

# **The Prevalence of Xerostomia in Patients with the Removable Partial Dentures**

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# Introduction

- Xerostomia is a symptom of oral dryness that occurs when salivary flow is not sufficient to compensate the fluid loss from the oral cavity.
- The prevalence of xerostomia in the adult population ranges between 10 to 29% affecting more women than men 23%

# Most common causes xerostomia

## A. Autoimmune diseases

- 1) Sjögren's Syndrome
- 2) Alzheimer's disease
- 3) Depression and
- 4) Diabetes

## B. Infections caused by sialotropic viruses

- 1) Hepatitis C virus (HCV)
- 2) Human immunodeficiency virus (HIV)
- 3) Sarcoidosis
- 4) Lymphoma

## C. Medical treatments

- 1) head and neck radiotherapy
- 2) chemotherapy
- 3) bone marrow transplantation
- 4) 400 medicines: **a)** anti-holinergic, **b)** anti-depression, **c)** anti-psychotic, **d)** anti-hypertensive, **e)** anti-diuretic, **f)** anti-histamine, anti-inflammatory agents

## **Purpose**

**The objective of this study was to determine the prevalence of xerostomia among patients attending the Prosthodontics clinic of Dental School of the University of Athens. Dryness of the oral mucosa can cause poor tolerance of denture in both partial and complete denture wearers**

## Materials and Methods

- Six hundred consecutive denture – wearing patients were included in this study.
- They were invited to complete a questionnaire (self - reported xerostomia)
- All patients were examined by two investigators
- Objective xerostomia
- Subjective xerostomia

**Debris and plaque deposits were examined on the buccal surfaces of all remaining teeth and denture teeth. Each tooth was scored**

**0 = no visible debris,**

**1 = minimal debris**

**2 = moderate debris,**

**3 = severe debris**

# Results

- **600** consecutive patients  
**263** men and **337** women

of these: **180**  **80** men  
**100** women  
mean age **65** years

**70** patients wore removable partial denture (**58** years)

**110** patients wore complete denture (**72** years)

**Table 1.**

**Systemic Diseases in Patients  
with Objective Xerostomia n = 68**

<b>Systemic diseases</b>	<b>n (%)</b>
Diabetes	25 (36.7)
Sjögren Syndrome	3 (4.4)
Oral cancer	5 (7.4)
Neck cancer	7 (10.3)
Depression	8 (11.8)
Hypertension	15 (22.0)
Gastro intestinal disorders	5 (7.4)



**Table 2.**

**Distribution of Denture Patients  
with Reported Xerostomia (n = 180)**

	<b>Xerostomia</b>	
<b>Prosthesis</b>	<b>Objective (n)</b>	<b>Subjective (n)</b>
Partial denture	30 (42.9%)	40 (57.1%)
Complete denture	90 (81.8%)	20 (18.2%)

**Table 3.**

**Modified Index in Denture Wearers  
with Reported Xerostomia (n = 180)**

		<b>Xerostomia</b>	
<b>Prosthesis</b>	<b>Mean Modified Debris Index</b>	<b>Objective (n)</b>	<b>Subjective (n)</b>
Partial denture (n = 70)	0-1	8 (34.8%)	15 (65.2%)
	2-3	22 (46.8%)	25 (53.2%)
Complete denture (n=110)	0-1	50 (78.1%)	14 (21.9%)
	2-3	40 (87.0%)	6 (13.0%)

# Conclusions

1. The objective xerostomia was more commonly observed in complete denture wearers than removable partial denture patients
2. The difference between complete and partial denture wearers objective xerostomia was statistically significant  
(OR: 6.0, 95% confidence interval:  $p < .0001$ )
3. There was a high prevalence of xerostomia in the complete denture patients.
4. The oral hygiene of patients with both subjective and objective xerostomia was generally poor



THANK YOU