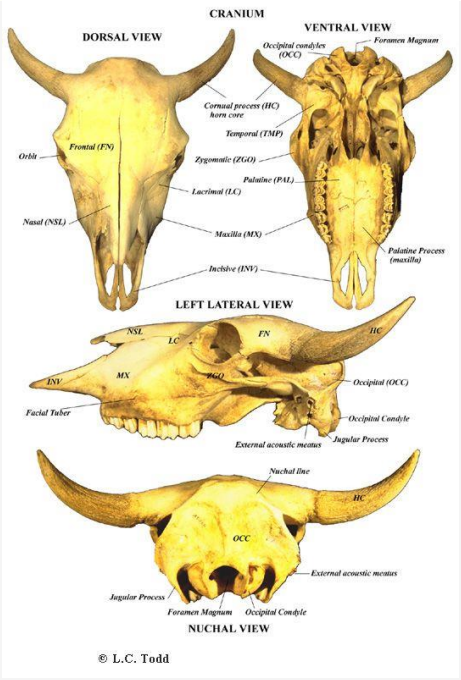
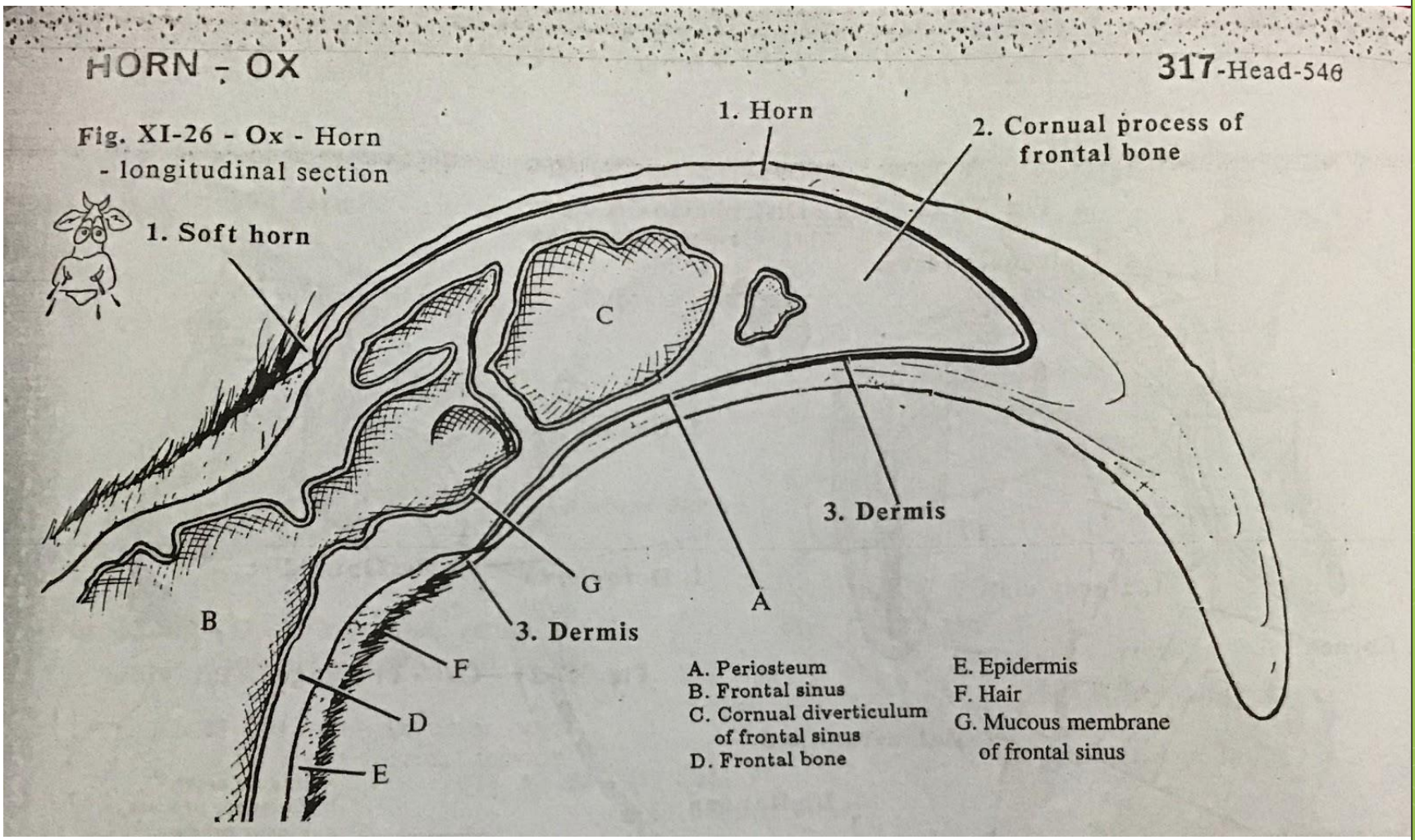
Horn Anatomy

Of Domestic Ruminants

- Horns are the permanent keratinous coverings of the cornual process of the frontal bone in ruminants and are present in both males and females. It grows throughout life.
- The cornual process starts from a horn bud (the germinal tissue). At around 2 months of age, the horn becomes attached to the frontal bone via the frontal sinus. As it grows out, it becomes hollowed out (at wound 6 months old) as it is joined to the frontal sinus.



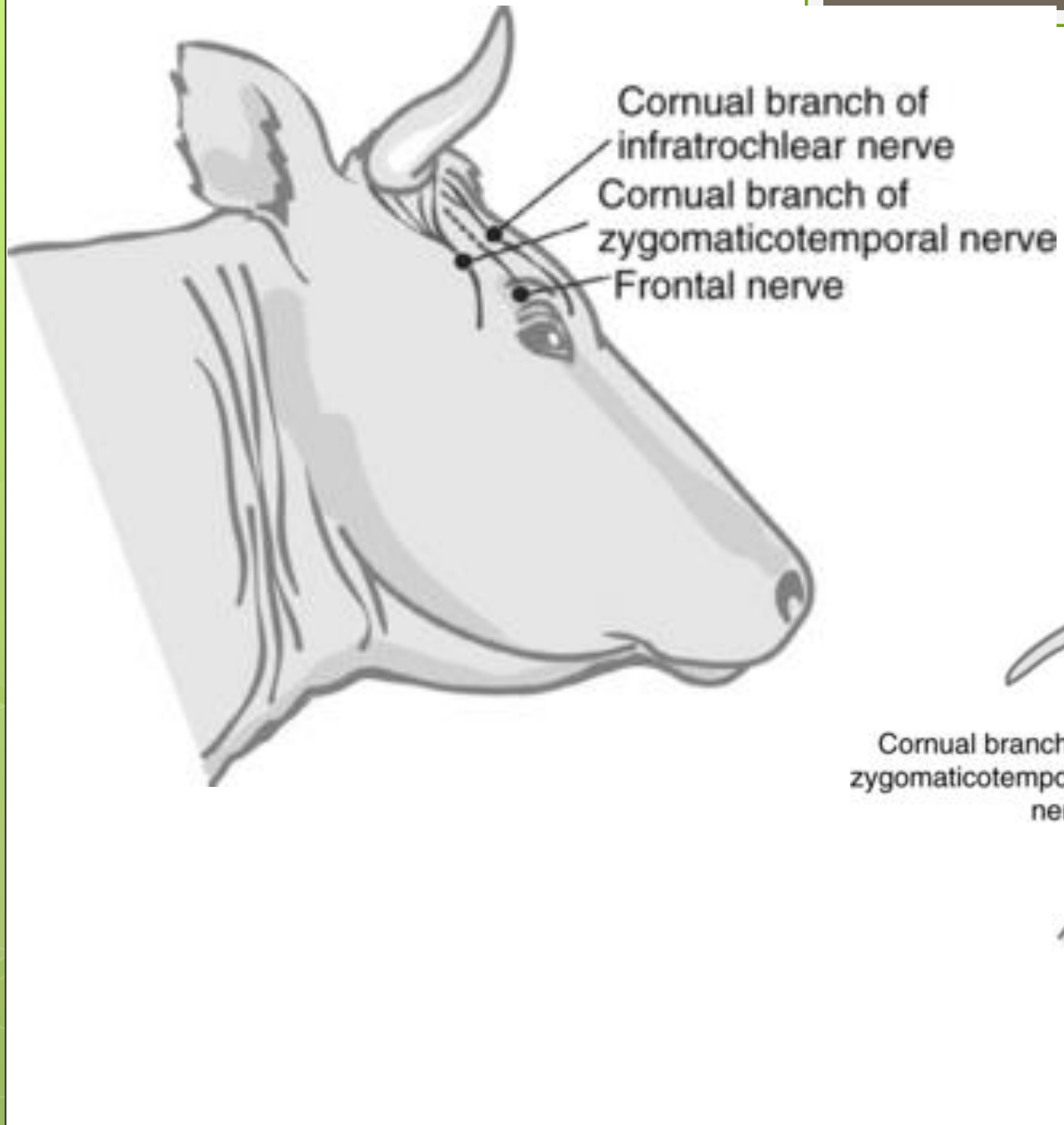

HORN - OX
317-Head-546
Fig. XI-26 - Ox - Horn
- longitudinal section
1. Horn
2. Cornual process of
frontal bone
1. Soft horn
C
3. Dermis
G
A
B
3. Dermis
F
D
E
A. Periosteum
B. Frontal sinus
C. Cornual diverticulum
of frontal sinus
D. Frontal bone
E. Epidermis
F. Hair
G. Mucous membrane
of frontal sinus

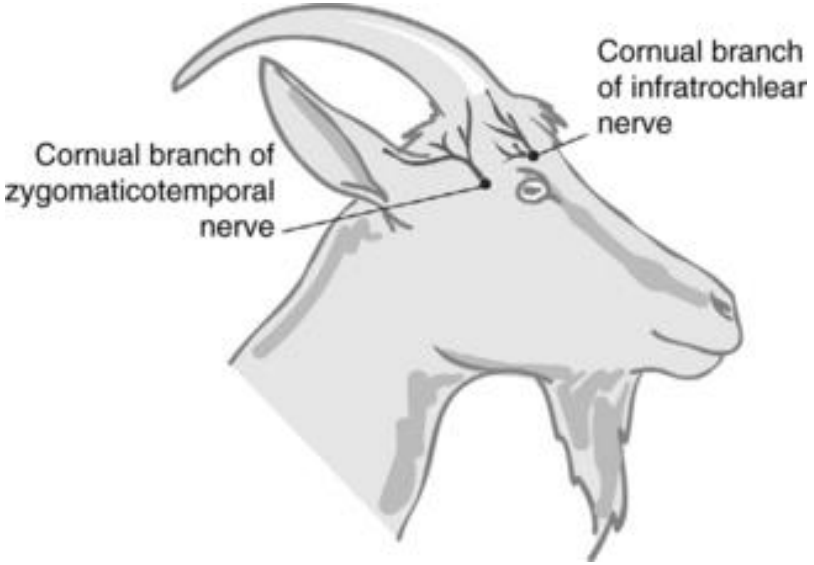
Nerve Supply to the Horns

There are two nervous innervation to the horn:

- The **cornual branch of the infratrochlear nerve** which is a branch of the maxillary nerve (and the maxillary nerve is a branch of CN V- the trigeminal nerve)

- The **cornual branch of the zygomasticotemporal nerve** which is a branch of the zygomatic nerve. The zygomatic nerve is also a branch of the maxillary nerve.


Cornual branch of infratrochlear nerve
Cornual branch of zygomaticotemporal nerve
Frontal nerve


Cornual branch of infratrochlear nerve
Cornual branch of zygomaticotemporal nerve

Blood Supply to the Horns

- The horns are supplied by the **cornual artery**, a branch of the superficial temporal artery that originates from the external carotid artery.