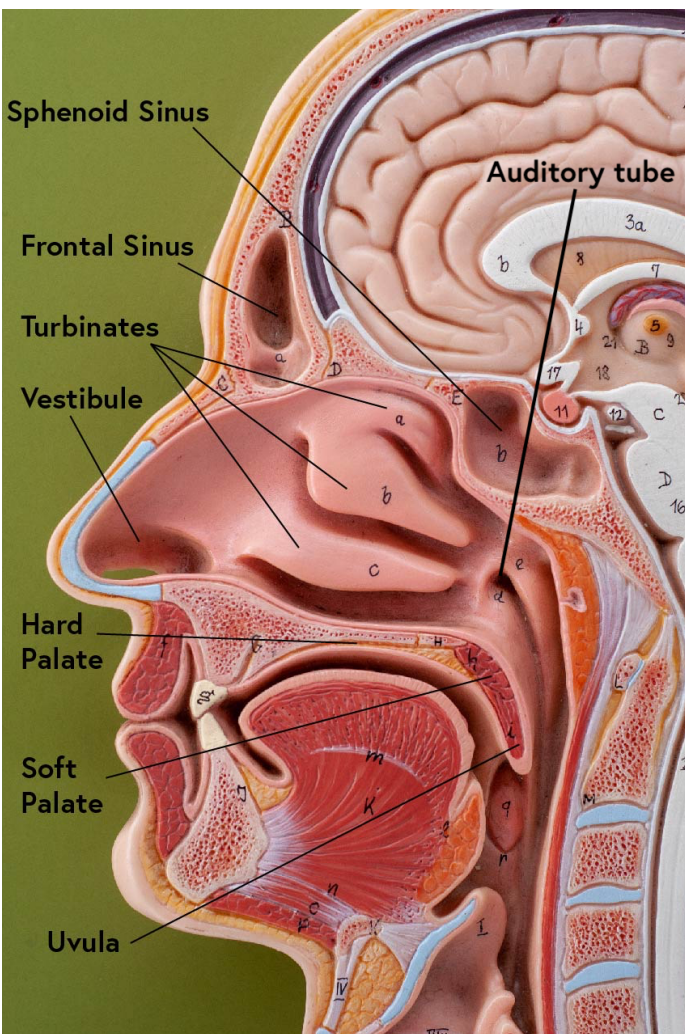


Anatomy of the Nose

The nose extends from the **nostrils** to the **nasopharynx**. It is an organ designed to humidify and warm air as it travels to the nasopharynx and on to the lungs. Airway adjuncts such as a nasopharyngeal airway or a nasotracheal tube can be passed through the nose. It can also act as a conduit for a fiberoptic during nasal intubation.

The shape and size of the nose can determine how easily an anaesthetic face mask fits. For example a prominent profile can cause gas to escape around the side of the nose.



The nose encases two nasal cavities, lined by **mucous membranes**.

Each nasal cavity is divided by three **turbinates**. These are the superior, middle and inferior turbinates

The **sinuses** drain through holes (or ostia) into the nose, between the middle and the inferior turbinate, a reason to keep your scope or tube away from this area and direct it along the floor of the nose.

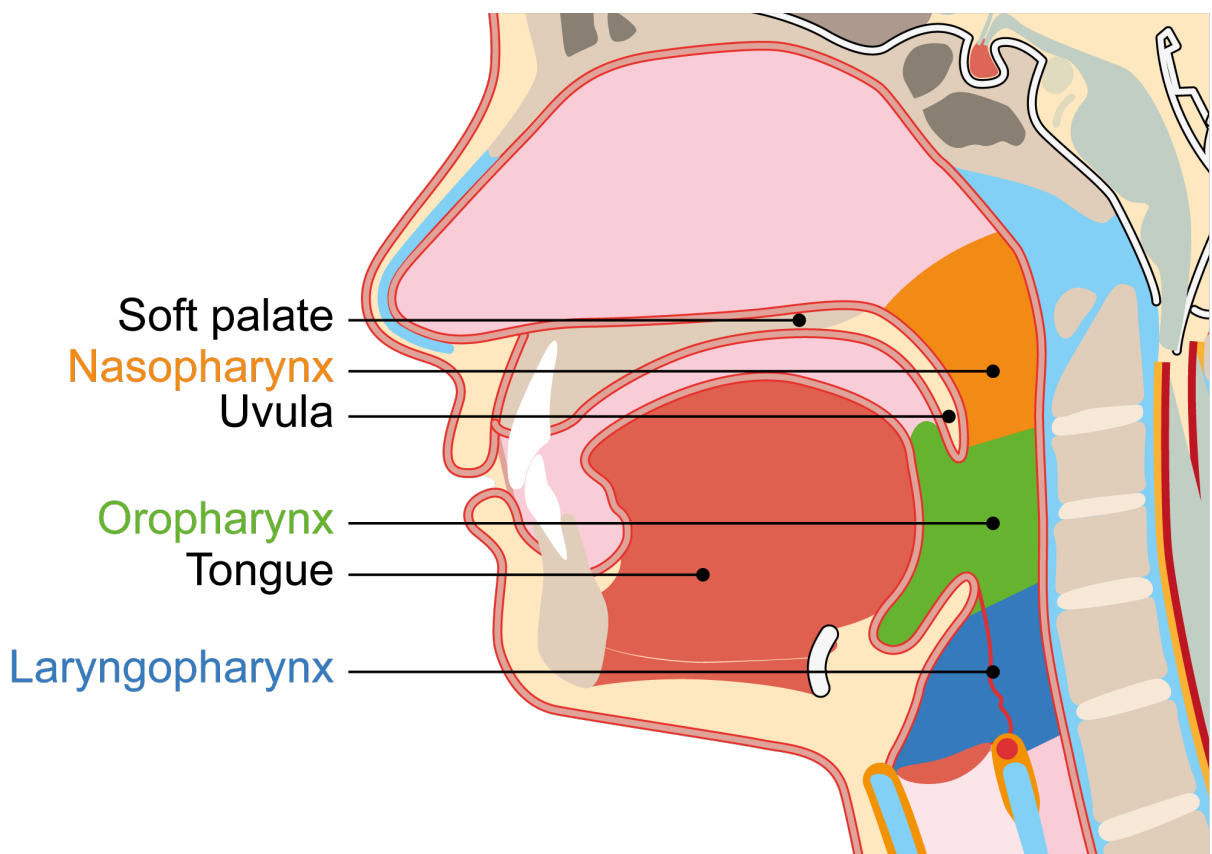
Another important opening includes the **Auditory tube** which connects the middle ear to the nasopharynx. It equalises the pressure in the middle ear with that outside the body.

Sagittal section through the nose

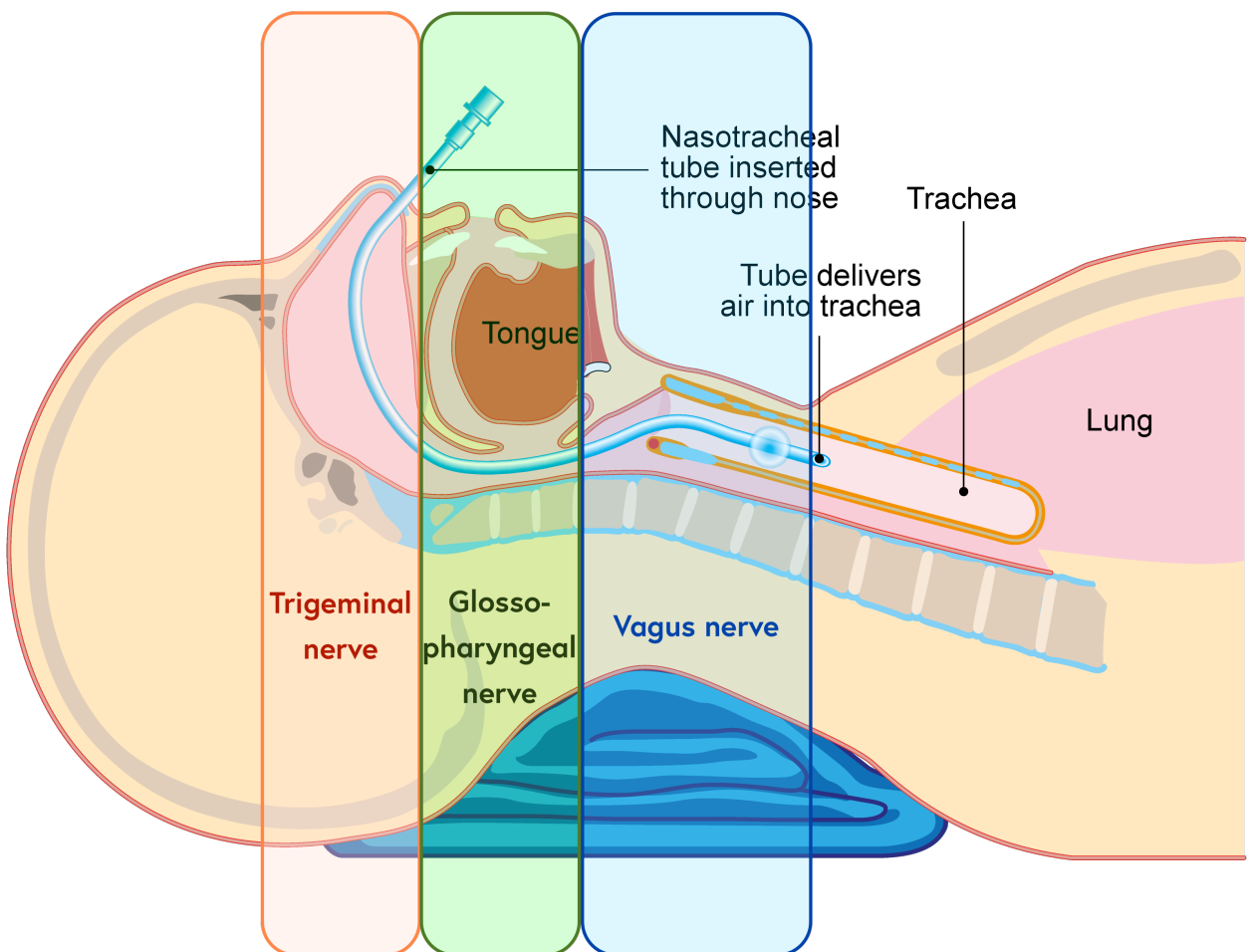
Nerve Supply of the nose and pharynx

In broad terms the nasopharynx is supplied by the Trigeminal nerve, the oropharynx is supplied by the Glossopharyngeal nerve, and the laryngopharynx is supplied by the Vagus nerve.

Due to the complex innervation, the best way to numb the nose is by using topical anaesthesia. Local anaesthetic is administered by spray or gel to facilitate passage of airway equipment.



Nerve Supply of the nose and pharynx



Nasal fibroscopy

The largest space in the nasal cavity is between the inferior turbinate and the floor of the nose, and therefore this is the best route for a fibroscope. The horizontal nature of the turbinate means that success with a fibroscope or airway is best achieved if they are directed straight back along the floor of the nose and not 'up' the nose.



Blindly passing tubes into the nose can cause serious damage. Turbinates have been amputated, bleeding caused (due to the delicate and highly vascular mucosa) and tubes have even been passed into the brain through fractures in the skull base.