

Smoking Cessation

Dr.R.Vijai Kumar

Director

Division of Pulmonary Medicine

Intensive Respiratory Care Unit

School of Respiratory Therapy

MediCiti Hospitals

Hyderabad

Institute of Health Systems

World Health Day

7th April 2002

Symposium on

Costs of Poor Health Habits

Smoking Cessation

(A Clinical Approach)



Tobacco :History

- Portuguese introduced in India
- presented it to Akbar
- his Hakeem advised him to pass the smoke through water. (Hookah !)
- Jehangir introduced tax* for Tobacco
(himself was an opium addict)

* The main obstacle today for ban on smoking

Smoking Habit in India

- 200 million men
- 46 million women
- 2 million children

Smoking Habit in India

Men lead.....

- Villages 55.4 %
- Cities 28.1 %

Women are not too far

- Villages 16.4%
- Cities 8.2%

2nd November 2001

2nd November 2001

Supreme Court

Bans smoking in Public
Places

Smoking in Public now a Crime !

- Govt of Andhra Pradesh passed the bill
(on 27th March 2002)

Smoking in Public now a Crime !

- Ban on Advt on Cigarettes
- No Sale of Cigarettes
near Schools & Colleges
children less than 18 years
- Display 'No Smoking' board
- Punishment: Rs.100 to Rs.1000/- and or jail
for 3 months
- Authorised for Action: Sub Inspector of Police
& above

Smoking in Public now a Crime !

All Public Places

Govt offices

Auditoria

Hospitals

Health Institutions

Libraries

Court Buildings

Public Offices

Trains & Buses

Restaurants

Amusement Centres

Religious Places

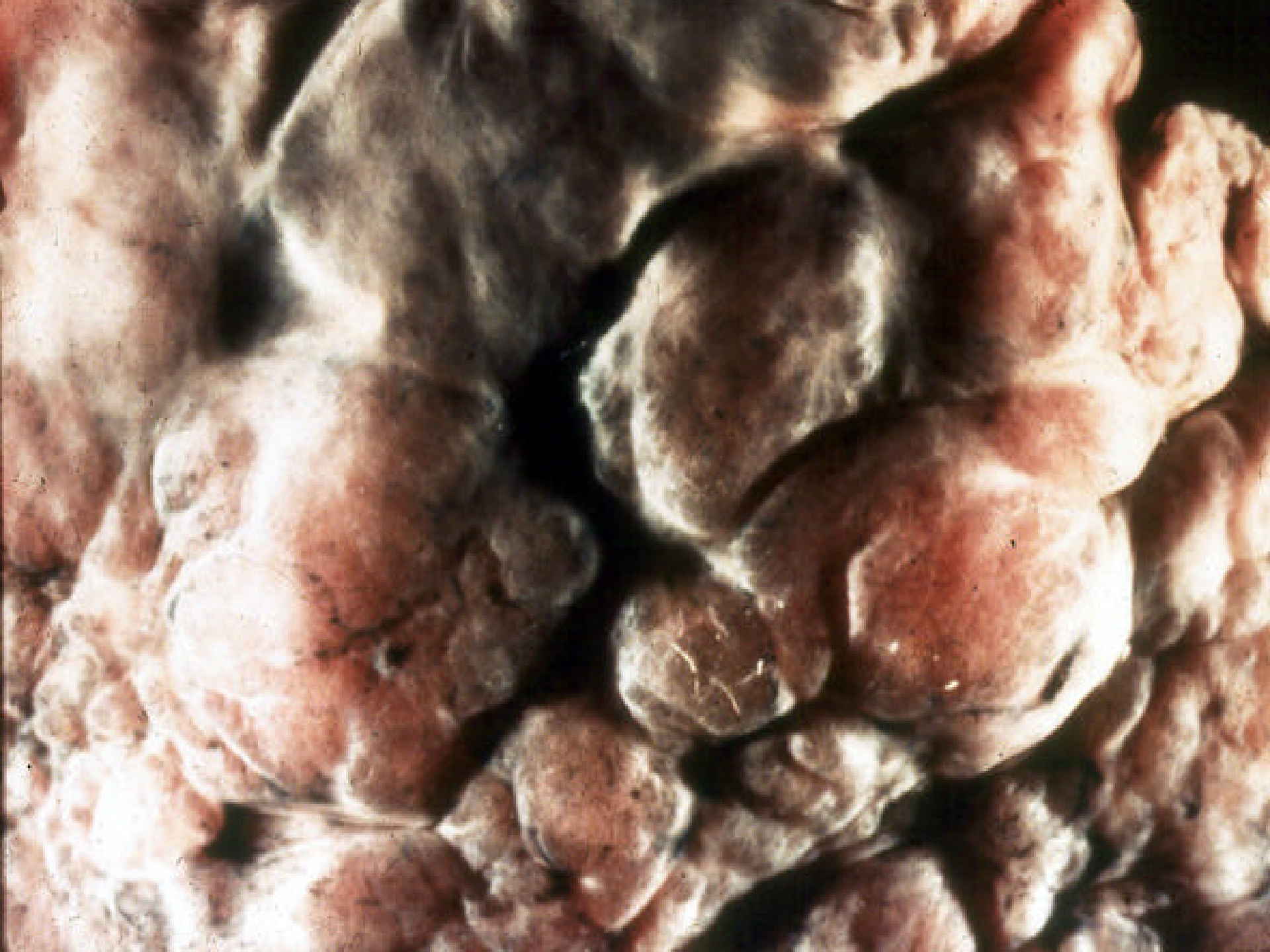
Govt Of Andhra Pradesh Bans sale of

- Gutkha
- Paan Masala

Responsible for highest number of
Head & Neck Cancers
in the world !

Why Stop Smoking ?





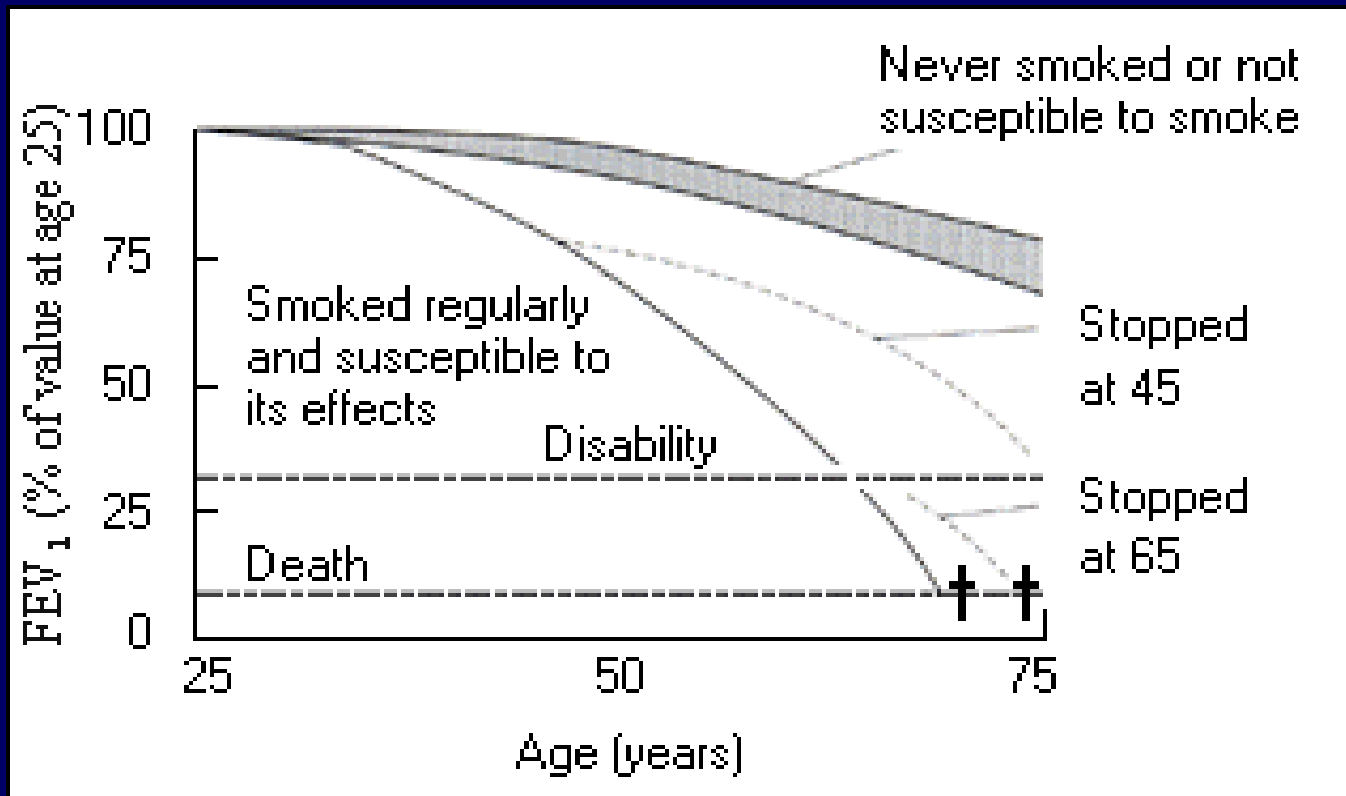
FEV.1

(Single most important parameter of Lung Function)

- Falls by 20 ml per year in Non Smokers
- Falls by 45 ml per year in Smokers

Natural history ...

Effect of stopping smoking



Smoking Cessation :Cancer Risk

Males who quit smoking In 1950	Risk of Cancer by Age 75
60	10%
50	6%
40	3%
30	2%

Conclusion:Stopping smoking before middle age avoids 90% cancer risk

Ref:Doll &Peto. BMJ 2000

Smoking

single most important Preventable cause of disease and death.

- 85% of COPD
- 30% of Cancers
- 30% of strokes
- 25% of CAD

Smoking

single most important Preventable cause of disease and death.

And many more like,

- Thromboangitis Obliterans
- Impotence
- Hastening of Aging

every day

2,200 die in India
as a result of Tobacco related
diseases.

10,000 persons die worldwide

WHO

Surprisingly,
it takes just
3 minutes to change these
frightening Statistics

Surprisingly,
it takes just
3 minutes of the Doctor's
advice results in 2% to 4%
Smoking Cessation

it is an opportunity !

Smoking Cessation

Role for Doctors & Nurses

29 trials

27,000 Smokers

Conclusion: even a brief advice compared to no advice increases likelihood of sustained cessation by 60%

Why do smokers smoke?

Why do smokers smoke?

for Pleasure

Why do smokers smoke?

for Pleasure

and for Pain

Why do smokers smoke?

for Pleasure

increased dopamine

increased noradrenaline

feel good, other rewards

and for Pain

Why do smokers smoke?

for Pleasure

- increased dopamine
- increased noradrenaline
- feel good, other rewards

and for Pain

- altered dopamine
- altered noradrenaline
- withdrawal symptoms, craving

Will power works

Will power works only for
Non Nicotine dependent

Most Smokers continue to
smoke not out of choice but
because they are addicted to
Nicotine

Nicotine Addiction

Is now recognised as a medical disease with an underlying neurobiological basis

Ref:WHO International Classification of Diseases 1999

Nicotine: highly addictive

As addictive as Heroin or Cocaine.

and

Each puff contains 4,700 chemicals

Carcinogens: Benzopyrene

Benzanthracene

destroy P-53 Gene (suppresses un-
controlled cell division)

Nicotine Addiction

.....is extremely powerful !

Many desire to Quit but, few succeed

- 70% smokers desire
- 30% try
- 3% actually Quit

Continue to smoke !

- 40% of Laryngectomy Pts
- 50% of Lung Cancer Pts
- 38% of Pts who had Heart Attack

Quantify !

Pack years

no. of packs per day X no. of years smoked.

Smoking Index.

no. of sticks per day X no. of years smoked.

Smokers are two kinds

Nicotine dependent

&

Nicotine Non dependent

Who is Nicotine dependent ?

Who is Nicotine dependent ?

The Fagerstrom Tolerance
Questionnaire
Scoring

"Smokes more than
20 Cigarettes
a Day"

"As soon as I get up
in the morning the
first thing I have to
do is Smoke a
Cigarette... ..it is a
must"

" I can give up
anything but not
my first Cigarette
in the Morning "

“ Even if I am sick I
have to have my
Cigarettes”

"I tend smoke Most
of my Cigarettes
early in the
morning... ..and
less in the
evening"

"I am satisfied
only when I
inhale the smoke
deep into my
Chest"

" My brand of
course is Wills,...
that is Red Wills
Nothing else you
see !"

The Fagerstrom Tolerance Questionnaire

- How soon after you wake up do you smoke your first cigarette?

Within 30 minutes = 1

- Do you find it difficult to refrain from smoking in places where it is forbidden; e.g., in church, at the library, in cinemas, etc?

Yes = 1

No = 0

The Fagerstrom Tolerance Questionnaire

- Which cigarette you hate most to give up
the first one in the morning = 1
- 4. How many cigarettes a day do you smoke?
 - 26 or more = 2
 - 16-25 = 1
 - 15 or less = 0

The Fagerstrom Tolerance Questionnaire

5. Do you smoke more frequently during the early morning than the rest of the day?

Yes =1

No =0

6. Do you smoke if you are so ill that you are in bed most of the day?

Yes =1

No =0

The Fagerstrom Tolerance Questionnaire

7. What is the nicotine level of your usual brand of cigarettes?

$> 1 \text{ mg} = 2$

$0.61 \text{ mg}-1.0 \text{ mg} = 1$

$< 0.6 \text{ mg} = 0$

8. Do you inhale?

Always = 2

Sometimes = 1

Never = 0

Counseling

NCI recommendations

Ask

Advise

Assist

Arrange

Anticipatory guidance

Counseling

NCI recommendations

Ask details of smoking

Advise

Assist

Arrange

Anticipatory guidance

Counseling

NCI recommendations

Ask details of smoking

Advise importance of Quitting

Assist

Arrange

Anticipatory guidance

Counseling

NCI recommendations

- Ask** details of smoking
- Advise** importance of Quitting
- Assist** those who want to Quit
- Arrange**
- Anticipatory guidance**

Counseling

NCI recommendations

- Ask** details of smoking
- Advise** importance of Quitting
- Assist** those who want to Quit
- Arrange** for follow up, encourage
- Anticipatory guidance**

Counseling

NCI recommendations

- Ask** details of smoking
- Advise** importance of Quitting
- Assist** those who want to Quit
- Arrange** for follow up, encourage
- Anticipatory guidance** if required

Smoking Cessation

Stages of Behavioral change

- Not thought of Quitting: Pre contemplation
- Deciding to give it a try: Contemplation
- Preparing & trying to Quit: Action
- Quit & Stay that way: Maintenance
- Sustained Abstinence
- Or Relapse

Stopping Smoking is a process not an event

“ It is never too late
to Quit !”

After the last Cigarette



- **Within 20 min** **BP drops to normal**
- **Within 8 hrs** **Oxygen level increases**
- **24 hrs later** **heart attack chances less**
- **2 weeks later** **circulation improves**
- **3 months later** **lung function incr. 30%**
- **Within 9 months** **cough, fatigue,
breathlessness is less**

The easy R' s to help Smokers Quit

- Road Block
- Reward Yourself
- Remind Yourself
- Refer to a Friend
- Refuse Cigarettes

Nicotine Replacement

Nicotine Gum

4 mg x 6 weeks

2 mg x 6 weeks

taper afterwards

Nicotine patch

6 to 8 weeks daily

Abstinence rates:Nicotine Patch

	Active(%)	Placebo(%)
All patch studies	21.8	9.4
Counseling intensity		
High	26.5	13.2
Low	19.5	7.1
Counseling format		
Group	26.3	12.6
Individual	20.0	7.7

Bupropion Hcl

- Modifies levels of dopamine-initial elevation, then fall,
Stabilizes Nicotine levels similar to that seen in non-smokers
- 2. Modifies nor-adrenergic activity-reduction in the firing rates of nor-adrenergic neurons in the locus coeruleus.
Causes reduction in Nicotine withdrawal symptoms.

Dose

150 mg. once daily for 3 days
increase to 150 mg. twice daily
Total duration for 7 to 12 weeks.

Safety & Tolerability

Well tolerated

dry mouth, insomnia, headache.

Contraindications

Hyper sensitivity

Seizure disorder

Bulimia

Anorexia nervosa

severe hepatic disorders

MAO inhibitors use

Contraindications

Hyper sensitivity

Seizure disorder

Bulimia

Anorexia nervosa

severe hepatic disorders

MAO inhibitors use

Cessation rates :one year

3%	Quit every year
6%	Quit with NRT from a Pharmacy
20%	Quit with NRT + Smokers clinic
30%	Quit with Bupropion
35%	Quit with NRT + Bupropion

every year :India

8 lakh die from Tobacco related
diseases

WHO

* 5 lakh die from TB

It is never too late to make
someone stop smoking

Because too soon it may be
too late !

