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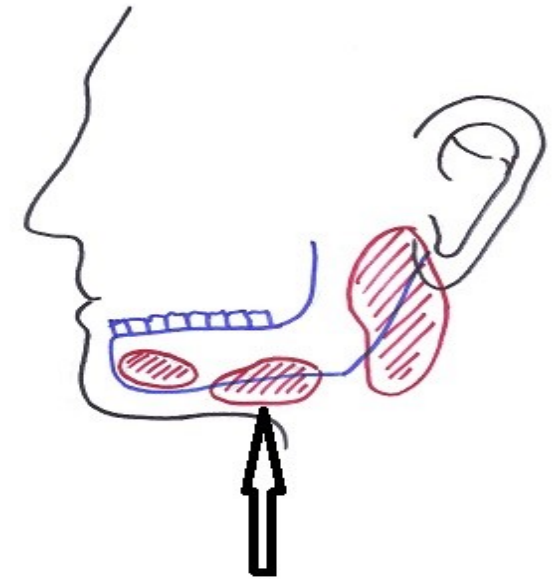
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**SALIVARY  
MUCIN**

**Spring 2015**

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## What is Mucin ?

Mucin is a glycoprotein in two different molecular weight forms, each form serving separate purposes. The lower form has the most aggregating power. Mucin is a major component of saliva. It is secreted through the submandibular, sublingual, and minor salivary glands. The composition of saliva changes throughout the day. It has varying factors such as the situation and systemic conditions.

## Benefits of salivary mucin

Salivary mucin has been proven to be a part of the oral cavity's defense mechanism. Its low molecular weight form has aggregating properties, which is exercised in several different manners.

- ◆ Lubrication– acts as a lubrication to aid in chewing and swallowing. Coats the hard and soft tissue for protection.
- ◆ Caries prevention– selective disposal and proliferation of microflora in the oral cavity.
- ◆ HIV-1 aggregation– lower molecular weight form of Mucin has been shown to decrease infectious units by up to 75%. It plays a significant role in the ineffectivity of HIV-1 in the oral cavity.

## Factors inhibiting mucin

- ◆ Medication– the most common cause of decreased salivary secretions. A wide array of medications may have an affect, including antihistamines and antidepressants.
- ◆ Tobacco use– smokeless tobacco contributes to degenerative changes in saliva.
- ◆ Blockage of ducts– sialolithiasis is a condition in which a calcified mass forms in the salivary duct. It is most common in the Wharton's duct of the submandibular gland.
- ◆ Radiation– Excessive exposure to head and neck radiation can alter the state of the saliva.
- ◆ Listerine– The alcohol will further irritate sensitive mucosa.
- ◆ Sjogren's disease– chronic autoimmune disease in which a patient's white blood cells attack their moisture producing cells. It is one of the most prevalent, and often overlooked, diseases. It can take up to 4 years to diagnose Sjogren's.

## Restoring balance

- ◆ Sugar free chewing gum– gum is a salivary stimulator. Sugar free gum specifically, has been proven to significantly lower caries, and double remineralization cases.
- ◆ Lemon juice– lemon juice is a natural way to stimulate salivary production.
- ◆ Artificial saliva– xylitol and caphosol.



## Our role as dental hygienists

As dental hygienists it is our job to identify complications before they become irreversible or detrimental to health. It is important for us to be knowledgeable of the risk factors and indices of a possible complication concerning saliva secretion. We must recommend the proper interventions based on the patient's individual need. Some important considerations include:

- ◆ Thorough intra oral examinations to check the flow of saliva through all through major ducts.
- ◆ The use of 2% NaF. Its neutral and wont cause further damage. It can compensate for the loss of mucin by strengthening the enamel, and help protect the teeth from cavities.
- ◆ Advising the use of products like xylitol and caphosol.
- ◆ Advising the use of oral rinses that do not contain alcohol, which can slough the already dried mucosa.