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Subject oral histology.

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i) What are the functions of Saliva?

Ans:- Function of Saliva:-

Saliva Contributes to the digestion of food and to the maintenance of oral hygiene. Without normal salivary function the frequency of dental caries gum disease (gingivitis and periodontitis) and other oral problems increases significantly

Lubricants:-

Saliva Coats the oral mucosa mechanically protecting it from truma during eating swallowing and speaking. Mouth soreness is very common in people with reduced saliva (xerostomia) and food (especially dry food) sticks to the inside of the mouth.

Digestion:-

The digestive functions of saliva include mistening food and helping to create a food bolus the lubricative

Function of saliva allows the food bolus to be passed easily from the mouth into the esophagus Saliva Contains the enzyme amylase also called ptyalin, which is Capable of breaking down Strach in to ~~Simi~~ simpler Suguars Such as maltose and dextrin that can be further broken down in the Small intestine about 30% of starch digestion takes place in the mouth cavity. Salivary glands also Secrete Salivary lipase (a more Potent from of Lipase) to begin fat digestion Salivary Lipase plays a large role in fat digestion in new born infants as their pancreatic lipase Still needs Some time to develops.

Role in taste:-

Saliva is very Important in the Sense of teste. it is the liquid medium in which chemicals are carried to teste receptor cells (mostly associated with lingual papillae) person with little Saliva often Complain of dysgeusia i-e disorderd taset. e.g reduced ability to taste.

or having a bad metallic taste at all times) A rare condition identified to effect taste is that of Saliva Hypernatrium (or Syndrome) Causing every thing to taste salty.

Other

- Saliva maintains the pH of the mouth, Saliva is supersaturated with various ions Certain Salivary proteins prevent perciptation, which would form Salts. These ions act as a buffer keeping the acidity of the mouth within a certain range, typically pH 6.2-7.2 This prevents minerals in the dental hard tissues from dissolving.

- Saliva Secretes Carbonic anhydrase (gustin) which is thought to play a role in the development of taste buds.

- Saliva Contains EGF. EGF results in Cellular proliferation, differentiation and Survival. EGF is a low-molecular weight polypeptide first purified from the mouse Submandibular glands, but Since then found in many human tissues including Submandibular glands Salivary EGF which Seems also regulated by dietary inorganic Iodine. also it plays an Important physiological role in the manterance of oro-esophageal and gastric tissue integrity. the biological effects of Salivary EGF include healing of oral and gastroesophageal ulcers Inhibition of gastric acid Secreation Stimulation of DNA Synthesis as well a mucosal protection from Intraluminal injurious factors Such as gastric acid bile acids, pepsin and trypsin and to physical, chemical and bacterial agents.

Q2 a) Define Temporomandibular joint

TMJ :- are the two joint Connecting the jaw bone to the Sucll. it is a bilateral Synovial articulation between the temporal bone of the Sucll skull above and mandibular below. it is from these bone that its name is derived This joint is unique in that it is a balateral joint that function as one unit Since the TMJ is Connected to the mandible the right and left joints must function togather and therefore are not Independent of each other.

B) why TMJ is unique?

= This joint is unique in that it is a bilateral joint that function as one unit. Since the TMJ is Connected to the mandible, the right and left joints must function togather and therefore are not Independent of each other.

D) what is the resting position of TMJ

Resting position of TMJ :-

- Condyle lies in mandibular fossa
- Lip are closed
- Teeth are separated with slight space.

C) Enumerate the nerves and vessels supplying to it.

Nerve Supply

- Auriculo temporal Nerve.
- Masseteric nerve

Blood Supply.

- Maxillary artery
- Superficial temporal artry

Q3(a) Enumerate three major Salivary glands.

① Parotid glands

② Submandibular glands.

③ Sublingual Glands.

① Parotid glands. The parotid glands are the largest ~~glan~~ Salivary glands

② Submandibular glands: The Submandibular glands ~~bel~~ are located below the jaw.

③ Sublingual glands.

Q 3(b) What are Myoepithelial cells?

Myoepithelial cells:-

- Present in relation to alveali and Intercalated ducts of Salivary glands

- On alveoli, these are fusiform and run longitudinally.
- Cilia are present on some
- These are Contractile
- Contractions help to Squeeze out Secretion from alveoli

Q3(b) Define eruption. Explain in detail about the phases of Eruption.

Eruption:-

Eruption is defined as a process whereby the forming tooth migrates from its intraosseous location in the jaw to its functional position within the oral cavity.

it is Categorized into three phases.

phase 1 - The pre-eruptive phase
phase 2 - The eruptive phase
phase 3 - The post-eruptive phase.

phase 1:-

This phase begins in the early bell stage and ends at the beginning of root formation.

made by the decidous and permanent tooth germs within tissuse of the jaw before they begin to erupt

phase 2:-

it begins by root information and ends when the tooth reaches the occlusal plan

made by a tooth to move from its position within the bone of the jaw to its functional position in occlusion

phase 3:-

it begins after the tooth has reached its functional position in the occlusal plane continues through the whole life of the tooth

its movement divided into three Categories.

(1) Accommodation for growth.

(2) Compensation for occlusal wear.

(3) Accmmodation for interproximal wear.