The Most Cheerful Topic in Dentistry!

Phillip Lewis looks at how we can play a part in the early detection of mouth cancer.

Phillip Lewis has a general dental practice on the Isle of Wight and serves as an ambassador for the Mouth Cancer Foundation.

Early detection of mouth cancer saves lives. As well as saving lives it also saves the quality of life for both sufferers and everybody close to them. That’s why this topic is so cheerful! Dental teams have a duty to protect the health and well being of patients; it is a primary concern. To preserve health, an individual should be able to eat and drink comfortably. To preserve quality of life, an individual should have few restrictions on what they eat, and be able to confidently enjoy life regardless of the environment. Regardless of whether teeth are natural or artificial, they should be healthy and the only way to guarantee this is to have a healthy mouth!

It is vital to make every effort to ensure that the basis of any routine treatment relies on a comprehensive examination thus leading to correct treatment planning.

SO, LET'S CUT TO THE CHASE

Mouth cancer is on the increase. Not by a little, but by a lot. Unlike lung cancer or breast cancer it is the only major form of the disease that sees an increase of incidences as years go on. Mouth cancer now accounts for more deaths in the UK than road traffic accidents, or testicular and cervical cancer combined. Each year there are more than 8000 newly diagnosed patients, which result in almost 3000 deaths (Oral Health Foundation). Disturbingly, the younger generations and women are increasingly being affected, although the greatest number of sufferers are still men over 40. (Cancer Research UK 2017)

This article looks at how we can all reduce the risk of being susceptible to mouth cancer, by recognising key risks, understanding how to examine the mouth and teeth, and how to reach out if there are any concerns.

SO, WHAT ARE THE KEY SIGNS?

The early detection examination involves feeling around the head and neck checking for any swellings or abnormalities. To look carefully at the skin of the face and neck for anything slightly unusual and to look inside the mouth and front of the throat.

Examples of abnormalities on the skin are:

- Lumps
- Crusty areas of skin, especially those which bleed easily
- Changes in the texture of the skin
- Dark spots or growths. Either new ones or older ones which have cause for some concern
• Persistent sores on the lips

To be aware of any changes on the body, there should be some key pointers:

‘Have I noticed that before?’ Has it changed recently? Is the lump new?’

Information like this is vital to help clinicians know whether further investigation is needed.

Self-examination is incredibly important if we don’t attend a general dental practice, or attend infrequently.

The early detection examination begins with a review of the patients own general health to identify factors which may increase the risk of mouth cancer, or medical conditions and medicines that can alter the normal appearance of the mouth. The majority of mouth cancer sufferers have recognisable risk factors. The most important of these is the use of tobacco in any of its forms. Combined with the use of alcohol the risk is increased 30-fold. A previous history of mouth cancer increases risk.

Recently, an increase in infection rates of certain strains of the Human Papilloma Virus (HPV) have been shown to account for many new cases of mouth cancer, especially at the back of the mouth and the throat. While young people are now being vaccinated against the virus it will take many years before it disappears from the population.

It is essential to bear in mind that a significant number of sufferers have no obvious risk factors, so it is imperative to examine the mouth as frequently as possible; at least once a month.

For a home examination, the only tools needed are a mirror and good lighting. A torch can also be helpful to see the more difficult areas inside the mouth. The examination is divided into two different parts, firstly the face and neck areas, checking that they look about the same on both sides, and for any unusual blemishes on the skin. Secondly, the voice (is it hoarse? Or unusual? If so since when). Hoarseness of the voice, or a cough that persists for more than 6 weeks should be investigated. A feeling of something stuck in the throat, difficulty in swallowing, moving the jaw or feelings of numbness around the mouth or lips are also a cause for concern.

Next, the head and neck should be examined for lumps, feeling for swellings in this way is called ‘palpation’ and should always be a part of our dental experience. The examination is completed with a careful check inside the mouth and a look at the throat. The Mouth Cancer Foundation have published a leaflet showing how to do this. It can be found on the Mouth Cancer Foundation website; www.mouthcancerfoundation.org. Details of the technique are given below:
First look at the face and neck, checking it looks roughly the same on both sides. Look at the skin in detail, observing and recording changes such as mole crusts, fissuring, swellings or growths, colour changes or any combination of these. Questions such as ‘How long has that been there?’ ‘Has it changed?’ ‘Has the dentist or doctor seen it?’ should be asked throughout the self-examination.

After the general inspection, the neck area leading down to the collar bones is the next to be examined.

Standing directly in front of the mirror, move the head side to side, stretching out the skin over the muscles making lumps more obvious. Thoroughly feel around the face and neck to identify any lumps. The aim is to move the skin over the deeper tissues and so feel for anything unusual. ‘Walk’ your fingers over the tissues with gentle but firm pressure. To do this use your finger pads, not finger tips and nails!

Glands, more properly called lymph nodes are part of the immune system. They often enlarge if fighting an infection, and can be easily felt. Infections can either originate from the areas that drain into the nodes, for example nodes often enlarge when struggling with a throat infection or heavy cold, of the lymph nodes itself can become infected. This type of infection is called lymphadenitis.

Characteristics of enlarged lymph nodes due to infection tend to be:

- Soft and warm. Tender to touch, inflammation may spread to the overlying skin causing it to appear red. The nodes then return to normal when the infection is over.

Cancer can also involve the lymph nodes. Rarely the node itself can develop cancer but more usually it is because the cancer has spread to the node from elsewhere. In either case, these nodes are generally:

- Firm, non-tender, matted (i.e. stuck to each other), fixed (i.e. not freely mobile but rather stuck down to underlying tissue), and increase in size over time.

**HOW DO YOU PALPATE FOR LYMPH NODES?** The major lymph node groups are located along the front and back of the big muscle which turns the head from side to side and on the underside of the jaw. There are also some just in front and behind the ear. If nodes are quite big, they may be visible bulging under the skin, particularly if the enlargement is different on each side (i.e. it will be more obvious if one side is larger than the other). To feel, use the pads of all four fingertips as these are the most sensitive parts of your hands. First examine both sides of the head together, walking the fingers down the area in question while applying steady, gentle pressure. After this repeat the procedure, turning the head into the hand in order to get finger right under the edges of the major muscle.

Nodes are usually examined in the following order:

- The nodes that lie both on top of and beneath the main muscles on either side of the neck, from the corner of the jaw to the top of the collar bone. This allows the head to turn to the right and the left. The right muscle turns the head to the left and vice versa.
Along the underside of the jaw and on either side right up to the chin.
Move the fingers upwards to feel the parotid glands in the cheeks (These are the glands that swell up if we get the mumps); then back to the nodes just in front and behind the ears.
The nodes above the collar bone are located in the hollow above the collar bone on each side. Begin in the centre where the collar bones join together, join the breastbone then work outwards towards the shoulders. It is also important to remember that as well as the lymph nodes, swellings of the salivary glands can also sometimes be an early indication of tumours at these sites, hence why it is so important to check.

Carefully record anything unusual you may find.

After checking the head and neck, its time to move onto the mouth.

Begin by looking carefully at the lips, with the mouth being both open and closed.

Note the colour, then feel to make sure there are no lumps and the texture of the skin feels normal.

With the mouth partly open, look at the inside of the lips, both upper and lower, and the attachment of the lips to the gums.

Look for normal colour and texture, look for any other abnormalities.

Look at the inside of the cheeks; examine first the right and then the left from the corner of the lips right to the back of the mouth.

A checklist can be useful when remembering where to examine. For example;
- Face
- Neck
- Lips
- Gums
- Cheeks
- Tongue
- Palate
- Floor of mouth
- Throat

Note any changes in pigmentation, colour, texture, stiffness or hardening of the skin and anything else unusual, making sure that the corners of the mouth are also examined carefully and are not missed when looking at the cheeks.

Next, look at the gums. Look all the way round, tilting back the head to see the inside of the upper gums more clearly and feeling all around the gums for anything unusual.

Many cases of mouth cancer start on the sides and underneath the tongue so this part of the examination is crucial.
With the tongue at rest, and the mouth partially open, inspect the top of the tongue for any swelling, ulceration, coating, changes in size, colour or texture.

Also note any change in tongue patterns and examine the tip of the tongue. Stick the tongue out, make sure it is moving normally. Look at the right and left sides.

The tongue is slippery. It is made up of muscle and is very strong. Grasping the tip of your tongue with a tissue, handkerchief or piece of gauze will make moving it around much easier. Feel all around the tongue for lumps, changes in texture or anything else unusual.

Lift the tongue up, and take a look underneath it.

With the tongue still lifted up, look and feel the floor of the mouth for changes in colour, texture, swellings, or other surface abnormalities. Putting one hand under your jaw when doing this supports the floor of the mouth and makes it easier to feel any lumps.

With the mouth wide open, and the head tilted back, inspect the hard and soft palate. Gently push down the back of the tongue and say ‘ahh’. Have a look at the tonsils, the back of the throat and the uvula (The little tag of tissue that hangs down in the centre of the throat). Tonsils are rarely the same size on both sides, but look for obvious differences. Look for lumps, ulceration, or red/white patches anywhere near the mouth and throat.

Many harmless conditions can change the appearance of the tongue.

This is geographic tongue where unusual painless patches appear. These tend to come and go.

It’s normal but if you are in any doubt ask your dentist to take a look!

Making notes about anything unusual can really help clinicians.

Photos can be even more useful.

Record where things are, what they look like, and how they feel.

Make notes of any unusual findings from the examination. Try to note as accurately as possible any unusual findings. It’s really useful for the clinician if the patient can describe where and what exactly they have seen. Shape, size, colour and the way the abnormality feels. If the suspicious area is able to be photographed by a mobile phone, and monitored so clinicians are able to reliably track any changes in the area.

HOW LONG DOES THIS TAKE? Well, with a little practice a thorough examination including looks and feeling will take less than two minutes. Not long to potentially save a life!

If in doubt, check with your local dentist or doctor and book an examination in as soon as possible.

Also remember that although it is a self-examination it is even easier if there is a family member or friend who can assist.

What should people be looking out for? Well, basically anything unusual. Even unusual things are generally harmless but there should always be an awareness surrounding any changes in the mouth.

Let’s consider abnormal conditions of the mouth in more detail.

Specifics to be aware of:

- Red of white patches anywhere inside the mouth of no obvious cause
• Unexplained lumps
• Ulcers that don’t heal in a maximum of 3 weeks
• Changes in texture or sensation
• Bleeding from the mouth, throat or teeth that become loose especially if the patient has no history of gum disease or gingivitis
• Hoarseness of the voice
• Persistent coughing
• A feeling of something ‘stuck’ in the throat

*If anything found in the examination leads to belief of any major cause for concern, get it professionally examined QUICKLY!*

**ANYONE OF US CAN DEVELOP MOUTH CANCER. EARLY DETECTION IS KEY!**

Let’s examine ourselves regularly while regularly attending dental check ups from professionals.

Details of how to examine ourselves can be found on the Mouth Cancer Foundation website: mouthcancerfoundation.org/get-info/bite-back-mouth-cancer

Examples of some of the abnormalities that could be found on both the face and the inside of the mouth that need monitoring or reporting:

Unusually red or dark patches of skin.

White patches on the skin, inside the mouth.

Ulcers that don’t heal within 3 weeks.

Unexplained lumps.
On the skin:

Sores that don’t heal. Lumps or blemishes that change.

Remember the majority of the abnormalities will be harmless (all of the ones shown above ARE harmless) but if they have never been noticed then professional advice should be taken. Don’t forget, patients often damage their mouths; by burning them, biting them, cutting the skin. Creating abnormalities that change the appearance of the mouth, although the heal very quickly. It is the abnormalities that appear with no obvious cause or that persist that we are especially interested in.

In the mouth:

This lump towards the back of the cheek, next to the upper teeth is the opening of the parotid saliva gland. There’ll be another one just like it on the other side!

Another bony outcrop, this time it is the lower jaw. Many people who have these structures are not aware. The overlying skin is thin and stretched tightly, causing them to get sore. Often the first time they are noticed.

Swelling at the edge of the gums can be cause by gum disease or abscesses.

Gums often swell during pregnancy or as in this case swelling can be associated with prescribed medicines, often medicines prescribed for high blood pressure or for the

Other medicines used to treat angina can cause ulcers to form and are therefore behind the swellings. IF IN DOUBT, GET CHECKED OUT!

These lumps at the back of the tongue is called lingual tonsils. We tend to have them but in some people they can be large.

Bony outcrops are normal but not everyone has them. These ones on the palate cross the mid-line. This is normal.
IF IN DOUBT...GET IT CHECKED OUT!

In general: lumps and swellings which exist on both sides of the mouth and look roughly similar and are painless are nearly always normal anatomical variations and are harmless.

Lumps and swellings that only appear on one side need investigation if they hurt or interfere with normal eating or speaking.

Some things which may increase our risk of getting mouth cancer:

- **Gender.** Sorry guys, men are still more than twice as likely to develop mouth cancer than women, but disturbingly, the gap is narrowing. This may be due to the use of alcohol and the effects of the Human Papilloma Virus (HPV)

- **Tobacco.** Currently the main risk factor. The use of tobacco has been reported by more than 70% of mouth cancer sufferers. There is NO safe tobacco. Its not only cigarette, pipe and cigar smoking that is a risk, its also things like hookah pipes, and chewing tobacco. These uses of tobacco are at least or even more harmful. Vaping has not yet been shown to cause mouth cancer and is considered about 95% less dangerous than using tobacco. However, vaping chemicals are not entirely safe, with more and more evidence of potential harm regularly being spotlighted. The advice is, if you use vaping to give up smoking you should aim to stop using it as soon as you can.

- **Alcohol.** Alcohol itself can cause cancer. It also makes the skin of the mouth more porous, letting other dangerous chemicals be absorbed more easily. That is why smoking and drinking together increase our risk of getting mouth cancer about 30-fold! Don’t do it!

- **The Human Papilloma Virus (HPV).** Some strains of the virus have been shown to cause mouth cancer, and especially danger the back of the mouth and throat. The national vaccination programme now includes boys as well as girls but it will be many years before the virus is eliminated. In the meantime, its expected to cause even more cases of mouth cancer than smoking over the next 10-20 years. The risk increases with an increase in the number of different sexual partners and is especially high in people practicing oral sex.

- **Social deprivation and poor diet.** A lack of essential vitamins and minerals associated with a poor, restricted or unbalanced diet increases the risk of mouth cancer.

- **Previous experience.** Having had mouth cancer in the past. Having had any other sort of cancer does not increase the risk of developing mouth cancer.

It’s really important to remember that many mouth cancer sufferers do not fall into any of the risk groups. That is why it is so important we all regularly examine ourselves and attend for professional examinations with our dentist despite not fitting into a high-risk category.
THE IMPORTANCE OF EARLY DETECTION:

Discovered early, mouth cancer can often be treated simply. Discovered late the picture is very different.

When mouth cancer is discovered late, treatment will generally involve extensive surgery to remove the growth. Usually the chains of lymph nodes under the jaw and in the neck will need removing as well. The mouth and face may need reconstructing. Sometimes this means collecting skin or bone from other parts of the body to replace lost tissues and this means the need for further surgery.

Treatment is usually followed by radiotherapy and sometimes chemotherapy as well. These treatments can make patients feel very unwell, abnormally tired and cause a dry and sore mouth. After radiotherapy to the mouth dental treatments can also become limited for safety reasons, which can also cause problems.

After treatment some patients will be left with life changing conditions. Speaking may become difficult, as may eating and swallowing. There is a possibility that the sense of taste may be altered or even lost. If saliva glands have been damaged patients can be left with a permanently dry mouth. Some patients may be permanently disfigured.

All of this can lead to changes in lifestyle; things that are taken for granted (attending social gatherings, eating out) become a thing of the past. Mouth cancer survivors can often feel isolated and excluded. Depression is common, leading to changes of behaviour which can affect anybody close to them.

In most cases this can be avoided by discovering and treating the disease early.

THE IMPORTANCE OF EARLY DETECTION? IT’S MASSIVE!

The early detection and treatment of mouth cancer saves lives. It not only saves lives but saves the quality of life for sufferers by reducing the need for aggressive treatments. In addition, it saves the quality of life for all around the sufferer; friends and family become drawn into the stress and apprehension which accompanies the condition. Living with mouth cancer can be a lonely experience. The Mouth Cancer Foundation [www.mouthcancerfoundation.org](http://www.mouthcancerfoundation.org) provides information and support for sufferers and survivors through its website and forums.

To put some numbers into this, early detection leads on average to a better than 50% five year survival rate, while cancer detected very late carries a survival rate of less than 10%.

Broken down the figures become more meaningful. The severity or ‘stage’ of mouth cancer is assessed from a consideration of three factors:

- The size of the tumour
- Whether lymph nodes have become involved
- Whether the cancer has spread to other parts of the body

Anyone can develop mouth cancer, but the sooner it is found and treated the better the outcome!
From these three things the stage of the disease can be determined, for example, a tumour of less than 2cm diameter with no evidence of spread to lymph nodes or remote organs would be termed stage 1. A tumour of this stage will be visible to the naked eye but sadly only 4% of lesions are detected this early. If detected the patient may expect a chance of 5-year survival of up to 94% with comparatively simple treatments. Unfortunately, most cases are discovered at much later stages. At stage 2 the survival rate will have dropped to about 65%.

68% of cancers identified at stage 3 and 4 tend to need more treatment as lymph node involvement may be present, as well as the possibility of the cancer spreading to other organs. At this stage patients have a lesser chance at survival.

The statistics bring the need for early detection into sharp focus. Even short delays in seeking treatment should be avoided where possible.

**SO, WHY IS MOUTH CANCER BEING DIAGNOSED SO LATE?**

Incidences of mouth cancer have risen by more than 60% in the last 10 years alone, and continue to rise. Why should this be?

There are a number of reasons.

The population is living longer. Despite advances in dentistry, a significant number of older people have no teeth and do not regularly attend dental examinations. Sadly, the risk of mouth cancer increases with age. Lack of mobility and difficulty travelling also adds to the infrequent attendance of this group.

Access to general dentistry is limited in a number of areas, especially for those seeking NHS treatment. Young adults are often irregular attenders. The link between mouth cancer and HPV often affects this group.

Social deprivation and poor nutrition are also risk factors. Individuals in this group are also likely to be irregular attenders.

The public being largely unaware of the signs and symptoms of mouth cancer, and being slow to report any irregularities.

Self-examination is not regular.

There is clear evidence to suggest that more needs to be done to improve early detection in order to enhance survival rates for sufferers and the quality of life for those around them. Making everybody more aware about the signs and symptoms of mouth cancer, the importance of professional examinations and how to examine ourselves, will hopefully be one step closer towards achieving this.

This is a short article about a huge subject! Please visit; [www.mouthcancerfoundation.com](http://www.mouthcancerfoundation.com)

The detection of Mouth Cancer really is a ‘Good News’ subject. ‘Good News’ because if self-examinations are practised it can save lives, and quality of lives.

**Self-examination is easy and doesn’t take long! Make it a habit once a month and be one step ahead of the game.**