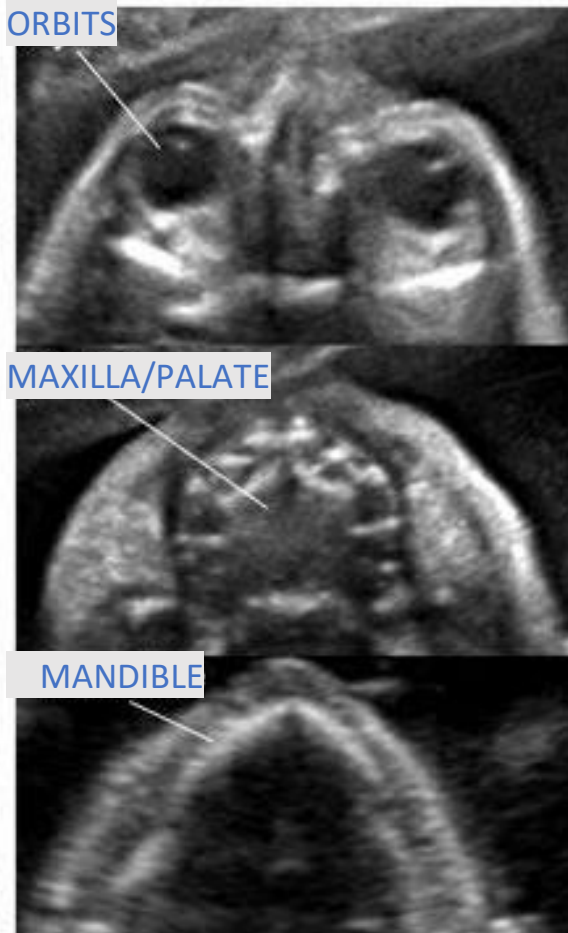
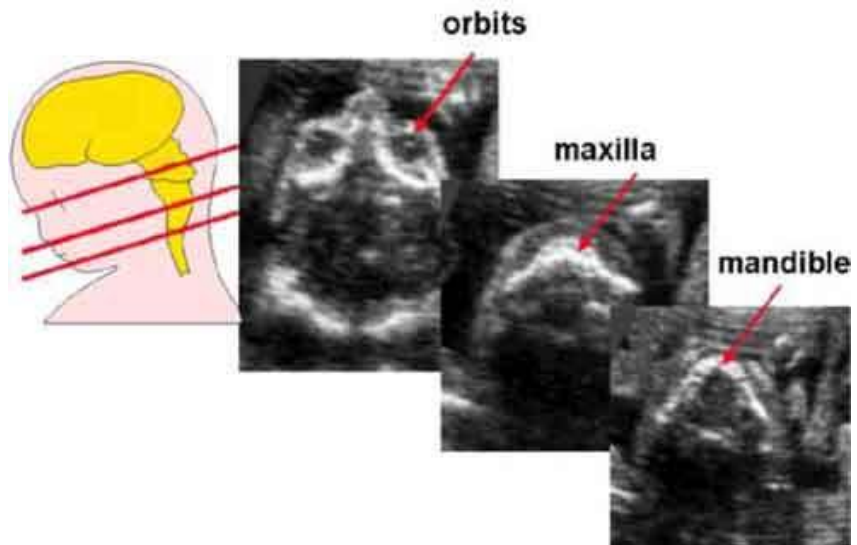


# Maxilla Images

Although we are calling this image the “Maxilla,” instead of an image of the maxilla bone, we actually want a picture of the palate at the level of the alveolar ridge which contains the sockets of the teeth. The first images below are the three images to obtain when looking at the fetal face. Cine sweep is not necessary. If a cleft is seen, a 3D image of the face should be obtained.

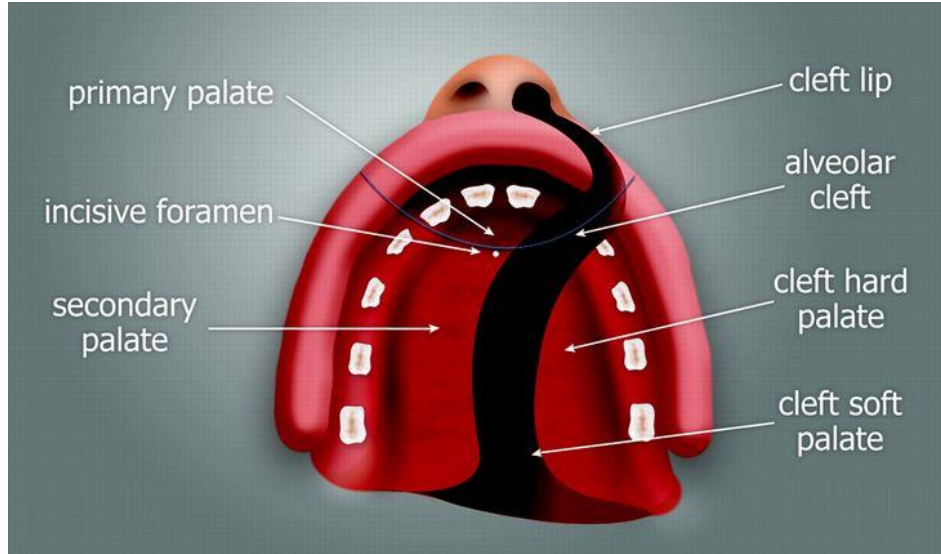


This image shows a maxilla view slightly superior to the palate, the palate is not as well seen in this view, therefore, should not be used.



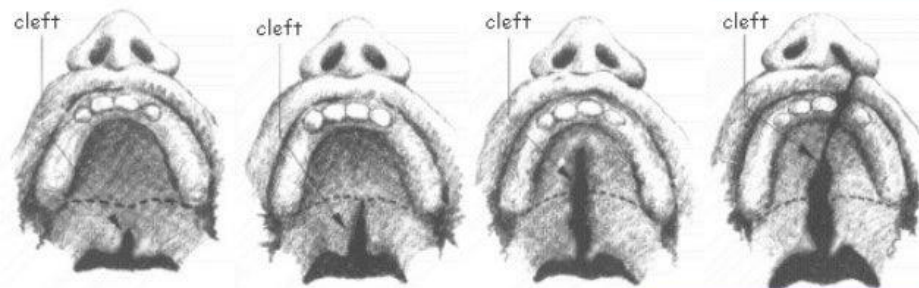
## Types of Cleft Palate

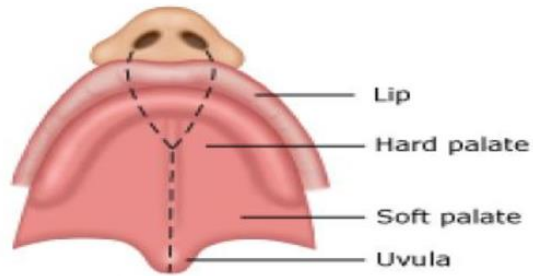
Cleft palates can occur in the hard palate, soft palate, or alveolar ridge. The alveolar ridge is the protuberance in the mouth that contains the sockets (alveoli) of the teeth. You can also have a cleft of the palate that does not affect the alveolar ridge or lip.



## Examples of Cleft Palate

- Cleft of Back Soft Palate
- Cleft of Soft Palate
- Cleft of Soft and Hard Palate
- Cleft of Soft and Hard Palate and Cleft Lip





**Normal**



**Unilateral cleft lip**



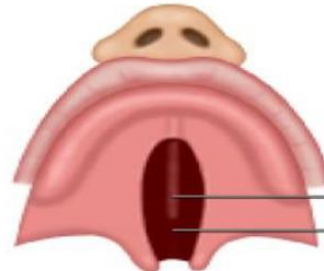
**Bilateral cleft lip**



**Cleft uvula**



**Unilateral cleft palate**



**Bilateral cleft palate**



**Unilateral cleft lip and anterior palate**



**Unilateral cleft lip and full palate**

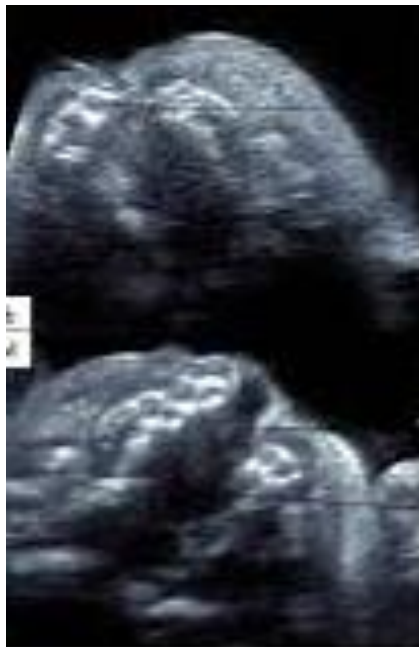
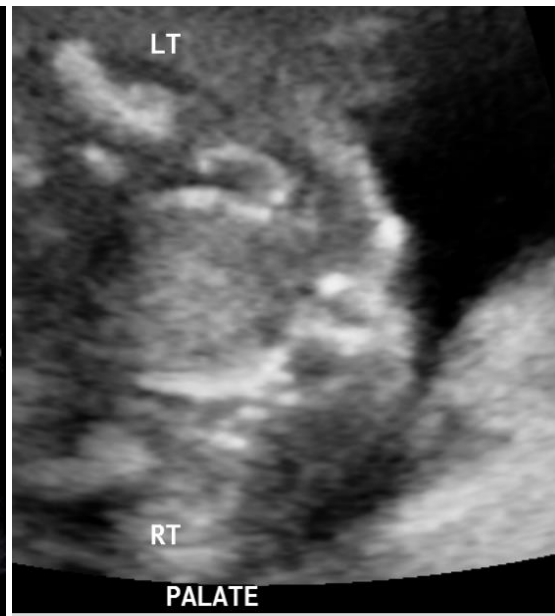
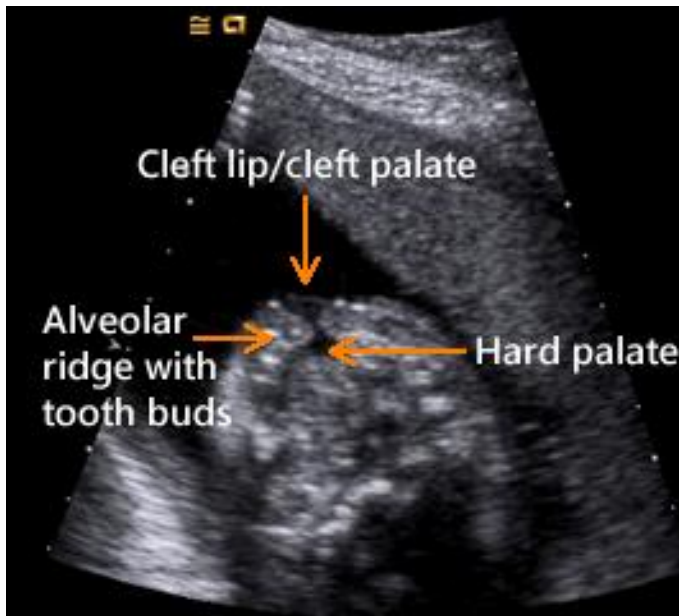


**Bilateral cleft lip and anterior palate**



**Bilateral cleft lip and full palate**

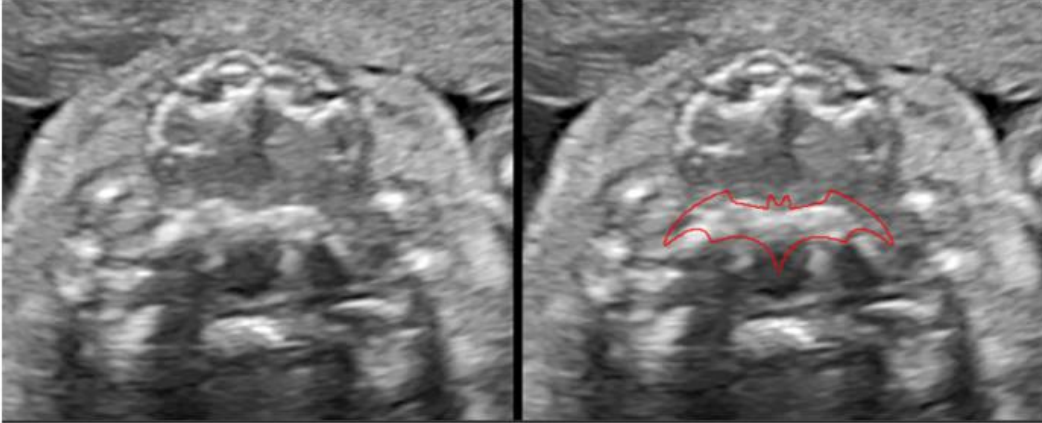
Ultrasound images showing various types of clefts



CLEFT OF SOFT PALATE ONLY

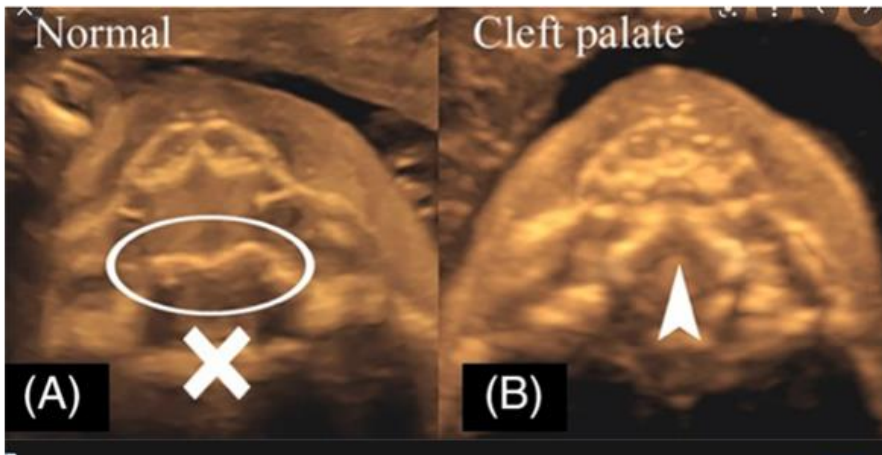
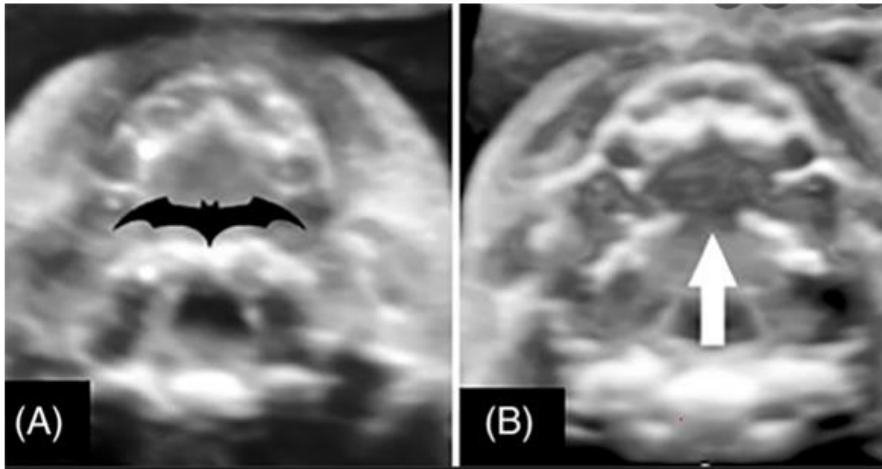
# CLEFT PALATE WITHOUT CLEFT LIP (ADDED 6/8/2022)

NORMAL PALATE SHOULD BE CLOSED AND HAS THE APPEARANCE OF A BAT

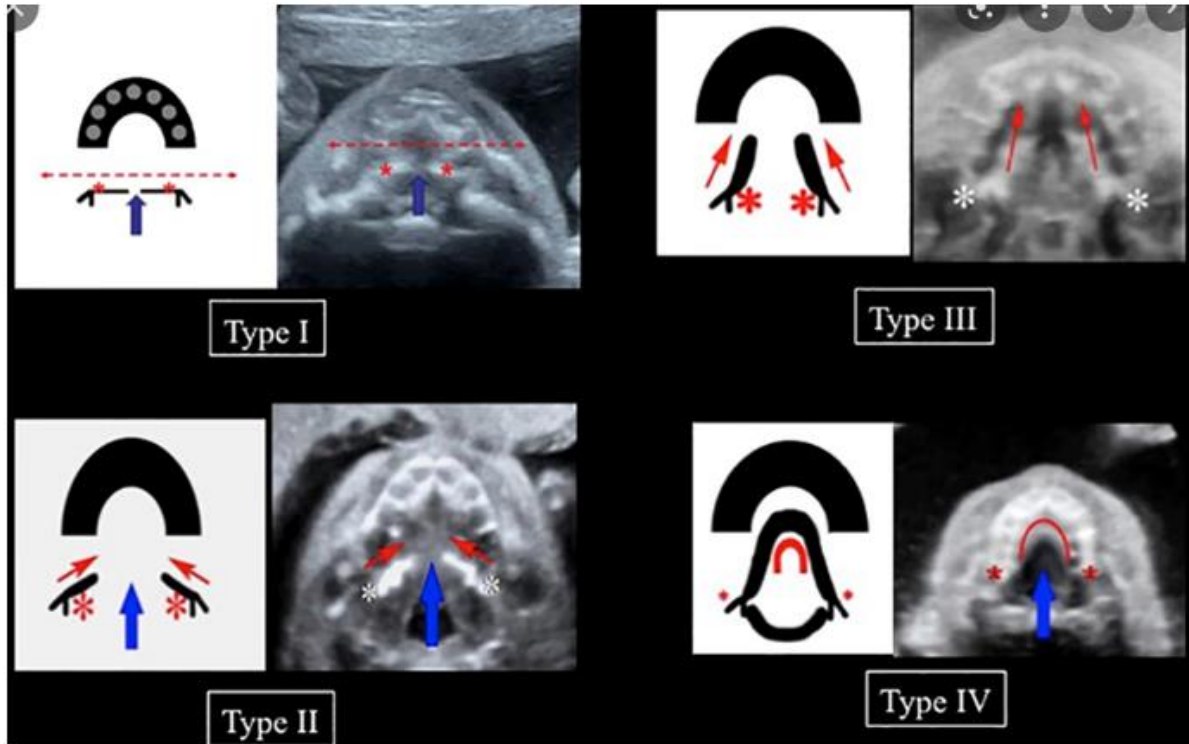


NORMAL (BAT SIGN)

CLEFT PALATE



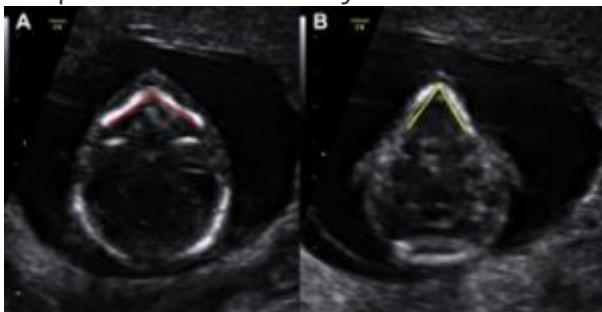
## TYPES OF CLEFT PALATE WITHOUT CLEFT LIP



## FOLLOW UP QUESTIONS and ANSWERS – 1/31/2022

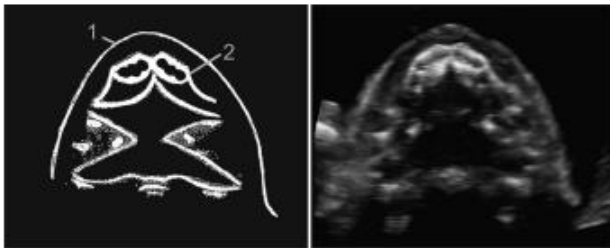
-We will continue to only require 2D images of the maxilla and mandible, a cine sweep is not necessary. It is fine to add if you would like to show it better than you were able to in your still images, but it is not required to clear the anatomy. However, if a defect is suspected, a sweep in transverse and coronal should be obtained, 3D imaging will be needed as well.

-As far as whether we need to document a maxilla image similar to this one with the red (maxilla) and yellow (mandible) angles, the answer is no. The red angle is a true maxilla picture, but we are concerned with the upper lip and hard palate. It would be more accurate to label the image that we want as “palate” and not have a maxilla image, but because our reports and labels on the machine are programmed as “maxilla” we will keep it labeled that way for now. Document the hard palate and upper lip.



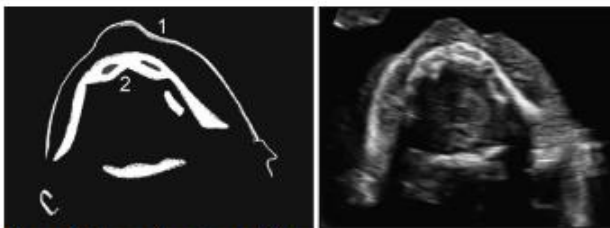
-Often the baby is not looking straight up for the ideal image of the maxilla and mandible. It is fine to image it with the head turned to the side as long as you can see a portion of the more posterior side without too much shadowing. We are mostly concerned with the area just lateral of midline. If this area is seen, it can probably still be cleared. A cine sweep could be useful in this instance to show it better. If baby is spine up, it is not likely we can clear it.

Here is further clarification on the hard palate and mandible images in a journal from AJUM.



**Figure 10:** Upper lip and palate.

- 1 Upper lip
- 2 Hard palate.



**Figure 11:** Lower lip and mandible.

- 1 Lower lip
- 2 Mandible

approximately equal size and should be evenly spaced. The width of the nasal bridge between each orbit is approximately the same as the size of each orbit – dividing the face into thirds.

**Figure 10: Upper lip and palate**

This is a transverse image used to obtain a cross section through the upper lip and hard palate. It demonstrates an intact skin line of the upper lip (no cleft). Behind this is an echogenic intact hard palate; this confirms the correct plane, and is useful to distinguish palate involvement if a cleft lip is present. The hard palate has internal areas of reduced echogenicity representing tooth sockets. This image does not exclude cleft of the soft palate or secondary hard palate.

**Figure 11: Lower lip and mandible**

This is a transverse image obtaining a cross section through the lower lip and jaw. The image demonstrates an intact lower jaw line. The width of the mandible should be similar to the width of the maxilla and may be reduced in micrognathia. Again tooth sockets are apparent.

