

POST GRADUATE PLATFORM

---

CAN I QUIT SMOKING?

Dr Dhaneswari Jena, \*\*DrPrabir RanjaMoharana, \*\*\*Prof.R.M.Tripathy

\*Assistant Professor, \*\*Junior Resident, \*\*\*Professor & Head

Department of Community Medicine, MKCG Medical College, Brahmapur

---

**Facts about Tobacco**

Tobacco (*Nicotiana tabacum*), was originally grown in South and Central America, later spreading to all over the world. The word *nicotiana* (as well as *nicotine*) was named in honor of Jean Nicot, French ambassador to Portugal, who in 1559 sent it as a medicine to the court of Catherine de Medici.

Fresh leaves of all the species of this plant is used to make cigarettes containing 1-8% nicotine, this is the main ingredients in tobacco, a powerful central nervous system stimulant, classified as a drug. It is extremely poisonous in higher doses. It can be burnt and inhaled in the form of cigarettes, cigars, pipes, smoke, etc. & absorbed through the mouth in the form of spit tobacco, chew, or snuff. The mucosa in the nose, mouth and lungs act as nicotine delivery systems - transmitting nicotine into the blood and brain.. More than 4,000 chemicals are also found in tobacco smoke sucked in every puff. They are tar, carbon monoxide, nicotine, cyanide, formaldehyde, ammonia, benzene, arsenic, hydrogen cyanide, polonium 210 etc.

-----  
**Corresponding Author:** Dr Dhaneswari Jena

Department of Community Medicine, MKCG Medical College, Brahmapur

**Email- [drdjena@rediffmail.com](mailto:drdjena@rediffmail.com)**

---

Out of them, 42 selected chemicals are found to be carcinogenic like arsenic, benzene, benzopyrene, cadmium, hydrogen cyanide, toluene etc. Smokers usually feel dizzy and sick when they first inhale the nicotine in tobacco, with other experiences like coughing, a dry, irritated throat, nausea, weakness, abdominal cramps, headache, coughing or gagging but gradually build up tolerance to its effects.

Nicotine is highly addictive and this is the main reason for wide use. Its continuation is influenced by its withdrawal symptoms. It is the most addictive drug even among heroin, methadone, amphetamines and barbiturates. Addiction to tobacco is not immediate rather taking weeks or months to develop. People starting smoking in their teens tend to be more dependent than those who start smoking after age 20.

It produces broadly two types of addiction i.e. Physical addiction and Psychosocial addiction. It is a 'reinforcing' drug and produces physical addiction i.e. smokers want it regardless of its damaging effects & it compels the smoker to continue smoking in order to avoid the pain of withdrawal symptoms. Smokers who usually smoke at least 15 cigarettes per day and/or smoke their first cigarette of the day within 30 minutes of waking up are likely to experience nicotine withdrawal symptoms. Symptoms peak from 24 to 48 hours after stopping and can last from three days up to four weeks, although the craving for a cigarette can last for months. Most smokers make an average of three or four attempts to quit before becoming long-term non-smokers. Relapse is the rule rather than the exception and must be viewed as part of the process of quitting. Smoking gives pleasure in times of anxiety, anger and other stress. Unlike cocaine, heroin or alcohol abuse, the more dangerous effects of tobacco use are not obvious in the beginning leading to gradual development of psychosocial addiction. The pleasurable effects of tobacco may outweigh the abstract possibility of health consequences in the minds of many smokers. Many people don't find their first experience with tobacco pleasant. Initially, social pressure

may cause addiction to develop. Once addicted, there are fewer external pressures to quit than there are with other addictions. Smokers are not in immediate danger of losing their jobs or families due to their addiction. Adolf Hitler was a heavy smoker in his early life and used to smoke 25 to 40 cigarettes daily. But he gave up the habit, lamenting that "so many excellent men have been lost to tobacco poisoning". He is often considered to be the first national leader to advocate nonsmoking. <sup>(1)</sup>

### **What does statistics say about smoking?**

Smoking kills. Smoking-related diseases kill one in 10 adults globally or cause five million deaths every year. In India there are 7,30,000 deaths per year due to tobacco smoking. If the same rate continues, by 2030 smoking will kill one in six people. About a third of the male adult global population smokes. Someone dies in every eight seconds from tobacco use. Every minute, 10 million cigarettes are sold. Among young teens (aged 13 to 15), about one in five smokes. There are 1.3 billion smokers worldwide. Half of long-term smokers will die from tobacco. Every cigarette smoked cuts at least five minutes of life on average - about the time taken to smoke it. Smoking is the single largest preventable cause of disease and premature death. A 1998 survey found that tobacco companies were among the top 10 advertisers in 18 out of 66 countries surveyed. Through advertising, tobacco firms try to link smoking with athletic prowess, sexual attractiveness, success, adult sophistication, adventure and self-fulfillment. Evidence shows that around 50% of those who start smoking in adolescent years go on to smoke for 15 to 20 years. Peer-reviewed studies show teenagers are heavily influenced by tobacco advertising. The tobacco industry has changed the way it advertises in the last 30 years. Now, only 10% of advertising expenditure goes for print and outdoor advertisements while more than half goes for promotional allowances and items, such as T-shirts for young people or lighters and key rings. 30% of the population of 15 years or more either smoked or chewed tobacco, which translated to almost 195 million people—

154 million men and 41million women in India. This number is likely to account for nearly one million deaths per year by 2010 in India, with more than two thirds of these deaths likely to occur in people who are middle-aged. It was estimated that smoking 'bidis' (rolled tobacco) is likely to reduce the life span by 6 years in males and 8 years in females, while cigarette smoking in males could take away 10 years from their life. Less than 50% of school and college students in Gujarat knew **Gutka** (popular mix of betel nut and tobacco) causes oral cancer. 58% of those who chew areca nut and tobacco in Tamil Nadu were unaware of the serious health hazards. There are currently more than 1.3 billion smokers in the world and the number could increase to 1.6 billion by 2025. Passive smoker (second hand smoker) takes in over 50% cancer-causing chemical compounds. The number of premature deaths caused by tobacco smoking is on a rise in India.

### **Why one should quit smoking?**

. It is a prime factor in heart disease, stroke, peptic ulcer and chronic lung diseases. It can cause cancer of the lungs, larynx, mouth, oesophagus, stomach, bladder, cervix, pancreas, and kidneys. At least a quarter of all deaths from heart diseases and about three-quarters of world's chronic bronchitis are related to smoking. It is both offensive and harmful to non-smokers/passive smokers and they have a right not to be exposed to smokers' waste gases and debris. Smoking is harmful to smokers' health & others' surrounding him. Its harmful effect is transmitted to next generation. Therefore smokers should be motivated to quit smoking for their own protection as well as others'.<sup>(3)</sup>

### **What are withdrawal symptoms?**

Withdrawal symptoms in a person who quits smoking, may be cravings to smoke, irritability, crankiness, insomnia, fatigue, inability to concentrate, depression, headache, cough & sore throat, restlessness, anxiety, decreased heart rate, increased appetite, weight gain constipation,

flatulence, stomach pain, dry mouth, sore tongue and/or gums, "quitter's flu" & postnasal drip, tightness in the chest etc.

When one first quits smoking,. most cravings to smoke last only three to five minutes. These tend to decrease gradually. There are two types of cravings people experience in the early days of smoking cessation. Physical cravings are one's body's reaction to nicotine withdrawal. One may feel tightness in the throat or stomach, accompanied by feelings of tension or mild anxiety. Psychological cravings are triggered by the events in one's daily life. We all have hundreds of unconscious cues we give ourselves to smoke. When one quits smoking, these cues will trigger the urge. Activities like driving, eating, drinking coffee or alcohol, or simply relaxing can trigger thoughts of smoking for many of us. Mental urges can and usually do produce the same feelings in our bodies as physical cravings. "Quitter's flu" is a term used to describe this phase of smoking cessation because nicotine withdrawal symptoms often mimic a cold or a mild case of the flu. Physical withdrawal from nicotine is temporary, but it can be uncomfortable while it lasts.<sup>2</sup>

### **How to cope with tobacco withdrawal?**

#### **The 5 D's**

1. **Delay** until the urge passes - usually within 3 to 5 minutes.
2. **Distract** yourself and call a friend or go for a walk.
3. **Drink** water to fight off cravings.
4. **Deep** breaths - relax! Close your eyes and take 10 slow, deep breaths.
5. **Discuss** your feelings with someone close to you.

## 10 simple tips to quit smoking

Curb cravings as they come, one by one. The most effective way to curb them is to interrupt the thought pattern on the spot. Shift gears and do something different for a few minutes. Change your activity, either mentally or physically, and the craving will lose its power and be gone before you know it. One of these tips may be tried.

**1) Go for a walk:** Get up and move. If you can, go outside for a five-minute walk. Do a lap around the block or the building, breathing deeply as you go. A little exercise and a change of scenery helps.

**2) Take a mini mental vacation:** Close your eyes. Create a place in your mind that you can visualize when you need to slow down and relax. It could be a real location or not, but visualize it in detail and make it yours. Go to this place every time you do this exercise (YOGA & PRANAYAM) so that it becomes familiar and comfortable. As you settle in, start to follow your breathing, and slow it down gradually. Breathe deeply in and out for three to five minutes.

**3) Drink a glass of water:** When a craving hits, chug down a glass of water. Not only will it help you bust your craving to smoke, it will help you physically. Many of us are mildly dehydrated without knowing it, so adding some water to your diet is a good idea. Good hydration will help your metabolism work more efficiently and you'll feel better overall. Water is one of nature's finest quit aids; use it to your advantage.

**4) Review your list of reasons to quit smoking:** Reading your list is a quick and easy way to remember your priorities for quitting. Take five minutes while you're wishing you could smoke and remember how you felt when you decided to quit. Think about the reasons why you finally took the plunge and stubbed out that last cigarette. Your reasons are just as true now as they were then.

**5) Have a portable hobby:** Find something you enjoy doing that's easy to pick up and put down at a moment's notice. Keep it handy to fill a five-minute break here and there. You could work a crossword puzzle or read a few pages of a novel. If you knit or crochet, carry a simple project around with you.

**6) Grab some support:** Visit the support forum at “About.com Smoking Cessation”. Do a little reading about how others deal with nicotine withdrawal and the early days of quitting tobacco. Post a message asking for support, and jump in to help others who may be struggling. When you step outside of your own discomfort and focus on helping someone else with theirs, it can be the best medicine in the world. Tell them that they can do it and you'll be giving yourself the same message. It's a win/win situation!

**7) Count your blessings:** Take a few minutes to reflect on all the things in your life that you're grateful for. It's a simple, yet powerful way to pull yourself out of a slump and renew motivation.

**8) Eat a healthy snack:** When blood sugar levels drop, cravings to smoke can seem more powerful while you feel less able to manage them. Eat something nutritious, such as a piece of fruit, a cup of yogurt, or a tablespoon of peanut butter on a couple of crackers. You'll feel refreshed and stronger. Multivitamins and minerals in the form of tablets/capsules/syrup could be taken on daily basis in the early phase of quitting.

**9) Call a friend:** Take a few minutes to connect with someone you care about. Your spirits will be lifted, and chances are you'll perk them up too.

**10) Accept and let it go:** *Cravings to smoke are not commands.* How you choose to react to a craving can either increase or decrease its power over you. Try a little reverse psychology - instead of tensing up for a fight when the urge to smoke hits, relax and mentally lean into it. Let the craving wash over you, and accept it as a sign of healing, which is just what it is. The urge will run its course and pass. Practice

makes perfect with this technique. You'll get the hang of it and will find it empowering.

Have some faith, and trust in the process of recovery from nicotine addiction. Thousands of people no different than yourself quit smoking successfully every day of the year. They don't possess any special qualities that you don't have. Everything you need to quit smoking once and for all is within you right now. Believe in yourself and be patient! Take the time you need to heal and learn how to live your life smoke-free. You'll get there just as surely as the next person.

**H.A.L.T.** (Hungry,Angry,Lonely,Tired) is a powerful checklist to help you decode the urges you experience. Nine times out of ten, a craving can be traced to one of these four things:

**Hungry:** Have a snack or a meal. If you are hungry, food is the answer, not a cigarette! If you're concerned about weight gain, try drinking water to help control between meal eating. Have healthy low calorie snacks rich in fibres.

**Angry:** This is a big trigger for most of us. Find healthy outlets for your feelings of frustration. If possible, try to deal with the situation that is bothering you. Talk to friends and family about your feelings or write in your journal. The important thing is not to let anger simmer and get the upper hand. Reaching for a cigarette can seem like a quick fix, but it's always a false fix. Smoking will put you back to square one and you'll be disappointed in yourself as well.

**Lonely:** Another word to describe this could be *bored*. Take a look at 101 things to do instead of smoking. Early on in cessation, distraction is a useful tool. If you're bored, try redirecting your attention, and see if it helps.

**Tired:** Fatigue can be a huge trigger. Instead of lighting up, give yourself time to slow down and relax a little. If possible go to bed early. Don't let yourself get rundown. Protect your health, both physically and mentally.

## **What is the role of drugs for de-addiction?**

A wide range of drugs are available to be used for de-addiction.

### **Bupropion Hydrochloride (Smoquit/Zyban™)**

Bupropion is the drug used to reduce craving for tobacco. The mechanism of action is not entirely known. Persons who are above 18 years and smoke 10 or more cigarettes a day get benefited from this. It is started at 1 to 2 weeks prior to quit smoking to attain proper tissue level and continued for 7 to 12 weeks after stopping tobacco. It is taken for 6 months to a year. Using Bupropion along with nicotine replacement therapy (NRT) such as Nicotine patches (Nicotinell-TTS™) Chewing gum (Nulife™) or Inhaler or Lozenges or Intranasal spray may work better than either therapy alone. Concomitant medications like antipsychotics, antidepressants, theophylline, systemic steroids are known to lower seizure threshold. The total daily dose of Bupropion should not exceed 300mg (administered in divided doses ie. 150mgtwicedaily).<sup>(4)</sup>

### **Varenicline (Yet to be marketed in India)**

It works by interfering with nicotine receptors in the brain. This has two types of effects: It lessens the pleasurable physical effects a person gets from smoking and reduces the symptoms of nicotine withdrawal. The daily dose increases over the first 8 days it is taken. The dose starts at one 0.5 mg a day for the first 3 days, then the 0.5 mg twice a day for the next 4 days. At the start of the second week, the dose is raised to 1 mg twice daily. For people who have problems with the higher dose, a lower dose may be used. Varenicline is given for 3 months. People who quit during that time may get another 12 weeks of treatment to boost their chance of staying quit. Safety of nicotine replacement therapy (NRT) along with Varenicline products is not established.<sup>(2)</sup>

### **Nortriptyline Hydrochloride (Primox/Trip™)**

This is an older anti-depressant drug. When used in groups of smokers, it has been found to double their chances of success in quitting smoking. It is started 10 to 28 days before you stop smoking to allow it to reach a stable plasma level in the body.

## **Clonidine**

Clonidine is also an older drug that is approved for the treatment of high blood pressure. For smoking cessation, it can be given as a pill twice a day or as a once-a-week skin patch. Clonidine can be started up to 3 days before one quits smoking but can also be started the day one starts quitting. Like nortriptyline, it shouldn't be stopped suddenly. The dose must be lowered over a period of 2 to 4 days to prevent a rapid increase in blood pressure, agitation, confusion, or tremors (Clonidine withdrawal syndrome).

## **What are other alternative methods available to quit smoking?**

- 1. Hypnosis:** If you are interested in trying it, ask your doctor if he or she can recommend a good hypnotherapist.
- 2. Acupuncture:** This method has been used to quit smoking, but there is little evidence to show that it works. Acupuncture for smoking is usually done on certain parts of the ears.
- 3. Low-level laser therapy:** This technique is also called cold laser therapy and related to acupuncture. Cold lasers are sometimes used for acupuncture. The laser beams are used instead of needles to stimulate the body's acupoints. The treatment is supposed to relax the smoker and release endorphins

(pain relief substances that are made naturally by the body) to mimic the effects of nicotine in the brain, or balance the body's energy to relieve the addiction.

**4. Herbs and Supplements:** There is little scientific evidence to support the use of homeopathic aids and herbal supplements as stop-smoking methods because they are marketed as dietary supplements. No dietary supplement has been proven to effectively help people quit smoking.

**5. Atropine and Scopolamine combination therapy:** A few smoking cessation clinics offer a program using shots of the drugs atropine and scopolamine along with other drugs to reduce nicotine withdrawal symptoms. These drugs block the action of acetylcholine, a signal transmitter in the nervous system called anticholinergics. People who are pregnant or have heart problems, glaucoma, or uncontrolled high blood pressure are not allowed to take part in these programs.

#### **What are success rates of attempts of quitting smoking in general?**

Only about 4 to 7 % of people are able to quit smoking on any given attempt without any medicines or other help. Studies in medical journals have reported that between about 25% to 33% of smokers who use medicines can remain smoke-free for over 6 months. There is also early evidence that combining some medicines may work better than using them alone.

The United States Surgeon General has said, "smoking cessation [stopping smoking] represents the single most important step that smokers can take to enhance the length and quality of their lives." Quitting smoking is not easy, but you can do it. To have the best chance of success in quitting, you need to know what you're up against what your options are and where to go for help. <sup>(5)</sup>

- Believe that you could get a smoking-related disease and this worries you.
- Believe that you can make an honest attempt at quitting smoking.
- Believe that the benefits of quitting outweigh the benefits of continuing to smoke.
- Know of someone who has had health problems as a result of their smoking.

**Do any of these apply to you???**

**References:**

1. [www.cdc.gov/tobacco/quit\\_smoking/index.htm](http://www.cdc.gov/tobacco/quit_smoking/index.htm).

2. American Cancer Society. *Cancer prevention & early detection facts & figures:2008*, available online at: [www.cancer.org](http://www.cancer.org).

3. *Mental Health, Park's text book of Preventive & Social Medicine, M/S Banarasidas Bhanot, 20<sup>th</sup> Edn, 2009, p:738-741.*

4. David M. Burns, *Nicotine Addiction, Principle of Internal Medicine, Mc Graw Hill Publication, 16<sup>th</sup> Edn, Vol-II, p:2573-2576.*

5. *Substance Abuse, Compendium of Literature on Life Style Related Diseases Prevention & Health Promotion, Indian Association of Preventive & Social Medicine(Gujarat Chapter), March 2005, p:48-57.*

-----