بسم الله الرحمن الرحيم

IN THE NAME OF ALLAH THE MOST GRACIOUS THE MOST MERCIFUL


Niagra Falls

MANDIBLE AT DIFFERENT AGES

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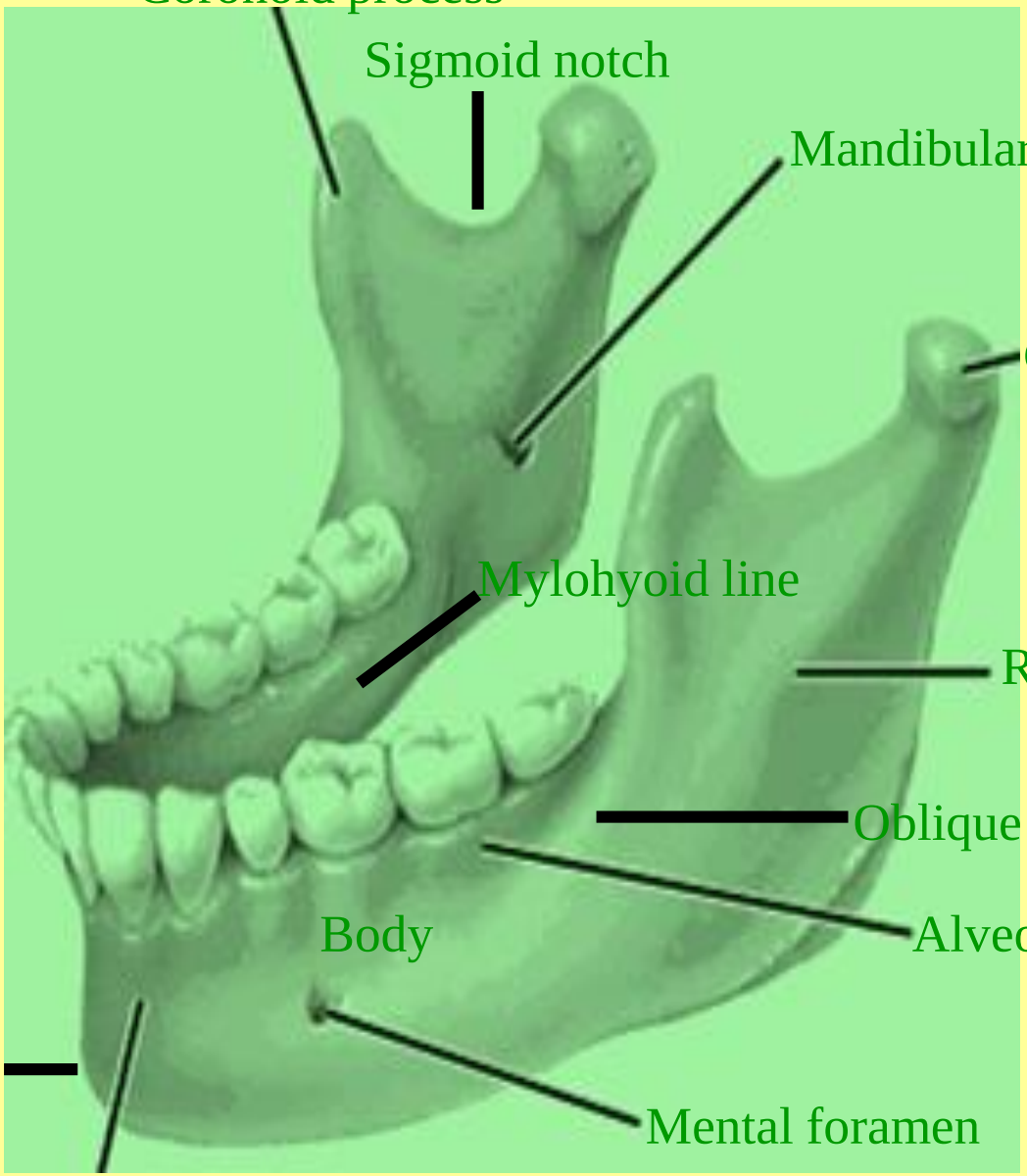
The mandible is formed of :

1. A body.

2. Two rami.

The body:

1. Outer surface.
2. Inner surface.
3. Upper border.
4. Lower border.


Coronoid process
Sigmoid notch
Mandibular foramen
Condyle
Mylohyoid line
Ramus
Oblique line
Body
Alveolar bone
Mental protuberance
Mental foramen
Incisive fossa

The outer surface:

1. The mental foramen.
2. The chin bone.
3. The symphesis menti.

The inner surface:

1. The genial tubercles.
2. The mylohyoid line.
3. The sublingual fossa.
4. The submandibular fossa.

The upper border:

Is formed by the alveolar process.

The lower border:

Forms the base of the mandible.

The ramus:

1. Outer surface.
2. Inner surface.
3. Upper border.
4. Lower border.

The outer surface:

1. Is smooth and quadrilateral in shape.
2. The anterior border forms the oblique line.

The inner surface:

1. The mandibular foramen.
2. The lingula.
3. The groove for mylohyoid nerve and vessels.

The upper border:

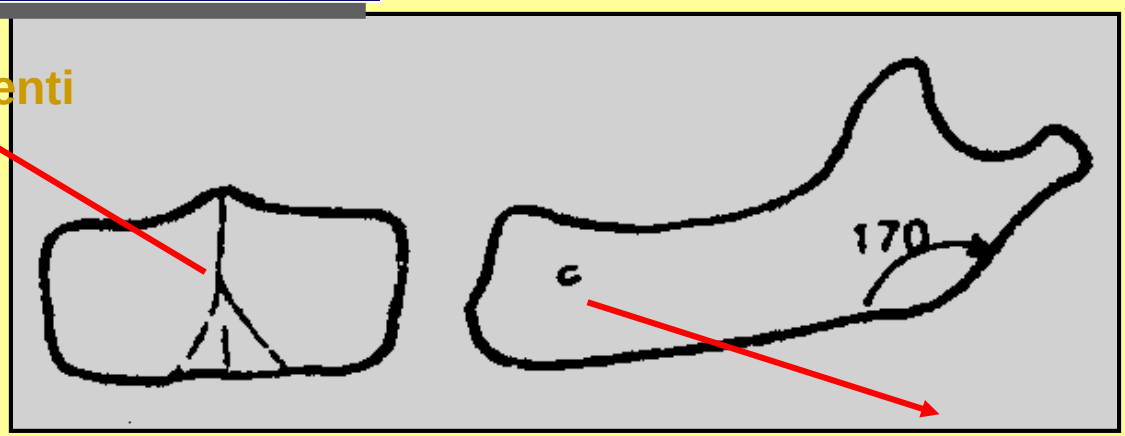
1. The condyle.
2. The coronoid process.
3. The sigmoid notch.

The lower border:

With the posterior border of the ramus
It forms the angle (inverted in females and everted in males).

Mandible at birth

Symphysis menti



Mental foramen

The body of the mandible:

1- Is too small.
2- Consists of **two separate halves** that unite at the midline by **fibrous tissue** (the area of union called ***symphysis menti).*** 3- Contains the deciduous and permanent **tooth germs.**
4- No teeth **erupted** at that age.

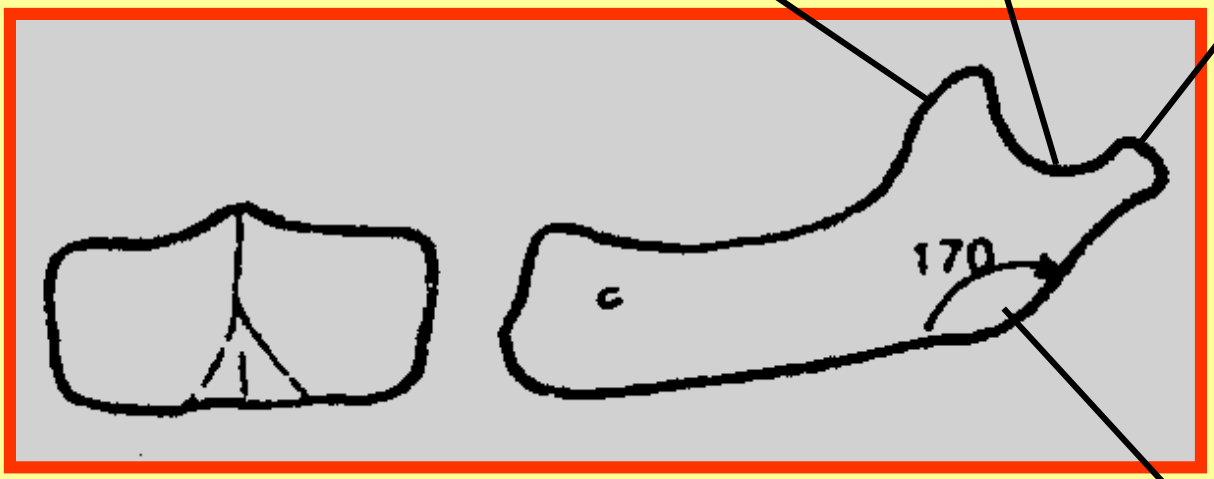
The mandibular canal runs ***near the lower border*** of the mandible.
The mental foramen opens ***below the crypt of lower D***.

The ramus of the mandible at birth

The coronoid process present at higher level than the condyle

The sigmoid notch is shallow

The condyle is present at one line with the upper border of the mandible.



mandibular angle 170◦

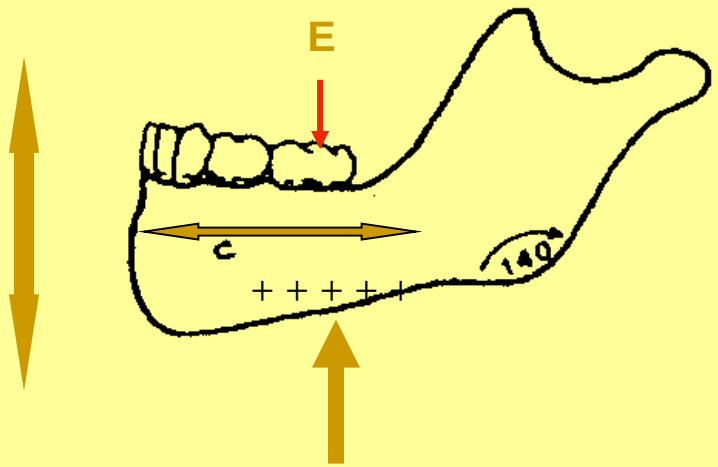
At 3 years (after the eruption of all deciduous teeth)

The two halves of mandible joint at the symphysis menti area from below upward by bone at the end of 1st or at the beginning of 2nd year.

The body of the mandible

1- Elongates especially behind mental foramen to accommodate for the developing permanent molars tooth germs.

2- Increase in height by the growth of the alveolar bony socket which, accompany the eruption of all the deciduous teeth.



3- There is bone deposition at the lower border of the mandible

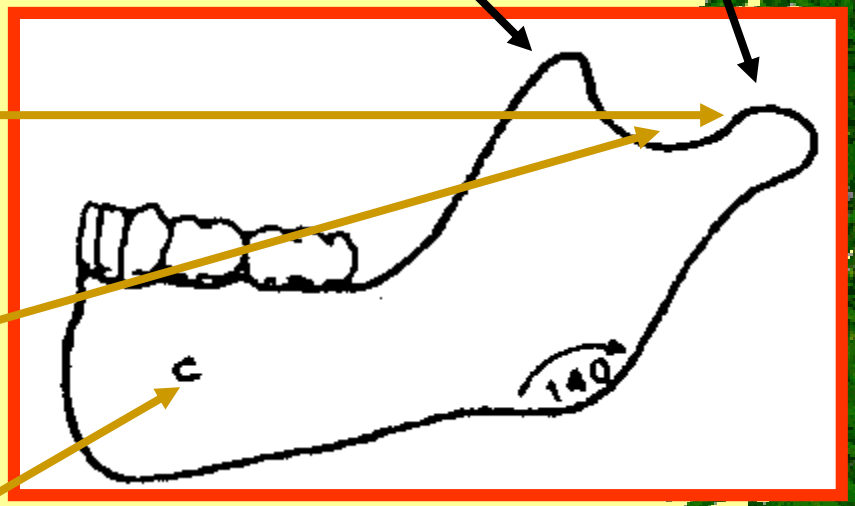
The ramus of the mandible at 3 years old

1- Mandibular angle becomes 140◦

2- The condyle Is at a lower level than the coronoid process

3- The sigmoid notch becomes deeper than at birth.

4-The mental foramen is below the socket of the deciduous lower first molar (D)

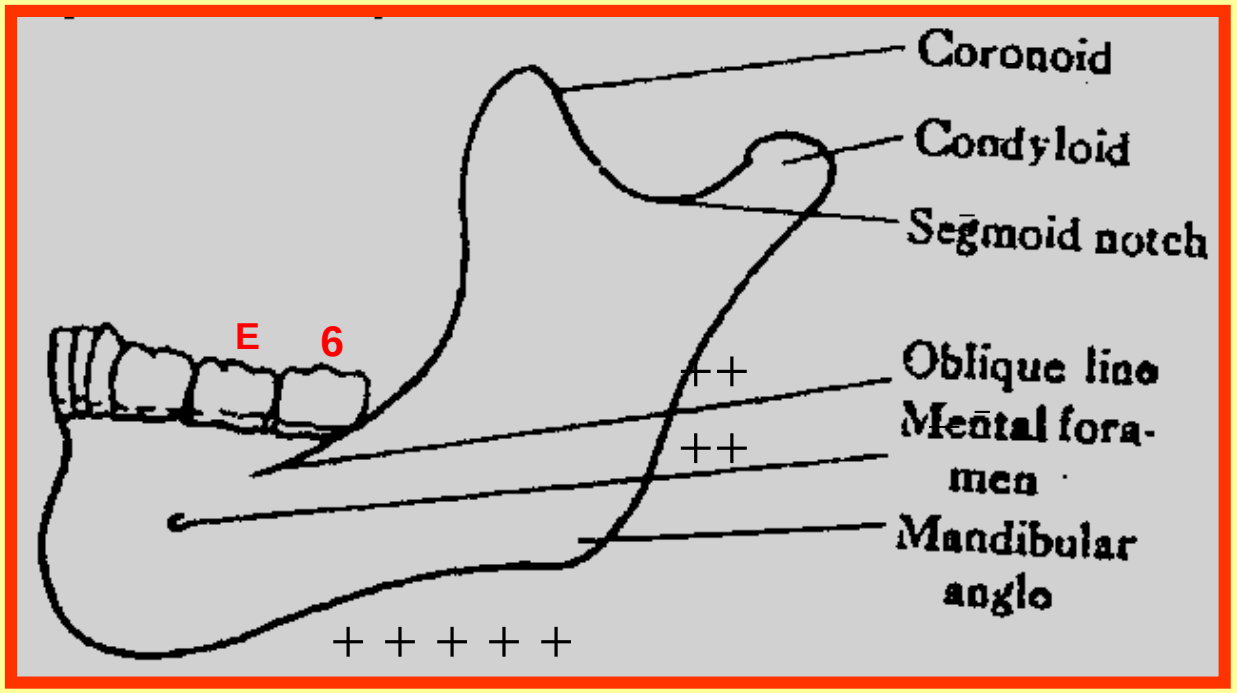


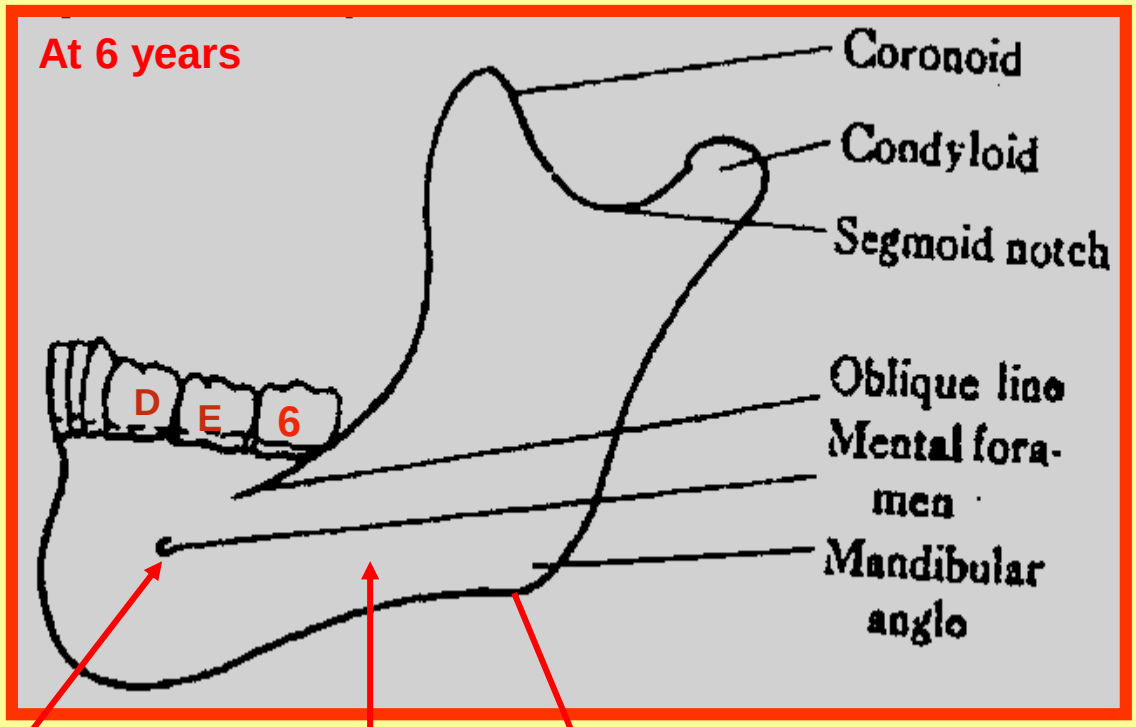
Mandible at 6 years (mixed dentition period)

*Mixed dentition period started to occur by the eruption of the 1st permanent molar.

**Bone remodeling adds to the growth of the mandible .

*** Remodeling means that there are areas of bone resorption accompanied by bone deposition.



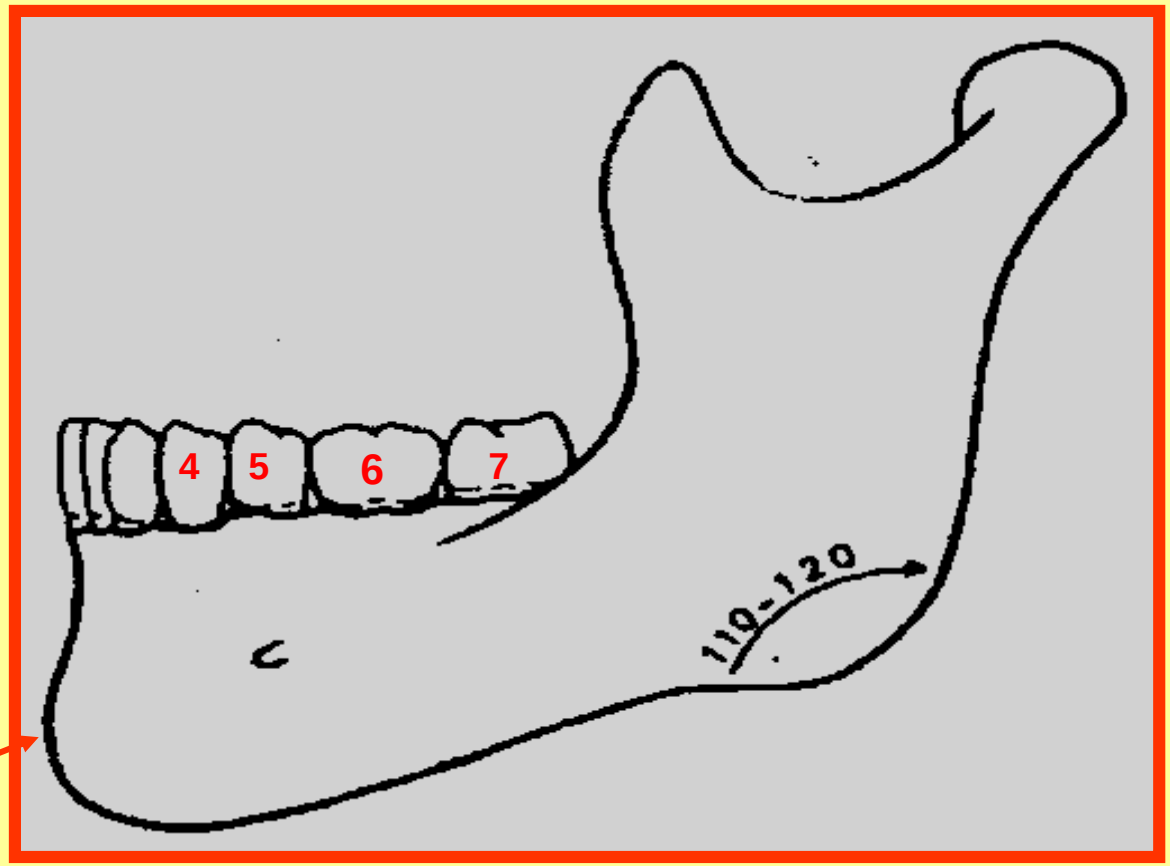


Mental foramen opens nearly **midway** between upper and lower border of the mandibular body.

Mandibular canal is situated **little above** the mylohyoid line.

Mandibular angle is **nearly** as in **adult** (110)

Mandible at adult age

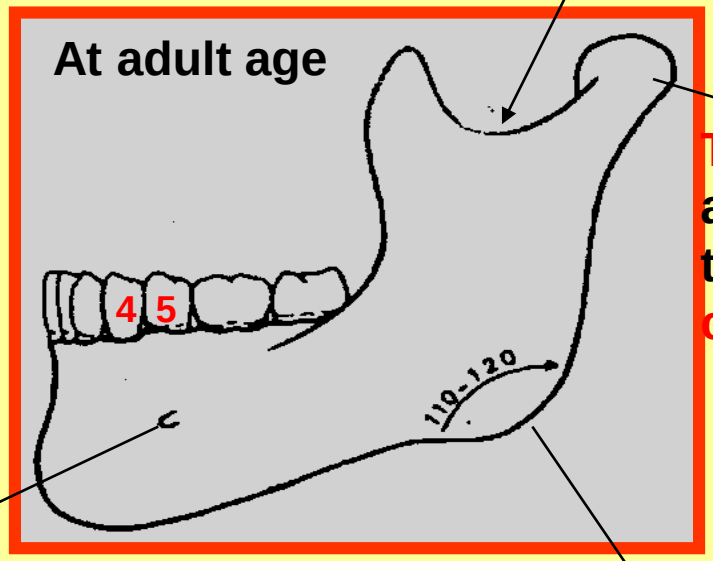


Appearance of **mental protuberance**, which gives the characteristic, chin appearance of the adult

The mandible increases in length and height **due to the eruption of the permanent teeth and growth of their alveolar process.**

The mandibular canal
* **runs parallel to the mylohyoid Line.**
* **present at the midway between upper and lower borders.**

The sigmoid notch becomes deeper.



The condyle present at a higher level than that of the coronoid process.

The mental foramen is present below the socket of lower 5 or lower 4 and in some cases below and in-between both sockets
present at the midway between upper and lower borders.

The mandibular angle becomes 110-120

Mandible in old age

**The mandible is reduced in size.

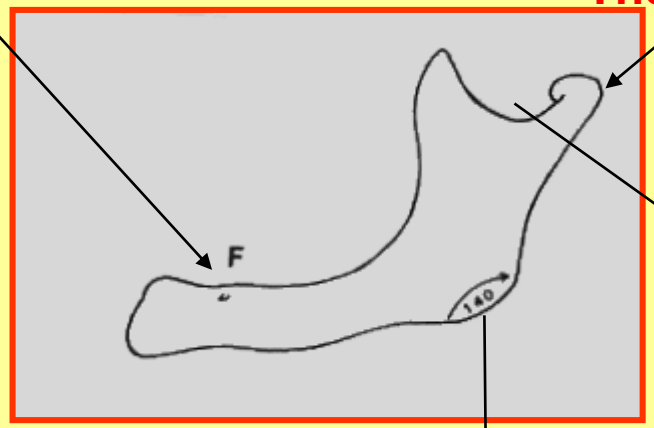
**Following the loss of the teeth

resorption of the alveolar bone

The mandibular canal and the mental foramen are close to the upper border of the body of mandible.

the individual tries to bring the upper an lower jaws near to each other during mastication.

The condylar head is more or less bent backword till it becomes in a lower level than the coronoid process.

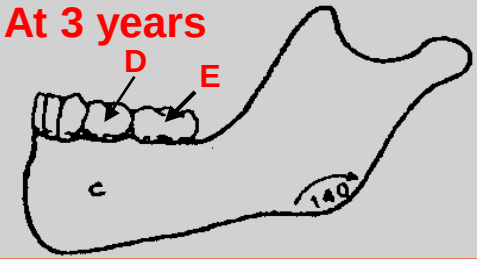


The sigmoid notch is shallower than in adult.

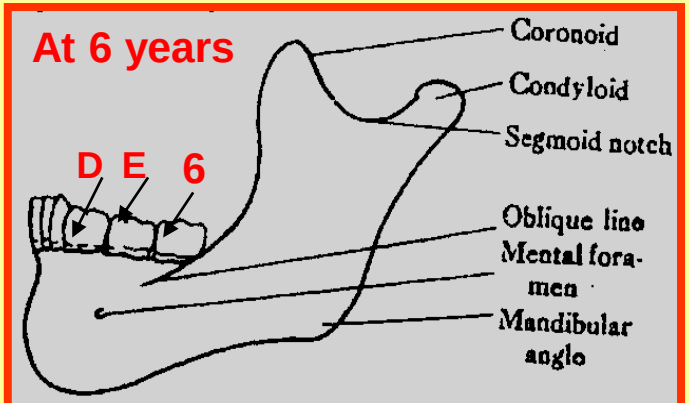
The ramus is oblique in direction with increasing in the mandibular angle (140o).

At birth

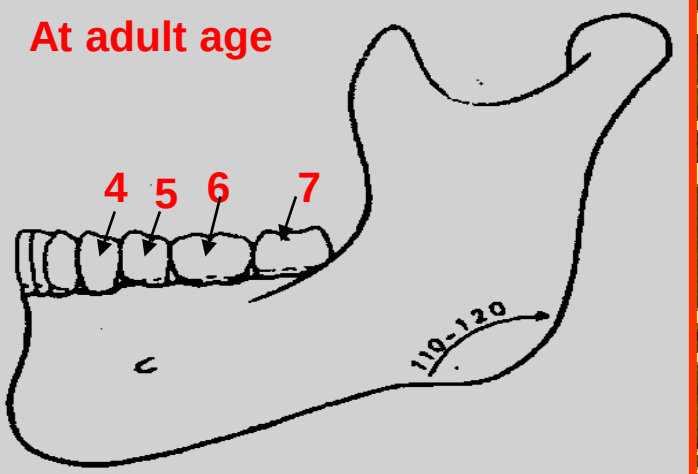
At 3 years



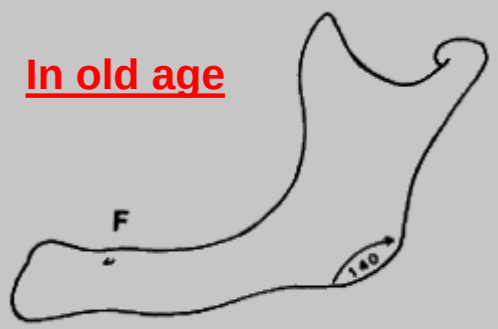
At 6 years



At adult age



In old age



THANK YOU

ANY QUESTION?