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## **Oral Submucous Fibrosis (OSMF)**

### **What are the aims of this leaflet?**

This leaflet has been written to help you understand more about oral submucous fibrosis. It tells you what it is, what causes it, what can be done about it, and where you can find out more about it.

### **What is oral submucous fibrosis (OSMF)?**

OSMF is a chronic (long-lasting) condition that leads to scarring and thickening of the lining of the mouth. Having OSMF increases the risk of developing cancer of the mouth at a later time. It is therefore known as a 'potentially malignant condition'. The scarring and thickening (fibrosis) of the lining tissue of the mouth. It usually happens in response to some kind of repeated injury or damage. The mouth lining has several layers. The condition is called OSMF because the fibrosis happens in one of the layers just below (sub) the surface layer. In the case of OSMF the damage is caused by Areca nut alone or in combination with betel, tobacco and/or lime.

### **What causes oral submucous fibrosis?**

The most significant cause of OSMF is chewing areca nut. This is often combined with betel leaf and is then known as paan or betel quid. The cells in the lining of the mouth are exposed to harmful chemicals in the areca nut or in paan. These chemicals can cause fibrosis, damage to the cells and instability in the lining of the mouth (dysplasia) leading to mouth cancer in some cases.

### **Is oral submucous fibrosis hereditary?**

OSMF is not inherited. It can affect anyone at any age. It usually develops after long term exposure to areca nut. It is thought that some people may be more susceptible than others to the damage it causes. Oral submucous fibrosis is more frequently seen in persons with an Asian background, given the cultural use of betel quid/paan but is



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also seen in Caucasians who use paan.

### **What are the symptoms of oral submucous fibrosis?**

Some patients with oral submucous fibrosis have no symptoms. In others symptoms develop slowly over time. The lining of the mouth can feel rough and some patients experience a burning sensation especially after eating spicy or acidic foods. The fibrosis can limit how much the mouth can be opened which can make eating difficult and can lead to muscle pain in the face, jaw joint and neck. Fibrosis can also restrict tongue movement and cause difficulty in swallowing.

### **What does oral submucous fibrosis look like?**

The whole lining of mouth can look blanched (white) with stiff white bands on the inside of the cheeks. There can be white, red, or a mixture of red and white patches. The inside of the cheeks, underside of the tongue, palate and throat are most commonly affected but any area of the mouth can be involved. The teeth and tongue are often stained from contact with the nut. New changes such as soreness, heaped up areas, speckled areas or ulcers in the mouth may indicate the development of mouth cancer so you should seek advice from your dentist.

### **How is oral submucous fibrosis diagnosed?**

OSMF is often diagnosed by examining the mouth but sometimes a small piece of tissue (a biopsy) is taken from an affected area inside the mouth, for examination under a microscope. A local anaesthetic injection is used to 'numb' the biopsy site before the procedure.

### **Can oral submucous fibrosis be cured?**

OSMF cannot be cured but some symptoms can be managed.

### **How can oral submucous fibrosis be treated?**

OSMF is managed depending on signs and symptoms.



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Regular check-up appointments are necessary so your mouth can be closely monitored by your dentist or specialist because of the risk of developing mouth cancer. If any changes are noticed, a further biopsy may be needed. If your mouth has been stable for some time, you may be discharged from the specialist clinic and your dentist will be asked to check the area at your routine appointments.

Pain and soreness can be improved for some people by avoiding spicy or acidic foods, sometimes mouthwashes are recommended or prescribed to make the mouth feel more comfortable.

Jaw exercises may help. If the mouth opening is very restricted. In very rare cases, surgery can be performed but unfortunately this may lead to further scarring.

### **What can I do?**

- Stop chewing or using products that contain areca nut (paan/betel quid).
- Attend all appointments with your specialist and dentist, so that any changes in your mouth can be spotted early.
- Look out for any new or unusual signs, or symptoms in your mouth. If an existing white or red patch changes in appearance (becomes heaped up, ulcerates or changes colour) or if an otherwise painless patch becomes painful, seek advice from your dentist or specialist.
- Do not smoke or use any other forms of tobacco or any of its products.
- Reduce your alcohol intake to recommended limits (currently 14 units a week for both men and women).

If your mouth opening is limited, it is important that you keep your teeth as clean as possible by using a soft or medium brush and small interdental brushes. If not, a build-up of debris (known as plaque) can lead to dental decay or gum disease. Your dentist/dental hygienist will be able to give oral hygiene advice and will arrange for scaling of your teeth as necessary. Choose a fluoride toothpaste which is free from the foaming agent, sodium lauryl sulphate (SLS) as it can cause irritation.



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## Where can I get more information about Oral Submucous Fibrosis?

<https://publicdocuments.sth.nhs.uk/PIL3626.PDF>

<https://emedicine.medscape.com/article/1077241-overview>

<https://bisom.org.uk/wp-content/uploads/2019/04/BSOM-PiL-Mouth-Cancer-April-2016.pdf>

<https://bisom.org.uk/wp-content/uploads/2019/04/BSOM-PiL-Oral-Epithelial-Dysplasia-April-2016.pdf>

This condition is not cancer but having oral submucous fibrosis increases the risk of developing cancer of the mouth at a later time. It is therefore known as a 'potentially malignant condition'.

*This leaflet has been prepared by the British and Irish Society for Oral Medicine (BISOM). It is reviewed periodically to reflect relevant advances and improved understanding. Not all the information will be relevant to all patients. For individual advice please see your Oral Medicine specialist. The BISOM is not responsible for information on web sites where links are provided.*

*This leaflet is available online at [www.bisom.org.uk](http://www.bisom.org.uk)*

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