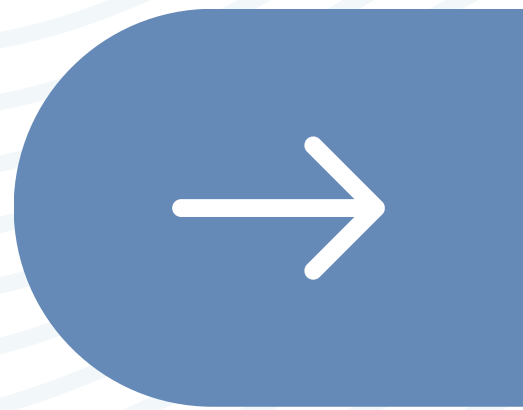


# #DIBS BY NEXTILLO

DAILY INFORMATION BULLETIN SERVICE

**EXOCRINE GLANDS**





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## EXOCRINE GLANDS

*Two principal types of glands exist: exocrine and endocrine. The key difference between the two types is that, whereas exocrine glands secrete substances into a ductal system to an epithelial surface, endocrine glands secrete products directly into the bloodstream .*



# DEVELOPMENT OF EXOCRINE GLAND

- ***The initial manifestation of exocrine gland formation is epithelial budding resulting from a complex interaction between mesenchymal and epithelial cell populations.***
- ***This initial period of ingrowth is influenced by fibroblast growth factors, most notably FGF10 and cadherin-2.***
- ***Other transcription factors that have been shown to contribute to epithelial budding include HlxB9, Isl1, LEF-1, Msx1/2, Pbx1, Pdx1, and Tbx3.***
- ***A large role exists for cell adhesion molecules such as laminin and cadherins.***



# EXOCRINE GLANDS AT CELLULAR LEVEL

- ***Exocrine glands are comprised of an acinus and a duct with different cell types, respectively.***
- ***Typical cell types within the acinus include serous, mucinous, or sebaceous.***
- ***Serous cells secrete an isotonic fluid that contains proteins such as enzymes.***
- ***Mucinous glands secrete mucus, a typical example being Brunner glands in the duodenum.***



# DEFECTS IN EXOCRINE GLANDS

- ***Sjögren's syndrome- an autoimmune disorder that demonstrates decreased lacrimal and salivary gland function.***
- ***Cystic fibrosis- a mutation of the CFTR protein, CFTR is involved in the production of sweat, mucus, and digestive fluids, the mutation causes a direct effect.***
- ***Acne vulgaris- disorder affects the pilosebaceous unit, of which sebaceous glands.***



# MCQ

## **QUESTION**

***Meconium ileus is associated with:***

- ***A: Cystic fibrosis***
- ***B: Infant of diabetic mother***
- ***C: Hypothyroidism***
- ***D: None of the above***
- ***ANS-A***