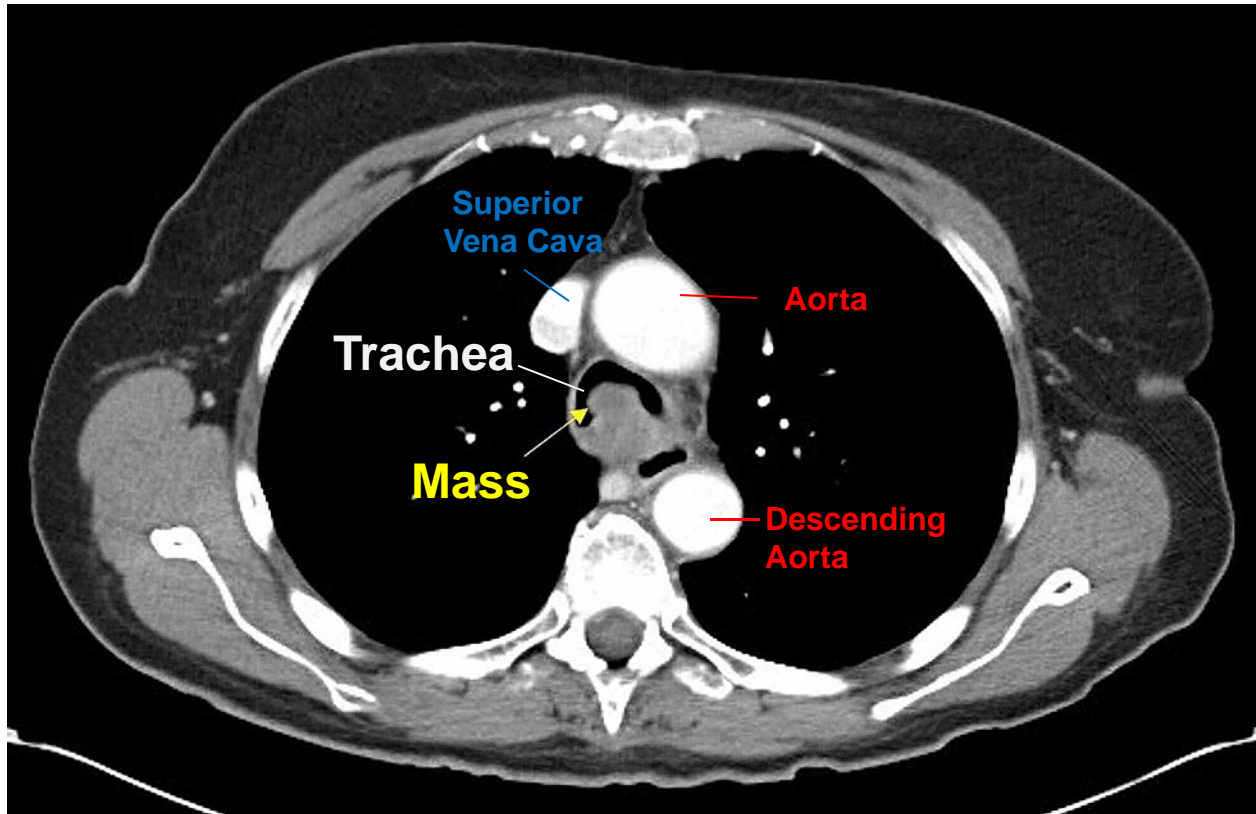
## EXERCISE : IMAGE OF FRACTURE SPINE



This is a CT of a vertebra in a patient with a fractured spine. The fracture is indicated by the red arrow but it extends through the entire vertebra.

**QUESTIONS: LOOK AT THE ORIENTING ARROWS. GIVEN THE ORIENTATION, WHAT IS ANATOMICAL PLANE OF THE CT IMAGE (NOT THE FRACTURE)?**

## EXERCISE: COMPLETE THE CLINICAL DESCRIPTION OF LOCATION OF AN ADENOCARCINOMA OF TRACHEA



This is an image of the thorax in the conventional view of CT - Complete the following statement: The mass is located in the \_\_\_\_\_ wall of the trachea, \_\_\_\_\_ and \_\_\_\_\_ to the Descending aorta. (Choices for \_\_\_\_: anterior, posterior, medial, or lateral)