

Olfaction

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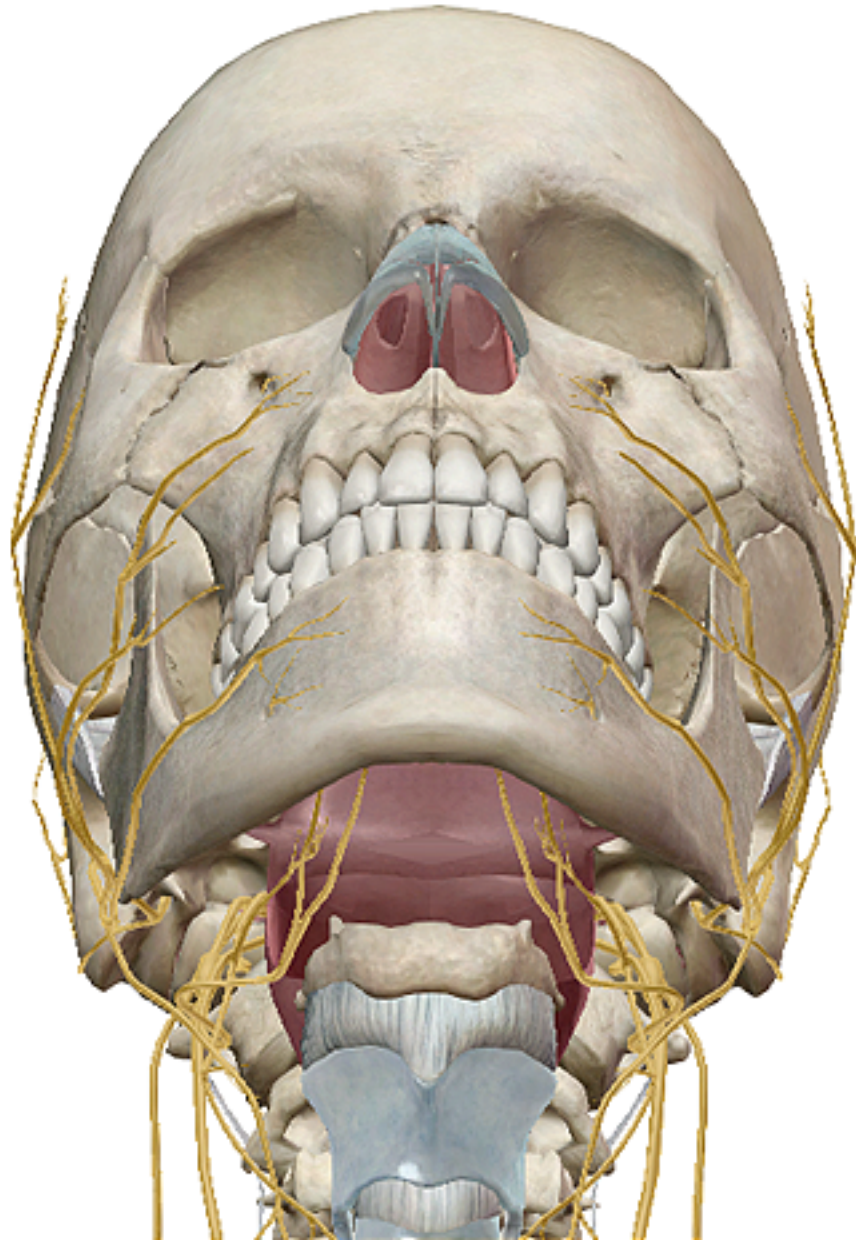
Olfaction is the process of smelling.



Olfaction begins when odors enter the nasal cavity and bind to sites on the **olfactory receptors**.

Factoid: Olfaction comes from the Latin noun *olfactus*, which means “to smell” or “get the smell of.”

Inside your nasal cavity are the structures of the **nervous** and **skeletal systems**.

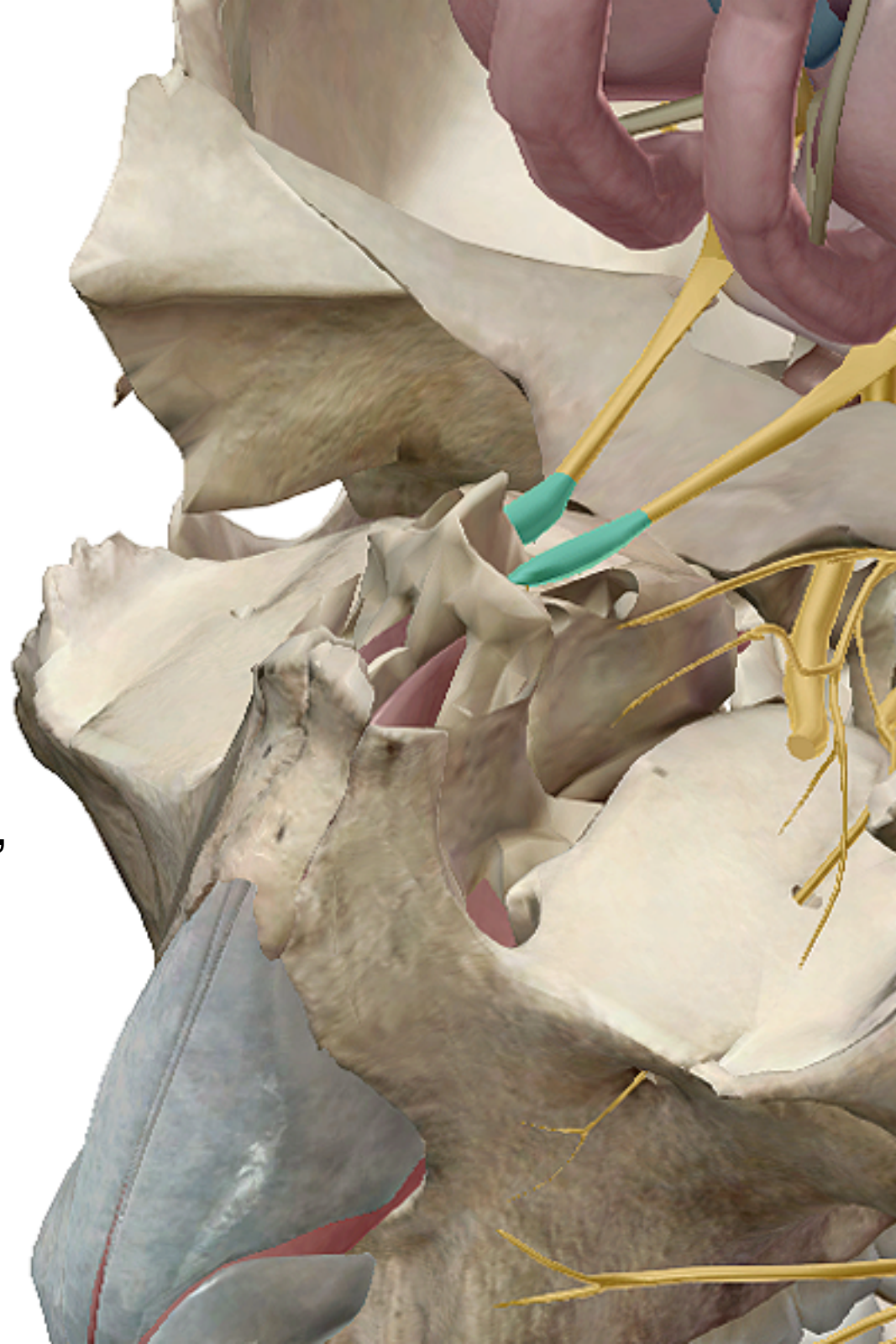


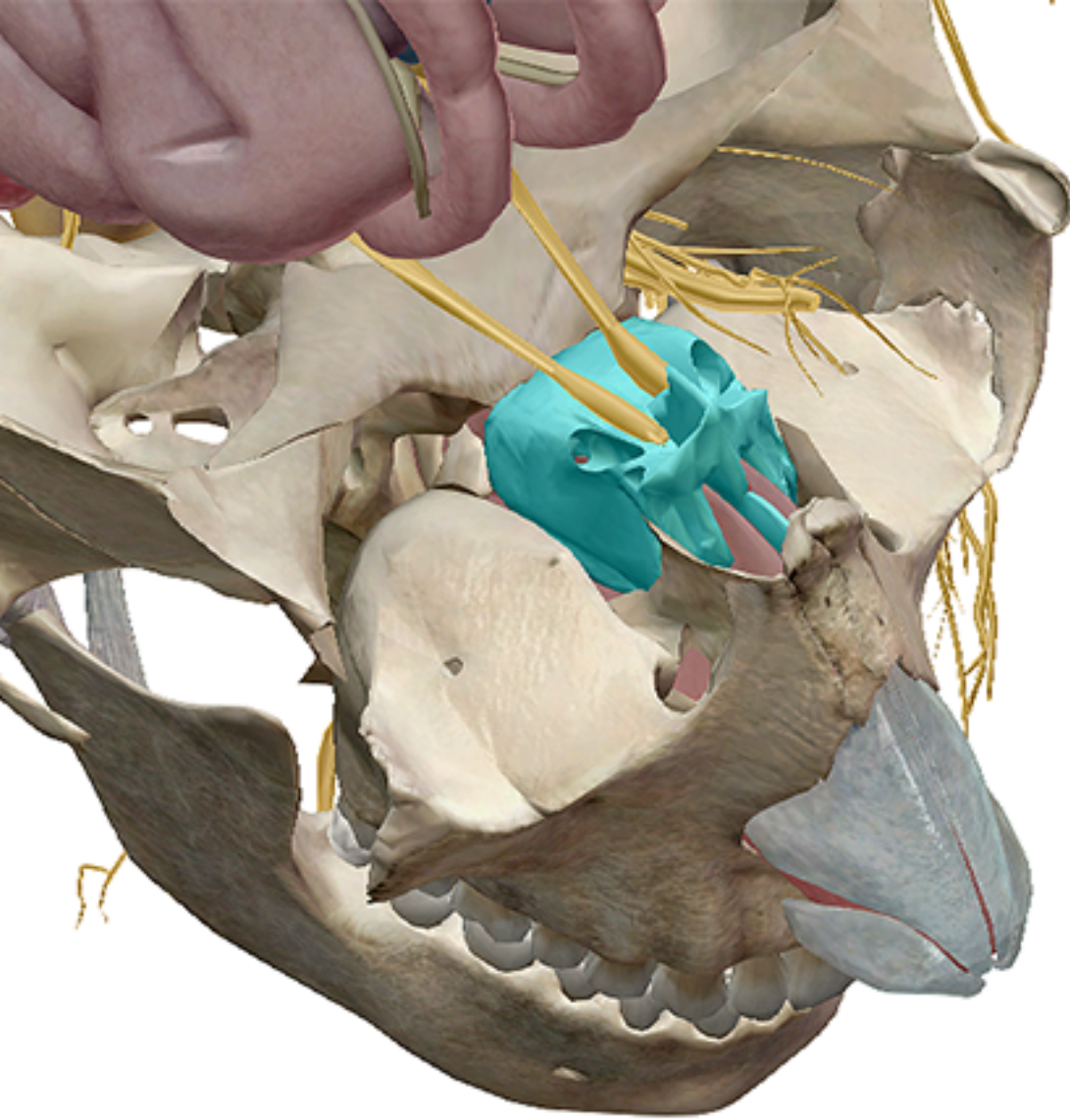
The skeletal system helps give shape to the soft tissue of the nasal cavity.

Odors that enter the cavity are processed by the nervous system.

The **olfactory bulbs** are the termina of the olfactory nerve. They rest upon the **cribriform plate** of the ethmoid.

The bulbs branch into sensory fibers, which pass through the ethmoid.



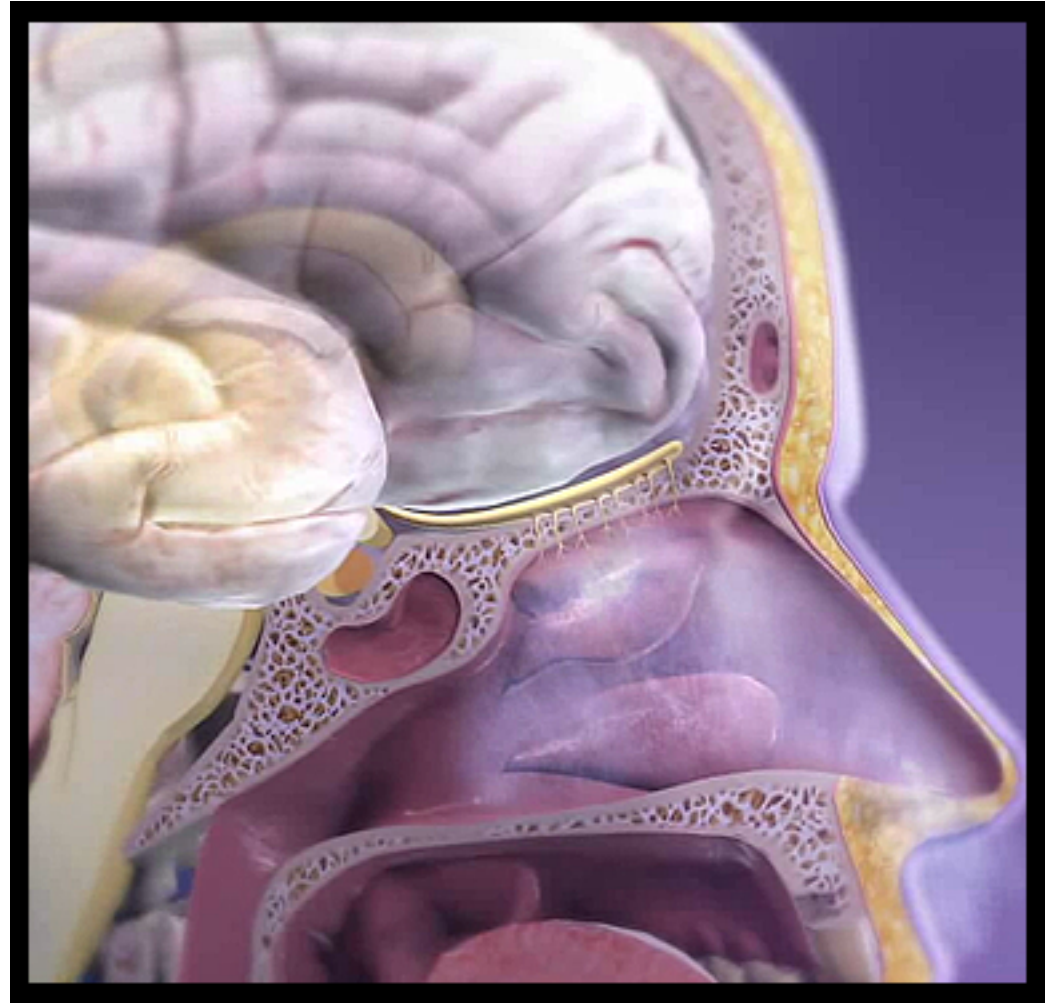


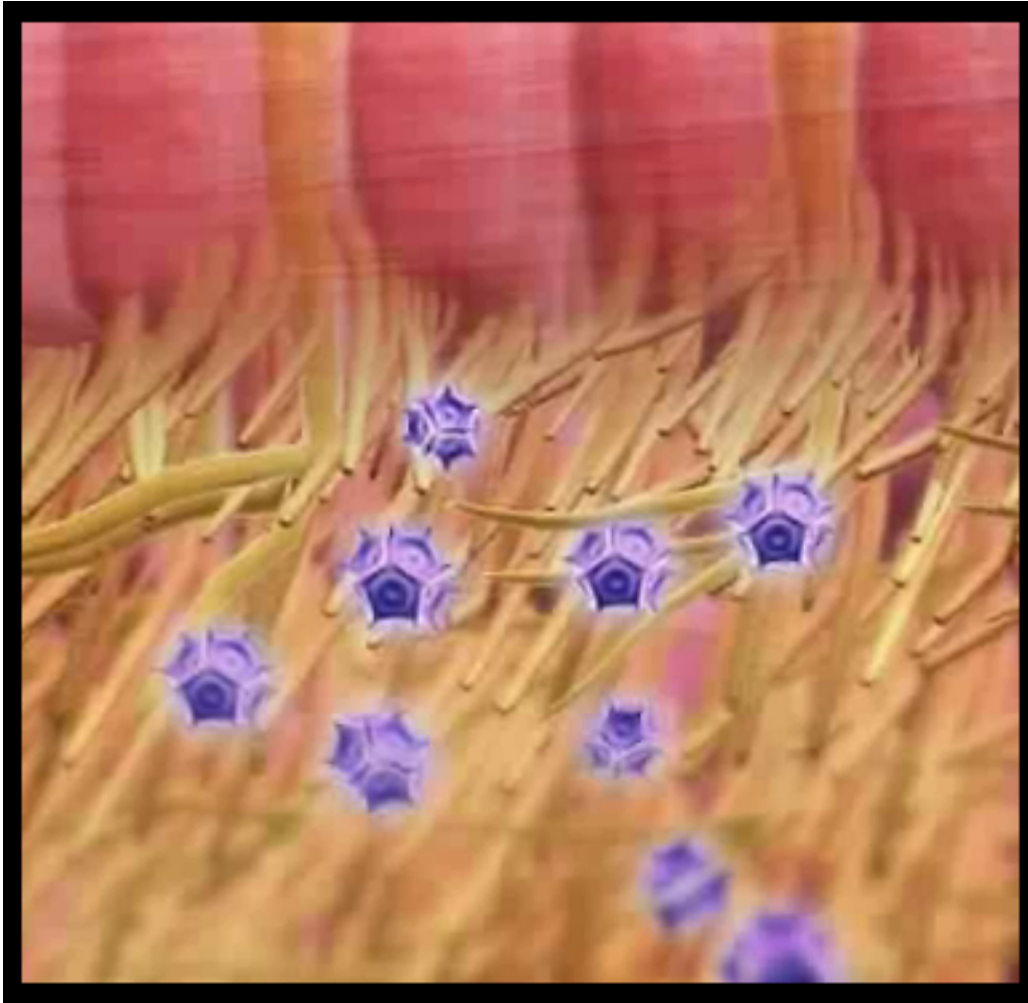
The **ethmoid** is a spongy, cubed bone that gives shape to part of the **roof of the nose**.

The ethmoid has numerous **foramina** (tiny holes), which allow for the passage of **sensory fibers**.

The inside of the nasal cavity is lined with **cilia**.

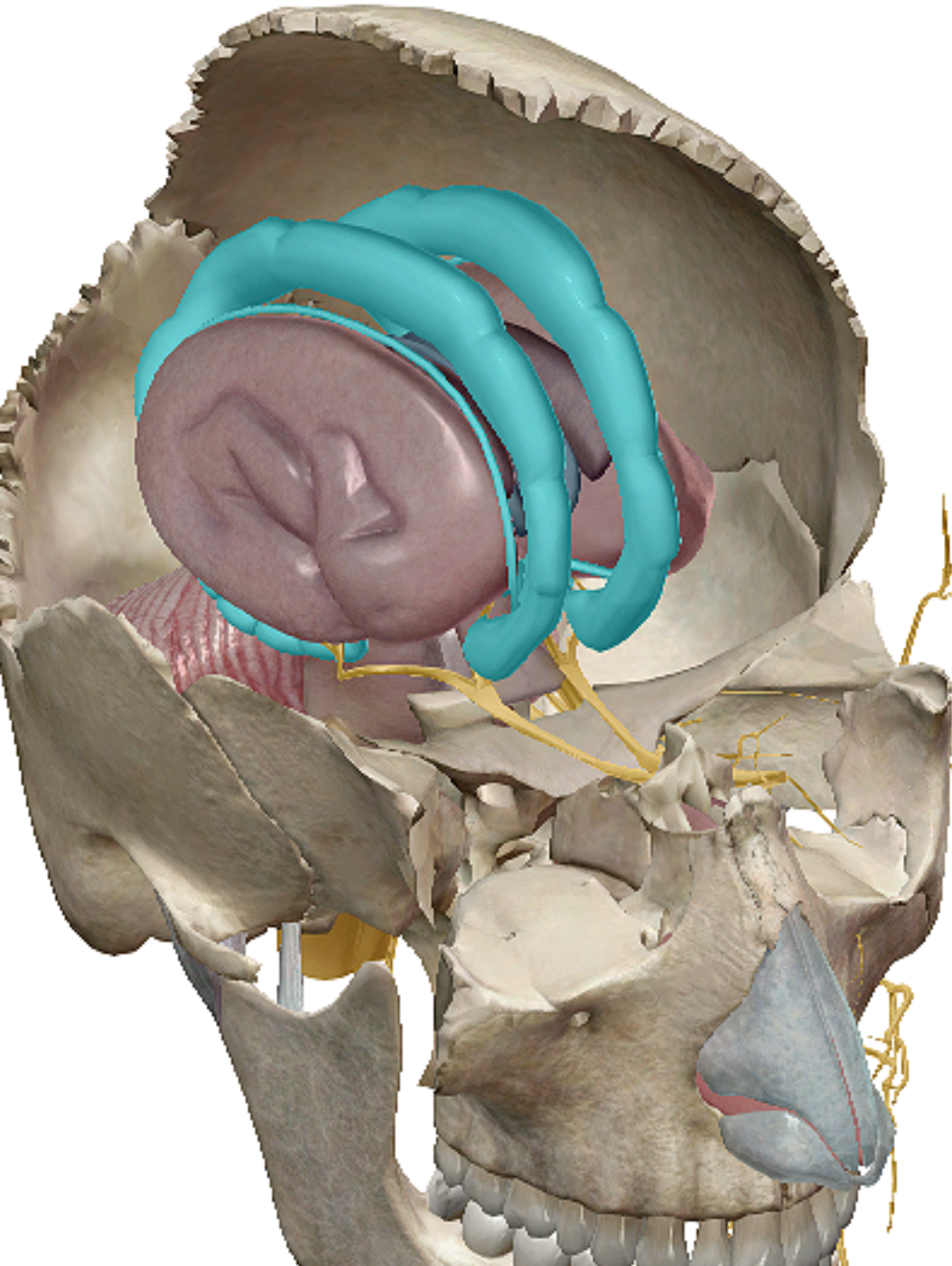
Cilia are tiny, hairlike projections on cell surfaces that move in a wavelike manner.





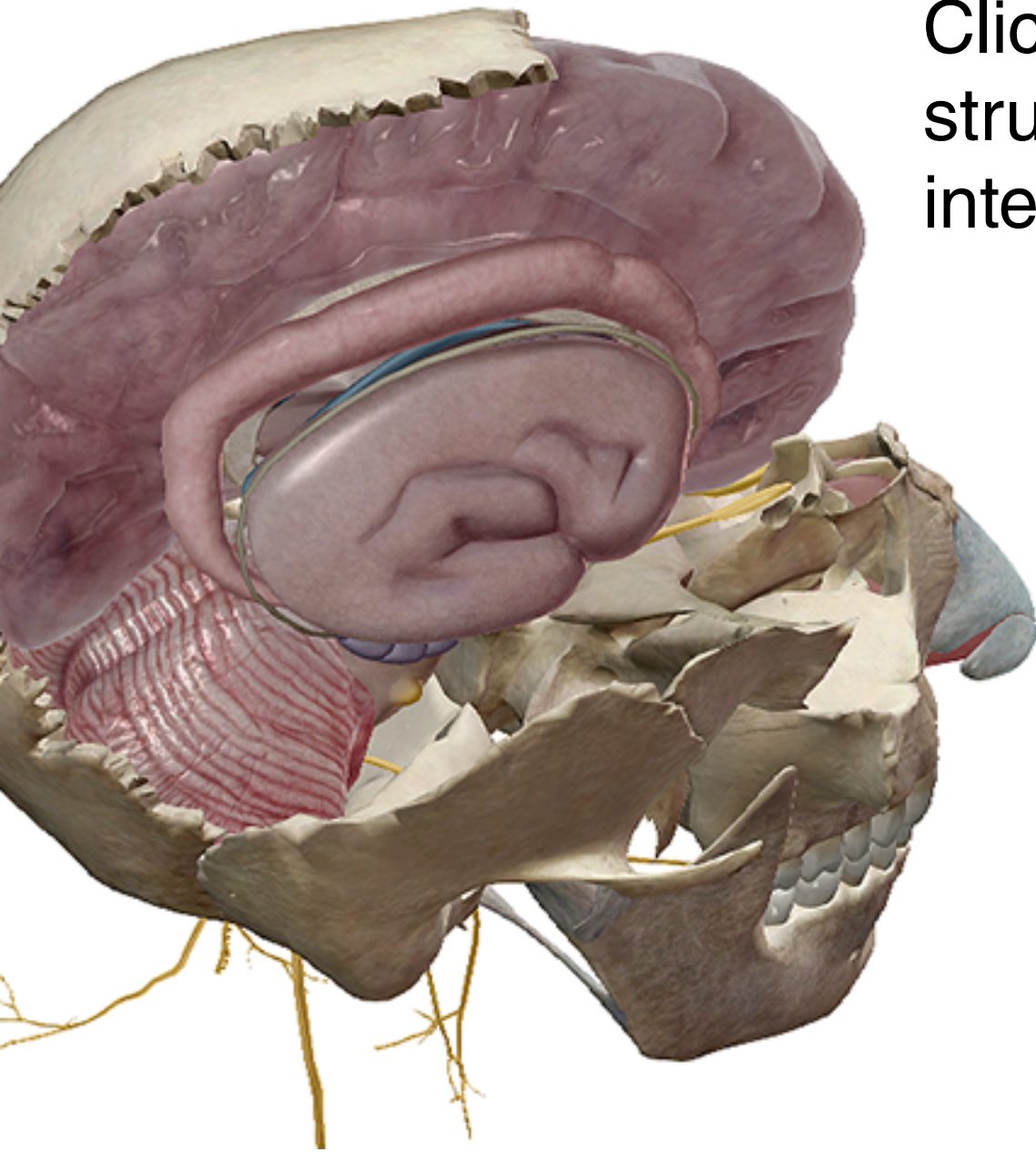
The cilia are part of the **olfactory epithelium.**

Upon inhalation, chemicals in the air bind to the cilia of the epithelium and activate the olfactory receptors.



Olfactory signals travel from the receptors, to the olfactory bulbs, through the tracts to the brain, where the **limbic system** processes and identifies them.

The limbic system manages a wide range of emotions and contributes to the processing of smell and **memory**.

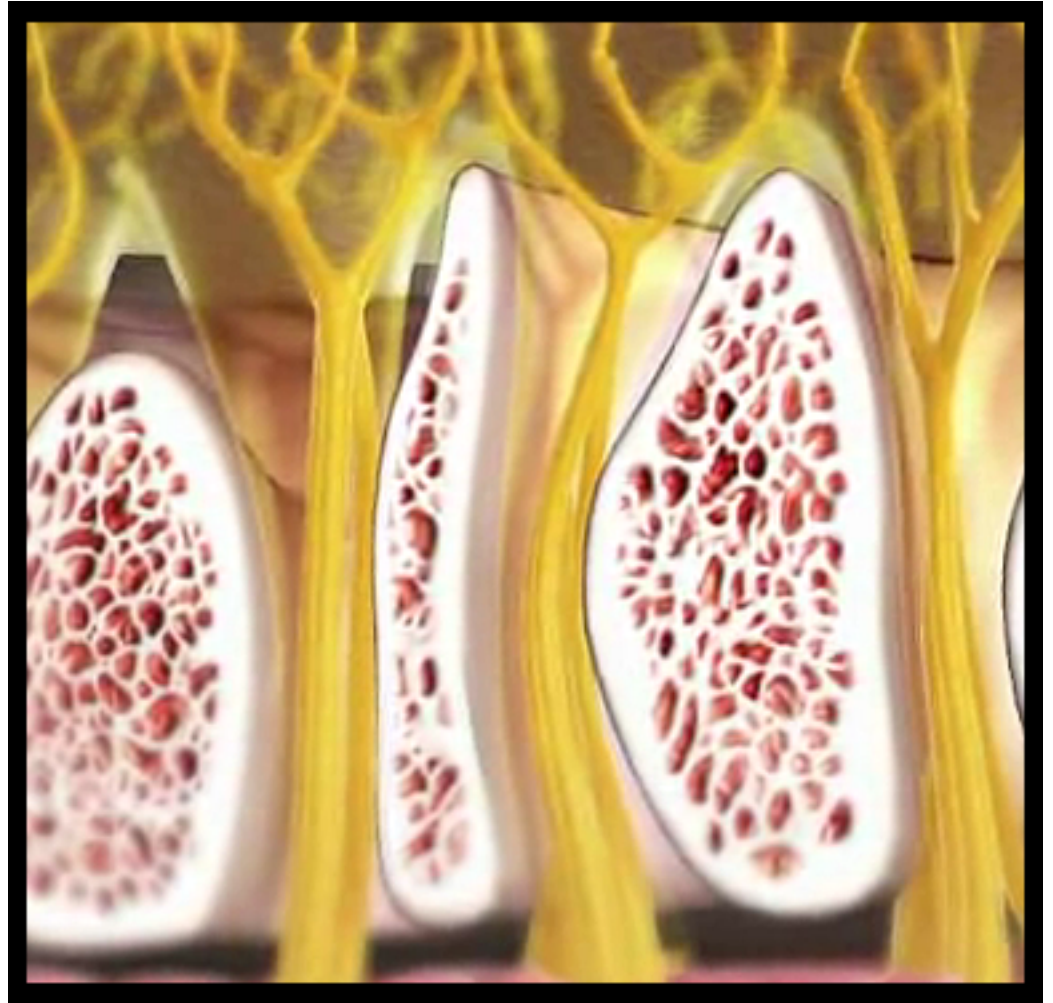


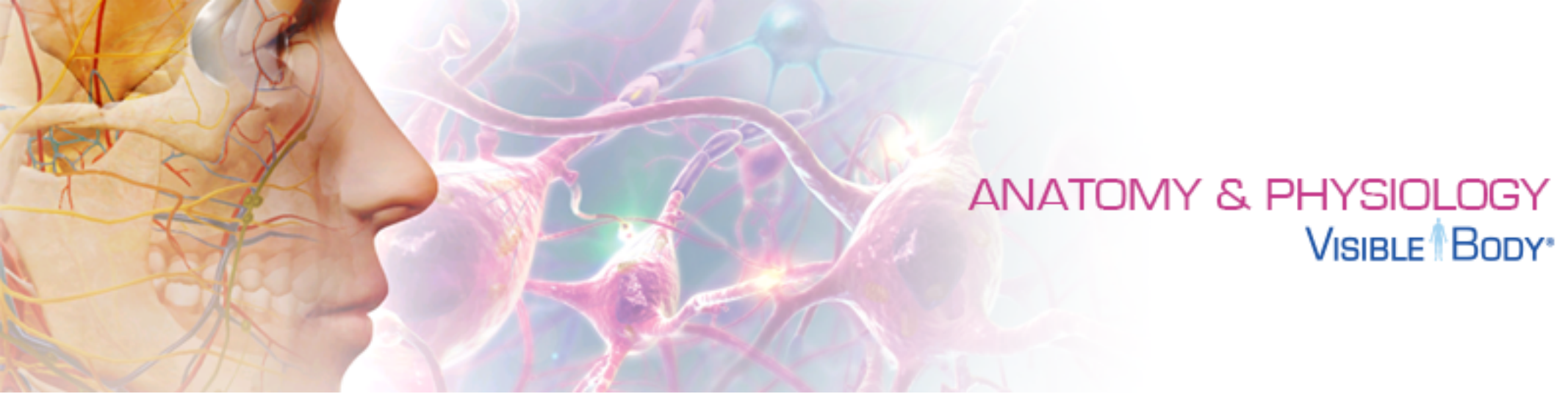
Click [here](#) to review the structures of olfaction in fully interactive, real 3D!

Factoid: Scientists say smell is the most reliable way to jog your memory, because the identification process occurs in the same place memory is stored.

Want to see olfaction
in action? (That rhymed!)

Click [here](#) to watch
a short video.





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