

## Fact Sheets



# OROFACIAL PAIN

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## Burning Mouth Syndrome

### Definition

Burning mouth syndrome (BMS) (also known as glossodynia, glossopyrosis, oral dysesthesia, or stomatodynia) is a chronic intra oral burning sensation that has no identifiable cause either local or systemic condition or disease.

### Epidemiology

Due to lack of universally accepted diagnostic criteria precise BMS epidemiological data are difficult to gather. Currently the prevalence of BMS in the general population is estimated to be 0.7% to 15%.<sup>1</sup> Women are affected in average 7 times more than men and most commonly in the in peri-and post-menopausal period.

### Pathophysiology

BMS etiology remains unclear and not totally understood. Recent studies have showing increasing evidence of neuropathic origin with central and peripheral nerve system involvement.<sup>2</sup> Probably in a large percentage of patients BMS involves interactions among local, systemic and psychogenic factors.<sup>3</sup>

### Clinical Features

**Location:** Mostly affects anterior tongue, followed by palate, lips and pharynx however multiple sites may be involved.

**Character:** Burning

**Severity:** moderate to severe

**Onset:** Is reported as mostly gradual and spontaneous onset, however can be after a precipitating event.

**Duration, periodicity:** Burning sensation is usually daily at lowest intensity upon awakening, beginning/worsening after the first meal of the day and reaching maximum intensity late evening.<sup>4</sup>

**Factors affecting it:** Symptoms can increase by talking, upon stress and fatigue. While eating can reduce symptoms, drinking, having a candy/chewing gum or anything sweet or by sleeping or resting, and on leisure time.<sup>4</sup>

**Associated features:** Altered taste and dry mouth are the most common features associated. The constant intraoral burning severely affect's quality of life<sup>5</sup>. Anxiety, irritability, depression and decrease of sociability are common findings among BMS patients as in any other chronic



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pain condition. However, their role in the pathogenesis of BMS remain unclear<sup>6,7</sup> Cancer phobia is also a common finding among these patients.

### **Diagnosis:**

It is a crucial for the diagnosis differentiate when the burning sensation is secondary to a primary cause or when is BMS. The burning sensation secondary to a primary cause could be either local or systemic (in this case the cause should be addressed and the burning sensation should successfully disappear) however BMS occurs when the pain is the disease itself. Therefore BMS diagnosis is based on exclusion of any local or systemic condition that could justify the burning symptom. Therefore a very thorough history should be taken and a very detailed physical exam should be performed. Among the most common local causes of symptoms is included (e.g., candidiasis, hyposalivation, mucosal lesions, allergies, trauma (mechanical, chemical, thermal) and the systemic is included (e.g.: vitamin deficiencies, diabetes, hypothyroidism, side effect of medications [e.g.: ACE inhibitors], autoimmune disorders) as cause of symptoms.<sup>8</sup>

### **Investigations:**

Should be part of the diagnosis process and should include blood tests (Vitamin deficiency, diabetes, autoimmune disease), cytological smears (candidiasis), salivary flow rates (xerostomia), skin patch (allergies)

### **Prognosis:**

Improvement has been cited in half to two-thirds of patients within 6 to 7 years of onset, however prognosis is poor as literature reports complete spontaneous remission in only 3% of the patients within 5 years after the onset.<sup>9,10</sup>

### **Therapy**

BMS management still remains a challenger. Treatment for BMS is primarily pharmacological. Using medications for neuropathic pain. Clonazepam (benzodiazepines) have been used in clinical practice as the first-line medication for treatment of BMS.<sup>11</sup> Clonazepam topical also has been suggested in the literature.<sup>12</sup> Cognitive behavioral therapy has been shown to improve BMS symptoms and complementary and alternative medicine (CAM) might be another option for BMS patients.<sup>13,14</sup>

Moreover, any factor including foods/habits that can add to or exacerbate symptoms should be managed or avoided such eating acidic foods (i.e. pineapple, tomato, orange, lemon, etc.), alcohol and smoking, mouth rinses with alcohol and toothpaste abrasive substances.

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