



**Dry Mouth Why Me?**

## Why ?

Having had Head and Neck Cancer you will have found there will be many changes within your mouth following your treatment whether it was surgery, radiotherapy, chemotherapy or even a combination of them.

But we know that everyone suffers the side effects of the treatment very differently.

## Surgery:

Having had surgery you may find that you now have a piece of tissue from your arm or leg, replacing the effective tissue. This tissue is very different from that you normally find in your mouth and has no mucus lining, so it will always feel drier.

You may now have a prosthetic plate in your mouth or a denture, which may also be making your mouth feel drier than normal.

You may have had surgery to remove a salivary gland that may alter the amount of saliva you would normally have had in your mouth.

## Chemotherapy / Radiotherapy.

The side effects of these treatments can affect your salivary glands causing you to have either a dry mouth or have a reduction in the volume of saliva. Your salivary glands may recover over a period of time, but you may find you have less saliva than before, or you may find your saliva is much thicker and stickier. There are some patients though that may have a permanently dry mouth.

## So Why Do We Need Saliva?

Saliva is a normal bodily fluid that is mostly made of water. But saliva also contains important enzymes that your body needs to digest food and to keep your teeth strong.

### Saliva is important because it:

Keeps your mouth moist and comfortable

Helps you chew, taste, and swallow

Helps fight germs in your mouth and prevents bad breath

Contains proteins and minerals that protect tooth enamel and help to prevent tooth decay and gum disease

Can help to keep your dentures securely in place.

### How Do We Produce Saliva?

Saliva is made in a gland called a salivary gland. We have six major salivary glands, these sit inside each cheek, at the bottom of your mouth, and near your front teeth by the jaw bone, and we also have hundreds of minor ones. Saliva moves through tubes called salivary ducts into your mouth.

Normally, the body makes up to 2 to 4 pints of saliva a day. Usually, the body makes the most saliva in the late afternoon. It makes the least amount at night.

You help produce saliva whenever you chew. The harder you chew, the more saliva you make. E.g. Sucking on a hard candy or lemon drop helps you to make saliva.

This condition where you have a dry mouth is called Xerostomia.



## What are the symptoms of dry mouth?

Common symptoms of dry mouth include:

- A sticky, dry feeling in the mouth
- Frequent thirst
- Sores in the mouth; sores or split skin at the corners of the mouth; cracked lips
- A dry feeling in the throat
- A burning or tingling sensation in the mouth and especially on the tongue
- A dry, red, raw tongue
- Problems speaking or difficulty tasting, chewing, and swallowing
- Hoarseness, dry nasal passages, sore throat
- Bad breath

## What Happens If We Continuously Have A Dry Mouth?

### Tooth decay:

Having a dry mouth makes you more likely to develop rapid tooth decay and gum (periodontal) disease. That's because saliva is needed to help clear food particles from your teeth.

We therefore advise you see your dentist at least twice yearly for check-up; scale and polish. If you have had radiotherapy that may have affected your jaw bone and the flow of blood to your jaw, we advise you use a high fluoride mouth wash (Fluoriguard) and toothpaste (Duraphat 5000ppm) prescribed by your GP.

Your dentist can do all routine work on your teeth including fillings, caps, crowns, and root canal work, but if you require an extraction inform your key worker so we can check where the tooth lies within the field of radiotherapy you had. If the tooth lies in the radiotherapy field, we will remove the tooth at the hospital.

### Loss Of Taste:

If you have dry mouth, you may also notice you do not taste things like you used to.

Taste receptor cells that are found in the taste buds in our mouth and throat send signals to the taste centre in our brain, letting us know that the food or drink we're eating or drinking is sweet, sour, bitter, salty or savoury.

Saliva is needed for taste stimulants to reach the taste buds, and proteins help in transporting them to the receptors. Four different nerves feed sensory information between the tongue and mouth and the brain, plus a fifth nerve detects burning sensations, such as those caused by chilli peppers. As well as sending messages about chemical irritants to the brain, the fifth nerve also supplies sensation to the mouth and nose.

The sense of taste is also closely linked to the sense of smell, and often when a person experiences a taste dysfunction, the problem can actually be a problem with the sense of smell, or anosmia. In fact, about 75% of flavour sensation is produced by odours, so people who believe they have a problem with taste will also be given tests to check their sense of smell.

If something goes wrong with this taste-sensing system - usually because there's a disturbance to the taste cells or saliva - a taste dysfunction can occur.

These include:

- Structural problem with a salivary duct
- Smoking cigarettes

Hundreds of commonly used medicines are known to affect saliva flow and cause dry mouth, such as:

- Antihistamines
- Anxiety medicines
- Appetite suppressants
- Certain types of blood pressure drugs
- Diuretics (water pills)
- Most antidepressants
- Certain pain medicines (analgesics)

Dry mouth causes the gums, tongue, and other tissues in the mouth to become swollen and uncomfortable. Germs thrive in this type of setting. A germy, dry mouth leads to bad breath.

### Did You Know?

As you get older, it can get harder for you to notice flavours. Some women can start to lose their taste buds in their 40s. For men, the change can happen in their 50s.

Also, the taste buds you still have may shrink and become less sensitive. Salty and sweet flavours tend to weaken first. Later, it may be more difficult for you to taste things that are bitter or sour.

Your sense of smell can lessen, too. It's strongest when you're between 30 to 60 years old. Then it starts to weaken. Some seniors eventually lose it.



### What can You do?

To help relieve thick sticky saliva a sodium bicarbonate mouth wash may help. Mix 1 teaspoon of sodium bicarbonate with 1 pint of cooled boiled water. Every 3-4 hours rinse the mouth wash around your mouth and spit it out. We advise you make a fresh solution daily.

Steaming over a cup of hot water or a basin can also help loosen thick sticky saliva. Do not add menthol to this as will dry your vocal cords.

### How can I keep my mouth moist?

Try to sip water regularly if you can. Most people find this the most effective. If you have been advised by your medical team not to drink, try a atomiser spray bottle to moisten your mouth or, ask your key worker about a nebuliser.

There are treatments that can stimulate saliva if some of your salivary glands still work or if the damage to the gland is temporary. Pilocarpine tablets can be prescribed by your GP but they may take 2-3 months before they become effective.

Pilocarpine can cause some side effects in some people such as heart burn, diarrhoea, dizziness, sweating, nausea, so they do not suit everyone.

Sugar free chewing gum can stimulate saliva in some people. Chewing gum containing xylitol can reduce tooth decay. Also some sharp tasting sweets can also stimulate saliva. Try to use sugar free ones.

Artificial saliva can help to moisten your mouth and is designed to be the same consistency as saliva. The effect of these can be short acting and it is beneficial to use before eating. For long lasting relief at night we advise the use of a gel which may give relief for up to 5 hours.

Acupuncture may help mouth dryness in some people. The evidence for this is not widely available. Multiple sessions are required each session between 20-40 minutes. At present this not available on the NHS.

Be aware of the food and drinks that may irritate your dry mouth such as, spicy, salty, hard and crunchy foods. Alcohol and caffeine may also irritate.

Try not to smoke – smoking dries and irritates the mouth.

Use a lip salve to protect you lips.

Use a humidifier in your bedroom at night.

Take sips of water when eating and swallowing

Eat soft moist foods

Use sauces and gravies, oils, salad dressings, yoghurt and mayonnaise to moisten foods.

### Dry Mouth Products:

#### A.S.saliva Orthana.

Available in 50ml oral spray or lozengers. The oral spray contains fluoride to protect your teeth. These contain animal products and not suitable for vegans.





## Biotene Oral balance:



Whether you suffer from mild, moderate or severe dry mouth. Biotène is specially formulated to protect against the discomfort of dry mouth symptoms. These contain no fluoride. They are not suitable for vegans.

## Bio-xtra products :



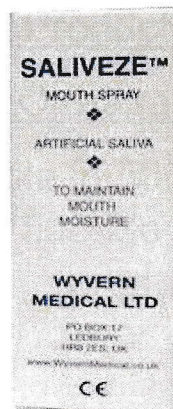
Available in a 40ml moisturising gel, 50ml gel mouth spray, 50ml toothpaste, 250ml mouth rinse. The gel mouth spray, toothpaste and mouth rinse all contain fluoride. These products contain animal products and not suitable for vegans.

## Glandosane:



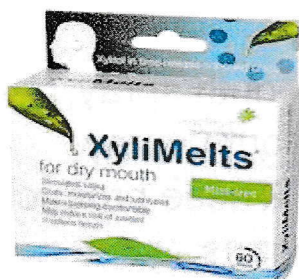
50ml aerosol spray in lemon peppermint or neutral. Contains no animal products. Is quite acidic and is therefore best avoided if you have your own teeth.

## Saliveze:



Available in a 50ml spray. Is suitable for vegans and neutral ph.

## SST: Saliva stimulating Tablets.



Normally in packs of 100 can be quite acidic, and are therefore best avoided if you have your own teeth. These are suitable for vegans.

### Xerotin:



Available in a 100ml spray and a larger bottle which you can decanter into the small spray bottle. This is neutral in Ph and is suitable for vegans.

### Duraphat Toothpaste:

High fluoride toothpaste to be used twice daily to protect teeth.



---

### Fluoriguard mouth wash:



Advise twice daily use but not at same time as toothpaste.