NAME : Saif Ud Din

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ASSIGNMENT: ANATOMY

PROGRAM : RADIOLOGY

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**PHARYNX :**

The **pharynx** (plural: **pharynges**) is the part of the [throat](https://en.m.wikipedia.org/wiki/Throat%22%20%5Co%20%22Throat) behind the [mouth](https://en.m.wikipedia.org/wiki/Human_mouth%22%20%5Co%20%22Human%20mouth) and [nasal cavity](https://en.m.wikipedia.org/wiki/Nasal_cavity%22%20%5Co%20%22Nasal%20cavity), and above the [esophagus](https://en.m.wikipedia.org/wiki/Esophagus%22%20%5Co%20%22Esophagus) and [larynx](https://en.m.wikipedia.org/wiki/Larynx%22%20%5Co%20%22Larynx) – the tubes going down to the [stomach](https://en.m.wikipedia.org/wiki/Stomach%22%20%5Co%20%22Stomach) and the [lungs](https://en.m.wikipedia.org/wiki/Lung%22%20%5Co%20%22Lung). It is found in vertebrates and invertebrates, though its structure varies across species.

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| **Details** |
| Partof | [Throat](https://en.m.wikipedia.org/wiki/Throat%22%20%5Co%20%22Throat) |
| **[System](https://en.m.wikipedia.org/wiki/Organ_system%22%20%5Co%20%22Organ%20system)** | [Respiratory system](https://en.m.wikipedia.org/wiki/Respiratory_system%22%20%5Co%20%22Respiratory%20system), [digestive system](https://en.m.wikipedia.org/wiki/Digestive_system%22%20%5Co%20%22Digestive%20system) |
| **[Artery](https://en.m.wikipedia.org/wiki/Artery%22%20%5Co%20%22Artery)** | [pharyngeal branches of ascending pharyngeal artery](https://en.m.wikipedia.org/wiki/Pharyngeal_branches_of_ascending_pharyngeal_artery%22%20%5Co%20%22Pharyngeal%20branches%20of%20ascending%20pharyngeal%20artery), [ascending palatine](https://en.m.wikipedia.org/wiki/Ascending_palatine_artery%22%20%5Co%20%22Ascending%20palatine%20artery), [descending palatine](https://en.m.wikipedia.org/wiki/Descending_palatine_artery%22%20%5Co%20%22Descending%20palatine%20artery), [pharyngeal branches of inferior thyroid](https://en.m.wikipedia.org/wiki/Pharyngeal_branches_of_inferior_thyroid_artery%22%20%5Co%20%22Pharyngeal%20branches%20of%20inferior%20thyroid%20artery) |
| **[Vein](https://en.m.wikipedia.org/wiki/Vein%22%20%5Co%20%22Vein)** | [pharyngeal plexus](https://en.m.wikipedia.org/wiki/Pharyngeal_plexus_%28venous%29%22%20%5Co%20%22Pharyngeal%20plexus%20%28venous%29) |
| **[Nerve](https://en.m.wikipedia.org/wiki/Nerve%22%20%5Co%20%22Nerve)** | [pharyngeal plexus](https://en.m.wikipedia.org/wiki/Pharyngeal_plexus_of_vagus_nerve%22%20%5Co%20%22Pharyngeal%20plexus%20of%20vagus%20nerve), [maxillary nerve](https://en.m.wikipedia.org/wiki/Maxillary_nerve%22%20%5Co%20%22Maxillary%20nerve), [mandibular nerve](https://en.m.wikipedia.org/wiki/Mandibular_nerve%22%20%5Co%20%22Mandibular%20nerve) |

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| ***[Anatomical terminology](https://en.m.wikipedia.org/wiki/Anatomical_terminology%22%20%5Co%20%22Anatomical%20terminology)*** |

In [humans](https://en.m.wikipedia.org/wiki/Human%22%20%5Co%20%22Human), the pharynx is part of the [digestive system](https://en.m.wikipedia.org/wiki/Human_digestive_system%22%20%5Co%20%22Human%20digestive%20system) and the [conducting zone](https://en.m.wikipedia.org/wiki/Conducting_zone%22%20%5Co%20%22Conducting%20zone) of the [respiratory system](https://en.m.wikipedia.org/wiki/Respiratory_system%22%20%5Co%20%22Respiratory%20system). (The conducting zone—which also includes the nostrils of the [nose](https://en.m.wikipedia.org/wiki/Nose%22%20%5Co%20%22Nose), the [larynx](https://en.m.wikipedia.org/wiki/Larynx%22%20%5Co%20%22Larynx), [trachea](https://en.m.wikipedia.org/wiki/Trachea%22%20%5Co%20%22Trachea), [bronchi](https://en.m.wikipedia.org/wiki/Bronchus%22%20%5Co%20%22Bronchus), and [bronchioles](https://en.m.wikipedia.org/wiki/Bronchiole%22%20%5Co%20%22Bronchiole)—filters, warms and moistens air and conducts it into the [lungs](https://en.m.wikipedia.org/wiki/Lung%22%20%5Co%20%22Lung)).[[1]](https://en.m.wikipedia.org/wiki/Pharynx%22%20%5Cl%20%22cite_note-1) The human pharynx is conventionally divided into three sections: the nasopharynx, oropharynx, and laryngopharynx. It is also important in [vocalization](https://en.m.wikipedia.org/wiki/Speech_production%22%20%5Co%20%22Speech%20production).

In humans, two sets of [pharyngeal muscles](https://en.m.wikipedia.org/wiki/Pharyngeal_muscles%22%20%5Co%20%22Pharyngeal%20muscles) form the pharynx and determine the shape of its [lumen](https://en.m.wikipedia.org/wiki/Lumen_%28anatomy%29%22%20%5Co%20%22Lumen%20%28anatomy%29). They are arranged as an inner layer of longitudinal [muscles](https://en.m.wikipedia.org/wiki/Muscle%22%20%5Co%20%22Muscle) and an outer circular layer.

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| ***Pharynx*** |
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**ESOPHAGUS :**

The esophagus is a [fibromuscular](https://en.wiktionary.org/wiki/fibromuscular%22%20%5Co%20%22wiktionary%3Afibromuscular) tube, about 25 cm (10 in) long in adults, which travels behind the [trachea](https://en.m.wikipedia.org/wiki/Trachea%22%20%5Co%20%22Trachea) and [heart](https://en.m.wikipedia.org/wiki/Human_heart%22%20%5Co%20%22Human%20heart), passes through the [diaphragm](https://en.m.wikipedia.org/wiki/Thoracic_diaphragm%22%20%5Co%20%22Thoracic%20diaphragm) and empties into the uppermost region of the [stomach](https://en.m.wikipedia.org/wiki/Stomach%22%20%5Co%20%22Stomach). During swallowing, the [epiglottis](https://en.m.wikipedia.org/wiki/Epiglottis%22%20%5Co%20%22Epiglottis) tilts backwards to prevent food from going down the [larynx](https://en.m.wikipedia.org/wiki/Larynx%22%20%5Co%20%22Larynx) and lungs. The word *oesophagus* is the [Greek word](https://en.m.wikipedia.org/wiki/List_of_Greek_and_Latin_roots_in_English%22%20%5Cl%20%22O%22%20%5Co%20%22List%20of%20Greek%20and%20Latin%20roots%20in%20English)  , meaning "gullet".

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| **Details** |
| **[Precursor](https://en.m.wikipedia.org/wiki/Embryology%22%20%5Co%20%22Embryology)** | [Foregut](https://en.m.wikipedia.org/wiki/Foregut%22%20%5Co%20%22Foregut) |
| **[System](https://en.m.wikipedia.org/wiki/Organ_system%22%20%5Co%20%22Organ%20system)** | Part of the [digestive system](https://en.m.wikipedia.org/wiki/Digestive_system%22%20%5Co%20%22Digestive%20system) |
| **[Artery](https://en.m.wikipedia.org/wiki/Artery%22%20%5Co%20%22Artery)** | [Oesophageal arteries](https://en.m.wikipedia.org/wiki/Oesophageal_arteries%22%20%5Co%20%22Oesophageal%20arteries) |
| **[Vein](https://en.m.wikipedia.org/wiki/Vein%22%20%5Co%20%22Vein)** | [Oesophageal veins](https://en.m.wikipedia.org/wiki/Oesophageal_veins%22%20%5Co%20%22Oesophageal%20veins) |
| **[Nerve](https://en.m.wikipedia.org/wiki/Nerve%22%20%5Co%20%22Nerve)** | [Sympathetic trunk](https://en.m.wikipedia.org/wiki/Sympathetic_trunk%22%20%5Co%20%22Sympathetic%20trunk), [vagus](https://en.m.wikipedia.org/wiki/Vagus%22%20%5Co%20%22Vagus) |

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| ***[Anatomical terminology](https://en.m.wikipedia.org/wiki/Anatomical_terminology%22%20%5Co%20%22Anatomical%20terminology)*** |

The wall of the esophagus from the [lumen](https://en.m.wikipedia.org/wiki/Lumen_%28anatomy%29%22%20%5Co%20%22Lumen%20%28anatomy%29) outwards consists of [mucosa](https://en.m.wikipedia.org/wiki/Mucosa%22%20%5Co%20%22Mucosa), [submucosa](https://en.m.wikipedia.org/wiki/Submucosa%22%20%5Co%20%22Submucosa) (connective tissue), [layers of muscle fibers](https://en.m.wikipedia.org/wiki/Muscular_layer%22%20%5Co%20%22Muscular%20layer) between layers of [fibrous tissue](https://en.m.wikipedia.org/wiki/Fibrous_tissue%22%20%5Co%20%22Fibrous%20tissue), and an outer layer of connective tissue. The mucosa is a [stratified squamous epithelium](https://en.m.wikipedia.org/wiki/Stratified_squamous_epithelium%22%20%5Co%20%22Stratified%20squamous%20epithelium) of around three layers of squamous cells, which contrasts to the [single layer of columnar cells](https://en.m.wikipedia.org/wiki/Simple_columnar_epithelia%22%20%5Co%20%22Simple%20columnar%20epithelia) of the stomach. The transition between these two types of epithelium is visible as a zig-zag line. Most of the muscle is [smooth muscle](https://en.m.wikipedia.org/wiki/Smooth_muscle%22%20%5Co%20%22Smooth%20muscle) although [striated muscle](https://en.m.wikipedia.org/wiki/Striated_muscle%22%20%5Co%20%22Striated%20muscle) predominates in its upper third. It has two muscular rings or [sphincters](https://en.m.wikipedia.org/wiki/Sphincter%22%20%5Co%20%22Sphincter) in its wall, one at the top and one at the bottom. The lower sphincter helps to prevent reflux of acidic stomach content. The esophagus has a rich blood supply and venous drainage. Its smooth muscle is innervated by involuntary nerves ([sympathetic nerves](https://en.m.wikipedia.org/wiki/Sympathetic_nerve%22%20%5Co%20%22Sympathetic%20nerve) via the [sympathetic trunk](https://en.m.wikipedia.org/wiki/Sympathetic_trunk%22%20%5Co%20%22Sympathetic%20trunk) and [parasympathetic nerves](https://en.m.wikipedia.org/wiki/Parasympathetic_nerve%22%20%5Co%20%22Parasympathetic%20nerve) via the [vagus nerve](https://en.m.wikipedia.org/wiki/Vagus_nerve%22%20%5Co%20%22Vagus%20nerve)) and in addition voluntary nerves ([lower motor neurons](https://en.m.wikipedia.org/wiki/Lower_motor_neurons%22%20%5Co%20%22Lower%20motor%20neurons)) which are carried in the vagus nerve to innervate its striated muscle.

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| ***Esophagus*** |
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 Thank You .....