



## AN OVERVIEW OF XEROSTOMIA

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**ABSTRACT**

Xerostomia is a subjective feeling of oral dryness. The effects are limited to the oral cavity or have ramifications on the general health of the patients. Recognition of the symptoms and risk factors associated with xerostomia early by the dentist can help relieve the discomfort of the patient. Although many treatment options have been proposed currently there is not any one specific solution for the condition. This review outlines the prevalence, risk factors, symptoms and treatment options of xerostomia.

**KEYWORDS :** Xerostomia, Prevalence, Risk factors, Saliva.

**INTRODUCTION:**

The subjective feeling of dryness in the oral cavity experienced by individuals is commonly referred to as xerostomia or dry mouth. It has long been assumed that xerostomia is always associated with decreased salivary flow rate (hyposalivation). But a subject with xerostomia can exhibit normal or decreased salivary flow rates.<sup>1,2,3</sup> Hence xerostomia and hyposalivation can manifest independently.

The normal functioning of the oral cavity can be affected by xerostomia and this in turn can impact the quality of life of subjects. In the long run apart from hindering the functioning of the oral cavity, xerostomia can lead to oral diseases that can debilitate the person.

**Prevalence:**

A search for the systematic reviews and meta analyses on prevalence of xerostomia revealed estimates ranging from 1% to 62%.<sup>4,5</sup> Studies have reported that dry mouth affects about 12-47% of the geriatric subjects and the adult population about 10-19.3%.<sup>6,7,8</sup> Marta Tanasiewicz et al, in their review on xerostomia put forth that xerostomia affects 1-29% of the population, mostly women.<sup>9</sup>

Prevalence of xerostomia is usually higher among people on medications with a prevalence of 33.5% as reported by Han et al.<sup>10</sup> Xerostomia can be found in healthy individuals as well as in individuals with systemic diseases. Mortazavi H et al listed about twenty systemic disease that can result with xerostomia as a complication, of which diabetes mellitus had the highest prevalence rate of xerostomia.<sup>11</sup> Luiza Silveira Lessa et al reported an overall prevalence of 42.22% in diabetic patients with xerostomia (37.42% - Type1 diabetes and 46.09% - type 2 diabetes).<sup>12</sup>

The prevalence rates may vary based on the risk factors involved. According to Thomson WM, variations in the estimates of prevalence in xerostomia are high. This could be attributed to variations in methods of measurement, the population being investigated, sampling, the type of study design and the age of individuals evaluated.<sup>5</sup>

**Risk factors:**

Xerostomia is more frequently associated with old age group mainly in populations over 60 years of age.<sup>13</sup> The physiological

process of aging also leads to xerostomia more so because of the co morbid factors like medications and diseases involved. The American Dental Association groups risk factors as Drug / therapy related factors and physiological or disease related factors.<sup>14</sup> Field et al. mentioned that one of the significant risk factor for having xerostomia was medication. As compared to age or gender, medication was considered as a better predictor of risk status for dry mouth.<sup>15</sup> Antihistamines, antihypertensive & anti depressants are among the few groups of medications responsible for dry mouth condition.<sup>16</sup>

Sjogren's syndrome is the most common among autoimmune diseases to cause xerostomia.<sup>14</sup> Radiotherapy especially of the head and neck region, cystic fibrosis, graft vs host disease, AIDS, lymphoma, hormonal changes, psychogenic causes, salivary gland disorders are few of the other conditions associated with xerostomia.<sup>14,17,18</sup>

**Symptoms:**

Xerostomia has many effects on oral health in subjects experiencing xerostomia with a decreased salivary flow. Such patients are more prone to gingivitis, oral candidiasis, ulceration of mucosal tissues and dental caries.<sup>8,19</sup> The subjects experience difficulty with swallowing food, aversion to dry foods, or increased frequency in water intake when swallowing.<sup>20</sup> Due to these factors intake of food by the individual may decrease which in turn leads to malnutrition affecting the general health of the patient. The chances of experiencing dry throat, dry lips, dry eyes, dry nose and dry skin are higher.<sup>16</sup> Patients with dry mouth may complain of burning mouth, altered taste sensation, difficulty in speech, bad breath and lack of retention of dentures. Examination of the oral cavity reveals dryness of the mouth, thick saliva, angular cheilitis or erythematous candidiasis, fissuring of the tongue, bald tongue, halitosis and cervical caries.<sup>21</sup>

**Treatment:**

Guggenheimer et al sorted the management techniques of xerostomia as – palliative treatment, use of saliva substitutes, and cholinergic drugs. Palliative treatments include the use of salivary slow stimulants such as sugarless chewing gum, alcoholic beverages and mouth rinses, humidifiers when sleeping, lozenges and sugarless hard candies. Saliva substitutes including carboxymethyl or hydroxy methylcellulose as contents are recommended. Cholinergic

drugs were considered last, because they are not indicated in patients with cardiac disease, since they alter the cardiac conduction frequencies.<sup>8</sup>

## CONCLUSION:

Xerostomia is a burgeoning problem which has not been given the status of a serious affliction. Although the prevalence of xerostomia is high it has most often been neglected. The management of xerostomia becomes less complicated if conditions causing it are identified and treated suitably. This would ameliorate the patients' condition and improve the quality of life.

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