

Sessions on Oral Health

Start with icebreaker and introduction by Champion

The session will focus on sugar consumption, the consequences of smoking / vaping and the importance of brushing your teeth & how to do so correctly.

Open discussions – use as appropriate during session:

- Is there anything they would like to know about today
- Use picture of a mouth – discuss why we have teeth and what a mouth looks like
- What happens if we don't brush our teeth
 - Tooth decay and gum disease
 - Abscesses, fillings, broken teeth, extractions etc.
 - Impacts on general health
 - Keeping healthy teeth into old age helps us to live longer because we can still eat a varied diet
- Why do you think that everyone is so interested in white teeth
 - Use this to discuss appearance and how this influences what people think of us
 - N.B. You can have a healthy mouth without whitening your teeth

The key messages we want the participants to take away and act on

Sugar content of food and drinks

- The impact of sugar on teeth
- Reduce the overall amount (ideally no more than about 7 teaspoons a day) and it's better to consume food and drink containing sugar at mealtimes

Resources:

- Sugar Quiz
- Preferably bag of sugar containing 28.4 teaspoons
- Information about use of artificial sweeteners

Notes:

Most sugars in the diet come from processed and manufactured foods and drinks.

Beware the words “No Added Sugar” – not the same as sugar-free.

Check the label and choose those lower in fat and sugars.

Good snacks between meals:

- Fresh fruit/ vegetables
- Savoury bread, breadsticks, toast, crackers
- Cheese

Fruit is part of a healthy diet and therefore everyone should encourage its consumption. Little change in the intake of fruit and vegetables over the past decade. All groups have an average intake of fruit and vegetables below the minimum recommendation of having ‘At least 5 A Day’. Should promote a healthy diet for everyone, reinforcing key messages such as 5 a day.

Very limited, small minority of the population it may constitute a risk factor for tooth wear in those who overconsume. Only give specific advice about the pattern and volume of fruit when there is accelerated tooth wear, and **only when fruit** has been identified as the most likely risk factor.

Ideally consume fruit in its natural form (how it comes from the tree). Smoothies, fresh fruit juice and dried fruit all contain cariogenic sugars and will be acidic - causing damage to the enamel. These should ideally not be eaten between meals but are still a better option than cola or energy drinks.

What is plaque and why daily toothbrushing is essential

- The role of bacteria in dental disease
- Showing up plaque with disclosing tablets – Champion volunteers to use disclosing tablet? Or show picture.

Resources:

- Guess how many bacteria in 1ml of saliva? **Correct answer D 100 million**
- Picture of plaque on teeth
- What causes tooth decay

Notes:

D 100 million this means that the mouth overall has about 6 billion! It's made up of over 900 different types of micro-organisms and each mouth would look quite different (micro-organisms - some people call these germs or bugs which may consist of Bacteria, Viruses (like Covid-19) and Fungi). Micro-organisms are invisible to the naked eye unless you have not brushed for some time and plaque builds up - disclosing tablets makes it easier to see.

We have a mixture of bacteria in our mouth, some good and some bad. The longer we go without brushing then the more likely we are to have the more harmful types. Brushing every day helps to break down the plaque – it's the mechanical cleaning that is important.

Poor oral hygiene is the most common cause of gum disease, not brushing teeth properly and/or regularly, can cause plaque to build up on the teeth which can lead to gingivitis or periodontitis which is when teeth become loose.

The bacteria in plaque convert the sugar found in sugary drinks and foods into acid, and this acid weakens the tooth. This is called an acid attack. Each acid attack lasts until the saliva neutralises the acid and eventually starts to repair the damage (remineralisation). The whole process of remineralisation and repair takes time and repeated and prolonged acid attacks will eventually cause a hole or cavity to form which may lead to pain and infection.

How do we look after our mouth

- Main messages tailored to young people and age appropriate for audience.
- Mechanical brushing helps to prevent gum disease
- Using fluoride toothpaste helps prevent tooth decay.
- Spit don't rinse – keep the fluoride in the mouth

Resources:

- Colgate top tips
- PHE Adult guide from DBOH
- **Models, demo kit for toothbrushing etc. and looking after your mouth (please provide)**

The impacts of alcohol, smoking and vaping

Alcohol

- Excessive alcohol is one of the main risk factors that can cause mouth cancer. Smoking and alcohol together greatly increases the risk. Check for ulcers that have not healed within 3 weeks and unusual red or white patches.
- Alcohol especially mixed with fizzy drinks can lead to increased levels of acid in the mouth. This can lead to tooth erosion.
- Excessive alcohol consumption is one of the main risk factors in causing violent behaviour and can result in trauma to the face and teeth.

Smoking

- The chemicals in cigarette smoke can linger in the mouth and lungs for hours causing the characteristic and unpleasant smoker's breath.
- The nicotine and tar in tobacco can make teeth go yellow in a very short time. Some of this staining can be permanent.
- Smoking can increase the number of bacteria in the mouth that cause gum disease. In severe cases of gum disease this can cause the teeth to be extremely loose.
- Two thirds of mouth cancer cases are linked to smoking. Second-hand smoke increases the risk for those who have never smoked. Ex-smokers reduce their risk by a third.

Notes:

What are e-cigarettes and how do they work?

- An e-cigarette is a device that allows you to inhale nicotine in a vapour rather than smoke.
- E-cigarettes do not burn tobacco and do not produce tar or carbon monoxide, two of the most damaging elements in tobacco smoke.
- They work by heating a liquid (called an e-liquid) that typically contains nicotine, propylene glycol, vegetable glycerine, and flavourings.
- Using an e-cigarette is known as vaping.

What do e-cigarettes contain?

- E-cigarettes do not contain tobacco - The "e-juice" that fills the cartridges usually contains nicotine (which is extracted from tobacco), propylene glycol, flavourings, and other chemicals. Studies have found that even e-cigarettes claiming to be nicotine-free contain trace amounts of nicotine.

How safe are e-cigarettes?

- In the UK, e-cigarettes are tightly regulated for safety and quality.
- Vaping is not completely risk-free, but it poses a small fraction of the risk of smoking cigarettes. The long-term risks of vaping are not yet clear.
- Diacetyl (recognised as a causative agent for serious lung disease) is banned as an ingredient from e-cigarettes and e-liquids in the UK.

What about risks from nicotine?

- E-cigarette aerosol is not harmless. It can contain harmful and potentially harmful substances, including nicotine, heavy metals like lead, volatile organic compounds, and cancer-causing agents.
- While nicotine is the addictive substance in cigarettes, most of the harm from smoking comes from the thousands of other chemicals in tobacco smoke, many of which are toxic.
- Nicotine replacement therapy (NRT) has been widely used for many years to help people stop smoking and is a safe treatment.

What issues may e-cigarettes cause?

- Nicotine addiction. Nicotine is highly addictive and can affect the developing brain, potentially harming teens, and young adults.
- Teens who vape are more likely to begin smoking cigarettes. Many young people who use e-cigarettes also smoke cigarettes.
- They can cause side effects such as throat and mouth irritation, headache, cough and feeling sick.
- They contain ultrafine particles that can be inhaled deep into the lungs and therefore can cause severe lung injury, Popcorn lung and pneumonia. Some young people have died from a condition called e-cigarette, or vaping, product use-associated lung injury, or EVALI but the number of cases has declined since the removal of vitamin E acetate.
- There is some evidence that they are linked to seizures, strokes, and heart attacks.

Are e-cigarettes linked to cancer?

- There is currently no evidence that e-cigarettes are associated with cancer, but some substances found in e-cigarette vapour have been linked to an increased risk.

Impact of vaping on the mouth?

The jury is out regarding the pH of the nicotine containing e-liquids (used by the vast majority of vapers) – studies have found that they had an alkaline pH or caused minimal changes in pH even after prolonged vaping sessions. However, some 'e-cigarette juices' produced in the USA with a high sugar content, many contribute to tooth decay especially if combined with other dietary sugars.

Public health and NICE both state that e-cigarettes are useful in smoking cessation, and are relatively safe compared to tobacco cigarettes, but we do not yet know the long term impact on young people who have never smoked. Our lungs are meant to inhale clean air and nothing else.

As dental professionals we would advise to follow the well-considered public health guidance which basically concludes that, for the best chances of quitting smoking, one should use support and pharmacotherapy and that e-cigarettes can be part of that package, but they should not be encouraged for use with non-smokers.

What happens at a check-up

- Why is visiting the dentist important and free for young people
- Types of dental treatment
- What is it like to be a dentist

Resources:

- Please bring any equipment (not precious!) that you could show

Notes:

Visiting the dentist - you should see a dentist regularly for check-ups even if you have no teeth, or are free from any apparent problems with your mouth or teeth, as this helps you and your dentist to keep your mouth, teeth and gums in good health. Your dentist will advise you how often you need a check-up.

NHS dental treatment is free for young people under 18 or under 19 and in qualifying full-time education.

Additional resources:

- Game of snap – provided
- Scientific papers on use of tobacco and vaping and effects on oral health
- Use of artificial sweeteners

Please check if your practice can provide:

- Models
- Leaflets
- Toothbrushes
- Toothpaste samples
- Disposable dental mirrors
- Disclosing tablets
- Other?

Remember to write your reflection once the project is completed – what worked well, what would you do differently if you did it again, feedback from the session etc. A feedback form will be provided to the participants by Saint's Foundation.

Reflect on how you felt that the project support the young people involved.

How did taking part help you to support the teenage patients in your practice.

What may you do differently because of taking part.