



Saliva: Its Discharge, Organization, and Capacities

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Introduction

The salivary glands play an important role in our body by the virtue of its ability to secrete saliva. Saliva has a role to play in maintaining the health of the oral cavity and for carrying out physiological functions like mastication, taste perception, speech etc. It also acts as a mirror to the systemic status of an individual owing to its ability to act as a diagnostic fluid for detecting a number of conditions and diseases. Saliva is a potential noninvasive diagnostic fluid for detection of a number of biomarkers of disease and health. Advancement in diagnostic methods has helped in identifying biomarkers of disease in saliva. In order to understand and diagnose pathological changes, a thorough understanding of the salivary gland anatomy, physiology and regulation of its secretion is warranted. This chapter aims to provide the basic understanding of the secretions of saliva.

Salivary glands are organs which synthesize and secrete their

secretions over an epithelial surface via a hollow channel. These glands are present in and around the oral cavity and its secretions play an important role in the physiological processes of the oral cavity

The salivary glands can be classified as major and minor salivary glands. The major salivary glands, located outside the oral cavity include the parotid salivary gland, submandibular/sub maxillary salivary gland and sublingual salivary gland. The minor salivary glands are classified based on their location in the oral cavity as labial/buckle glands, gloss palatine glands, palatine glands, lingual glands which are further classified as anterior lingual and posterior lingual glands. The following diagram shows the anatomical location of major and minor salivary glands. The salivary glands consist of a secretory part and ducts.

The salivary glands are made of secretory units called acini, which are made up of acinar cells which could be serous or mucous. The serous cells are pyramidal or triangular in shape while the mucous cells are columnar in shape. The serous cells are occasionally seen capped by structures called demilunes. The acini cells are surrounded by contractile cells called as myo epithelial cells/basket cells, which are responsible for the flow of secretions of saliva by contraction of the cell. The acini of salivary glands are connected to hollow tubular structures which are called salivary ducts.

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