

## Tobacco Myths And Myth – Understandings

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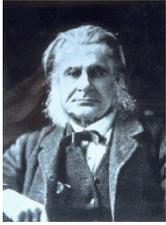
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## What is a myth?

**A myth is a widely held but false notion.**



As Thomas Henry Huxley, the scientist stated, “the great tragedy of Science – the slaying of a beautiful hypothesis by an ugly fact.”

## Drugs, the Individual and Society

Every society has its own drugs. But what constitutes a drug? A drug is any substance that modifies bodily functions. A psychoactive drug is any substance that affects the central nervous system and alters consciousness and/or perceptions. Tobacco is a drug.

Drug taking is “almost a universal phenomena and in the statistical sense of the term, it is the person who does not take drugs who is abnormal” (Michael Gossop – “Living with Drugs”). Mankind has always used psychoactive drugs to alter their state of consciousness, using whatever occurs in nature or by synthesizing substances.

In addition, there is no such thing as the “typical” drug user. Drug use transcends divisions of race, gender, socioeconomic status and sexual preference.

## Why Might Someone Use Drugs?

- To enhance pleasure
- To have fun
- To vary their conscious experience
- To aid religious practices
  - Roman Catholic and Judaic rites - wine
  - Native American rites - psychoactive drugs
- To self medicate
- As a way to cope with trauma
- To relieve anxiety, depression, insomnia
- To relieve pain
- To promote and enhance social interaction
- To stimulate artistic creativity and performance
- To rebel
- To improve physical performance
- To fend off withdrawal
- To promote weight loss

What we do know is that there are significant amounts of money being spent on drug use. If one looks at annual use of social drugs, \$104 billion is spent on alcohol, \$51.9 billion is spent on tobacco (95% is cigarettes) and \$5.7 billion is spent on coffee, tea, and cocoa. Prescription drugs cost \$251 billion worldwide and \$100 billion in the United States. Over the counter drugs add up to another \$23.5 billion in the US.

Society clings to the notion that some substances we use are “good”, whereas others are “bad” drugs. In our society, heroin is a “bad drug” and heroin users are often classified as deviant or abnormal. Tea and coffee are “good drugs”, though most people do not consider them as drugs. Librium and valium are “good drugs”, which can be obtained by prescription for anxiety. Librium and valium become “bad drugs” if used by people who also take heroin or amphetamines. Alcohol is a “good drug”, even though we are becoming increasingly aware of the risks that can be associated with its misuse. Tobacco is rapidly shifting from a “good drug” to a “bad drug”. The “good/bad drug” distinction sometimes becomes synonymous with “safe/dangerous”, however many more people die, either directly or indirectly, as a result of using tobacco than all illegal drugs combined. An important part of what is generally called the drug problem is the set of attitudes that society maintains towards substance and substance taking.

For example, a medical textbook published in 1909 warned against the excessive use of this drug: “the sufferer is tremulous and loses his self command; he is subject to fits of agitation and depression. He loses color and has a haggard appearance...as with other such agents, a renewed dose of the poison gives temporary relief, but at the cost of future misery.” The drug was coffee.

**Reality: CIGARETTE SMOKING** is the leading cause of preventable death in the United States. It causes serious illness among an estimated 8.6 million persons, it costs \$167 billion in annual health-related losses, and it kills approximately 438,000 people each year. Worldwide, smoking kills nearly 5 million people annually.

## **WHAT ARE THE MYTHS AND WHAT IS THE TRUTH?**

**MYTH 1: Nicotine is a man made substance.**

**TRUTH:** Nicotine is a naturally occurring substance derived from the tobacco (*Nicotiana*) plant. Most nicotine comes from *Nicotiana tabacum* and it belongs to a group of chemical compounds called alkaloids. Nicotine is a potent insecticide.

**MYTH 2: Nicotine is carcinogenic.**

**TRUTH:** Nicotine has not been proven to cause cancer. There are more than 4,000 other chemicals in cigarette smoke, many of which are known to cause cancer, such as the polycyclic aromatic hydrocarbons and the nitrosamines. Cigarettes deliver high doses of radiation to the user, doses so high that there is more natural radiation in cigarettes than in the Chernobyl fallout, the worst nuclear power plant accident in history (the amount of radioactive material left on plants by Chernobyl pales in comparison with the radium and polonium found naturally in tobacco).

- Constantin Papastefanou found that tobacco plants contain up to 1,000 times more radioactive radium and polonium than the radioactive cesium fallout from Chernobyl left on plants.
- "Many scientists believe that cancer deaths among smokers are due to the radioactive content of tobacco leaves and not to nicotine and tar," according to Papastefanou, a researcher at the Atomic and Nuclear Physics Laboratory at the Aristotle University of Thessaloniki.

Papastefanou, C. (2007) Radiation dose from cigarette tobacco. *Radiation Protection Dosimetry*, 123(1): 68-73; doi: 10.1093/rpd/ncl033.

**MYTH 3: Nicotine causes the diseases related to smoking.**

**TRUTH:** Cigarettes are a well-known cause of cancer, chronic lung disease, heart disease, and other disorders. It is the myriad of toxins in cigarette smoke, rather than the nicotine content, that is responsible for the majority of the harmful effects. It is the **delivery system**, not the addictive drug, which is responsible for the vast majority of tobacco-related diseases, killing more than 450,000 people in the US each year.

**TRUTH:** Nicotine is responsible for SOME adverse health effects related to smoking. The main adverse effect of nicotine in tobacco products is addiction, which sustains tobacco use. Since most smokers are nicotine-dependent, they continue to expose themselves to the toxins from cigarettes. It is the other chemicals (tar and carbon monoxide) in cigarettes, not nicotine, which are responsible for most of the adverse health effects related to smoking. Nicotine does have stimulant effects and can raise the heart rate, blood pressure and metabolic rate slightly.

**MYTH 4: Nicotine causes yellow stains on fingers and teeth.**

**TRUTH:** Nicotine is colorless and it is not the nicotine in cigarettes, but the tar that causes the unsightly yellow-brown stains on fingers and teeth. Tar is the measure of the mass of the particles in the smoke aerosol. The delivery of the tar

is a function of the burning temperature, paper, tightness of the roll, additives and length of the unburned column of tobacco.

**MYTH 5: Nicotine can only be obtained from smoking or chewing tobacco.**

**TRUTH:** Nicotine can be obtained in unusual ways. Nicotine can be absorbed through the skin or the gastrointestinal tract.

SMOKING vs NICOFIX	
Forbidden in many public Venues	Use anywhere
Dangers of second hand smoke	No danger to anyone else
Stains teeth	Rubs in clear
Dries skin	Moisturises skin with each use
Cigarettes expensive	Pumps/sachets are discrete and inexpensive
20 cigarettes per pack	Up to 100 servings per Bottle
10 times tobacco per cigarette	1/10th tobacco of cigarette



The image shows two nicotine replacement therapy products. On the left is a white pump bottle of 'nicogel' with a blue logo and text that reads 'cigarette replacement | help quit smoking | convenient | easy to use | 200 ml'. On the right is a clear plastic bottle of 'NICOTINE WATER' with a blue label and a white cap.

**MYTH 6: People are safe smoking lettuce.**

**TRUTH:** Bravo cigarettes are made from compressed lettuce. They are advertised as safe as there is no nicotine present. However, smoking the product delivers the unsafe tar and carbon monoxide to the user.

**MYTH 7: Nicotine replacement therapy (NRT) is more harmful than smoking because of nicotine's addictive nature.**

**TRUTH:** Nicotine is the addictive substance in tobacco. When smoked, it is delivered into the lungs and is rapidly absorbed by the blood, reaching the brain within approximately 10 seconds. At this point, smokers experience a nicotine 'hit' – causing areas in the brain to release dopamine, a neurotransmitter that regulates emotion, reward and feelings of pleasure. The brain soon develops a comfortable level of nicotine, and withdrawal symptoms are produced when the supply is interrupted and the nicotine level goes down. The addictive nature of nicotine is due to its dosing, rapid delivery to the brain and dopamine effect when smoking cigarettes. Compared to cigarette smoking, NRT provides lower doses of nicotine, which are delivered more slowly and in a controlled way.

**MYTH 8: NRT substitutes one addiction for another.**

**TRUTH:** The addiction risk of nicotine in medications has proved to be very low compared to the risk posed by tobacco products. NRT has low abuse liability compared to tobacco products due to its slow dosing and low levels of nicotine.

The likelihood of abuse (i.e. use for reasons other than smoking cessation) and of dependence with currently available nicotine medications is very low.

**MYTH 9: NRT results in weight gain.**

**TRUTH:** Cigarettes and other tobacco products contain nicotine, which acts as a stimulant. Most smokers put on weight when they stop smoking. NRT works by releasing nicotine (at a lower level than cigarettes) and may help control some of the weight gain during a stop smoking attempt. Exercise and attention to calorie intake are also important factors in controlling one's weight when trying to cease tobacco use.

**MYTH 10: There are no immediate benefits when someone stops smoking and you have to wait years for any benefit.**

**TRUTH:** The health benefits of smoking cessation (quitting) are immediate and substantial. Almost immediately, a person's circulation begins to improve. The level of carbon monoxide in the blood begins to decline. A person's pulse rate and blood pressure, which may be abnormally high while smoking, begin to return to normal. Within a few days of quitting, a person's sense of taste and smell return, and breathing becomes increasingly easier.

**MYTH 11: Cessation only benefits the young smoker.**

**TRUTH:** Smoking cessation benefits men and women at any age. Smokers who quit before age 50 have half the risk of dying in the next 16 years compared with people who continue to smoke. Older adults who quit smoking also have a reduced risk of dying from coronary heart disease and lung cancer.

**MYTH 12: Wearing the nicotine patch while you sleep causes sleep disturbances**

**TRUTH:** There are many possible causes for a range of sleep problems when a smoker attempts to quit smoking. Sleep disturbances can be caused by too little nicotine at night as studies show that some smokers get up in the middle of the night to smoke. This is probably due to a decrease in the nicotine level and the drive to keep the level stable.

**MYTH 13: Wearing a patch will bring on cardiovascular (heart) disease?**

**TRUTH:** NRT's can be used safely by the majority of people with cardiovascular disease, even with concomitant smoking.<sup>1-3</sup> A meta-analysis shows no difference in the rate of acute heart attacks when a NRT patch is worn versus wearing a placebo patch.<sup>4</sup> The benefits of NRT outweigh the risks, even in smokers with cardiovascular disease.

<sup>1</sup> Joseph AM, et al. *N Engl J Med* 1996; 335:1792–1798.

<sup>2</sup> Tzivoni D, et al. *Cardiovasc Drugs Ther* 1998; 12:239–244.

<sup>3</sup> Working Group for the Study of Transdermal Nicotine in Patients with Coronary Artery Disease. *Arch Intern Med* 1994; 154:989–995.

<sup>4</sup> Greenland S, et al. *Drug Saf* 1998; 18: 297–308

**MYTH 14: High dose patch therapy is unsafe.**

**TRUTH:** Hughes et al, in 1999 studied 1039 smokers and gave them 0, 21, 35, or 42 mg/d nicotine patches. The subjects were treated for six weeks and then tapered off over 10 weeks. There was no difference in the adverse events in the groups. Fredrickson et al., 1995, in *Psychopharm* looked at 40 smokers, all who smoked greater than 20 cigarettes per day. The subjects were given either 22 mg/d or 44 mg/d for 4 weeks. The results showed that these doses were safe, tolerable and there were no adverse effects.

**MYTH 15: If you smoke with the patch on, it causes significant risk and morbidity.**

**TRUTH:** Using the patch is different than smoking. Cigarettes induce a hypercoagulable state (where platelets get sticky and block blood vessels), increase the work of the heart, deliver carbon monoxide which causes a reduced oxygen carrying capacity of the blood (carbon monoxide is carried by the red blood cell and is harder to displace than oxygen, thus it takes up the space that normally would carry oxygen), cause the release of the bodies own stimulants (catecholamines). The dose and delivery of nicotine by the NRT is flat. The implication is that the effects of cigarette smoking in conjunction with NRT are similar to those of cigarette smoking alone.<sup>1</sup>

The concern is not supported by the data. Joseph took a high risk cardiac group and put them on the patch or placebo. The patients had: 49% active angina, 40% with a history of a heart attack and 35% with a history of coronary bypass graft surgery. He found no increase in cardiac events in either group. The good news – 21% of the patients were not smoking at the end of the study versus only 9% of the placebo group.<sup>2</sup> Jiminez-Ruiz looked at patients who had severe emphysema and placed them on nicotine gum. Most patient continued to smoke, though less than at the start of the study. There were no adverse events attributed to nicotine and the overall severity of the emphysema improved.<sup>3</sup>

Finally, in a five week placebo controlled trial looking at 156 patients with coronary artery disease, the patients were allowed to smoke with the nicotine patch on and were monitored with 24 hour electrocardiograms. The EKG monitoring showed no differences in irregular heart rates or a decrease in blood flow to the heart in the group who smoked with the patch.<sup>4</sup>

<sup>1</sup> Benowitz NL, Gourlay SG J Am Coll Cardiol 1997;29:1422-31

<sup>2</sup> Joseph AM. NEJM 335:1792-8, 1996

<sup>3</sup> Jiminez-Ruiz. Respiration 69:452-6, 2002

<sup>4</sup> Working Group for the Study of Transdermal Nicotine in Patients with Coronary Artery Disease Arch Int Med 154 (1994), pp. 989-995

**MYTH 16: NRT's should not be used in pregnancy.**

**TRUTH:** Maternal smoking is associated with poor pregnancy and childhood outcomes.<sup>1-5</sup> and the many toxins in tobacco smoke could be responsible. Nicotine is a potential fetal teratogen and may contribute to obstetrical

complications in the pregnant woman and to sudden infant death syndrome.<sup>6, 7</sup> The benefits of NRT's outweigh the risks of smoking during pregnancy by reducing or eliminating the exposure of the fetus to other toxins in tobacco smoke and by reducing the overall dose and duration of exposure to nicotine.<sup>8</sup>

<sup>1</sup> DiFranza JR & Lew RA. *J Fam Pract* 1995; **40**: 385-394

<sup>2</sup> Walsh RA. *Hum Biol* 1994; **66**: 1059-92.

<sup>3</sup> Milberger et al. *Am J Psychiatry* 1996;153:1138–1142.

<sup>4</sup> Fried et al. *Neurotoxicol Teratol* 1997; 20:171–183.

<sup>5</sup> Fried et al. *Neurotoxicol Teratol* 1998;20:171–183.

<sup>6</sup> Slotkin TA. *J Pharmacol Exp Ther* 1998; **285**: 931-945.

<sup>7</sup> Slotkin TA et al.. *Brain Res Bull* 1995; **38**: 69-75.

<sup>8</sup> Benowitz NL. *JAMA* 1991; **266(22)**: 3174-3177

### **MYTH 17: Psychiatric patients cannot quit cigarette use.**

**TRUTH:** Effects of a tobacco ban on long-term psychiatric patients research by Harris<sup>1</sup> looked at one year before and one year after the ban. 23 smoking patients had cardiopulmonary compromise before the ban and 17 were given a clean bill of health one year later.

60% of schizophrenic patients smoke and the barriers to treatment include the fact that the majority of behavioral health professionals do not have the training to treat tobacco dependence<sup>2</sup>, and the belief that smoking is a form of self-medication that cannot be overcome. Cessation does not appear to exacerbate psychiatric symptoms<sup>3</sup> although antipsychotic doses may need to be adjusted if the patient quits. Finally there is the belief among many health professionals that these patients do not want to quit. It was found that mental health patients are just as concerned about health risks associated with smoking as other heavy smokers<sup>4</sup> and that over 90% would like to quit.

<sup>1</sup> Harris et al *Journal of Behavioral Health Services and Research* 2007

<sup>2</sup> Prochaska JJ et al. *Acad Psychiatry* 2006; 30 :373 – 378

<sup>3</sup> George TP et al. *Am J Psychiatry* 2000; 157:1835-1842

<sup>4</sup> Baker TB et al. *Psychol Rev* 2004; 111:33-51

### **MYTH 18: There is real danger in concomitant use of NRT's, cigarettes and bupropion**

**TRUTH:** Concomitant use of NRT or bupropion and smoking is well tolerated<sup>1-5</sup> and the number of cigarettes smoked is likely to be less than at baseline.

<sup>1</sup> Benowitz NL, et al. *J Pharmacol Exp Ther* 1998; **287 (3)**: 958-962

<sup>2</sup> Bjornson-Benson W, et al. *Addict Behav* 1993; **18 (4)**: 491-502.

<sup>3</sup> Hurt RD, et al. *N Engl J Med* 1997; **337**: 1195-202.

<sup>4</sup> Jorenby DE, et al. *N Engl J Med* 1999; **340**: 685-91.

<sup>5</sup> Zevin S, et al. *Clin Pharmacol Ther* 1998; **64**: 87-96

**MYTH 19: If you can't quit the first time you try, you will never be able to quit.**

**TRUTH:** Quitting cigarettes is sometimes the hardest of all addictions. The number of doses delivered to the brain is about 200 per day, if the person smokes one pack per day. Multiple tries are usually the norm.

**MYTH 20: Quitting cigarettes is expensive.**

**TRUTH:** A pack-a-day smoker can spend \$1500 per year or more. Quitting smoking has the potential for large savings on future health costs.

**MYTH 21: The best way to quit is going "cold turkey".**

**TRUTH:** Each person's success is different, however, the most effective way to quit is by using a combination of counseling and nicotine replacement therapy or non-nicotine medicines (Zyban, Chantix).

**MYTH 22: People have free choice whether or not to smoke.**

**TRUTH:** Free will in the case of tobacco is subverted by advertising and addiction. In 2002, the tobacco industry spent \$12.5 billion in the United States on advertising, marketing, and promotion - more than double the amount spent in 1997, and 18 times the amount spent on tobacco control. Advertising and marketing encourage people to smoke, particularly when they are targeted at youth and other demographic subgroups. More than 80% of all regular smokers began smoking by the time they were 18 years old.

**MYTH 23: Freedom to smoke is a choice one makes and does not impact on others.**

**TRUTH:** 53,000 people a year die from second hand smoke. Researchers have found that infants as young as three months old accumulate nicotine and carcinogens in their bodies when they are exposed to tobacco smoke. The study of 144 children (ages three months to one year) who lived with family members who smoked found that 98 percent had nicotine in their urine, 93 percent had cotinine (a metabolite of nicotine) and 47 percent of the infants had detectable levels of NNAL, a carcinogenic metabolite of cigarette smoke.<sup>1</sup> Women exposed to tobacco smoke are 2.6 times more likely to contract breast cancer and secondhand smoke is especially damaging to premenopausal women.<sup>2</sup>

<sup>1</sup> Carcinogens Found in Infant Children of Smokers, May 15, 2006 (Cancer Epidemiology Biomarkers and Prevention)

<sup>2</sup> Japanese National Cancer Center Study. December 2004

**MYTH 24: Everyone knows how bad smoking is.**

**TRUTH:** While most people are generally aware that smoking is not healthy, instances of poor knowledge about the health risks abound. Relatively few women are aware of gender-specific health risks, including cervical cancer, osteoporosis, early menopause, miscarriage, ectopic pregnancy, and infertility. Fewer than half of Canadian adults aged 55 to 74 years identified smoking as a major cause of heart disease. In China, where more than 90% of smokers are

men, less than one in four smokers believe smoking causes serious health problems. Knowledge may even be decreasing among some groups: one survey showed that rural smokers who were surveyed in 1997 and 1998 ascribed more positive characteristics and fewer health risks to smoking than they did during the previous decade.

Some other facts: 66.7% of women inaccurately indicated breast cancer as the leading cause of cancer death among women, whereas 29.7% of women correctly indicated lung cancer. Black women were 43% less likely than White women to indicate lung cancer as the leading cause of cancer mortality among women. Current smokers were 35% less likely than noncurrent smokers to state that lung cancer is the leading cause of cancer mortality among women. Awareness of antismoking messages or advertisements was associated with a higher probability of correctly indicating lung cancer as the leading cause of cancer mortality among women.<sup>1</sup>

<sup>1</sup> Cheryl G. Heaton ; Ellen R. Gritz ; Kevin C. Davis ; Ghada Homsy ; Kristen McCausland ; M. Lyndon Haviland ; Donna Vallone Nicotine & Tobacco Research, Volume 9, Issue 7 July 2007, pages 761 - 768

**MYTH 25: Just a few cigarettes a day can't hurt.**

**TRUTH:** Although lung cancer has, in general, a linear dose-response relationship with tobacco use, the risk for cardiovascular disease, which accounts for a significant proportion of tobacco-related illness and death, becomes evident with the consumption of 3 to 5 cigarettes per day. The risk for acute myocardial infarction and coronary heart disease associated with exposure to tobacco smoke appears to be nonlinear at low doses and increases rapidly with relatively small doses, such as those received from environmental tobacco smoke or from smoking just a few cigarettes a day. Even small exposures increase platelet aggregation and induce arterial and hemodynamic changes. Pregnant women who smoke as few as 5 cigarettes per day are more likely to have low birth-weight babies.

**MYTH 26: "Light" cigarettes are less harmful than regular cigarettes.**

**TRUTH:** The so-called "light" cigarettes are just as harmful to health as "regular" brands, but most smokers remain sadly misinformed about this fact. 60% of smokers believe the terms *light* and *ultra-light* refer to low-tar/low-nicotine cigarettes. Fewer than 10% of smokers are aware that one light or ultra-light cigarette provides the same amount of tar as one regular cigarette and there is no standard definition of what constitutes a light or ultra-light brand. Tobacco companies admit that these terms refer to the perceived taste and flavor of cigarettes, not their content. More than 160 countries have signed the World Health Organization's Framework Convention on Tobacco Control, which prohibits the use of descriptors that may create the false impression that a particular tobacco product is less harmful than other tobacco products.

**MYTH 27: It's easy to stop smoking; if people want to quit, they will.**

**TRUTH:** While many smokers are able to stop on their own, many find it difficult or impossible to quit because nicotine is addictive. Nicotine may be comparable to heroin, cocaine, and alcohol in addiction potential. The benefits of quitting smoking are well documented, and many people who are serious about quitting make several attempts before they quit for good.

**MYTH 28: Cessation medications don't work.**

**TRUTH:** Smoking cessation medications, including nicotine replacement therapies (patch, gum, nasal spray, lozenge) and bupropion or chantix, can double the likelihood that a person will successfully quit. For many smokers, combination therapies e.g., multiple types of NRT, NRT with bupropion, NRT with counseling, and NRT with bupropion and counseling, may be even more effective than using a single cessation method. Retreatment after an initial failed course of cessation treatment also increases quit rates and combination therapies are especially useful among relapsed smokers.

**MYTH 29: Once a smoker, always a smoker.**

**TRUTH:** More than half the Americans who have ever smoked have already quit. Despite the difficulty many people have quitting smoking, the millions of former smokers are living proof that people can quit - and in many places, most smokers already have.

**MYTH 30: Smokers may die earlier, but all they really forfeit are a couple of bad years at the end of life.**

**TRUTH:** The average smoker who dies from tobacco-related causes loses about 14 years of life. Elderly smokers have the physical health expected of people two to four years older and the mental health expected of people 10 years older than their actual age. The chemically dependent patient in recovery experiences devastatingly high rates of tobacco-related deaths. In an 11 year retrospective cohort study of 845 persons who had been in addictions treatment, Hurt and colleagues found that 51% of deaths were due to tobacco-related causes and this high rate of tobacco-related mortality is twice that expected in the general population.<sup>1</sup>

Hser and colleagues found that cigarette smoking contributes to mortality above and beyond deaths due to opiate use; in their 24-year follow-up of drug users that were admitted to drug treatment in 1964, the death rates of smokers were four times that of non-smokers.<sup>2</sup>

<sup>1</sup> Hurt RD et al, Mortality following inpatient addictions treatment. Role of tobacco use in a community-based cohort. *JAMA*. 1996;275:1097–1103.

<sup>2</sup> Hser Yi, et al. A 24-year follow-up of California narcotics addicts. *Arch Gen Psychiatry*. 1993;50:577–584.

**MYTH 31: Environmental tobacco smoke may be a nuisance, but it isn't deadly.**

**TRUTH:** Exposure to environmental tobacco smoke causes illness and death. The circulatory system of a nonsmoker behaves similarly to that of a smoker after just 30 minutes of exposure to environmental tobacco smoke, which increases the risk of ischemic heart disease. Environmental tobacco smoke is also associated with a 25% higher risk for chronic respiratory disease. There is a 40% to 60% higher risk for developing asthma among adults exposed to smoke and a 50% to 100% higher risk for acute respiratory illness among children. There is a doubling of the risk for sudden infant death syndrome in homes where the parents smoke.

**MYTH 32: Tobacco is good for the economy.**

**TRUTH:** The World Bank analyzed the net economic effect of tobacco and concluded that money not spent on cigarettes would instead be spent on other goods and services that in turn would generate other jobs and economic activity to replace any that would be lost from the tobacco industry. In the United States, smoking causes annual economic losses of \$167 billion per year (about \$3650 per smoker), including health care expenses and productivity losses caused by premature death. These costs are borne by individuals and by society as a whole, and they are more than twice the \$81 billion (including taxes and manufacturing and marketing costs) that US smokers spend annually on tobacco.

**MYTH 33: The tobacco industry no longer markets to kids or undermines public health efforts.**

**TRUTH:** Cigarette advertising continues to reach children. Children who own tobacco company promotional items (T-shirts, caps, etc.) are up to seven times more likely to smoke than those who do not own these items. Children aged 12 to 17 years - the most likely age of smoking initiation - are twice as likely as adults to be exposed to tobacco advertising and teenagers are three times more sensitive to cigarette advertising than adults are. Depictions of smoking in movies also increases smoking among teens. Those who see movies that depict smoking are three times more likely to smoke than teens who do not see smoking in movies, and half of all smoking experimentation among teens has been attributed to this exposure. There is more smoking in movies now than at any time since 1950 and use of a specific cigarette brand imparts greater appeal to the brand. Endorsement of cigarette brands - the use of specific brands by stars in movies - has increased 11-fold since implementation of the MSA. Depictions of smoking in music videos, on television, and in other media also influence the smoking behaviors of teens.

**MYTH 34: If you are told to quit, you will not.**

**TRUTH:** Canadian researchers say that smokers who face smoking bans at home or at work are significantly more likely to quit than those who face no restrictions. Data from the Canadian Tobacco Use Monitoring Survey and the

National Population Health Survey found that: 20% of smokers living in homes that became "smoke-free" had quit two years later compared to 13% of smokers who lived in homes where smoking was permitted. 27% of smokers who were barred from smoking at work had quit compared to 13% of those who did not work in smoke-free workplaces.<sup>1</sup>

<sup>1</sup> Health Reports August 2007

**MYTH 35: Cigars are safe as the user does not inhale, so that the negative consequences seen in cigarette use are not seen with cigars.**

**TRUTH:** In a study of 121,278 men, the Cardiac mortality was higher in current cigar smokers, rather than former smokers, and similar to cigarette smokers.<sup>1</sup> The American Cancer Society found that if one smokes three cigars per day, the results are: 500% increase in lung cancer for inhalers; 300% increase in lung cancer for non-inhalers; 1000% increase in cancer of the larynx; 400% increase in cancer of the oral cavity/pharynx; 270% increase in pancreatic cancer (inhalers); 360% increase in bladder cancer (inhalers).<sup>2</sup>

<sup>1</sup> Arch Internal Medicine 1999;159:2413-2418

<sup>2</sup> American Cancer Society studies 2004

**MYTH 36: Smokeless tobacco is safe and is a good way to stop smoking.**

**TRUTH:** Snuff contains 10 times the amount of nitrosamines found in cigarettes and this is 100 times the amount that the FDA allows in other products. Levels of cancer causing tobacco specific nitrosamines (TSNA) were significantly higher in US brands than Swedish brands, suggesting that companies can produce a product with lower levels of TSNA if they choose to.

**MYTH 37: We've already solved the tobacco problem.**

**TRUTH:** The public health problems caused by tobacco use are far from solved. More than one in five US adults (nearly 50 million people) smoke, and globally, about 1.3 billion people are smokers - more than at any time in human history - and more than 1 billion will die from tobacco-related causes during this century unless urgent action is taken on the local, national, and international levels.

Still, a man hears what he wants to hear, and disregards the rest.  
- Simon & Garfunkel, *The Boxer*