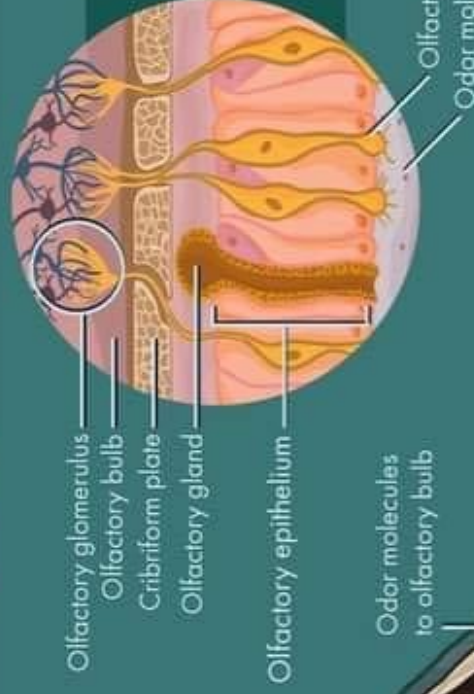


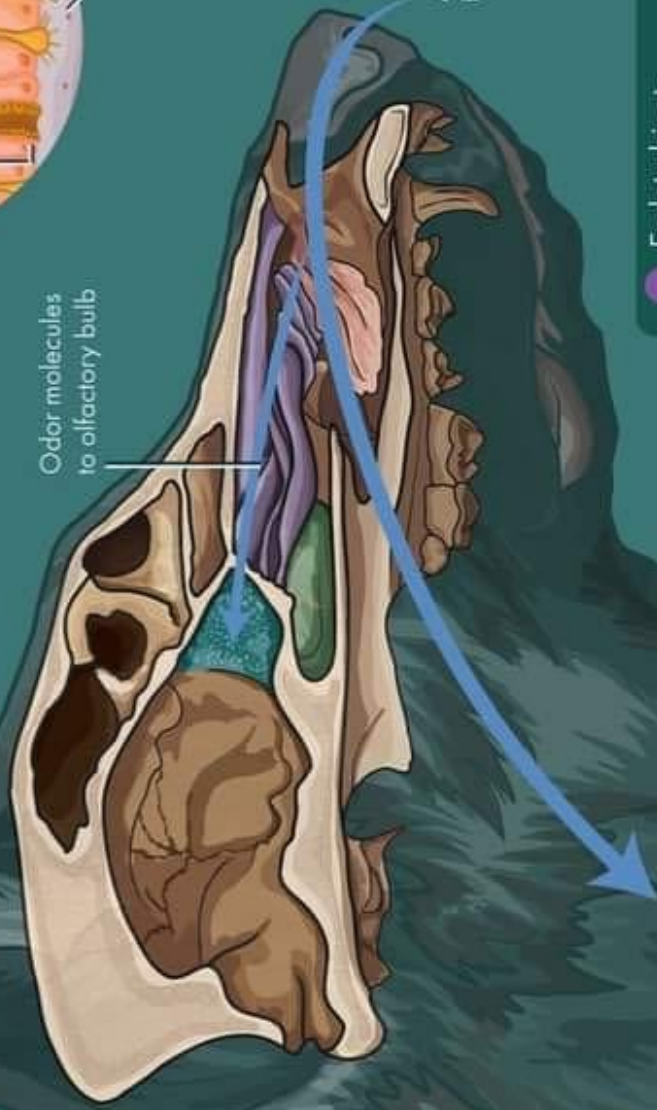


CANINE OLFACTORY SYSTEM

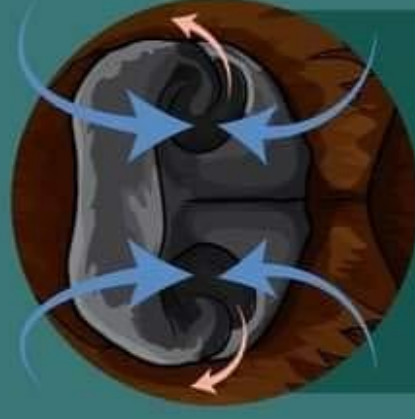
Canines are well known for their extraordinary ability to identify and detect complex odors, via a complex olfactory system. The olfactory system has four major components: the **nasal cavity**, **olfactory epithelium**, a **vomer**, and an **olfactory bulb**. This system allows their odor detection to be 10,000 - 100,000 times greater than the average human.



Olfactory hairs attached to an **olfactory receptor cell** pick up odor molecules, sending them to the olfactory bulb. The **olfactory bulb** receives and processes the information, sending it to the **olfactory cortex**, which allows the dog to identify and remember the scent.



Airflow to pharynx for breathing



Air is **inhaled** from the front of the nostril and is **exhaled** to the side. This allows the canine to sample more odors.

- Endoturbinates
- Maxilloturbinate
- Vomer
- Cribriform plate