Brief Intervention for Smoking Cessation

National Training Programme
The development of an accredited National Training Programme is one of the key priorities of the HSE cross service group responsible for implementation of the HSE’s Tobacco Control Framework. The course is recognised for CPD by The Irish College of General Practitioners (5.5 CPD credits and 2 GMS study leave sessions for registered doctors) and has been awarded Category 1 Approval from An Bord Altranais (6 CEUs for registered nurses and midwives). This resource was delivered in collaboration between Health Promotion, the Irish Health Promoting Health Services’ Network and the National Tobacco Control Office.

Available online at www.hse.ie/bitobacco.

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1. Introduction

This resource has been developed as part of the HSE Brief Intervention for Smoking Cessation National Training Programme. It is a practical guide to support professionals who have undertaken the training programme and will assist in integrating brief interventions into daily practice.

The resource (www.hse.ie/bitobacco) includes information and reference materials on the key topics presented during the course including:

• latest tobacco statistics for Ireland
• smoking behaviour and addiction
• 5As Framework for Brief Intervention for Smoking Cessation
• Prochaska & DiClemente’s stages of change model
• motivational approach when raising the issue of smoking
• OARS: communications for effective interventions
• tools and supports to help smokers quit.

Tobacco or Health

Smoking places an enormous burden of illness and mortality on our society. It affects the almost 1 million people who smoke in Ireland, and their families, while creating an enormous cost for our health service each year.

1 in every 2 smokers will die from a tobacco related disease, and most smokers lose between 10 to 15 quality life years. Tobacco use is the single biggest cause of cancer and chronic respiratory diseases and is a significant cause of cardiovascular disease. This major cause of death, illness, chronic disability and inequality is preventable, yet accounts for some 5,500 deaths in Ireland each year.

Department of Health estimates that tobacco use costs the exchequer somewhere in the region of €1-2bn per annum. A recent study of hospital discharges shows that smoking related diseases accounted for 3.7% of total discharges, but accounted for 9.4% of total costs, totalling €280m in 2008. These costs do not take account of the costs for OPD, GP, community based services and social services from smoking. The study also highlighted that despite a 25% decline in overall mortality rates (from all causes of death) in Ireland from the year 2000, the decline in deaths attributable to tobacco is only 10%.

Reducing the number of smokers in our society is the single most significant step that can be taken to improve population health and reduce pressure on the health system – this requires a sustained multi-faceted approach.

In 2010, the HSE adopted the Tobacco Control Framework to inform HSE policy and provide a coherent response to tobacco use in Ireland. A number of actions from the Framework are prioritised in the HSE’s National Service Plans, including training all healthcare workers to have the necessary skills to address smoking as a care issue. Healthcare professionals are ideally placed to raise the issue of smoking with service users – and with the right mix of knowledge, skills and attitude can really “make every contact count” by encouraging and supporting smokers to quit.
Brief Interventions

Brief Interventions are a range of effective behaviour change interventions that are client-centred, short in duration and used in a variety of settings by health and other professionals. They use an empathic approach, emphasising self efficacy, personal responsibility for change, information giving and details of resources available to support change.

For smoking cessation, brief interventions involve opportunistic advice, discussion, negotiation and encouragement that typically take between 5 and 10 minutes. The intervention may involve referral to a more intensive treatment if appropriate. Interventions should be recorded and followed up as appropriate.

Brief Interventions for smoking cessation are more successful when used with clients who:

• are unlikely to need/seek or attend specialist treatment
• are unsure/ambivalent about quitting
• may require access to other appropriate services.

Framework for Brief Intervention for Smoking Cessation

The 5 As

The five components of the Framework are:

1. **Ask:** systematically identify all smokers at every visit. Record smoking status, no. of cigarettes smoked per day/week and year started smoking.

2. **Advise:** urge all smokers to quit. Advice should be clear and personalised.

3. **Assess:** determine willingness and confidence to make a quit attempt; note the stage of change.

4. **Assist:** aid the smoker in quitting. Provide behavioural support. Recommend/prescribe pharmacological aids. If not ready to quit promote motivation for future attempt.

5. **Arrange:** follow-up appointment within 1 week or if appropriate refer to specialist cessation service for intensive support. Document the intervention.

2. Understanding Tobacco Use

What’s in a Cigarette?

A cigarette is a very efficient and highly engineered drug-delivery system. The primary ingredient in cigarettes is tobacco (including reconstituted tobacco and genetically modified tobacco) to which hundreds of chemical additives are introduced during the manufacturing process. 600 different additives are currently approved for use in the manufacture of cigarettes and these include humectants (moisturisers) to prolong shelf life, sugars to make the smoke seem milder and easier to inhale; and flavourings such as chocolate, cinnamon and vanilla. While some additives may appear quite harmless, others are toxic or addictive in their own right, or in combination. When additives are burned, new products are formed and these too may be toxic or pharmacologically active.

What’s in Cigarette Smoke?

Tobacco smoke is made up of sidestream smoke from the burning tip of the cigarette and mainstream smoke that is inhaled by the smoker. Many toxins are present in higher concentrations in sidestream smoke than in mainstream smoke due to the lower temperature at which the cigarette burns when not being smoked.

Cigarette smoke contains more than 7,000 chemicals and compounds which are released into the air as particles and gases. Hundreds are toxic and at least 69 cause cancer. Tobacco smoke is a known human carcinogen. The chemicals in tobacco smoke reach the lungs very quickly when a smoker inhales, and then go quickly from the lungs into the blood which carries these chemicals to tissues all around the body.

The particulate phase includes nicotine, tar, benzene and benzo(a)pyrene. The gas phase includes carbon monoxide, ammonia, dimethylNitrosamine, formaldehyde and hydrogen cyanide.

Nicotine is a deadly poison – a small amount injected into the blood-stream can kill a person in less than an hour. Tobacco smoke contains very tiny amounts of nicotine and in the doses obtained from smoked tobacco is not a significant contributor to disease. It is however highly addictive – according to the WHO it is more addictive than heroin and cocaine.

Nicotine is a stimulant which affects many body systems, including the brain, the heart and the nervous system. Nicotine is absorbed by the body very quickly, reaching the brain within 10-20 seconds. It activates the reward pathways in the brain and increases levels of dopamine in the reward circuits, creating feelings of pleasure for the smoker. The acute effects of nicotine and the feelings of reward do not last more than a few minutes. As nicotine levels fall in the body, smokers feel an urgent desire to smoke (at intervals of 20-45 minutes depending on consumption rates) in order to restore these pleasurable feelings and avoid withdrawal.

Chronic exposure to nicotine causes structural changes in the brain by desensitising nicotine receptors and increasing the number of nicotinic receptors thus increasing the urge for the next cigarette and resulting in addiction.

Nicotine increases the heart rate and blood pressure, leading to the heart needing more oxygen.

Tar is the collection of solid particles that smokers inhale when they light a cigarette. It is a mixture of lots of chemicals, many of which cause cancer. Tar can stain smokers’ fingers and teeth and it gathers in the lungs as a sticky brown substance increasing a smoker’s risk of lung cancer, emphysema, and bronchial disorders.

Carbon Monoxide is a colourless gas with no smell which is released from burning tobacco and sticks to red blood cells in place of oxygen. This lowers the blood’s ability to carry oxygen around the body to vital tissues and organs such as the heart and brain. Carbon monoxide also kills cilia (hairs lining the lungs) and reduces the lungs’ ability to clear toxins making it easier for other chemicals to attack them. Up to 15% of a smoker’s blood can be carrying carbon monoxide instead of oxygen.
Why Do People Smoke?

Tobacco use is a complex behaviour influenced by a range of physiological, behavioural and cognitive factors which is why people continue to smoke, despite widely publicised evidence of the health, social and financial burden it causes.

Physical addiction

The WHO defines addiction as ‘repeated use of a psychoactive substance or substances, to the extent that the user (referred to as an addict) is periodically or chronically intoxicated, shows a compulsion to take the preferred substance (or substances), has great difficulty in voluntarily ceasing or modifying substance use, and exhibits determination to obtain psychoactive substances by almost any means’.

The term dependence as applied to alcohol and other drugs, is defined by the WHO as ‘a need for repeated doses of the drug to feel good or to avoid feeling bad’. In DSM-IIIR (Diagnostic and Statistical Manual of Mental Disorders), dependence is defined as ‘a cluster of cognitive, behavioural and physiologic symptoms that indicate a person has impaired control of psychoactive substance use and continues use of the substance despite adverse consequences’.

Other chemicals include:

**Cancer-Causing Chemicals**
- Formaldehyde: Used to embalm dead bodies
- Benzene: Found in gasoline
- Polonium 210: Radioactive and very toxic
- Vinyl chloride: Used to make pipes

**Toxic Metals**
- Chromium: Used to make steel
- Arsenic: Used in pesticides
- Lead: Once used in paint
- Cadmium: Used to make batteries

**Poison Gases**
- Hydrogen cyanide: Used in chemical weapons
- Ammonia: Used in household cleaners
- Butane: Used in lighter fluid
- Toluene: Found in paint thinners

Classification of Dependence
- Strong desire to take a substance, taking more than intended for longer
- Difficulty quitting or controlling use
- Considerable time spent obtaining, using and/or recovering from use
- Higher priority given to the drug than other social activities
- Continued use despite knowledge of harm
- Tolerance develops
- Withdrawal syndrome

Tobacco dependence exhibits classic characteristics of drug dependence. Nicotine is psychoactive, tolerance producing, and causes physical and psychological dependence characterised by withdrawal symptoms and cravings.

**Automatic habit**
Smoking is often associated with and reinforced by routine activities, people and situations – at the end of a meal, driving the car, chatting on the phone, socialising with certain friends, drinking tea/coffee/alcohol. For some people, the feel, smell and sight of a cigarette and the ritual of handling, lighting and smoking the cigarette are all part of the enjoyment and pleasure of smoking. Within a short time, smoking becomes anchored in daily life, and often becomes an unconscious habit where a pack of 20 can be smoked without the person remembering many of the individual cigarettes.

**Psychological dependence**
Emotional dependence is a feature of tobacco use and can manifest itself in many ways.

Smoking is often used as an aid to reduce and/or control negative feelings of anxiety, frustration or anger. Cigarettes are often used to cope with stress and the level of consumption may increase when a person feels under pressure. However, because nicotine is a stimulant it doesn’t actually help a person relax – a smoker will “feel better” because having a cigarette will restore nicotine levels in the body preventing withdrawal.

Many smokers use cigarettes to give structure to their daily routine by providing breaks – for some this may be when they meet up with fellow smokers, for others it may be time to be alone. This behaviour can be triggered by boredom, loneliness or excitement.

Smoking is sometimes used to convey confidence and create an impression that a person is in control; it can be an ice-breaker in social situations for many individuals.

**Tobacco dependence shows many features of a chronic disease**
Seven out of ten smokers want to quit and four out of ten smokers make a quit attempt every year. However, only a small minority of smokers will quit successfully in an initial quit attempt. The majority of users continue to smoke for many years and typically cycle through multiple periods of relapse and remission.

Tobacco dependence is a disease that deserves treatment in the same way as other chronic diseases. Effective treatments have been identified and should be used with every smoker.
The Story of Smoking

ENVIRONMENT
- Tobacco environment
  - Exposure to tobacco marketing
  - Images of smoking in popular media
  - Tobacco industry
  - Access
  - Price
- Community norms
  - Adult smoking prevalence
  - Restrictions on smoking
  - Attitudes to youth and youth culture
  - Socio-economic and cultural context

EXTRINSIC FACTORS
- Family influences
  - Parental smoking
  - Sibling smoking
  - Parental values and attitudes re smoking
  - Socio-economic status
- Personal beliefs and values
  - No risk in trying
  - It won’t happen to me
  - Curiosity
  - Individual choice
  - Adulthood aspirations
  - Perceptions of smoking norms
  - Risk-taking propensity
  - Self-esteem/self-image

INTRINSIC FACTORS
- Psychosocial influences
  - Peer affiliations and friendships
  - Connectedness to school and/or home
  - Sense of alienation
- Personal physiological factors
  - Genetics
  - In utero exposure
  - Puberty and adolescence

What support does a person need to increase their chances of making a successful quit attempt?
- Supportive environment
- Support from health professionals
- Easy access to smoking cessation support
- Personal coping strategies
- Family support
- Support of pharmacological aids in some cases
Tobacco Quiz

1. How many chemicals in tobacco smoke?
   a) 2,000+    b) 4,000+    c) 7,000+

2. How many of these chemicals are known to be cancer causing?
   a) None       b) 35       c) 69

3. On average, by how many minutes does every cigarette shorten a smoker’s life?
   a) 30 minutes  b) 11 minutes  c) Not at all

4. What percentage of men in Ireland smoke?
   a) 16%        b) 25%       c) 31%

5. What percentage of women in Ireland smoke?
   a) 14%        b) 21%       c) 27%

6. How many people die in Ireland, on average each year, from tobacco related diseases?
   a) 3,000      b) 5,500     c) 7,000

7. How many people are diagnosed with lung cancer in Ireland each year?
   a) 700        b) 900       c) 1,910

8. Which type of cancer has the highest death rates among women in Ireland?
   a) Breast     b) Lung      c) Cervical

9. Women who smoke in pregnancy increase the risk of? (choose one or more)
   a) Ectopic pregnancy
   b) Low birth weight babies
   c) Babies which are slower to develop

10. Smoking has no effect on fertility?
    a) True       b) False
11. Children are more likely to smoke if their parents and/or friends smoke?
   a) True   b) False

12. Young people who smoke can experience the same level of withdrawal as adult smokers?
   a) True   b) False

13. It is illegal for under 18s to buy tobacco products?
   a) True   b) False

14. Second-hand smoke can cause increased risk of? (choose one or more)
   a) Heart disease   b) Cancer   c) Asthma and Bronchitis

15. Smokers inhale 85% of tobacco smoke?
   a) True   b) False

16. Children exposed to second-hand smoke have an increased risk of (choose one or more)
   a) Asthma and bronchitis   b) Lower respiratory infections   c) Middle ear disease
   d) Bacterial meningitis   e) Sudden Infant Death Syndrome

17. What does nicotine do? (choose one or more)
   a) Causes addiction   b) Nothing   c) Causes increase in heart rate

18. How quickly does nicotine reach the brain?
   a) 10-20 seconds   b) 30 seconds   c) 60 seconds

19. What does carbon monoxide do? (choose one or more)
   a) Displaces oxygen when you inhale
   b) Nothing
   c) Aids hardening of the arteries (Atherosclerosis)

20. Quitting smoking raises the level of HDL (the good cholesterol) in the body?
   a) True   b) False
21. What does tar do? (choose one or more)
   a) Nothing  b) Causes cancer  c) Causes smoker’s cough

22. Light/Low tar cigarettes are less harmful than regular cigarettes?
   a) True  b) False

23. Which of the following chemicals are in tobacco smoke?
   Nicotine  Formaldehyde  Ammonia  Nickel
   Arsenic  Butane  DDT  Hydrogen Cyanide
   Lead methanol  Polonium 210  Radon  Acetone

24. In 2006, the total cost of respiratory diseases to the Irish health service was estimated at?
   a) €65 million  b) €250 million  c) €437 million

25. In 2008, what was the average cost of a hospital admission for tobacco related illness?
   a) €3,700  b) €5,700  c) €7,700

26. What percentage of deaths in Ireland is caused by tobacco use?
   a) 5%  b) 19%  c) 38%

27. One in every two smokers will die from a tobacco related disease?
   a) True  b) False

28. People with mental health issues are more likely to use tobacco?
   a) True  b) False

29. Cardiovascular disease is the most common cause of death in schizophrenic patients?
   a) True  b) False

30. How many Irish children does the Tobacco Industry need to recruit each day, to maintain profits?
   a) 25  b) 50  c) 75
3. Brief Intervention for Smoking Cessation

Brief Intervention Definition

Brief Interventions involve opportunistic advice, discussion, negotiation or encouragement...
For smoking cessation, brief interventions typically take between 5 and 10 minutes

(NICE Guidelines, Brief Interventions and Referral for Smoking Cessation in Primary Care and Other Settings, 2006)

- Unassisted quit rate = 2-3%
- Brief advice intervention increases quit rate by 1 to 3 percentage points

(Cochrane Review, Physician Advice for Smoking Cessation, 2008)

Brief Intervention – The Evidence

- Intervention from health professionals has been shown repeatedly, in randomised controlled trials, to increase the percentage of smokers who stop and remain abstinent for 6 months or more
- It is a highly cost effective intervention

(West et al, Smoking Cessation Guidelines for Health Professionals: An Update, 2000)

Missed Opportunities

- Only 38% of current smokers who attended a GP or other health professional in the last year reported that the health professional had discussed quitting smoking with them during their consultation.

(Brugha et al, SLÁN 2007 Survey of Lifestyle, Attitudes and Nutrition in Ireland: Implications for Policy and Services, 2009)
Framework for Brief Intervention for Smoking Cessation

The 5 As

ASK ▶ systematically identify all smokers at every visit. Record smoking status, no. of cigarettes smoked per day/week and year started smoking.

ADVISE ▶ urge all smokers to quit. Advice should be clear and personalised.

ASSESS ▶ determine willingness and confidence to make a quit attempt; note the stage of change.

ASSIST ▶ aid the smoker in quitting. Provide behavioural support. Recommend/prescribe pharmacological aids. If not ready to quit promote motivation for future attempt.

ARRANGE ▶ follow-up appointment within 1 week or if appropriate refer to specialist cessation service for intensive support. Document the intervention.

4. Stages of Change

Prochaska and DiClemente (1983) described a series of stages through which people pass when making behaviour change. At each stage a person is thinking and feeling differently about the problem behaviour and will find different processes and interventions helpful in moving on. This model is most often pictured diagrammatically as a circle.

The Wheel of Change (Trans-Theoretical Model of Behaviour Change)
Pre-contemplation Stage
- No interest at all in changing behaviour
- Sees many personal advantages in it
- Has mostly positive thoughts about the behaviour

Contemplation Stage
- Aware of some personal disadvantages
- Has thought about changing some aspects of the behaviour
- Still has many reasons for continuing

Preparation Stage
- Intending to make a change
- Knows why they want to change
- Planning when and how to do it

Action
- Believing that change is possible
- Actually making a quit attempt

Maintenance
- The behaviour change is ongoing
- Able to cope without relapsing
- Support and encouragement needed

Relapse
- This attempt unsuccessful
- Returns to one of the above stages

It is common to go around the model 3-4 times before reaching the maintenance stage, hence its name – the cycle of change/wheel of change. Passing through this cycle will take time, which can be months or years depending on individual circumstances.
5. Effecting Change

**Client Centred Approach**

The client-centred approach considers the client holistically. It is a non-directive behaviour change approach which enhances rapport building. This approach allows the client to accept responsibility for their own health and therefore to set their own goals. The health professional’s role is more focussed on listening with emphasis on how to say things rather than what to say.

**Core conditions of client-centred approach**
- Acceptance
- Empathy
- Genuineness

**While using the client-centred approach, the client:**
- Is the expert about themselves and their situation
- Is the decision maker
- Has the right not to change
- Has the capacity to find their own answers, with possible assistance from the health professional

**Motivational Interviewing**

Motivational Interviewing (MI) is an evidence based clinical method for helping people to make change, first proposed in 1983 by William Miller and further developed in the 1990s by Miller and Rollnick. It is a client-centred, directive, behaviour change approach which resolves ambivalence and resistance. Ambivalence is acknowledged as a significant factor in the change process. Readiness to change is also a central concept as readiness can vary constantly throughout the cycle of change. Recognising where the client is at is the starting point in any consultation and is key to an effective outcome.

The underlying spirit of MI is that change comes from within the individual, not from some outside force. It is the client’s place (not the health professional’s) to state and resolve their ambivalence. The health professional’s role is to draw on and enhance the client’s internal motivation to make changes, based on their own decisions and choice. The client is allowed to do their own self persuading and problem solving and is encouraged to state their uncertainty in a clear and complete way. Self motivational statements (change talk) are elicited; this is where the client begins to talk about their need for change, advantages of changing, their ability and intention to change. ‘Change talk’ leads to commitment and an increased probability of behaviour change.
Five general principles of Motivational Interviewing:

1. **Express Empathy** – see the world through client’s eyes. Be non-judgemental; leave aside one’s own views and values.

2. **Develop Discrepancy** – facilitate client to identify the discrepancy between current behaviour and future goals.

3. **Avoid Argumentation** – it’s counterproductive. Look for inconsistencies and consequences that conflict with important goals.

4. **Roll with Resistance** – defuse the resistance. Be empathetic and non-judgemental and encourage client to develop their own solutions and examine new perspectives.

5. **Support Self-Efficacy** – client is responsible for choosing and carrying out personal change. Belief in the possibility of change is a good motivator and previous efforts and successes can be elicited to build self-confidence.

Effective motivational interviewing encompasses the following communication techniques commonly referenced by the acronym **OARS**:

- **Open ended questions** – allows client to express their perspective and provides insights for the consultation.
- **Affirmations** – shows appreciation and support for the client’s statements. They can be verbal or non-verbal.
- **Reflective listening** – adds direction to the consultation and helps focus on change statements.
- **Summarising** – draws a number of strands together and clarifies and reflects the client’s own thoughts back to them.

**Asking permission** has also been shown to be a powerful tool. It communicates respect for the client and results in increased likelihood of discussing change.

In motivational interviewing the focus shifts from giving information and advice, to helping clients explore concerns, uncertainties, reasons for change, and ideas and strategies to make change happen.

**Examples of how to raise the issue of smoking using non-threatening language**

**What questions could you ask someone who would like to quit?**

- Tell me a little bit about your smoking?
- You’ve told me you are a smoker. What do you most enjoy about smoking?
- What’s not so good about your smoking?
- What do you remember about your previous quit attempts?
- Why do you want to stop smoking now?
- Have you thought about it before? Yes – how long have you been thinking about quitting?
• What is your understanding of the benefits of quitting?
• What supports do you have in helping you quit?
• How important is this to you (on a scale of 1-10)?
• How confident do you feel that you can quit? (on a scale of 1-10)?
• If you were to set a quit date, when would be a good time to quit?
• How do you think you can be supported?
• What would you like to do with the money you save?

What questions can you ask someone who tried to quit before but didn’t succeed?
• What is it that makes you think you couldn’t manage this time?
• Why do you want to stop again?
• What did you use to help you last time?
• How long did you stop for?
• What did you find difficult?
• What do you mean by tried?
• What support did you have?
• What do you think you would or could do differently this time?
• How important is it for you to try and stop again (on a scale of 1-10)?
• What strategies do you think you could use to be more prepared this time?
• How confident do you feel this time (on a scale of 1-10)?

What questions can you ask someone who says “I’ve cut down”?
• What prompted you to cut down?
• What differences have you noticed since cutting down?
• How many have you cut down from – to?
• How are you coping with the reduction?
• Are your family supportive? – In what way?
• What further changes do you feel you could make?
• How have you changed your lifestyle/social circle?
• What is the next step for you? Where do you want to go from here?
• What rewards would help to keep you motivated while you are quitting?
• Let’s talk about how tobacco dependence treatments could help you to quit completely.
What questions can you ask someone who says they have stopped?

- Well done. How did you do it?
- What is the next step for you?
- How are you coping with it?
- What strategies do you use?
- What support do you have?
- Do you feel better now? In what way?
- How have you managed around other smokers?

Responses for Challenging Statements

**Statement 1**

“My granny smoked 40 a day and she lived well into her eighties.”

**Response:**

Sounds like your granny was one of the lucky ones!
What was her health like for the latter part of her life?
Did she ever try to stop? Why do you think that was?

**Statement 2**

“Well, I have cut down and changed to a ‘lighter’ brand.”

**Response:**

What made you decide to do that?
How do you feel now that you have done that?
Where do you want to go from here?
Why do you feel that smoking ‘light’ cigarettes will protect you?

**Statement 3**

“I’ve tried to stop so many times in the past and it just doesn’t work.”

**Response:**

Why do you think it hasn’t worked before?
What do you think you could do differently this time?
**Statement 4**

“I have almost managed to stop, but my partner smokes and I keep having the odd one with him.”

**Response:**

How does that make you feel?
What would you like to do?
How does your partner feel about you smoking?
What support would you need to make that final effort to quit?

**Statement 5**

“What’s the point – the damage is done already.”

**Response:**

What do you think will happen now if you continue to smoke?
How do you think you would feel if you did stop?
Did you ever stop before? How did you feel then?

**Statement 6**

“It’s not like I’m hurting anyone else by smoking.”

**Response:**

Have you ever heard about risks/harm from second hand smoke?
Tell me why you believe your smoking doesn’t affect anyone else.
In what way do you think your smoking might be affecting yourself?

**Statement 7**

“Sure I’m only smoking, it could be worse, I could be doing drugs or something else.”

**Response:**

It sounds like you think smoking is safer than doing drugs?
You seem to believe that ‘only smoking’ is okay for your health – is that right?
6. Tools and Techniques to Support Quitting

Top 10 Tips for Successful Quitting

1. **Prepare to Quit Smoking**
   Write down your reasons for stopping and keep them close at hand. Weigh up the pros and cons.

2. **Make a Date to Quit**
   Some smokers cut down gradually with a plan for a quit date. However, most people who successfully quit smoking do so by stopping altogether and not by gradually cutting down. Pick your day to quit and stick to it.

3. **Support**
   Seek the support of family or friends.

4. **Change Your Routine and Plan Ahead**
   Smoking is often linked to certain times and situations such as the first smoke in the morning, drinking coffee or alcohol. These are called your triggers. Replace triggers with new activities that you don’t associate with smoking. For example, if you always had a cigarette with a cup of coffee, switch to tea for a while; or for two weeks before your quit date have your coffee but practice delaying by five minutes one day, six minutes the next day and so on until you break the association between coffee and smoking.

5. **Exercise Regularly**
   Regular exercise contributes to good health; helps to manage your weight and can also improve the body’s ability to meet the demands and stresses of daily living.

6. **Think Positive**
   You may find you experience withdrawal symptoms once you stop smoking. These are very positive signs that your body is recovering from the effects of tobacco. Coughing, irritability and sleep disturbance are some common symptoms. Don’t worry, they are all perfectly normal and should disappear within a few weeks.
7. **Learn to Deal with Cravings**
Cravings can occur frequently during the first few days after stopping. A craving increases in intensity over a period of 3-5 minutes and then begins to subside.

**Tips for dealing with cravings – The 4 Ds:**
- **Delay** at least 3 minutes and the urge will pass.
- **Drink** a glass of water or fruit juice.
- **Distract** yourself. Move away from the situation.
- **Deep** breaths. Breathe slowly and deeply.

8. **Save Money**
Start saving the money you would normally spend on tobacco. Work out how much you spend on cigarettes per week, month and year. Then watch your savings grow.

9. **Watch What You Eat**
If you are worried about gaining weight, be extra careful with your diet. Avoid snacking on chocolate bars and biscuits, try some fruit or chew sugar free gum instead.

10. **Take One Day at a Time**
Remember, every day without a cigarette is good news for your health, your family and your pocket.
Withdrawal Symptoms

Quitting smoking brings about a variety of physical and psychological withdrawal symptoms. For some people, coping with withdrawal symptoms is like riding a roller coaster – there may be sharp turns, slow climbs, and unexpected plunges. Most physical symptoms manifest within the first one to two days, peak within the first week, and subside within two to four weeks. Any new symptoms should be notified to a health professional, especially if severe. Recent medication changes and caffeine intake can have an impact on symptoms. It may take longer to break the psychological dependence caused by constant triggers and social cues associated with smoking.

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>CAUSE</th>
<th>DURATION</th>
<th>RELIEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craving for a cigarette</td>
<td>Nicotine is a strongly addictive drug, and withdrawal causes cravings</td>
<td>A craving for a cigarette can last for between 3-5 minutes frequently for 2-3 days; can happen for months or years</td>
<td>Wait out the urge, which lasts only a few minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Distract yourself</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exercise (take walks)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Drink a glass of water or fruit juice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Breathe slowly and deeply</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use of nicotine medication may help</td>
</tr>
<tr>
<td>Irritability</td>
<td>The body’s craving for nicotine can produce irritability</td>
<td>2-4 weeks</td>
<td>Take walks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Try hot baths</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use relaxation techniques</td>
</tr>
<tr>
<td>Dizziness</td>
<td>The body is getting extra oxygen</td>
<td>1-2 days</td>
<td>Use extra caution</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Change positions slowly</td>
</tr>
<tr>
<td>Chest tightness</td>
<td>Tightness is likely due to tension created by the body’s need for nicotine or may be caused by sore muscles from coughing</td>
<td>A few days</td>
<td>Use relaxation techniques</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Try deep breathing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use of NRT may help</td>
</tr>
<tr>
<td>Constipation, stomach pain, gas</td>
<td>Intestinal movement decreases for a brief period</td>
<td>1-2 weeks</td>
<td>Drink plenty of fluids</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Add fruit, vegetables, and whole-grain cereals to diet</td>
</tr>
<tr>
<td>Cough, dry throat, nasal drip</td>
<td>The body is getting rid of mucus, which has blocked airways and restricted breathing</td>
<td>A few days</td>
<td>Drink plenty of fluids</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Avoid additional stress during first few weeks</td>
</tr>
</tbody>
</table>
### Symptom: Depressed mood

**Cause:** It is normal to feel sad for a period of time after you first quit smoking. Many people have a strong urge to smoke when they feel depressed.

**Duration:** 1-2 weeks

**Relief:** Increase pleasurable activities. Talk with your clinician about changes in your mood when quitting. Get extra support from friends and family.

---

### Symptom: Difficulty concentrating

**Cause:** The body needs time to adjust to not having constant stimulation from nicotine.

**Duration:** A few weeks

**Relief:** Plan workload accordingly. Avoid additional stress during first few weeks.

---

### Symptom: Fatigue

**Cause:** Nicotine is a stimulant.

**Duration:** 2-4 weeks

**Relief:** Take naps. Do not push yourself. Use of a nicotine medication may help.

---

### Symptom: Hunger

**Cause:** Cravings for a cigarette can be confused with hunger pangs; sensation may result from oral cravings or the desire for something in the mouth.

**Duration:** Up to several weeks

**Relief:** Drink water or low-calorie liquids. Be prepared with low-calorie snacks.

---

### Symptom: Insomnia

**Cause:** Nicotine affects brain wave function and influences sleep patterns; coughing and dreams about smoking are common.

**Duration:** 2-4 weeks

**Relief:** Limit caffeine intake because its effects will increase with quitting smoking. Use relaxation techniques.

---

*Adapted from Materials from the National Cancer Institute, U.S. National Institutes of Health.*
Medications for the Treatment of Tobacco Dependence

**Long Acting Medications**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>USE</th>
<th>ADVANTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nicotine Patch</strong>*</td>
<td>Apply each day to clean, dry hairless skin</td>
<td>Place and forget</td>
</tr>
<tr>
<td></td>
<td>If using 24hr patch, start with 21mg patch daily if smokes more than 10 cigs/day; can taper to 14mg at week 6 to 8; then 7mg for week 9, 10 if no cravings</td>
<td>Over the counter, can decrease morning cravings if worn at night (24hr patch only)</td>
</tr>
<tr>
<td></td>
<td>If using the 16hr patch, start with 25mg patch daily if smokes more than 15-20 cigs/day until week 8 completed; taper to 15mg for week 9, 10 and then 10mg for week 11, 12 if no cravings</td>
<td></td>
</tr>
<tr>
<td><strong>Champix/ Varenicline</strong>*</td>
<td>0.5mg once daily days 1-3</td>
<td>Reduces withdrawal and may prevent relapse</td>
</tr>
<tr>
<td></td>
<td>0.5mg twice daily days 4-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Then 1mg twice daily.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use up to 12 weeks. Extra 12 weeks if required</td>
<td></td>
</tr>
<tr>
<td><strong>Zyban</strong>*</td>
<td>150mg each morning for 3-7 days, then 300mg/day</td>
<td>Less weight gain while using</td>
</tr>
<tr>
<td><strong>Wellbutrin SR</strong></td>
<td>Start prior to quit date</td>
<td>Safe to smoke while taking</td>
</tr>
<tr>
<td><strong>Wellbutrin XL</strong></td>
<td>Doses must be at least 8 hours apart; take second pill in early evening to reduce insomnia</td>
<td></td>
</tr>
<tr>
<td><strong>Bupropion</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tools and Techniques to Support Quitting

<table>
<thead>
<tr>
<th>Product</th>
<th>Use</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Side Effects</th>
<th>Cost (Aug 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine Patch*</td>
<td>Apply each day to clean, dry, hairless skin If using 24hr patch, start with 21mg patch daily if smokes more than 10 cigs/day; can taper to 14mg at week 6 to 8; then 7mg for week 9, 10 if no cravings</td>
<td>Place and forget Over the counter, can decrease morning cravings if worn at night (24hr patch only)</td>
<td>Passive – no action to take when craving occurs</td>
<td>Skin reaction – 50% of patients, usually mild. *Rotate sites Can experience vivid dreams or sleep disturbance at night with 24hr patch</td>
<td>€27 for 1/52 of 21mg, 14mg, and 7mg, €47 for 2/52 of 21mg.</td>
</tr>
<tr>
<td>Nicotine CQ</td>
<td>€24 for 1/52 of 1/5mg, 14mg, and 7mg.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotinell</td>
<td>€47 for 2/52 of 21mg.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicorette</td>
<td>€24 for 1/52 of 25mg, 15mg and 10mg.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Champix/Varenicline*</td>
<td>0.5mg once daily days 1-3 0.5mg twice daily days 4-7 Then 1mg twice daily. Use up to 12 weeks. Extra 12 weeks if required</td>
<td>Reduces withdrawal and may prevent relapse Passive – no action to take with cravings.</td>
<td>Do not use if you have severe kidney disease Not licensed in pregnancy or breast feeding Acute Depressive Disease Black boxed warning for neuropsychiatric symptoms</td>
<td>Nausea (30%) usually mild – can reduce to 0.5mg level. Take with food. Insomnia</td>
<td>€132 on DPS per 1 month supply 4/52 starter pack €131 4/52 1mg bd pack €131</td>
</tr>
<tr>
<td>Zyban*</td>
<td>Wellbutrin SR Wellbutrin XL Bupropion 150mg each morning for 3-7 days, then 300mg/day. Start prior to quit date Doses must be at least 8 hours apart; take second pill in early evening to reduce insomnia</td>
<td>Less weight gain while using Safe to smoke while taking Side effects common Passive – no action to take with cravings. Prescription required</td>
<td>Do Not Use with: Seizure disorders; current use of Wellbutrin or MAO inhibitors; electrolyte abnormalities; eating disorders Monitor blood pressure Not licensed in pregnancy or breast feeding</td>
<td>Insomnia (40%) Dry mouth Headache Anxiety Rash Flexible dosing (keeping at 150mg/day) helpful with side effects</td>
<td>€110 on DPS per 1 month supply</td>
</tr>
</tbody>
</table>
### Short Acting Medications

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>USE</th>
<th>ADVANTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine Gum* 2mg and 4mg</td>
<td>2mg and 4mg (4mg if smokes more than 20 cigs/day) Take every 1-2 hrs as needed. Chew and park</td>
<td>Use as needed Can self dose Available over the counter</td>
</tr>
<tr>
<td>Nicotine Inhaler* 15mg</td>
<td>Puff as needed. Use up to 6 cartridges/day, less needed if using combination therapy. Oral absorbed – no need to inhale deeply. Each cartridge lasts for 20-40 minutes of inhaling</td>
<td>Use as needed Mimics hand to mouth action of smoking Advise to use non smoking hand to hold.</td>
</tr>
<tr>
<td>Nicotine Lozenge* 2mg and 4mg</td>
<td>2 and 4mg (4mg if smokes within 30 mins of waking) Take 1 lozenge every 1-2 hours. Park between cheek and gum – dissolves in mouth. Do not chew or swallow. Use approx 9 per day for first 6 weeks then taper.</td>
<td>Ease of use Over the counter Flexible dosing</td>
</tr>
<tr>
<td>Nicotine Microtab* 2mg</td>
<td>Place under the tongue and leave to dissolve. Do not chew. Use every 1-2 hours if smokes more than 20 cigs/day</td>
<td>Use as needed Over the counter Flexible dosing Discrete</td>
</tr>
<tr>
<td>Nicotine Mini Lozenge 1.5mg and 4mg</td>
<td>1.5 and 4mg (4mg if smokes within 30 mins of waking) Take 1 lozenge every 1-2 hours. Park between cheek and gum – dissolves in mouth. Do not chew or swallow</td>
<td>Use as needed Over the counter Flexible dosing Discrete</td>
</tr>
</tbody>
</table>

* Available on GMS.
Adapted with permission from Dr Michael Steinberg MD, MPH – Tobacco Dependence Program, UMDNJ.
Disclaimer – The above list is meant as a guide only and the manufacturers’ instructions should always be adhered to.
# Tools and Techniques to Support Quitting

## Short Acting Medications

<table>
<thead>
<tr>
<th>Product</th>
<th>Use</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Precautions</th>
<th>Side Effects</th>
<th>Est Cost (Aug 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nicotine Gum</strong>*</td>
<td>2mg and 4mg (4mg if smokes more than 20 cigs/day)</td>
<td>Take every 1-2 hrs as needed. Chew and park Use as needed</td>
<td>Can self-dose Available over the counter Difficult to chew</td>
<td>Avoid food and acidic drinks 15 minutes before and while using <em>(decreased absorption – reduced effect)</em></td>
<td>Jaw pain Nausea/heartburn if swallowing saliva</td>
<td>2mg €9/30; €28/105; €44/210 4mg €11/30; €34/105; €55/210</td>
</tr>
<tr>
<td><strong>Nicotine Inhaler</strong>*</td>
<td>15mg</td>
<td>Puff as needed. Use up to 6 cartridges/day, less needed if using combination therapy. Oral absorbed – no need to inhale deeply. Each cartridge lasts for 20-40 minutes of inhaling</td>
<td>Use as needed Mimics hand-to-mouth action of smoking Advise to use non-smoking hand to hold. Visible in hand</td>
<td>Avoid food and acidic drinks before and while using. Caution use in asthmatic clients</td>
<td>Cough; throat irritation (usually mild)</td>
<td>€12 for 18 cartridges €29 for 42 cartridges</td>
</tr>
<tr>
<td><strong>Nicotine Lozenge</strong>*</td>
<td>2mg and 4mg (4mg if smokes within 30 mins of waking)</td>
<td>Take 1 lozenge every 1-2 hours. Park between cheek and gum – dissolves in mouth. Do not chew or swallow. Use approx 9 per day for first 6 weeks then taper.</td>
<td>Ease of use Over the counter Flexible dosing</td>
<td>Avoid food and acidic drinks before and while using</td>
<td>Hiccups Nausea/heartburn if swallowing saliva</td>
<td>€14/36 €26/72</td>
</tr>
<tr>
<td><strong>Nicotine Microtab</strong>*</td>
<td>2mg</td>
<td>Place under the tongue and leave to dissolve. Do not chew. Use every 1-2 hours if smokes more than 20 cigs/day</td>
<td>Use as needed Over the counter Flexible dosing Discrete</td>
<td>Avoid food and acidic drinks before and while using</td>
<td>Nausea/heartburn if swallowing saliva</td>
<td>€11 for 30 €25 for 100</td>
</tr>
<tr>
<td><strong>Nicotine Mini Lozenge</strong>*</td>
<td>1.5mg and 4mg (4mg if smokes within 30 mins of waking)</td>
<td>Take 1 lozenge every 1-2 hours. Park between cheek and gum – dissolves in mouth. Do not chew or swallow. Use as needed Over the counter Flexible dosing Discrete</td>
<td>Avoid food and acidic drinks before and while using</td>
<td>Avoid food and acidic drinks before and while using</td>
<td>Hiccups Nausea/heartburn if swallowing saliva</td>
<td>1.5mg €7/20 €20/60 4mg €7/20 €20/60</td>
</tr>
</tbody>
</table>

*Available on GMS. Adapted with permission from Dr Michael Steinberg MD, Tobacco Dependence Program, UMDNJ. Disclaimer – The above list is meant as a guide only and the manufacturers’ instructions should always be adhered to.
## Comparison of Nicotine Delivery Devices

### TOBACCO PRODUCTS

<table>
<thead>
<tr>
<th>NICOTINE DELIVERY DEVICE</th>
<th>NICOTINE IN PRODUCT</th>
<th>APPROX AMOUNT OF NICOTINE DELIVERED</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marlboro Gold</td>
<td>13mg</td>
<td>1-3mg</td>
<td>Also delivers a wide range of carcinogens and other toxins</td>
</tr>
<tr>
<td>Marlboro Red</td>
<td>13mg</td>
<td>1-3mg</td>
<td></td>
</tr>
<tr>
<td>Cigars</td>
<td>10-40mg</td>
<td>Highly variable</td>
<td></td>
</tr>
<tr>
<td>Moist Snuff</td>
<td>3-12mg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NICOTINE REPLACEMENT PRODUCTS

<table>
<thead>
<tr>
<th>NICOTINE DELIVERY DEVICE</th>
<th>NICOTINE IN PRODUCT</th>
<th>APPROX AMOUNT OF NICOTINE DELIVERED</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine Gum</td>
<td>2mg piece</td>
<td>Up to 0.8mg</td>
<td>Only delivers nicotine to user</td>
</tr>
<tr>
<td>Nicotine Gum</td>
<td>4mg piece</td>
<td>Up to 1.5mg</td>
<td></td>
</tr>
<tr>
<td>Nicotine Patch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td>10mg/16 hours</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td>15mg/16 hours</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td>25mg/16 hours</td>
<td></td>
</tr>
<tr>
<td>Nicotine Patch</td>
<td></td>
<td>7mg/24 hours</td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td>14mg/24 hours</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td>21mg/24 hours</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotine Inhaler</td>
<td>15mg/cartridge</td>
<td>Up to 3mg/cartridge</td>
<td></td>
</tr>
<tr>
<td>Nicotine Microtabs</td>
<td>2mg</td>
<td>Approx 1mg</td>
<td></td>
</tr>
<tr>
<td>Nicotine Lozenge</td>
<td>2mg</td>
<td>Approx 1mg</td>
<td></td>
</tr>
<tr>
<td>Nicotine Lozenge</td>
<td>4mg</td>
<td>Approx 2mg</td>
<td></td>
</tr>
<tr>
<td>Nicotine Mini Lozenge</td>
<td>1.5mg</td>
<td>Up to 0.8mg</td>
<td></td>
</tr>
<tr>
<td>Nicotine Mini Lozenge</td>
<td>4mg</td>
<td>Approx 2mg</td>
<td></td>
</tr>
</tbody>
</table>

Adapted with permission from Dr Michael Steinberg MD, MPH – Tobacco Dependence Program, UMDNJ.
Drug Interactions with Smoking

Many interactions between tobacco smoke and medications have been identified. Tobacco smoke may interact with medications through pharmacokinetic or pharmacodynamic mechanisms. Pharmacokinetic interactions affect the absorption, distribution, metabolism, or elimination of other drugs, potentially causing an altered pharmacologic response. The majority of pharmacokinetic interactions are the result of induction of hepatic cytochrome P450 enzymes (primarily CYP1A2). Pharmacodynamic interactions alter the expected response or actions of other drugs. The most clinically significant interactions are depicted in the shaded areas of the table.

<table>
<thead>
<tr>
<th>DRUG/CLASS</th>
<th>MECHANISM OF INTERACTION AND EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzodiazepines</td>
<td>• Pharmacodynamic interaction: decreased sedation and drowsiness.</td>
</tr>
<tr>
<td>(diazepam, chlordiazepoxide)</td>
<td>• May be caused by central nervous system stimulation by nicotine.</td>
</tr>
<tr>
<td>Beta-blockers</td>
<td>• Pharmacodynamic interaction: less effective anti hypertensive and rate control effects.</td>
</tr>
<tr>
<td></td>
<td>• May be caused by nicotine-mediated sympathetic activation.</td>
</tr>
<tr>
<td>Caffeine</td>
<td>• Increased metabolism (induction of CYP1A2); clearance increased by 56%.</td>
</tr>
<tr>
<td></td>
<td>• Caffeine levels may increase after cessation.</td>
</tr>
<tr>
<td>Chlorpromazine (Thorazine)</td>
<td>• Decreased area under the curve (AUC) (36%) and serum concentrations (24%).</td>
</tr>
<tr>
<td></td>
<td>• Smokers may experience less sedation and hypotension and require higher dosages than nonsmokers.</td>
</tr>
<tr>
<td>Clozapine (Clozaril)</td>
<td>• Increased metabolism (induction of CYP1A2); plasma concentrations decreased by 28%.</td>
</tr>
<tr>
<td>Flecaainide (Tambocor)</td>
<td>• Clearance increased by 61%; trough serum concentrations decreased by 25%.</td>
</tr>
<tr>
<td></td>
<td>• Smokers may require higher dosages.</td>
</tr>
<tr>
<td>Fluvoxamine (Luvox)</td>
<td>• Increased metabolism (induction of CYP1A2); clearance increased by 25%;</td>
</tr>
<tr>
<td></td>
<td>• Decreased plasma concentrations (47%).</td>
</tr>
<tr>
<td></td>
<td>• Dosage modifications not routinely recommended but smokers may require higher dosages.</td>
</tr>
<tr>
<td>Haloperidol (Haldol)</td>
<td>• Clearance increased by 44%; serum concentrations decreased by 70%.</td>
</tr>
<tr>
<td>Heparin</td>
<td>• Mechanism unknown but increased clearance and decreased half-life are observed.</td>
</tr>
<tr>
<td></td>
<td>• Smokers may require higher dosages.</td>
</tr>
<tr>
<td>Insulin</td>
<td>• Insulin absorption may be decreased secondary to peripheral vasoconstriction; smoking may cause release of endogenous substances that antagonise the effects of insulin.</td>
</tr>
<tr>
<td></td>
<td>• Smokers may require higher dosages.</td>
</tr>
</tbody>
</table>
### DRUG/CLASS

<table>
<thead>
<tr>
<th>DRUG/CLASS</th>
<th>MECHANISM OF INTERACTION AND EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexiletine (Mexitil)</td>
<td>• Clearance (via oxidation and glucuronidation) increased by 25%; half-life decreased by 36%.</td>
</tr>
<tr>
<td>Olanzapine (Zyprexa)</td>
<td>• Increased metabolism (induction of CYP1A2); clearance increased by 40-98%. &lt;br&gt; • Dosage modifications not routinely recommended but smokers may require higher dosages.</td>
</tr>
<tr>
<td>Opioids (propoxyphene, pentazocine)</td>
<td>• Pharmacodynamic interaction: decreased analgesic effect; higher dosages necessary in smokers. &lt;br&gt; • Mechanism unknown.</td>
</tr>
<tr>
<td>Propranolol (Inderal)</td>
<td>• Clearance (via side chain oxidation and glucuronidation) increased by 77%.</td>
</tr>
<tr>
<td>Oral contraceptives</td>
<td>• Pharmacodynamic interaction: increased risk of cardiovascular adverse effects (e.g., stroke, myocardial infarction, thromboembolism) in women who smoke and use oral contraceptives. &lt;br&gt; • Risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over age 35 years.</td>
</tr>
<tr>
<td>Tacrine (Cognex)</td>
<td>• Increased metabolism (induction of CYP1A2); half-life decreased by 50%; serum concentrations threefold lower. &lt;br&gt; • Smokers may require higher dosages.</td>
</tr>
<tr>
<td>Theophylline (Theo Dur, etc)</td>
<td>• Increased metabolism (induction of CYP1A2); clearance increased by 58-100%; half-life decreased by 63%. &lt;br&gt; • Theophylline levels should be monitored if smoking is initiated, discontinued, or changed. &lt;br&gt; • Maintenance doses are considerably higher in smokers.</td>
</tr>
</tbody>
</table>

7. Benefits of Quitting

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Benefit Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 20 minutes</td>
<td>Blood pressure drops, pulse rates drops to normal, body temperature of hands and feet return to normal</td>
</tr>
<tr>
<td>Within 8-12 hours</td>
<td>Carbon monoxide levels in the blood start returning to normal and within a few days are the same as non smokers</td>
</tr>
<tr>
<td>Within 24-48 hours</td>
<td>Risk of heart attack begins to decrease</td>
</tr>
<tr>
<td>Within 48 hours</td>
<td>Ability to smell and taste improves</td>
</tr>
<tr>
<td>Within 72 hours</td>
<td>Breathing gets easier as bronchial tubes relax, lung capacity increases</td>
</tr>
<tr>
<td>Within 3 weeks</td>
<td>Mucus in the lungs loosen, lung function and circulation improves</td>
</tr>
<tr>
<td>Within 2-3 months</td>
<td>Blood flows more easily to arms and legs, lung function begins to increase</td>
</tr>
<tr>
<td>After 1 year</td>
<td>Risk of sudden death from heart attack is almost cut in half</td>
</tr>
<tr>
<td>After 5 years</td>
<td>The risk of smoking related cancers and stroke is greatly reduced.</td>
</tr>
<tr>
<td>Within 10-15 years</td>
<td>Risk of heart attack falls to the same as someone who has never smoked. Risk of lung cancer falls to half that of a non smoker and the risk of cancer of the mouth, throat, esophagus, bladder, cervix and pancreas decreases.</td>
</tr>
</tbody>
</table>

Adapted from Burnside, G. Spiers, A., Winckles, W. Help Smokers Quit Kit. Ulster Cancer Foundation, Northern Ireland; WHO Fact Sheet About Health Benefits of Smoking Cessation; NHS SmokeFree ‘Why Quit Timeline’; American Cancer Society When Smokers Quit – What Are The Benefits Over Time?

What is Smoking Costing You?

<table>
<thead>
<tr>
<th>NUMBER OF CIGARETTES SMOKED EACH DAY</th>
<th>NUMBER OF CIGARETTES SMOKED IN A YEAR</th>
<th>WASTED HOURS</th>
<th>COST PER DAY €</th>
<th>COST PER WEEK €</th>
<th>COST PER MONTH €</th>
<th>COST PER YEAR €</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1,825</td>
<td>122</td>
<td>2.28</td>
<td>15.93</td>
<td>69.20</td>
<td>830.38</td>
</tr>
<tr>
<td>10</td>
<td>3,650</td>
<td>243</td>
<td>4.55</td>
<td>31.85</td>
<td>138.40</td>
<td>1,660.75</td>
</tr>
<tr>
<td>15</td>
<td>5,475</td>
<td>365</td>
<td>6.83</td>
<td>47.78</td>
<td>207.59</td>
<td>2,491.33</td>
</tr>
<tr>
<td>20</td>
<td>7,300</td>
<td>487</td>
<td>9.10</td>
<td>63.70</td>
<td>276.79</td>
<td>3,321.50</td>
</tr>
<tr>
<td>40</td>
<td>14,600</td>
<td>973</td>
<td>18.20</td>
<td>127.40</td>
<td>553.58</td>
<td>6,643.00</td>
</tr>
<tr>
<td>60</td>
<td>21,900</td>
<td>1,460</td>
<td>27.30</td>
<td>191.10</td>
<td>830.38</td>
<td>9,964.56</td>
</tr>
</tbody>
</table>

Pack of 20 cigarettes costs €9.10 @ May 2012.
8. Bibliography


Health Service Executive QUIT Campaign (2011). Available at http://www.quit.ie/en/1_in_every_2_smokers


Bibliography


Office of Tobacco Control (2012). Available at http://www.otc.ie/research.asp#section1


Appendices

WHO Code of Practice on Tobacco Control for Health Professional Organisations

Preamble: In order to contribute actively to the reduction of tobacco consumption and include tobacco control in the public health agenda at national, regional and global levels, it is hereby agreed that health professional organisations will:

1. Encourage and support their members to be role models by not using tobacco and by promoting a tobacco-free culture.
2. Assess and address the tobacco consumption patterns and tobacco-control attitudes of their members through surveys and the introduction of appropriate policies.
3. Make their own organisations’ premises and events tobacco free and encourage their members to do the same.
4. Include tobacco control in the agenda of all relevant health-related congresses and conferences.
5. Advise their members to routinely ask patients and clients about tobacco consumption and exposure to tobacco smoke – using evidence-based approaches and best practices – give advice on how to quit smoking and ensure appropriate follow-up of their cessation goals.
6. Influence health institutions and educational centres to include tobacco control in their health professionals’ curricula, through continued education and other training programmes.
7. Actively participate in World No Tobacco Day every 31 May.
8. Refrain from accepting any kind of tobacco industry support – financial or otherwise – and from investing in the tobacco industry, and encourage their members to do the same.
9. Ensure that their organisation has a stated policy on any commercial or other kind of relationship with partners who interact with or have interests in the tobacco industry through a declaration of interest.
10. Prohibit the sale or promotion of tobacco products on their premises, and encourage their members to do the same.
11. Actively support governments in the process leading to signature, ratification and implementation of the WHO Framework Convention on Tobacco Control.
12. Dedicate financial and/or other resources to tobacco control – including dedicating resources to the implementation of this code of practice.
13. Participate in the tobacco-control activities of health professional networks.

Adopted and signed by the participants of the WHO Informal Meeting on Health Professionals and Tobacco Control; 28-30 January 2004; Geneva, Switzerland.
TFU Charter

HPH & ENSH Collaborative Taskforce on Tobacco
Tobacco Free United – (TFU)

As Health Personnel (Doctor, Nurse or other):
1. I am conscious of the harmful effects of tobacco
   • to each smoker/tobacco user
   • to each person who lives with a smoker
   • to society
2. I know that exposure to environmental tobacco smoke also called “second hand smoke” and “passive smoking” is a widespread source of morbidity and mortality that imposes a significant cost on society.
3. I am conscious that tobacco is a drug that causes psychological and pharmacological dependence
4. I am ready to motivate tobacco user to quit
5. I am willing to discourage tobacco use of any kind:
   • by presenting myself as a good role model by not smoking or using tobacco
   • by promoting the designation and maintenance of healthcare service as tobacco free
   • by developing skills to clarify tobacco addiction and motivate tobacco users and relatives to quit
   • by promoting tobacco cessation in my social life
6. I realise that I have a great responsibility, not only towards patients but also to colleagues and to the general public and, in particular, towards the young generations
   • I incite managers to approve and take appropriate preventive measures

We – as Health Personnel (Doctors, Nurses and other) – join our efforts and strength to reduce tobacco consumption in the knowledge that it is the single most important voluntary risk factor and the cause of many early deaths in our communities.

Name & Surname

Profession

Hospital/Service

City Country

Date / /

Signature

I give permission to publish my name in the Charter Register on paper & web (please tick):

This Charter is based on the TFU Pact on Tobacco for Hospitals and Health Services and can be found online http://www.ensh.eu/TFU-form.php
Five Key Tools for Successful Interventions

1. Framework for Brief Intervention for Smoking Cessation

   The 5 As

   **ASK** ▶ systematically identify all smokers at every visit. Record smoking status, no. of cigarettes smoked per day/week and year started smoking.

   **ADVISE** ▶ urge all smokers to quit. Advice should be clear and personalised.

   **ASSESS** ▶ determine willingness and confidence to make a quit attempt; note the stage of change.

   **ASSIST** ▶ aid the smoker in quitting. Provide behavioural support. Recommend/prescribe pharmacological aids. If not ready to quit promote motivation for future attempt.

   **ARRANGE** ▶ follow-up appointment within 1 week or if appropriate refer to specialist cessation service for intensive support. Document the intervention.

2. Referral Pathways to National & Local Smoking Cessation Support Services

There is a wide range of supports available to help smokers to quit. These include:

1. **QUIT.ie** is a HSE health education website aimed at encouraging smokers to quit. It has information on the health impacts of smoking, benefits of quitting, useful tips on how to measure level of addiction and a cost calculator. There is also an option to sign up to a QUITplan and receive ongoing email support during the first six weeks.

2. ‘You can QUIT’ facebook page [www.facebook.com/HSEquit](http://www.facebook.com/HSEquit) is an online community supporting quitters through their quit journey.

3. HSE’s [National Smokers’ QUITline 1850 201 203](tel:1850 201 203) offers a confidential counselling service to anyone seeking support or information about quitting smoking. The service is available 8am-10pm Monday to Saturday.

4. HSE [Smoking Cessation Services](#) provide specialist support to clients either in community or health service settings (see list). Services vary between areas and can include one-to-one, group or telephone support. Services are available free of charge.

### HSE DUBLIN MID-LEINSTER

- Dublin South East 01 274 4297
- Dublin South Central 01 463 2800
- Dublin South West 01 463 2800
- Dublin West 01 463 2800
- Kildare 01 463 2800
- Longford 1800 242 505
- Laois 1800 242 505
- Offaly 1800 242 505
- Westmeath 1800 242 505
- Wicklow East 01 274 4297
- Wicklow West 01 463 2800

### HSE DUBLIN NORTH EAST

- Cavan 041 6850671
- Dublin North City 01 8976184
- Dublin North County 01 8976184
- Louth 041 6850671
- Meath 041 6850671
- Monaghan 041 6850671

### HSE SOUTH

- Carlow 056 776 1400
- Cork City 021 492 1641
- Cork North 022 58634
- Cork West 028 40418
- Kerry 066 719 5617
- Kilkenny 056 776 1400
- Tipperary South 052 617 7037
- Waterford 051 846712
- Wexford 1850 201 203

### HSE WEST

- Clare 065 686 5841
- Donegal 1850 200 687
- Letterkenny General Hospital 074 912 3678
- Galway University Hospital 091 542103
- Leitrim 1850 200 687
- Limerick 061 301111
- Mayo 1850 201 203
- Roscommon 1850 201 203
- Sligo 1850 200 687
- Sligo General Hospital 071 917 4548
- Tipperary North 1850 201 203
3. Fagerstrom Test for Nicotine Dependence

Score 8+ = high dependence
Score 5-7 = moderate dependence
Score 3-4 = low to moderate dependence
Score 0-2 = low dependence

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>RESPONSE</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How soon after you wake up do you smoke your first cigarette?</td>
<td>After 60 minutes</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>31-60 minutes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>6-30 minutes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Within 5 minutes</td>
<td>3</td>
</tr>
<tr>
<td>2. Do you find it difficult to refrain from smoking in places where it is forbidden?</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>3. Which cigarette would you hate most to give up?</td>
<td>The first in the morning</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Any other</td>
<td>0</td>
</tr>
<tr>
<td>4. How many cigarettes do you smoke per day?</td>
<td>10 or less</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>11-20</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>21-30</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>31 or more</td>
<td>3</td>
</tr>
<tr>
<td>5. Do you smoke more frequently during the first hours after waking, than during the rest of the day?</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>6. Do you smoke even if you are so ill that you are in bed most of the day?</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1</td>
</tr>
</tbody>
</table>


The most distinctive indicators of nicotine dependence are:

- Time to first cigarette after waking
- The number of cigarettes smoked per day
4. Decisional Balance Tool

<table>
<thead>
<tr>
<th>REASONS TO STAY THE SAME</th>
<th>REASONS TO CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits:</strong></td>
<td><strong>Concerns:</strong></td>
</tr>
<tr>
<td>What do you like about smoking?</td>
<td>What concerns you about smoking?</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
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<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td><strong>Concerns:</strong></td>
<td><strong>Benefits:</strong></td>
</tr>
<tr>
<td>What concerns would you have if you were to quit?</td>
<td>What are the benefits of quitting?</td>
</tr>
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<td>•</td>
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<td>•</td>
</tr>
</tbody>
</table>

On a scale of 1-10, how ready are you to quit smoking?  
(1 = not ready; 10 = ready)

On a scale of 1-10, how confident are you that, if you tried, you could quit for good?  
(1 = not at all confident; 10 = very confident)

On a scale of 1-10, how important is quitting smoking to you?  
(1 = not at all important; 10 = very important)
5. **Smoking Diary**

1. **Number of cigarettes smoked**

<table>
<thead>
<tr>
<th>DAY</th>
<th>MORNING</th>
<th>AFTERNOON</th>
<th>EVENING</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **Other things to consider**

- Why I needed to smoke?
- Where did I smoke most?
- Who with?
- Desire to smoke*  
- How much did I enjoy it??
- How did I feel after?

* 10 is a very strong desire to smoke, 1 is no desire at all.  
** 10 is really enjoyed cigarette, 1 is didn’t enjoy at all.
Useful Resources

HSE Quit Smoking Website  www.quit.ie
HSE Tobacco Free Campus Policy  www.hse.ie/tobaccofreecampus
HSE National Tobacco Control Office  www.ntco.ie
Cochrane Reviews  www.cochrane.co.uk
Treat Tobacco  www.treatobacco.net
World Health Organisation  www.who.int/tobacco/mpower
National Institute for Clinical Excellence  www.nice.org.uk
Society for Research on Nicotine and Tobacco  www.snrmt.org
Society for the Study of Addiction  www.addiction-ssa.org
Agency for Healthcare Quality Research  www.ahrq.gov

Motivational Interviewing: Preparing People to Change Addictive Behaviour
William R Miller & Stephen Rollnick (1991)
Guilford Press: New York

Motivational Interviewing: Preparing People for Change
Guilford Press: New York

Health Behaviour Change: A Guide for Practitioners
Stephen Rollnick, Pip Mason & Chris Butler (1991)
Churchill Livingstone: Edinburgh

Group Treatment for Substance Abuse: A Stages-of-Change Therapy Manual
Mary Marden Velasquez, Gaylyn Gaddy Maurer, Cathy Crouch, Carlo C. DiClemente
Guilford Press: New York
Notes
Notes