## NT Image Scoring Review

For Supervisory/Interpreting Physician Applicants

#### Criteria Review

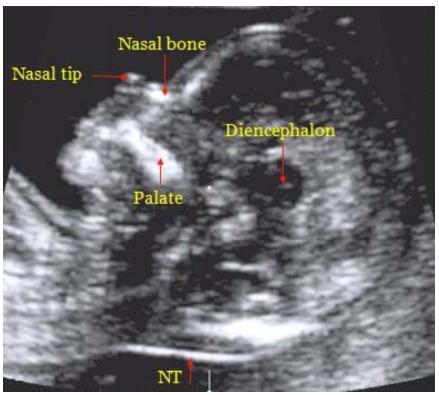
- Magnification
- True mid-sagittal section
- Neutral fetal position
- Calipers "On-to-On"
- Maximum lucency
- Thin nuchal membrane

### Magnification

- The fetal head and chest should fill about 75% of the scanning area (can be assessed by examining the image)
- Each movement of the caliper trackball accounts for no more than 0.1mm (cannot necessarily be know by examining the image)

### True mid-sagittal section

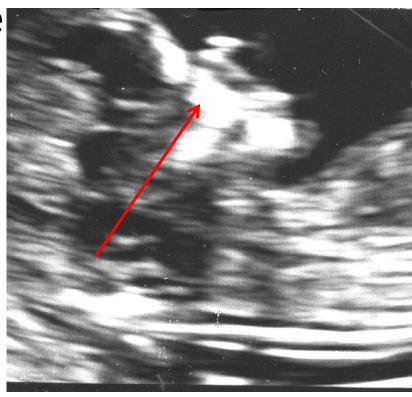
 The example shows the structures required to identify the plane as mid-sagittal



## True mid-sagittal section

The anterior maxillary process should NOT be

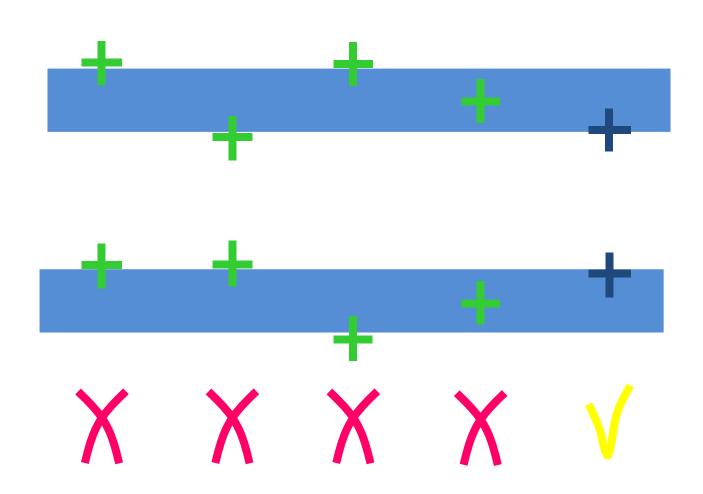
visible if in the midline



## Neutral fetal position

- The head <u>should</u> be in line with the body
- The fetus <u>should not</u> be curled up (flexed) or arched (extended)

## Calipers "On-to-On"



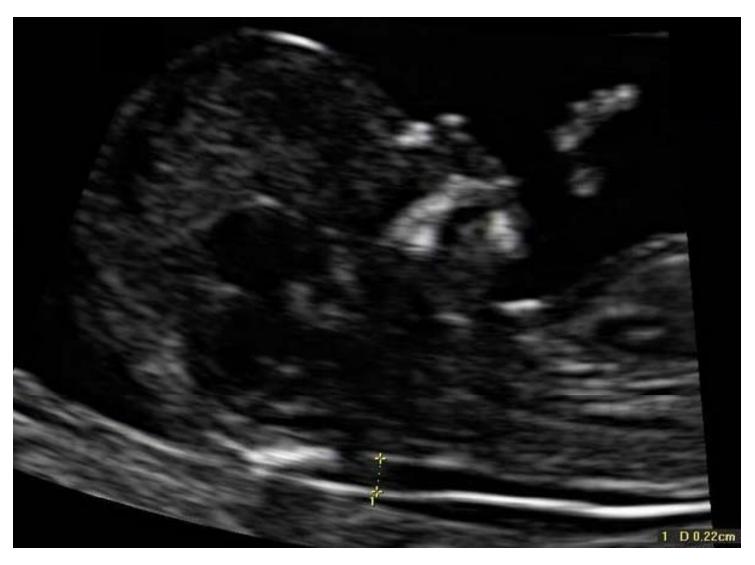
## Maximum lucency

- The entire NT region, head to chest, is clearly defined by 2 thin clean lines
- The calipers are placed at the widest part of the lucency

#### Thin nuchal membrane

- The white lines that define both sides of the NT region are thin and crisp
- Use a high frequency transducer, a high contrast setting (like first trimester or fetal heart)
- Try harmonics off, if the lines are fuzzy
- Reduce the overall gain, if the lines are fuzzy

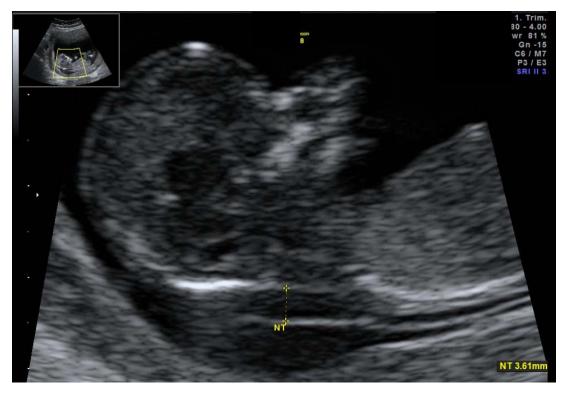
# Example image



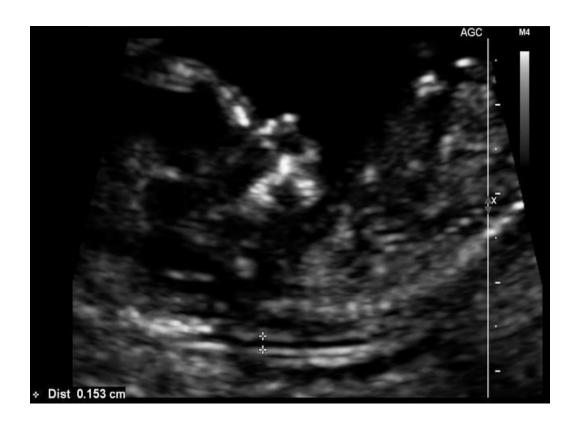
## **Image Scoring Examples**



Magnification Yes
True mid-sagittal section Yes
Neutral fetal position Yes
Calipers "On-to-On" Yes
Maximum lucency Yes
Thin nuchal membrane Yes



Magnification Yes
True mid-sagittal section Yes
Neutral fetal position Yes
Calipers "On-to-On" Yes
Maximum lucency Yes
Thin nuchal membrane Yes



Magnification Yes
True mid-sagittal section Yes
Neutral fetal position No
Calipers "On-to-On" Yes
Maximum lucency Yes
Thin nuchal membrane Yes



Magnification No
True mid-sagittal section Yes
Neutral fetal position Yes
Calipers "On-to-On" No
Maximum lucency No
Thin nuchal membrane No

The head and thorax should fill the image area. Much of the near and far field, as well as space above the fetal head and below the chest could be eliminated. The entire NT region, head through chest, is not clearly defined by two thin crisp lines so that identification of the widest point cannot be made. The whole region should be clearly, head through chest.

The top caliper is in the nuchal fluid space instead of on the border.



Deviations from the midline plane cause non-visualization of the tip of the nose and <u>visibility of the frontal process of the maxilla</u>.

The bottom caliper is in the fluid space.

The widest point is clearly behind the head but the gain is so high that this was missed.

Magnification	Yes
True mid-sagittal section	No
Neutral fetal position	Yes
Calipers "On-to-On"	No
Maximum lucency	No
Thin nuchal membrane	No