 icity:is the relation between the osmotic pressure of fluid in composition to osmotic pressures of plasme are three types of tonicity; I. Isotonic – the fluid osmotic pressure and the plasma osmotic pressure are the same. 2. Hypotonic – the fluid osmotic pressure is less than the plasma osmotic pressure. 3. Hypertonic – the fluid osmotic pressure is more than the plasma osmotic pressure. I of saliva is important for enzymes function ary glands=6glands(3 pairs) otid maxillary 	sma	· · · · · · · · · · · · · · · · · · ·	
 re are three types of tonicity: I. Isotonic - the fluid osmotic pressure and the plasma osmotic pressure are the same. 2. Hypotonic - the fluid osmotic pressure is less than the plasma osmotic pressure. 3. Hypertonic - the fluid osmotic pressure is more than the plasma osmotic pressure. 	· · · · · ·	• •
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ary glands=6glands(3 pairs) otid maxillary			•
otid maxillary			
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lingual	• • • •		• •
her glands scattered in the mucosa such as Ebner's Glands which is located in the dorsum of the tong	gue(secret, sal	iva, and	•
stive enzymes)	• • • •	• • • •	•
tid		• • • •	•
ve supply; sympathetic and parasympathetic, but parasympathetic is responsible for stimulation of sa	alivary produ	ction	•
ssopharyngeal)			
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et glycoprotein mucin when you dissolve in water give mucus		• • • •	•
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iposition of saliva		Sli	de5
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o solid			•
) organic: as enzymes(amylase,lipase,lyzozymes(which act as antibacterial),immuno-globulin a(as a de	fense in saliva	a)	•
ers A buffer is a solution that resists changes in pH when small amounts of acid or base are added. Bu	 uffers help m:	aintain a st	able
to keep the ph between (6.8-7) optimum pH for digestive enzymes			
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line enzyme is inhibited in the stomach, only function in buccal & saliva	• • • •	· · · Sho	166
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ual lipase digest lipids convert the trigivcerides into (givcerol +3 fatty acids)	• • • •	• • • •	•
ase of absence of saliva——>no test sensation	• • • •	• • • •	•
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t consists of:lumen &lining cells		Slide	e7
osterone is secreted by the adrenal glands in circulation then to the duct of salivary gland	• • • •		
ve reabsorption of Na+,cl-,Hco3-,water(enter cells which line the duct)	• • • •		•
ve secretion of K+	• • • •	• • • •	•
retion: from the lining cells to the lumen	• • • •	••••	•
terom rom the mind cent to the function			•
asympathetic stimulation—> stimulate saliva production—> oxvgen consumption(because of its activ	ve process)		
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Our body systems ar	e controlled by 2	main mechan	işms;che	mical,ne	rvous			• •	•		•						
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Nervous regulation : Unconditioned:does conditioned:acquired Esopha Outer longitudinal	Unconditioned,co n't require special d,need previous le agus Inner circular	onditioned l circumstance earning Upper portion	Esop	hagus	Lower			All en reg inv (C lik in	ocal teric gulat rolvin NS) S)	enter nerves dig ng the Thes ristals gastro	ric ref ous sy sestive e cent se refluis, second intest	lex is funo ral no reticinal (a refl (ENS tions ervous contro n, and (GI) t	ex w 3) th with s sys bl ac d blo ract	vithin at nout tiviti bod f	n the	
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In the esophagus at primary peristaltic waves(it travels at the rate of 2 to 4 centimeter per second, the length of the esophagus is 25 cm, so it will take from 10 to 12 second in the esophagus , but gravity may increase velocity of food bolts)

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	Esophagus	
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	Outer	
	longitudinal circular	
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	Contraction relaxation contraction relaxation (below) (above) (below)	• • • •
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Relaxation of th	te lower esophageal sphincter occur due to the effect of VIP(vasoactive intestinal peptide/&INO(nitric oxide	
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