

**8** Fluoride has a long record of protecting the teeth against dental decay so it is wise to use a fluoride mouthwash. These can be used daily, or weekly. There are also high concentration fluoride toothpastes now available which some people might prefer to mouthwashes.

**9** Dentures should be left out at night and cleaned using a proprietary denture cleanser. Constant wearing of dentures predisposes to thrush infection under the denture and at the corners of the mouth (inflamed cracks). Acute thrush can develop if the patients are taking steroids and other immuno-suppressants.

If thrush develops, this can be treated by antifungal lozenges, drops, gels, ointments or creams. Any denture also needs to be treated as the thrush grows well on the fitting surface of the dentures.

**10** Seek medical advice and treatment of gastro-oesophageal reflux to prevent the irreversible loss of tooth structure from erosion.

**11** Seek regular dental examinations and preventative maintenance care usually between 3 and six months.

### **Prescribed medication**

Glycerine and lemon mouthwash can help to stimulate saliva production, but excessive use, particularly in a patient with a severe dry mouth, can lead to erosion of dental enamel and aggravate dental decay. Pilocarpine is a medication that can stimulate the production of saliva. In the USA and UK pilocarpine lozenges and tablets are available. In Australia, patients can be prescribed pilocarpine drops (normally used in the eyes for glaucoma) which are placed under the tongue or mixed with a small amount of water to swallow. Pilocarpine can stimulate glands to produce more fluid but the results have been variable - this may depend on the amount of gland tissue remaining and its

capacity to be stimulated.

Side-effects of pilocarpine include visual disturbance, slowing of the heart rate, sweating, a feeling of a need to urinate - its use is contraindicated in pregnancy and needs to be used with caution in patients with glaucoma or breathing problems.

Treatment of the underlying medical problem, often with immunosuppressant medicines, may also affect the amount of saliva produced, but this probably only applies in the early stages of the disorder when there is still some salivary gland tissue present.

#### Authors:

Dr Michael Aldred  
5 Westley Avenue, Ivanhoe,  
Victoria, 3079

[oralpathologists@symbionhealth.com](mailto:oralpathologists@symbionhealth.com)

Dr Anna Talacko  
32 Erin St, Richmond,  
Victoria 3121

[oralpathologists@symbionhealth.com](mailto:oralpathologists@symbionhealth.com)

Specialists in Oral and Medicine and Oral  
Pathology

For more information about scleroderma contact  
Scleroderma Australia:

Phone: 02 9990 5159

[info@sclerodermaaustralia.com.au](mailto:info@sclerodermaaustralia.com.au)

*Funding for this booklet was provided by an unrestricted  
education grant from Actelion Pharmaceuticals Pty Ltd.*

A publication of:  
Scleroderma Australia  
St Vincent's Hospital  
41 Victoria Parade  
FITZROY VIC 3065

© 2009 Scleroderma Australia

# ORAL AND DENTAL PROBLEMS

in Scleroderma and  
Sjögren's Syndrome

**scleroderma australia**  
support • education • research

## What is Scleroderma?

Scleroderma is a chronic connective tissue disease and is generally classified as one of the auto-immune rheumatic diseases- the body's immune system reacting against its own tissues. The pattern of the disease is also unusual in that it affects people in many different ways and the range and extent of symptoms may vary from one person to another.

Because connective tissue occurs throughout the whole body, this disease affects many and various organs and can produce a wide range of symptoms, including oral and dental problems.

### POSSIBLE MOUTH PROBLEMS

The oral changes of scleroderma include limited opening, blood vessel changes, widening of the space around the teeth on Xrays of the jaws, jaw resorption and a dry mouth. Many patients have difficulty with dental treatment due to limited opening. Sometimes this may require the use of smaller dental instruments such as are used for the treatment of children. This means that good oral hygiene is particularly important to prevent dental decay rather than trying to treat established decay. The limited opening makes taking impressions for dentures difficult and sectional impressions may be needed. Dryness of the mouth can lead to ulceration, particularly from dentures.

### SJÖGREN'S SYNDROME

Dryness of the mouth can occur in a number of other disorders and can be caused by or aggravated by certain tablets and medicines. Scleroderma is often associated with Sjögren's syndrome, which is an auto-immune disorder characterised by dry eyes and dry mouth and females are much more commonly affected than males.

The dry eyes and dry mouth occur because of damage to the tear and salivary glands

respectively. Some patients also report a dry nose and/or dry throat. Female patients may also be aware of dryness of the vagina.

Patients with a dry mouth have difficulty in talking, difficulty in eating (particularly dry foods such as toast, biscuits and crackers), generalised oral discomfort and taste disturbances. Patients often wake at night with a dry mouth. Sometimes the salivary glands (positioned at the sides of the face in front of the ears and under the lower jaw) swell and are painful.

The dryness makes patients more prone to dental decay, particularly in unusual sites such as the biting edges of the front teeth and around the gum margins.

Thrush infections under upper dentures and at the corners of the mouth may also occur and salivary gland infections can arise because of the lack of flushing of the ducts from the glands. Patients with dentures often find problems with denture retention and may be more prone to developing ulcers related to their dentures. After many years of a dry mouth, patients can also develop a smooth, painful tongue.

### Saliva Production

Normal salivary flow varies between individuals, but is usually in the range of 1 to 2 litres per day. The amount of whole unstimulated saliva produced under normal circumstances is over 20 ml per hour.

Patients with Sjögren's syndrome will produce much less than 1 to 2 litres a day - perhaps a quarter to a third of this amount if they are lucky. Some produce virtually no saliva - just some viscous froth.

### STEPS TO MINIMISE ORAL SYMPTOMS AND DAMAGE

**1** Many patients find that the simplest treatment comprises frequent sips of water, and will carry a drink bottle wherever they go. The consumption

of 8-10 glasses of water each day will assist to maintain all body functions including saliva production and quality.

**2** Some patients find that milk gives a lubricating effect to the oral tissues while others find using olive oil helpful.

**3** Sugar-free chewing gum can aid in some cases and is an economical way of stimulating saliva production. Chewing sugar free gum may help to prevent dental decay.

**4** Proprietary treatments are available to replace the missing saliva. These are often packaged as a pump spray and contain a number of ingredients as well as flavourings. Some contain synthetic saliva substitutes which are intended to reproduce the effect of the mucus in saliva. Most of these products are only available in small quantities and some patients find that this is a problem. Most of these salivary substitutes do not require a prescription.

**5** Diabetic sweets are favoured by some people, but excessive use can lead to diarrhoea because of the sweetener used.

**6** Antiseptic mouthwashes may be of assistance in keeping the mouth clean and reducing the number of bacteria causing tooth decay and gum disease. The most effective antiseptic mouthwashes contain chlorhexidine; however, some of these mouthwashes contain alcohol which can cause stinging. A range of alcohol-free antibacterial mouthwashes are now available.

The Biotene range of products seems to be well accepted by some patients with a dry mouth.

**7** Patients with a dry mouth would probably be well advised to use an anti-decay cream (GC Tooth Mousse) daily. The GC product range includes the anti-decay cream, a dry mouth gel and chewing gum; currently these products are only available from dentists.