

**Dentists'  
Provident**

Protecting your lifestyle. Securing your future.



## **The facts behind smoking**

Protecting your lifestyle. Securing your future.

**The dangers of smoking are well documented and new research is regularly published in the media. However, as with all addictions, giving up can be tough, so we have compiled this factsheet not only to remind you of the health risks for you and your patients, but also to bring you the latest research into e-cigarettes.**

## The facts

- About 10 million adults in Great Britain smoke cigarettes: around a sixth of the UK population
- Cigarette smoking is the greatest single cause of premature death in the UK
- About half of all regular cigarette smokers will eventually die from smoking related diseases
- Each cigarette could shorten a smoker's life by around 11 minutes
- Nicotine from a cigarette reaches your brain in 10 seconds

## The health risks

### Cancer

Smoking causes about 90% of lung cancer cases in the UK, but it can also cause cancer in other parts of the body, such as the mouth, lips, throat, larynx, oesophagus, bladder, kidney, liver, stomach and pancreas.

### Circulation problems

Smoking damages your heart and your blood circulation, increasing your risk of developing conditions like coronary heart disease, which can cause a heart attack or stroke. It can also cause peripheral vascular disease (damaged blood vessels) and cerebrovascular disease (damaged arteries that supply blood to your brain).

### Respiration issues

Smoking damages your lungs, potentially leading to conditions like chronic bronchitis, emphysema and pneumonia. It can also potentially worsen or prolong the symptoms of asthma or respiratory tract infections.

### Fertility and birth

Male and female fertility is reduced in smokers, and there is an increased likelihood of becoming impotent. Research shows that smoking while pregnant increases the risk of birth complications.

### Psychiatric disorders

Nicotine is reported to relieve symptoms in psychiatric patients, and smoking has been associated with greater perceived stress. There is a strong link between smoking and mental health disorders, but there is no conclusive evidence to suggest that smoking is a cause or effect of mental illness.

### Do you know what you are actually smoking?

A cigarette contains over 4,000 chemical compounds as either gases or tiny particles, including 43 known carcinogenic compounds and 400 other toxins. These include carbon monoxide, arsenic, formaldehyde, hydrogen cyanide, benzene, toluene and acrolein, as well as nicotine, tar, ammonia, and DDT.

## Key benefits of giving up

<b>In 72 hours</b>	Your breathing becomes easier; your bronchial tubes begin to relax and your energy levels increase, the likelihood of chest infections and colds is reduced.
<b>After 1 month</b>	Your sense of smell is likely to improve, as well as the appearance of your skin so you could look better; smokers tend to look older than they are.
<b>In 3-9 months</b>	Your lung function increases by up to 10% and any coughing, wheezing or breathing problems decrease.
<b>After 1 year</b>	Your risk of suffering a heart attack falls to about half that of a smoker. If you smoked 20 a day (costing £9 a packet) you would have saved over £3,000!
<b>After 10 years</b>	Your risk of developing lung cancer falls to about half that of a smoker.
<b>After 15 years</b>	Your risk of suffering a heart attack falls to the same level as someone who has never smoked.

## So what about electronic cigarettes?

The use of electronic cigarettes in adults has tripled in Britain from an estimated 700,000 users in 2012 to 2.1 million in 2014.

### How do they work?

A heated element vaporizes liquid which is then inhaled. The three key ingredients are nicotine, diluents and flavourings.

### Current situation

Most Nicotine Replacement Therapies (NRTs), such as patches and gum, are licensed by the Medicines and Healthcare products Regulatory Agency (MHRA); e-cigarettes aren't and are currently regulated as a general consumer product. In December 2013, the Europe Parliament rejected proposals to license them as medicines. In February 2014, an EU Tobacco Products Directive was passed which will regulate e-cigarettes from May 2016 with several restrictions including: limiting the strength and amount of nicotine they contain as, at the moment, this is inconsistent. As they aren't regulated, there isn't a current standard for their strength or nicotine content.

There is still a significant lack of research into their safety and the British Medical Association, amongst other bodies, stresses the need for further research before any conclusive information can be published. There is also a lack of research into the health effects of nicotine in general, present research is directed towards the health impact of cigarette smoking.

A paper in *Dental Update* in October 2014 outlines the concerns and advantages of e-cigarettes over other NRTs:

### Concerns

- Too much variability in the amount of nicotine per puff
- Too much nicotine; they can contain up to 10 times (100mg) the quoted legal dose of nicotine (30-60mg in adults)
- A rare form of pneumonia has been linked to their use, because of the glycerine based oils in the vapour
- They might re-introduce a smoking culture, especially with younger generations

- The effects on oral health: They could have a significant effect in the oral cavity as nicotine is absorbed by the buccal and pharyngeal mucosa, rather than the alveoli, due to a number of factors including particle size. It is also unknown if they carry the same risks as tobacco smoke on periodontal disease, tooth loss, implant failure and dental caries

### Advantages

E-cigarettes reduce your exposure to carcinogenic substances, so their key health benefit is the reduction in the risk of cancer. They may also support a reduction in the desire to smoke, so can help people to quit.

## Other news in 2014

**The debate for 'plain packaging': The government is moving forward with plans to ban branding on cigarette packs.**

[www.bbc.co.uk/news/uk-politics-26865693](http://www.bbc.co.uk/news/uk-politics-26865693)

**The *New Scientist* revealed that cancerous cells can sit dormant in people's lungs for decades. This raises the possibility of early detection and screening, potentially preventing cells becoming malignant. Most people tend to find out they have the disease after it has started to spread. Because of this, less than a third survive more than year after their diagnosis.**

A new 12-point code has been put together by the International Agency for Research on Cancer. This provides tips on how to avoid the unnecessary risks of developing cancer, of which smoking is still the major cause.

## Talking to your patients about smoking

It is well known that smoking has a harmful effect on periodontal disease but research conducted this year in Finland has linked daily smoking to the development in caries in adults over four years. As dental health professionals, you have a duty of care to educate your patients about the impact of smoking on their oral and general health. It is also important for you to be informed about e-cigarettes.

### References

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### **Bryan Gross, our Head of claims and underwriting said:**

"We are very keen to encourage our members to quit smoking, as it has such an enormous impact on their long term health. Because the research evidence is so strong, we charge higher premiums for smokers, and effectively smokers pay a 50% higher premium than non-smokers. It makes sense for us to recognise non-smokers or those who have shown a commitment by giving up for 12 months or more, by then considering them as non-smokers, effectively a reward for converting to a healthier lifestyle."

The Department of Health recognises that dental teams are ideally placed to identify those who need to be informed about the health risks of smoking and to direct those smokers who want to quit to the appropriate NHS Stop Smoking services in their area. Evidence shows that brief advice from health professionals, as well as more intensive behavioural support, increases a smoker's chance of quitting. NICE recommend dentists incorporate the modified 'four As approach' into daily clinical practice: Ask, Advise, Arrange and Assist.

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