

Oral Cavity, Tongue, Pharynx and Esophagus

PLATE 51

Figure 1 Right lateral view of a sagittal section of a dog's head.

Figure 2. Dorsal view of the tongue and dissected laryngopharynx, trachea and esophagus.

Figure 3. A puppy's tongue.

Color each label in a different color and, where appropriate, color the structure indicated.

The **pharynx** is a musculomembranous chamber common to the digestive and respiratory tracts. Its three parts are: 1) **Oropharynx** – ventral to the soft palate, 2) **nasopharynx** – dorsal to the soft palate, extending caudad from the choanae (exits from the nasal fossa on each side), 3) **laryngopharynx** - dorsal to the larynx and leading into the **esophagus**.

During swallowing, muscles raise the **tongue**, pressing food and water against the **hard palate**. The **soft palate** is elevated. The root of the tongue moves caudad and dorsal in a boltlike manner, pushing the **epiglottis** partially over the **laryngeal entrance**. The rima glottidis (space between the vocal folds) in the larynx is narrowed. Pressure by pharyngeal muscles forces food or water into the esophagus where automatic contractions carry food through to the stomach.

Color the dashed line indicating the movement of food or water.

During breathing, the free edge of the soft palate is usually (but not always) under the

epiglottis, and the laryngeal entrance is open (See Plate 67).

Within the apex of the tongue, the rodlike **lyssa** consists of adipose tissue, skeletal muscle and some cartilage. In olden times, the lyssa was thought to be the cause of rabies, and it was sometimes removed to cure the disease. What a place for one's hands! Lyssa is also a synonym for rabies.

Vallate, foliate and **fungiform papillae** contain taste buds, a complex of gustatory (taste) cells, supporting cells and nerve endings.

Conical, filiform and **marginal papillae** do not contain taste buds.

Marginal papillae on a neonatal (newborn) puppy's tongue assist in suckling. As the diet changes from milk to solid food, marginal papillae regress until they no longer exist.

Figure 1

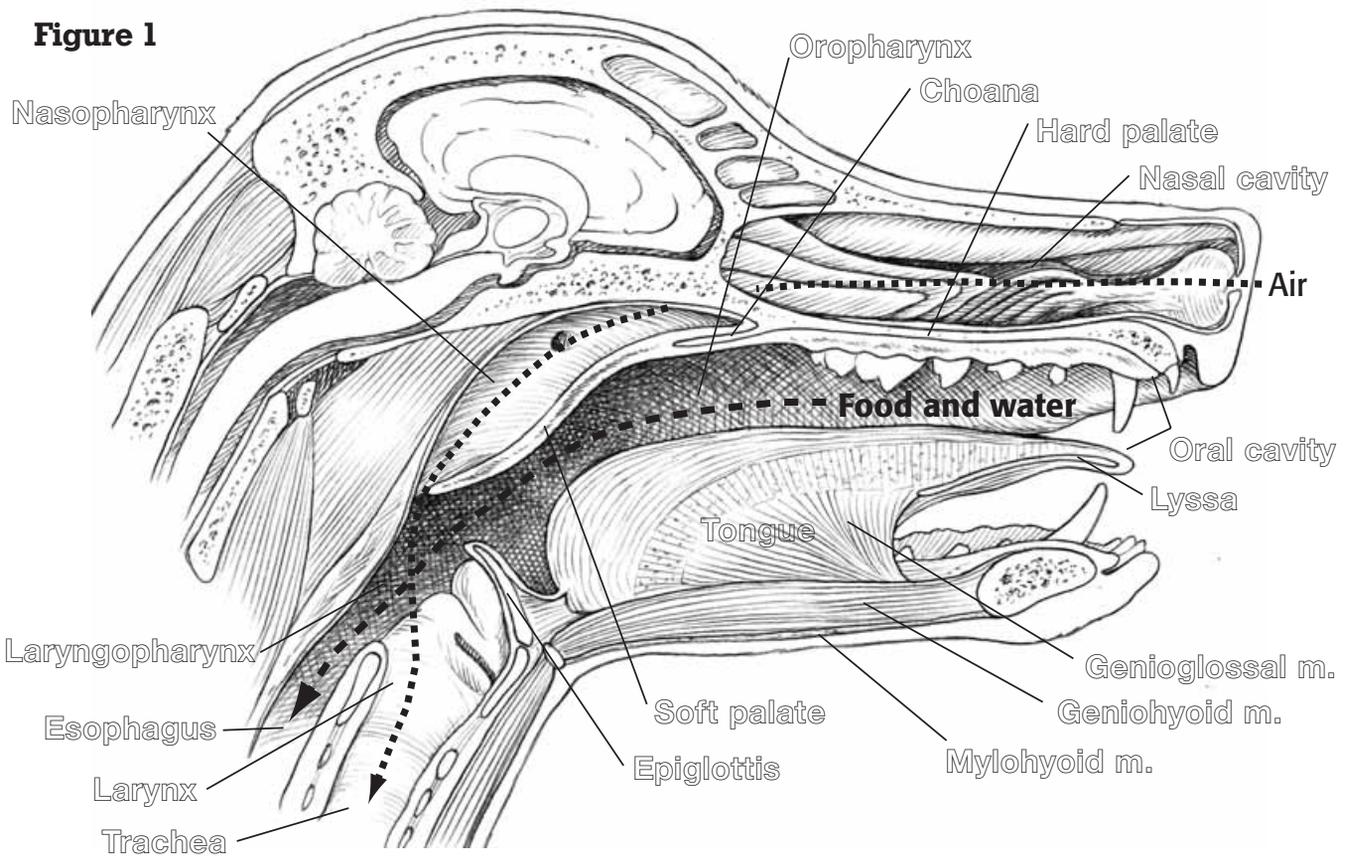


Figure 2

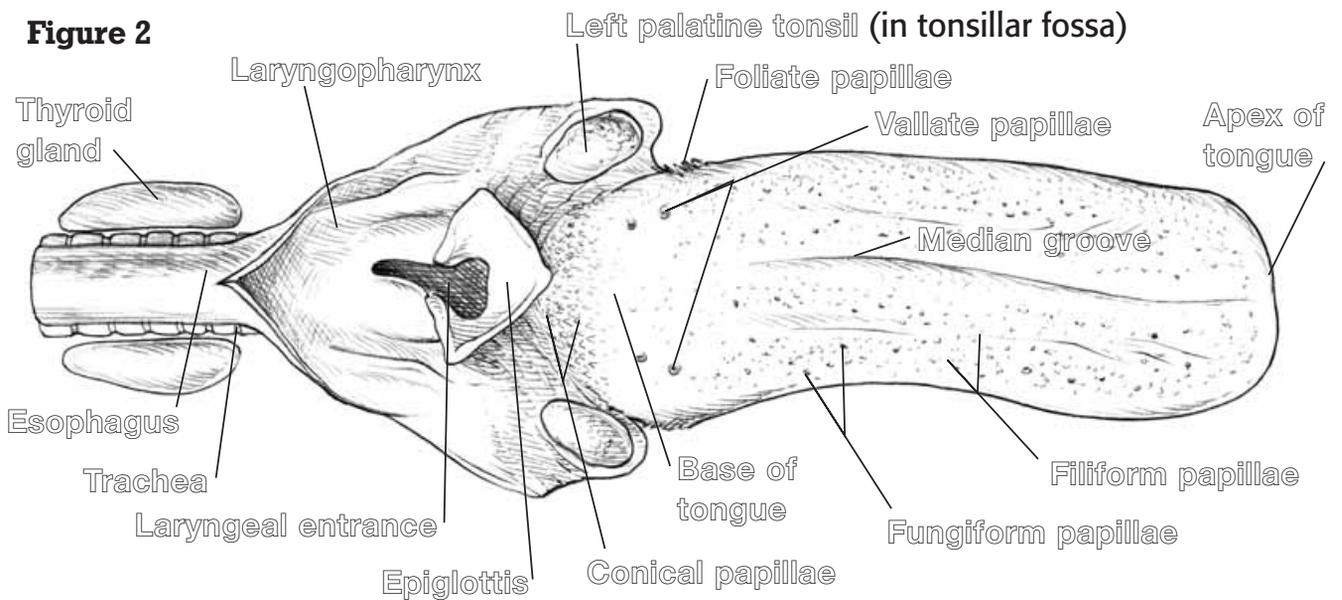


Figure 3

