

# Free causes of xerostomia essay sample

[Health & Medicine](#), [Drugs](#)



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## **Xerostomia**

### **Xerostomia**

Xerostomia is a medical term used to describe the dryness of the mouth resulting from thickening of saliva, reduction in the usual volume of the saliva or complete absence of saliva flow. Xerostomia results in discomfort and persistence of this condition can lead to many oral diseases including dental caries and periodontal disease. It is associated but is not restricted to the hypofunction of the salivary glands. Some medications are also responsible for the reduction of saliva flow or thickening of the saliva leading to Xerostomia.

### **Impact of Xerostomia to patients**

The greatest impact of Xerostomia on patients is the feeling of a dry mouth. This is an uncomfortable feeling that results in the tongue sticking to the palate. This in turn leads to partial speech impairment in the patients suffering from Xerostomia. Another effect of Xerostomia is difficulty in

swallowing food. People suffering from Xerostomia also have a difficulty in mastication of food. This usually leads to choking and throat complications. In addition to this, mastication also affects the sensation of taste. A condition known as dysgeusia, characterized by a metallic taste in the mouth, is an impact of Xerostomia. Xerostomia reduces the amount of saliva, which has antimicrobial properties. This leads to the predisposition of the oral cavity of the patient to bacterial and fungal infections including oral candidiasis. The saliva also possesses anticariogenic properties essential in the prevention of dental caries. Without the presence of adequate saliva, the progression of the dental caries is more rapid than it would be in a normal person.

In addition to the dental caries, severe reduction in saliva volume is also responsible for infection of the salivary glands, especially the parotid gland. The reduced flow of the saliva allows the bacteria to get into the salivary ducts leading to infection. In healthy people, the continuous flow of saliva prevents the bacteria from entering the salivary duct because the saliva flow sweeps them away.

Patients suffering from Xerostomia suffer from excessive thirst leading to increased intake of fluids. The dryness of the mouth manifests through the cracking of lips, splitting of the corners of the mouth and soreness of the oral mucosal lining and the tongue. The dryness of the mouth together with the thickness of the mucus also contributes to halitosis and rapid buildup of plaque. Halitosis is a term used to refer to bad breath. It leads to emotional problems like the loss of confidence and depression.

Xerostomia commonly affects the elderly people more than the younger population. However, most of the cases result as a reaction to medication.

Many drugs prescribed for common ailments cause Xerostomia as a side effect. This form of Xerostomia is pharmacologically induced Xerostomia. Over 400 pharmacological agents cause Xerostomia. Taking multiple drugs from this group in combination as part of drug therapy for a particular medical condition, it increases the chances and severity of pharmacologically induced Xerostomia. The common groups of drugs that induce Xerostomia include antipsychotics, antihistamines, tricyclic antidepressants, atropinics, anti-epileptics, antimuscarinics, diuretics and beta-blockers. Morphine also causes Xerostomia.

The second cause of Xerostomia is some medical therapy procedures. This includes medical procedures that involve chemotherapy and radiotherapy. Carrying out of these procedures on the head and neck region increases the probability of damaging the salivary gland leading to Xerostomia. The damage to the salivary glands may be temporary or permanent. It may also be partial or complete depending on the intensity of the radiation used. Irradiation of the neck region compromises the working of the salivary glands leading to the reduction or cessation in the flow of saliva.

Another cause of Xerostomia is medical conditions. These include the Sjögren's syndrome and diabetes. Sjögren's syndrome is an autoimmune inflammatory disorder of the salivary glands and the tear glands. Enlarged or swollen parotid glands and Xerostomia characterize Sjögren's syndrome. Other common diseases that induce fever like the common cold are also responsible for mild temporary cases of Xerostomia. These diseases cause dehydration through the increased fluid loss. When the disorder causing the Xerostomia heals, the symptoms of Xerostomia diminish. Additional medical

conditions that cause Xerostomia include hyperthyroidism, rheumatoid arthritis and systemic lupus erythematosus.

In addition to this, some medical conditions like the infection of the salivary glands may necessitate the surgical removal of the salivary glands. The surgical removal of one or multiple salivary glands leads to the reduction in the volume of the saliva secreted this contributes to the onset of Xerostomia.

### **Methods used to investigate patients for Xerostomia**

There are three methods used for screening for Xerostomia in clinical settings. The first method is obtaining the medical history of the patient. The medical history documents the particulars of the dry mouth. It involves the documentation of the duration of the Xerostomia, the extent and the frequency of the Xerostomia. The documentation of the medical history also involves the recording of previous cases of Xerostomia. In addition to this, there is the documentation of previous medical procedures like surgery and chemotherapy that may predispose the patient to contracting the dry mouth. The medical history also documents previous ailments known to predispose the patient to Xerostomia. It is also important to obtain a complete medical and prescription drug history for the patient to determine whether they have been in contact with pharmacological agents that cause Xerostomia.

Examination is the second method used in the investigation of patients for Xerostomia. Examination involves the evaluation of the oral signs of Xerostomia. The physician palpates the salivary glands to identify signs of tenderness, enlargement or firmness. The identification of the presence and the extent of dental caries follow the examination of the salivary glands. The examination of the lips and the corners of the mouth to check for chapping

and splitting is also essential. In addition to this, the examination of the tongue for presence of mucosal soreness and oral biofilm produced by the thick saliva follows.

The third method of investigation for Xerostomia is the characterization of the saliva in the patients. The observation of the thickness of saliva is the preliminary task in this investigation. This determines if the saliva is clear and not cloudy and stringy. Sialometry follows the primary examination. Sialometry analysis is the quantification of the stimulated and unstimulated whole saliva in the oral cavity. It measures the volume of saliva produced by the salivary glands in a given period in the presence and in the absence of stimulation. Sialometry analysis is a painless and a non-invasive procedure.

## **Treatment options for Xerostomia**

The treatment for Xerostomia is dependent on the causes of the dry mouth in the patient. Various therapies exist and each one of them is specific for any special case. First, the common treatment option is the use of artificial saliva. Artificial saliva consists of a manufactured substrate with the same consistency and chemical and organic composition similar to that of the natural saliva. This saliva substrate coats the teeth, tongue and oral mucosa and this helps in keeping them moist and hence reduces most of the symptoms associated with Xerostomia. The saliva substrate used has to have a neutral Ph and electrolytes that match to the ones found in the natural saliva.

The saliva substrates come in the form of oral sprays, gels or lozenges. Patients recovering from Xerostomia caused by radiation mostly use these relief medications. The main component of the artificial saliva is

carboxymethylcellulose and minerals like calcium and fluoride in addition to other ions found in natural saliva. The patient places a small amount of the artificial saliva lozenges or the spray and then distributes it over the oral surfaces using the tongue. Unlike conventional medications, the artificial saliva can be used as long as the patient deems fit for complete oral comfort. These artificial saliva substrates include Glandosane spray, Xerotin oral spray and Bioextra gel.

The second treatment option for Xerostomia involves the use of saliva stimulants. These drugs induce the production of saliva by the salivary glands. These drugs are effective for patients who do not suffer from complete salivary gland damage. The saliva stimulants provide relief to patients who have lost their salivary function to radiotherapy and chemotherapy. The pharmacological agents used include salivix. The use of sugar free chewing gum achieves the same effect as these saliva stimulants.

The third treatment option is systemic treatment. Pilocarpine is the most commonly used drug for systemic treatment. The use of Pilocarpine is in the treatment of patients who suffer from Xerostomia resulting from irradiation. However, it is only effective for patients with partial functionality in their salivary glands. Use of Pilocarpine is ineffective in cases of complete suppression of the salivary gland. Its effect is rapid and it induces the production in less than an hour's time.

The fourth treatment option lies in the personal care by the patient. The oral cavity is susceptible to a horde of infections during the time the patient suffers from Xerostomia. Therefore, more care for the oral cavity by the

patient during this time is required. This involves the use of fluoride based mouth cleansers in order to supplement the lack of salivary fluoride. The patient should also avoid acidic foods like citric fruits as these corrode teeth fast due to the lack of moist saliva covering over the teeth. In addition, the patient should avoid the use of alcohol and tobacco, as these are likely to cause dehydration and worsen the problem.

## **Conclusion**

Xerostomia is a very common symptom of many secondary medical conditions. It affects about 20% of the entire earth's population. In addition to this, the prevalence in older people and females is higher with prevalence rates of 50% and 30% in the elderly people and females respectively. Other than medical conditions, any environmental condition that affects the hydration level of the body increases the susceptibility to Xerostomia. The incidence of the cases of Xerostomia will rise in the future due to the changes in lifestyles and change in the environmental conditions. Therefore, there is the need to make conscious lifestyle choices to reduce the chances suffering from Xerostomia.

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