Basic rules of anatomy

- All structures are described relative to bodily coordinates
- The body is described in terms of its three orthogonal planes
- Heart has its own orthogonal planes
- Cardiac components, nonetheless, should be described in terms of bodily coordinates
Coronal

Long Axis

- Sagittal

Transverse - Short Axis

Long Axis
ATTITUDINAL DESCRIPTION

Thymic veins
Right brachiocephalic vein
Superior caval vein
Right phrenic nerve
Aorta
Right atrial appendage
Pulmonary trunk
Diaphragm

Thymus
Left brachiocephalic vein
Left subclavian artery
Left superior intercostal vein
Left phrenic nerve
Left atrial appendage
Anterior interventricular coronary artery

Courtesy of Diane Spicer
The Valentine Heart Is Wrong!
Inferior caval vein

Anterior

Tricuspid valve

Courtesy of Diane Spicer
ATTITUDINAL DESCRIPTION

Superiorly

Inferior caval vein
Attitudinally correct orientation!

- Aorta
- Right atrium
- Right ventricle
- “Left” chambers
♥ Papillary muscles of mitral valve
♥ Located infero-septally and supero-laterally
♥ It is wrong to describe them as being postero-medial and antero-lateral!
ATTITUDINAL DESCRIPTION

Antero-superior

Tricuspid valve

Inferior

Septal
THE MITRAL VALVAR COMPLEX

Leaflets

Annulus

Papillary muscles

Tendinous cords

Parasternal long axis section
Primary zone of apposition

Annulus

Courtesy of Van G. Galstyan, Armenia
VENTRICULO-ARTERIAL JUNCTIONS
Echocardiographic considerations

Sinutubular junction
- obvious ring

Mid-sinusal level
- no anatomic ring

Anatomic
ventriculo-arterial
Basal Attachment
Junction
- virtual ring

Gemma Price, 2003