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## Smoking & Diabetes

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Training  
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## The Health Effects of Smoking




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### Smoking...the Facts

- 86,000 people die every year in Britain from smoking related diseases (updated 2009 figure)
- 364,000 patients are admitted to NHS hospitals each year due to diseases caused by smoking
- 8 million GP visits
- 480,000 patients to consult their GP for heart disease, 20,000 for stroke and nearly 600,000 for COPD
- 7 million prescriptions

Source: The smoking epidemic in England (published by the HDA, November 2004).




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### Who Smokes?

- Approx 21% of the adult population in England smoke cigarettes
- This increases to 26% for routine and manual groups
- Across England there is considerable variation in smoking prevalence due to gender, age, socio-economic status and ethnicity

(NHS Stop Smoking Services Monitoring Guide 2009/10)




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### Smoking Rates are Much Higher Among People with Mental Health Problems than Among the General Population

Condition	Men (%)	Women (%)
psychotic disorder	51	64
panic	52	59
obsessive-compulsive	42	38
all phobias	44	56
depressive episode	53	60
generalised anxiety	48	46
mixed anxiety and depressive	39	48

Smoking prevalence in adults in the general population in the UK with a range of mental disorders (Meltzer H, OPCS Surveys of Psychiatric Morbidity in Great Britain Report 1: The prevalence of psychiatric morbidity among adults living in private households. London: HMSO, 1995)

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### Methods of Use Include:






### Chewing

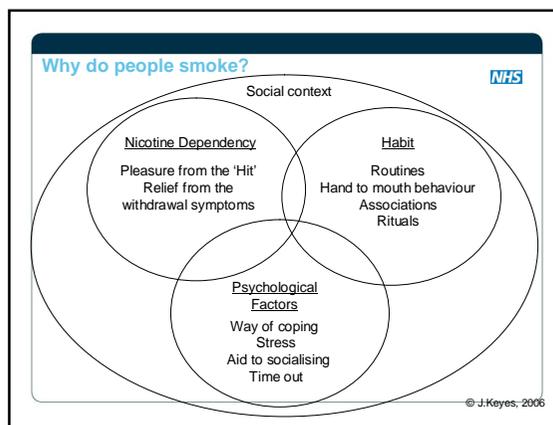
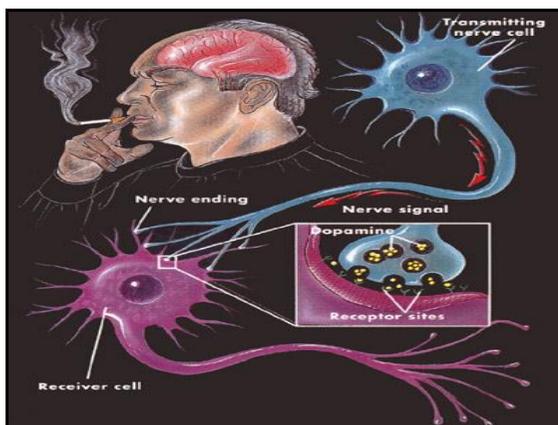
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Approximately one third of lifelong smokers avoid premature death despite their cigarette smoking, but none escape the ill-health effects of smoking (Peto et al, 2004)

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### Why Do People Smoke?

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### Smoking & Diabetes

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### Risk Factor for Developing Diabetes

- Smoking an independent risk factor to developing type 2 diabetes
- Smoking is proven to be a risk factor for insulin resistance
- Patients who are insulin resistant cannot use their body insulin properly



### Smoking and Diabetics

- For diabetics smoking can be even more damaging than for general pop
- Smoking raises blood pressure & blood sugar level
- It increases the complications for diabetics
  - Heart disease
  - Stroke
  - Poor Circulation



### Heart Disease

- Cardiovascular Disease is the leading cause of death in the UK
- The risk of developing a cardiovascular disease occurs even with very light smokers (Dunn et al, 1999)
- The average smoker doubles their chances of developing heart disease compared to someone who has never smoked (Wald & Hackshaw, 1996)
- Both type 1 & type 2 diabetics are at greater risk of developing heart disease
- Risk of heart disease associated with type 2 diabetes is 50% greater for women than for men (Balance 2010)



### How does smoking increase the risk of heart disease for diabetics?

- Diabetes can already damage the heart if it is present in the body for many years or poorly managed
- A high level of glucose in the blood changes the composition of the artery walls
- Increased chance of developing fatty deposits
- Carbon Monoxide also increase fatty deposits by binding to the Haemoglobin (Hb) in the blood
- Less oxygen and less circulation



### Stroke

- Diabetes is a risk factor
- Smoking doubles the chances of suffering from a stroke
- Risk of blood clot forming is significantly increased
  - Damage to lining of blood vessels
  - Stickiness of platelets
  - Increased blood pressure & heart rate



### Circulation

- Diabetes is the most common cause of peripheral vascular disease
- Poor circulation to the feet and legs
- Smoking is also a risk factor
- Reduced blood supply leads to sores and ulcers on feet & toes
- Gangrene



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### Benefits of Quitting Smoking for a Diabetic

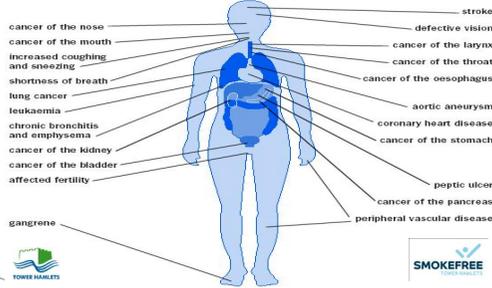
Reduces the risks of developing a major diabetes – related complication





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### Smoking Affects the Whole Body



Labels on the left side of the diagram:

- cancer of the nose
- cancer of the mouth
- increased coughing and sneezing
- shortness of breath
- lung cancer
- leukaemia
- chronic bronchitis and emphysema
- cancer of the kidney
- cancer of the bladder
- affected fertility
- gangrene

Labels on the right side of the diagram:

- stroke
- defective vision
- cancer of the larynx
- cancer of the throat
- cancer of the oesophagus
- aortic aneurysm
- coronary heart disease
- cancer of the stomach
- peptic ulcer
- cancer of the pancreas
- peripheral vascular disease





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### Non life-Threatening Physical Diseases Linked to Smoking

- Age-related hearing loss
- Chronic back and neck pain
- Cataracts
- Cold injuries (tissue damage caused by exposure to cold environment)
- Crohn's disease
- Diabetes (type 2, non insulin dependent)
- Erectile dysfunction
- Gum disease
- Macular degeneration (causing blindness)
- Osteoarthritis
- Osteoporosis
- Rheumatoid arthritis
- Skin wrinkling
- Peptic ulcers
- Adverse effects on fertility (both men and women)

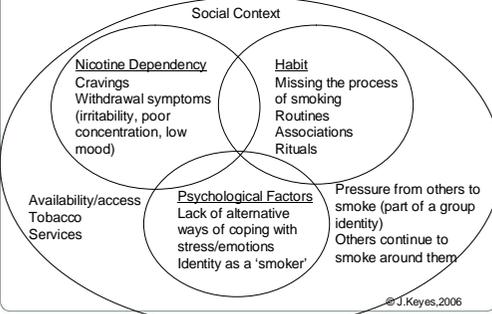


(ACSH, 1997)

Time Since Quitting	Beneficial Health Changes
20 Minutes	Blood pressure and pulse return to normal for the individual. Circulation improves – especially to hands and feet
8 Hours	Blood oxygen levels return to normal. Chances of having a heart attack begin to fall
24 Hours	Carbon monoxide leaves the body. Lungs start to clear out the mucus and debris
48 Hours	The ability to taste and smell is greatly improved
72 Hours	Breathing becomes easier. Bronchial tubes begin to relax and energy levels increase
2-12 Weeks	Circulation improves throughout the body
3-9 Months	Coughs, wheezing and breathing problems improve as lung function is increased by up to 10%
1 Year	Risk of heart attack falls to about half of that of a smoker
10 Years	Risk of lung cancer falls to half that of a smoker
15 Years	Risk of heart attack falls to the same as someone who has

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### Why do people find it hard to stop?



Labels in the diagram:

- Social Context** (outermost circle)
- Nicotine Dependency**: Cravings, Withdrawal symptoms (irritability, poor concentration, low mood)
- Habit**: Missing the process of smoking, Routines, Associations, Rituals
- Psychological Factors**: Lack of alternative ways of coping with stress/emotions, Identity as a 'smoker'
- Pressure from others to smoke** (part of a group identity), Others continue to smoke around them
- Availability/access Tobacco Services**

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### Diabetics Resistance to Quitting

- Damage is already done
- Depression
- Boredom
- Denial
- Weight Gain
- Addiction





### Weight Gain NHS

- Smoking is a natural appetite suppressant
- Deadens taste buds
- Increase metabolic rate
- Likely to put 2 or 3lbs on when quitting
- Possible increased risk of developing type 2 diabetes
- Healthy eating, diet and exercise



### Nicotine Addiction NHS

- Nicotine is not a natural substance in the body
- When nicotine stimulates receptors in the brain 'feel good' chemicals are released
- Exposure to nicotine at a young age will fundamentally change the structure of the brain and increase the number of receptors resulting in an acquired drive or desire for nicotine which will remain for life
- The average age for a person to start smoking is 13



### Nicotine Dependency NHS

- In many smokers nicotine alters the brain, so that smokers acquire a kind of 'drive' to smoke, much like hunger
- If a smoker has not smoked for a while the drive increases; creating an urge to smoke
- The brains of smokers are also modified so that smokers experience a range of unpleasant mood and physical symptoms (withdrawal symptoms) when they cannot smoke, which can drive a smoker back to cigarettes
- **Continue to smoke despite the ill effects**



### Smokers are four times more likely to quit when using Stop Smoking Medication & Support NHS



### Stop Smoking Services Contact Details NHS

**Specialist Stop Smoking Service**  
Royal London Hospital  
55 Philpot Street  
Whitechapel  
London  
E1 1BB  
Tel: 0800 169 1943

Service of choice and also for:  
Heavy smokers  
Mental health,  
Patients requiring Champix/Zyban



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