



A Practical Training Manual about Health Awareness on Hazards of Tobacco



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Tata Memorial Hospital
Department of Preventive Oncology
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**Practical Training Module about
Health Awareness on Hazards of Tobacco Use**

DEPARTMENT OF PREVENTIVE ONCOLOGY

It is estimated that there were 11,57,294 new cancer cases, 7,84,821 deaths and 22,58,208 people living with cancer, in India, in 2018, according to GLOBOCAN 2018 data. The five most common cancers affecting the Indian population are breast, lip, oral cavity, uterine cervix, lung and stomach. Cancers of major public health relevance such as breast, lip, oral cavity and uterine cervix contribute to 32.8% of all cancers among Indian population. These cancers can be prevented, screened for and/or detected early and treated at an early stage. This could significantly reduce the death rate from these cancers.

The cancer toll in developing countries, especially India, is due to the fact that over 70% of cases are detected late and report for treatment in very advanced stages. Apart from the pain and misery that cancer inflicts on the patient and his family, the economic impact of this disease is catastrophic. Simple preventive measures and regular screening can bring down these deaths drastically and even have other health benefits. With the principal objective of prevention and early detection of common cancers, the Tata Memorial Hospital set up the Department of Preventive Oncology in March 1993. Ever since, the Department of Preventive Oncology has been raising awareness and concern about cancer and affirming the prevention and curability of cancers, if detected early. As the level of cancer awareness rises, the health seeking behaviour towards early detection will increase and consequently the cancer load in the country will begin to decline.

The Department of Preventive Oncology, Tata Memorial Hospital, Mumbai, is a designated WHO Collaborating Centre for Cancer Prevention, Screening and Early Detection (IND 59), Region SEARO, since 2002. The five main thrust areas of the department are:

- Information, Education and Communication (IEC)
- Clinic and Community-based, Opportunistic-Screening
- Health Manpower Development
- Advocacy, NGO-Training and Networking
- Research

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Preface

India is on the roll out mode of the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS). Health being a State subject, different States is at various stages of implementation. There are directives to the State Government to roll out the Cancer Control Programme. However, the State Health Services manpower is not trained to implement either cancer awareness or common cancer screening. The Department of Preventive Oncology at the Tata Memorial Hospital, Mumbai is actively engaged in training the health services staff. This booklet will guide the paramedical staff the Accredited social Health Activists (ASHAs), the Auxiliary Nurses Midwifery (ANMs), Anganwadi Workers (AWWs), Primary Health Workers (PHWs) Community Health Volunteers (CHVs), Medical Social Workers (MSWs) and other staff from the government and private sectors regarding conducting cancer awareness sessions about hazards of tobacco use. Our intent is to translate it to as many Indian languages, so that it could be widely used.

Dr. Gauravi Mishra & Dr. Sharmila Pimple

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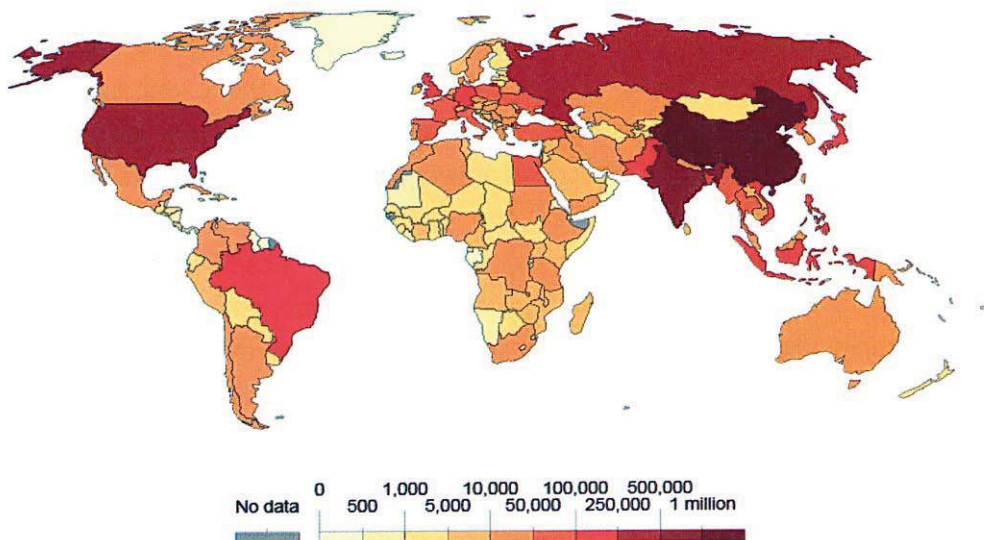
Background

Around 400 years ago Portuguese introduced tobacco in India and established the tradition of tobacco trade in their colony of Goa. After two hundred years, the British introduced commercially produced cigarettes to India and established tobacco manufacturing in our country.⁽¹⁾ Tobacco use is a serious public health challenge in the world. Globally tobacco is grown in more than 100 countries. After harvesting the tobacco crop, most of the varieties are subjected to on-farm heating and curing process. The different smoking forms include cigarettes, bidis, cigars, pipes etc. Smokeless forms include chewing tobacco, plug, loose leaf, twist, pan, snuff, khaini, gutka etc. Some of the tobacco forms are used with pan and also used alone like mishri, zarda and kiwan.⁽²⁾ Tobacco pan (betel leaves) and areca nut are traditionally part of Indian culture. There is sufficient evidence that smoking tobacco and chewing tobacco causes many diseases. Tobacco smoke is toxic and contains more than 7000 chemicals amongst which hundreds are harmful and 70 are known to cause cancer. Smoking causes diseases like cardiovascular and respiratory diseases. It also makes control of diabetes difficult. It not only harms reproduction but also affects the health of children and the unborn babies.⁽³⁾ Secondhand smoke harms children and adults, and the only way to fully protect nonsmokers is to eliminate smoking in all homes, worksites and public places.^(3,4,5) Even among individuals who have never smoked, secondhand smoke can cause heart disease, lung cancer and stroke.^(4,5) Using Smokeless tobacco causes many health effects such as cancer of mouth, esophagus and pancreas. It can increase risks for early delivery and stillbirth when used during pregnancy. Smokeless tobacco contains nicotine which is highly addictive.^(6, 4) It may increase the risk for death from heart disease and stroke.^(6, 7)

Currently, there are around 266.8 billion tobacco users in India. Tobacco kills more than one million Indians every year, accounting to 9.5% of total deaths. The most common form of death is the cardio vascular diseases.⁽⁸⁾ Lip and oral cavity cancers are the commonest cancers among Indian men and fourth most common cancers among Indian women.⁽⁹⁾

Number of deaths from tobacco smoking, 2016

Annual number of premature deaths from illnesses attributed to tobacco smoking.



Source: Institute of Health Metrics and Evaluation (IHME)

OurWorldInData.org/smoking/ • CC BY-SA

Indian government has taken various administrative steps to prohibit tobacco smoking in public places and regulate the sale of tobacco products and their advertisements. The Government of India enacted "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003" in May 2003 with a view to protect public health by prohibiting smoking in public places, banning advertisements of the tobacco products, banning sale of tobacco products to minors and near educational institutions, prescribing strong health warnings including pictorial depiction on tobacco products and regulation of tar and nicotine contents of tobacco products. With this background, we intend to assist the Medical and Paramedical staff on delivering awareness regarding the hazards of tobacco.

Tobacco and Cancer



In India, tobacco use leads to many illnesses. Smoking tobacco harms nearly every part of human body.⁽⁴⁾ In India tobacco kills one million people every year.⁽⁸⁾

- 1,00,000 people die due to cancer
- 4,80,000 people die due heart problems
- 1, 40,000 die due to chronic respiratory disease.

Different kinds of tobacco used in India



Smoking Forms - Cigarette, Beedi, Hukka, Chillum, etc

Smokeless Forms - Beetal Quid, Mawa, Gutkha, Paan masala, Khaini, etc;

Used as Tooth paste or tooth powder - Masheri, Toothpaste with tobacco, and tobacco for application

Tobacco use is very common all over the world. In western countries, people use tobacco in smoking form e.g. cigarettes, cigars etc. But in our country, tobacco is used in many forms as you can see in this picture.

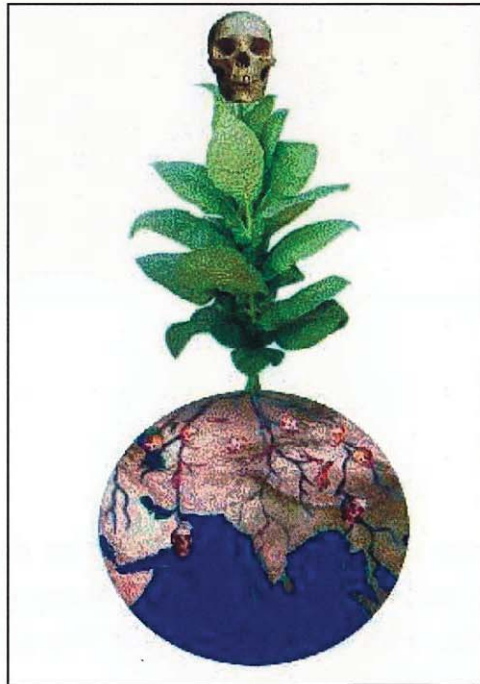
In urban areas of India, cigarette smoking is more common while smoking bidi is more popular in rural areas. Hookahs, Chilum are used mainly in villages. In recent times, Hookahs are becoming more popular among youths in cities in the form of Hookah bars. Tobacco is also used in chewing form in our country. In our tradition, very often, pan is offered to the guest. Pan with tobacco is harmful to health but do you know that Pan without tobacco is also bad for health? Usually lime is applied to pan. If you have visited the Panwala's shop, have you seen lime is kept on a stone? It is a fact that if lime is kept on a stone, it becomes thin and hollow after sometime. If lime can have such effect on a stone which is so hard, then imagine its effect on our skin which is so delicate and sensitive and over mouth where pan is kept while chewing.

Mawa contains all the ingredients of pan but they are wrapped in paper instead of betel leaf which is also widely used in our country. Gutka is very popular in our country. It is presented in attractive packets and many children are addicted to it. Pan Masala, Khaini etc. are also equally harmful to our health.

People who only chew Betelnut can also get cancer, even if it is sweet betelnut or plain betelnut. Betelnut has cancer causing ingredients/chemicals.

Tobacco is also applied to the teeth as well as gums and its use is common in women. Masherri (burnt leaves of tobacco) is very popular in villages of Maharashtra. Many people think that Masherri makes teeth strong and it is not harmful to health as the leaves are burnt. But tobacco is harmful to health in any form. Many toothpaste and red tooth powder (Lal Dant-manjan) contain tobacco.

Harmful effect of using Tobacco



Tobacco is used in various forms all over the world; however, its ultimate effect is death. In our own country, every year 10 lakh people die due to different diseases caused by tobacco. ⁽⁸⁾

Remember! Even though there are many forms of tobacco but ultimate result of its use is only one, it is death!



Death!

In our country tobacco is used in many forms as shown in the picture. Remember one thing, even though there are many products of tobacco like Cigarettes, Gutka, Pan Masala etc, but the ultimate result of it's use is only one, that is death!

*Smoking harms nearly every part of the body
and also causes cancer*



- Mouth
- Nose
- Throat
- Larynx
- Oesophagus
- Bladder
- Lungs
- Colon
- Kidney
- Stomach
- Cervix

Use of tobacco leads to cancer of fourteen different body parts. The photo here shows a body affected with cancers of many organs e.g. oral cavity, nose, throat, voice box, food pipe, urinary bladder, bowels, lungs, stomach, kidney, mouth of uterus etc.

Caution!



- By closing your eyes or ignoring the picture, the reality is not going to change.
- If you are chewing tobacco, this could be your mouth.
- Only you can save yourself from harms of tobacco. Tobacco brings only misery and death.

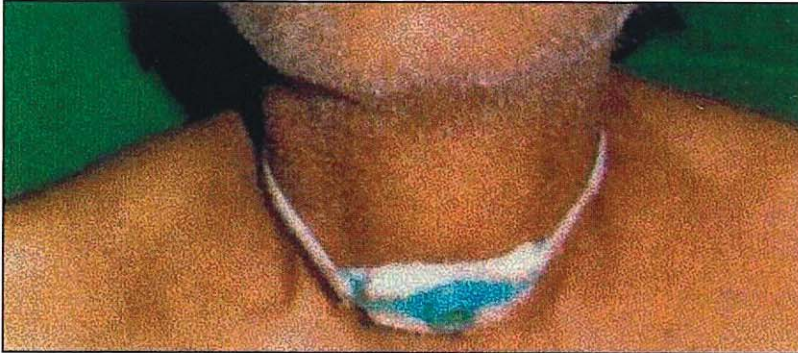
Our country has the largest number of oral cavity cancer patients in the world. Its high risk is related to use of tobacco in chewable form. In western countries, where smoking is the popular form of tobacco use, lung cancer is common.

The picture shown here may not be appealing. But by closing eyes or ignoring the picture, the reality will not change.

If anyone is chewing tobacco, this could be their oral cavity. The white patch shown in the oral cavity may turn into cancer.

Only you can save yourself from harms of tobacco. Tobacco brings only misery and death. So **"Choose Life Not Tobacco"**.

Belive it or not!



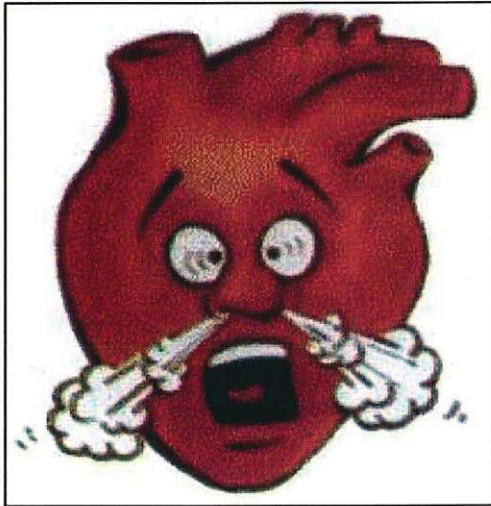
In India 80% Cancers are caused by tobacco use.⁽¹⁰⁾ We have already seen tobacco use causes cancer of many organs in our body.

It affects our throat, air pipe, food pipe. In this picture you can see a man with a tube in throat. You can imagine his suffering because he has to take his diet and also has to breathe through an artificial pipe.

Would you be happy to live like this?

Please save yourself from undergoing this suffering caused by tobacco use. All this is in your hands only.

Harmful effect of using Tobacco on health



- Diseases of heart and blood vessels
- Heart attack
- Blood pressure and increase in the heart beats
- Paralysis
- Gangrene (Obstruction of blood flow to the body parts)

Nowadays we are surprised to hear that many young people are getting heart attack. Main culprit behind this is tobacco. As we have seen earlier that our throat gets affected due to tobacco, similarly it also affects our heart. Remember, using tobacco is like putting a time bomb in heart which may explode at any time. Use of tobacco either in smoking or chewable form leads to diseases of heart and blood vessels, heart attack, high blood pressure, increase in the heart beats. Tobacco can lead to paralysis, gangrene due to obstruction in blood flow to the body parts.

How far this leg can walk?



You can see in this picture a leg affected by gangrene because of lack of blood supply to this part.

Let us see what is gangrene?

When dirt gets accumulated in a water pipe, water does not reach the tap. In a similar way, when a person consumes tobacco, it leads to narrowing of blood vessels and blood does not reach to our fingers of hands and toes of legs. That part dies without blood; it is called as gangrene in medical term. Many a times gangrene affected hands and legs may need to be cut by surgery.

Tobacco use increases the risk of "Gangrene"

Be careful! Tobacco use can lead to disease called gangrene and leads ultimately to amputation of hands and feet.

Some suggestions to quit tobacco



You have seen now the ill effects of tobacco on our health. Hence it is best to stop tobacco habit now. Few suggestions to quit tobacco habit are:

- Remove all material related to tobacco from your sight. e.g. if you are smoking, then throw away ash trays and cigarette packets.
- Bring a change in your daily routine (so that you will be able to avoid the instances which remind you of tobacco) e.g. start going for morning walk.
- When you feel the urge for tobacco, have sauf (mouth freshner), cardamom, cloves, etc.

When you feel urge to have tobacco, keep the following things in mind:

1. Delay use of tobacco
2. Take deep breaths
3. Drink water slowly
4. Divert your mind to other activities such as listening to music, reading books, playing with children etc.
5. Be firm with your decision!

Be aware, tobacco can make you impotent!



Be aware, tobacco can make you impotent! ⁽³⁾

Health Problems caused by tobacco in women



Let us see what health problems women may suffer because of tobacco use.

Women who use tobacco in any form are at the risk of:

- Cancer of mouth of uterus
- getting early menopause
- showing early signs of aging
- inability to bear child
- high chances of abortion
- developing brittle bones

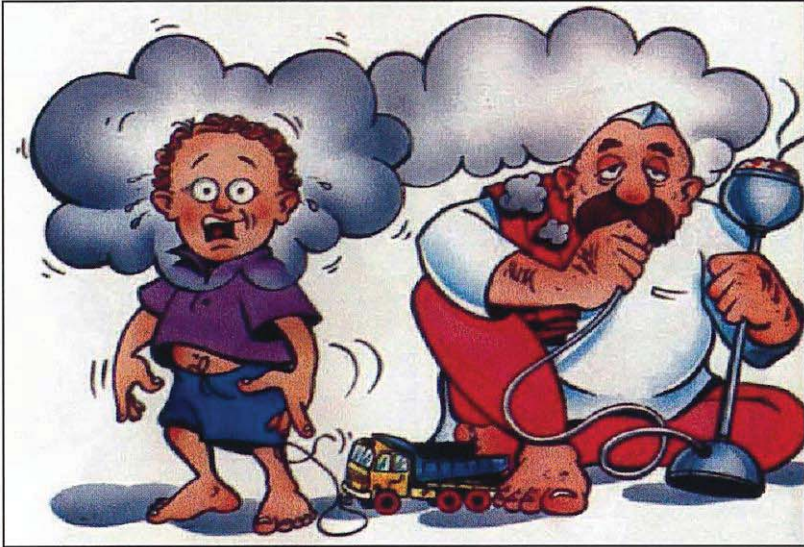
Harmful effect of using tobacco during pregnancy



Use of tobacco during pregnancy has ill effects not only on mother but also on baby. (3, 4, 11)

- There are high chances of abortion among women who consume tobacco during pregnancy.
- Mother may deliver low birth weight child.
- She may give birth before due date of delivery. Such children will have low resistance power which increases the risk of getting various illnesses and even death.

Can your child breathe in this air?



If you are smoking, do you know that your child is also inhaling the cigarette/ beedi smoke?

Due to your smoking habit, your child may suffer from many illnesses like:

- lung infection
- asthma
- ear infection
- cancer

Would you like your children to suffer because of you?

Chemicals present in tobacco smoke



Do you know why tobacco is so dangerous?

Tobacco smoke contains more than 7000 chemicals. ⁽³⁾

In this picture, few of these chemicals are listed:

- Ammonia: toilet cleaner
- Ethanol: alcohol
- Acetone: Nail polish remover
- Phenyl: disinfectant
- Stearic acid: candle wax
- Naphthalene: moth balls
- Vinyl Chloride: to make PVC
- Arsenic: poison
- Formalin: preserver for fabric
- Nicotine: addictive
- Hydrogen cyanide: poison
- Tar: dangerous smoke
- Carbon Monoxide: car smoke
- Nitrobenzene: petrol additive
- Butane: Cigarette lighter
- Acetic acid: Vinegar
- Toluene: industrial solvent
- Methane: petroleum gas
- Cadmium : car batteries
- DDT/ Dieldron: insecticide
- Oxides : nitrogen
- Hexamine: explosive

Do you still want to smoke?

When you are enjoying smoking.....



We have seen that so many harmful chemicals are present in cigarette smoke. Most of them are so dangerous that if taken in large quantities it can lead to death.

Do you still want to smoke?

Tobacco smoke not only affects you, but also the people staying with you, as they breathe in the same toxic air as you.

We do not stay alone in the world, but we are surrounded by our loved ones. In this picture we can see a man who is trying to smoke a pipe. Along with him, his family members will also burn because of inhaling the smoke emitted by his habit. Whenever you are enjoying smoking, you are burning not only your life but also lives of your loved ones. For the sake of your family, for your children, stay away from tobacco!

One life, Ways to lose are multiple!



We have only one life. It's in our hand to increase or shorten it. There are many ways to reduce our life span.

- **One cigarette** reduces our life by **one breath**
- **One beedi** reduces our life by **two breaths**
- **One packet** of Gutkha **four breaths** less

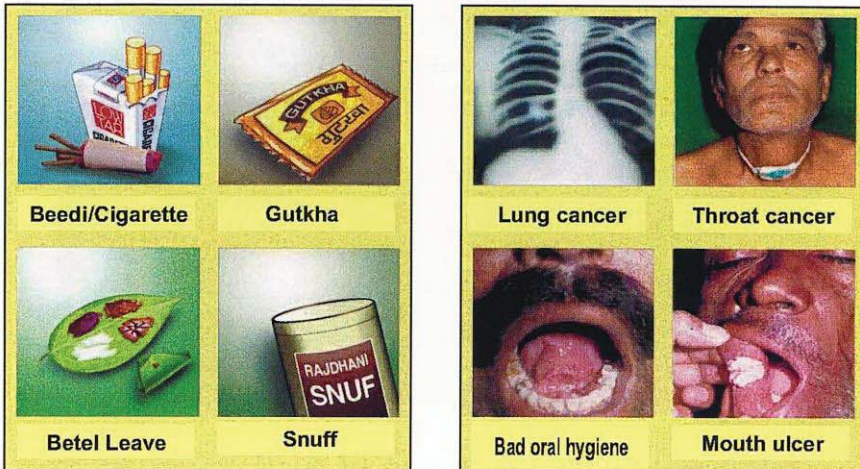
Tobacco not only spoils your health but also of your family members!

Passive smoking affects health of your loved ones. When a smoker smokes a cigarette/ beedi, 75% of the smoke is exhaled, which then enters into the lungs of his family members or friends or colleagues around him.

If somebody in the family is using tobacco, children may imitate the elders and start using tobacco. Do you want to punish your family?

Life is yours, Choice is yours!

Stay away or Accept all these

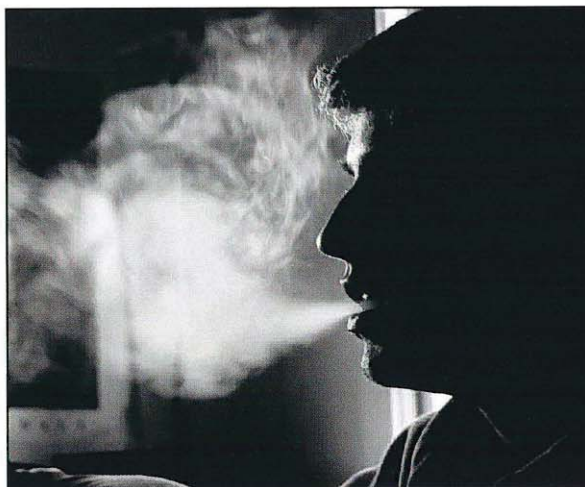


It is your valuable life and it is your will!

Today lots of research is on-going in relation to cancer in order to prolong life. But by falling prey to addiction, people are shortening their own lives. So it is your decision whether you want to choose life or death.

**Different products of tobacco, different sufferings,
but the end is only one!**

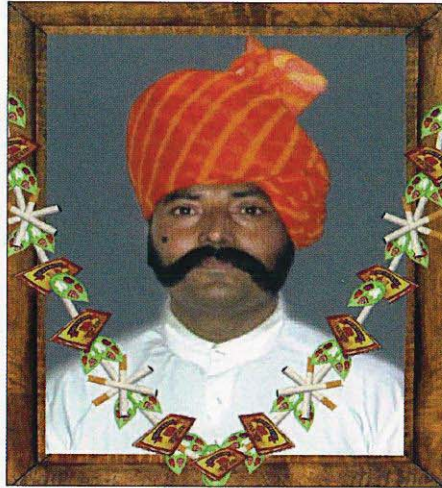
Is all your hard earned money wasted in the form of tobacco smoke?



Stop using tobacco protect your health & save your hard earned money!

All of us work very hard to earn money which can be used for many good purposes. When we purchase tobacco, we are spending money not only on tobacco, but also on treatment of illnesses caused due to tobacco use. Hence it would be sensible to stop using tobacco, protect our health and save our hard earned money.

Unche log, Unchi pasand!

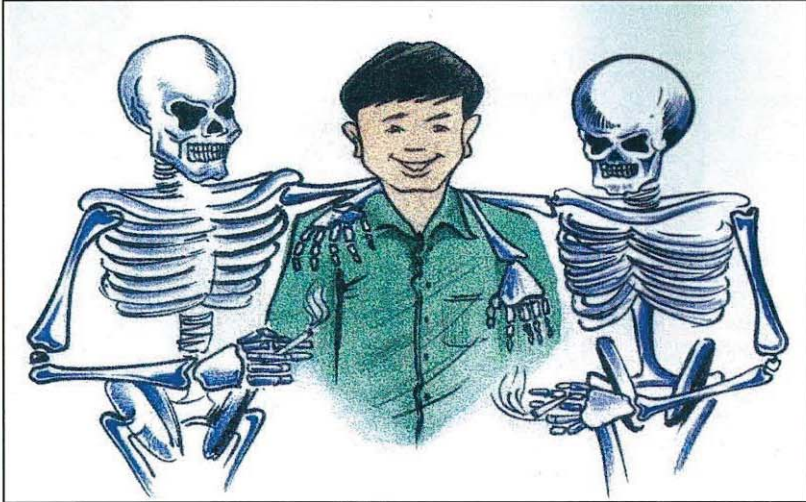


**People using tobacco reach great height that they "cannot" return!
Enjoy tobacco.... pay the price of life!**

Advertisers give us a wrong picture. They only want to promote their products at any cost e.g. the advertisement using slogan of **unche log, unchi pasand** makes us believe that if we consume tobacco of a particular brand, our status increases and we will be respected by others.

People using tobacco reach at such a great height that they 'cannot' return. That means they die at an early age due to tobacco. **Really, they pay a very heavy price for their pasand (choice), the price is their life!**

What is the use of your friendship with such friends who are inviting death for you?



Who are your true friends?

Obviously those who are your well wishers and who care for you!

What is the use of your friendship with such friends who are inviting death for you?

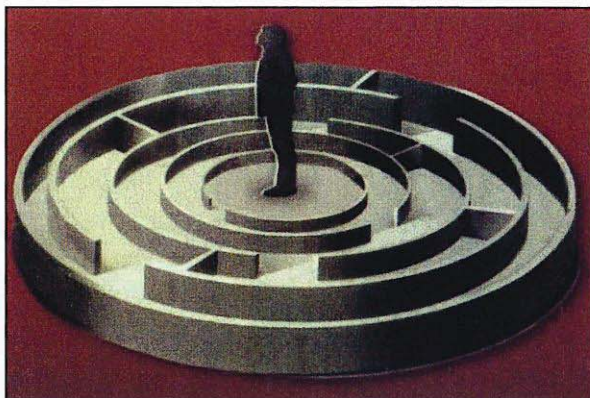
If your friends are offering you death in the form of tobacco, should they be called as friends or enemies? Think about it. It is in your hand whether to accept life or please your friends.

Firmly "Say no to tobacco", whoever offers you!

When there is death of a loved one the whole family breaks down.

Do you also want your family to pay for your friendship?

*Do you feel trapped in the vicious circle
of using tobacco?*



If you are convinced about the importance of quitting tobacco, but you feel trapped, do not lose hope!

Lakhs of people have quit tobacco habit, you could also do it.

HOW?

- First and foremost mentally prepare yourself for quitting tobacco for a long and healthy life instead of a short lasting enjoyment in the form of tobacco.
- Set a date to quit tobacco. The best time to quit tobacco is immediately. If not, then at least within a week you should quit tobacco.
- Keep away all things, which remind you of tobacco.
- Try to avoid those situations where you are likely to start using tobacco again.
- If you feel you cannot stop on your own, you can take professional help.
- You may face setbacks but you should continue your efforts with a strong determination.

Stop consuming tobacco and alcohol



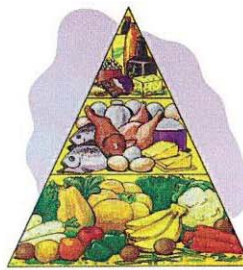
**Do not consume
tobacco and alcohol**



**Keep your Oral
cavity clean**



Unhealthy Diet

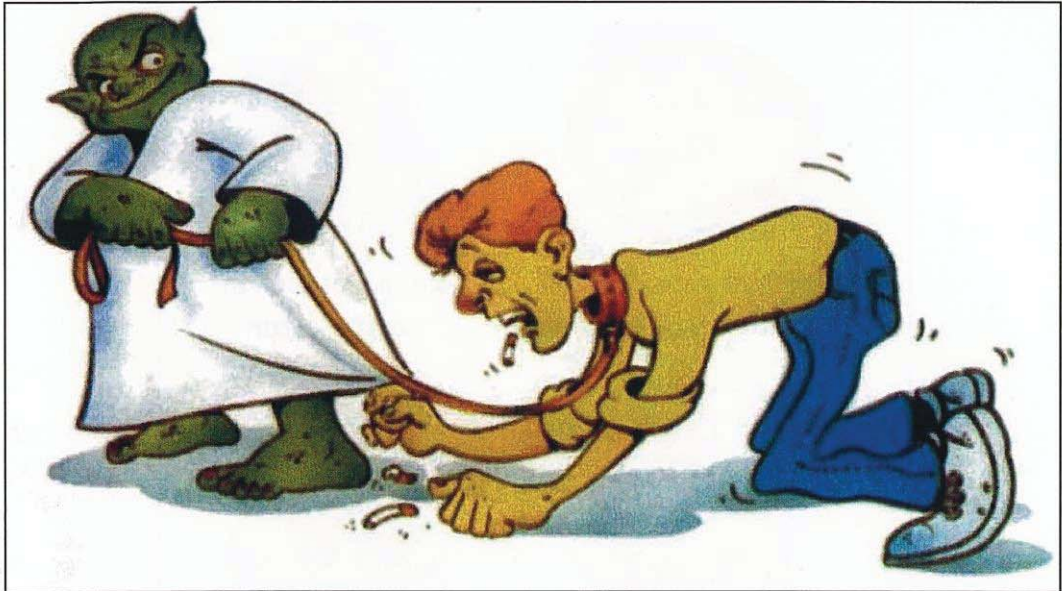


Healthy Diet

It is important to maintain healthy lifestyle to live longer. Stop consuming tobacco and alcohol. At the same time keep your mouth clean. It is equally important to maintain healthy diet.

So what is healthy diet? Healthy diet should contain more of pulses, green vegetables, fruits, meat, eggs and minimum oily food.

Use of tobacco in any form is an invitation to death!



Would you like to picture yourself like this as a slave of tobacco and on verge of dying?

After listening to all this, if you are still not a tobacco user would you like to start with the habit? If you are already using tobacco, would like to continue it?

Conclusion

Consuming tobacco not only has negative impact on health and quality of life but also causes cancer. Around 80-90% of oral cancers are directly attributable to tobacco use. India contributes to one third of oral cavity cancers in the world. It is estimated that around 3500 people die in India every day because of tobacco use. Early detection of disease in most cases and detection of diseases in precancerous conditions can save lives. Conducting a good quality health awareness programme may assist in reducing the tobacco consumption in population and thus reduce the burden of diseases caused by tobacco consumption. In this booklet we have covered topics related to harmful effects of tobacco, tobacco and cancer, how to quit tobacco, effect of tobacco in pregnancy and effects of passive smoking among children & family. This will serve as a useful reading material for paramedical staff and help them in creating awareness regarding ill effects of tobacco.

References

1. Gupta PC, Ball K. India — tobacco tragedy. *Lancet*: 1990;335:594-5.
2. World Health Organization. Tobacco or health: a global status report.(last accessed on 11.3.2019)
3. U.S. Department of Health and Human Services. *A Report of the Surgeon General: How Tobacco Smoke Causes Disease: What It Means to You*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010 (Last accessed on 12.3.2019)
4. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014 (last accessed on 12.3.2019)
5. U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006 [accessed 12.03.19].
6. World Health Organization. *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 89: Smokeless Tobacco and Some Tobacco-Specific N-Nitrosamines*Cdc-pdfExternal. [PDF-3.18 MB] Lyon (France): World Health Organization, International Agency for Research on Cancer, 2007 (last accessed on 22.3.2019)
7. Piano MR, Benowitz NL, Fitzgerald GA, Corbridge S, Heath J, Hahn E, et al. Impact of Smokeless Tobacco Products on Cardiovascular Disease:

Implications for Policy, Prevention, and Treatment: A Policy Statement from the American Heart Association. *Circulation* 2010;122(15):1520-44.

8. World Health Organization Indiafact sheet 2018 (last accessed on 11.3.2019)
https://apps.who.int/iris/bitstream/handle/10665/272672/wntd_2018_india_fs.pdf
9. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2018 Sep 12.
10. NCRP - Consolidated Report of Hospital Based Cancer Registries 2007-2011, National Cancer Registry Programme (Indian Council of Medical Research), Bangalore, 2013.
11. U.S. Department of Health and Human Services. Women and Smoking: A Report of the Surgeon General. Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001. (last accessed on 11.3.2019)

