

To view a set of 16 slide materials on NCDs, use the scroll option.

This material is developed by

Madras Diabetes Research Foundation (MDRF), Chennai
and the

World Health Organization (WHO) New Delhi

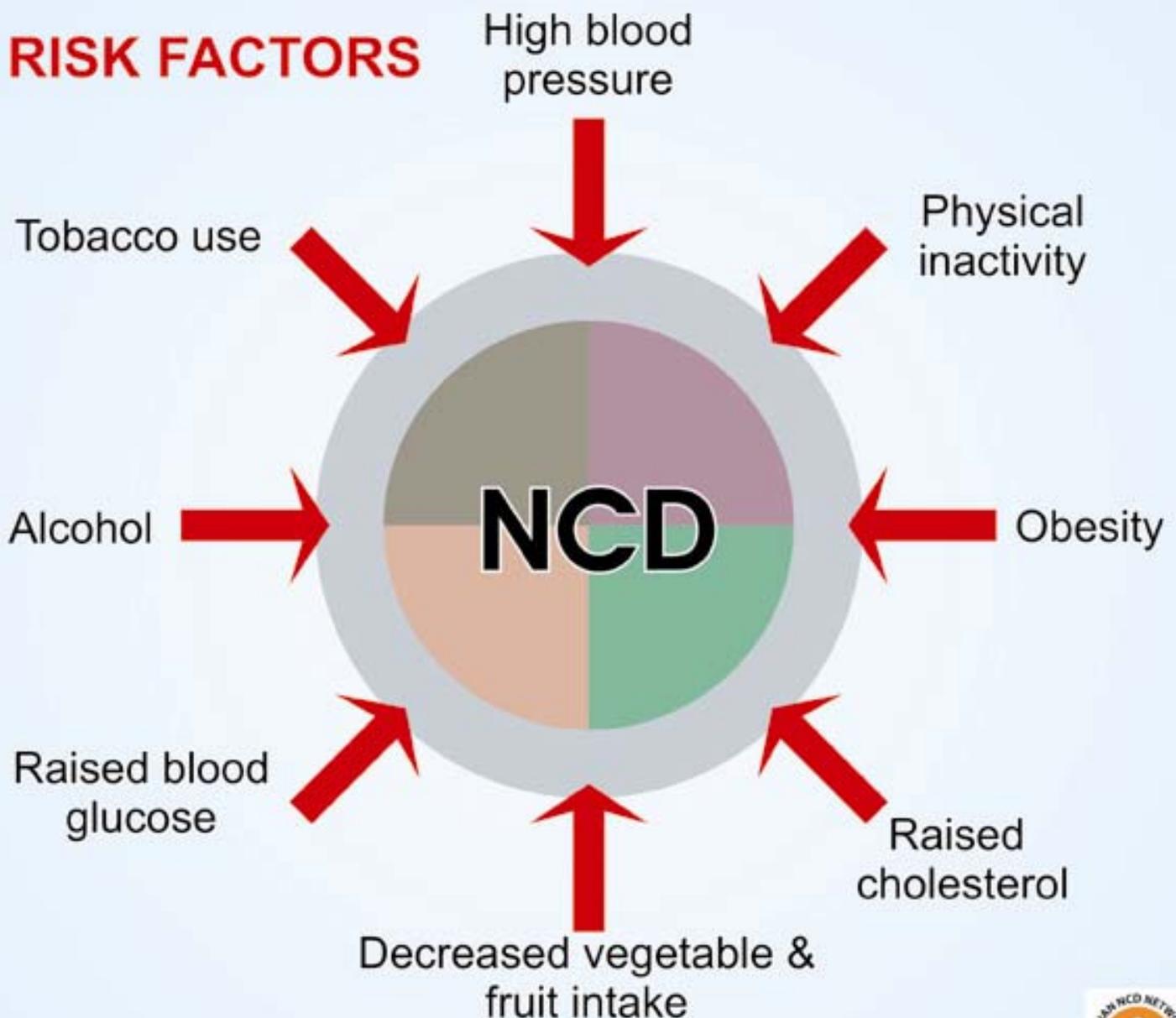
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NON COMMUNICABLE DISEASES (NCDs)

NON COMMUNICABLE DISEASES INCLUDE

- **Cardiovascular disease (CVD)**
- **Diabetes Mellitus (DM)**
- **Chronic obstructive pulmonary disease (COPD)**
- **Cancer**



BLOOD PRESSURE & NCDs

'High blood pressure – silent killer'

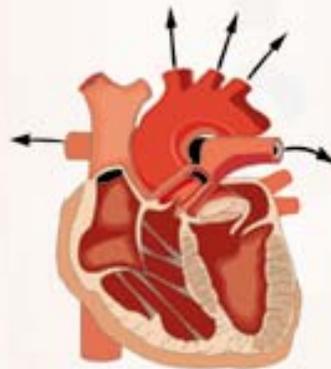
Know your blood pressure as high blood pressure increases the risk of

- ▶▶ Heart attacks
- ▶▶ Strokes
- ▶▶ Kidney problems



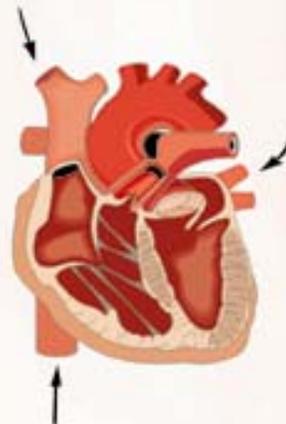
NORMAL BP*:

Heart contracts



SYSTOLIC BP
130
or less

Heart Relaxes



DIASTOLIC BP
80
or less

* Note: BP Varies with age

HIGH BLOOD PRESSURE

Causes of high blood pressure



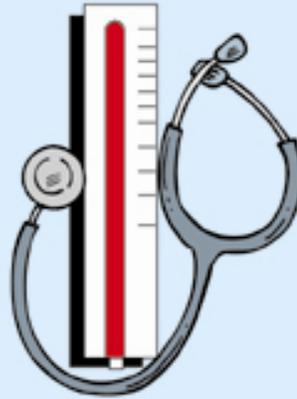
Family history of Hypertension



Overweight or obese



Excess Alcohol



Increased consumption of salt



Kidney disease

What to do if one has high blood pressure?

- Maintain a healthy body weight
- Increase physical activity
- Eat a healthy diet -low in salt and fat and high in vegetables and fruits
- Do not smoke or drink too much alcohol
- Have your blood pressure checked regularly



WHAT IS IDEAL BODY WEIGHT?



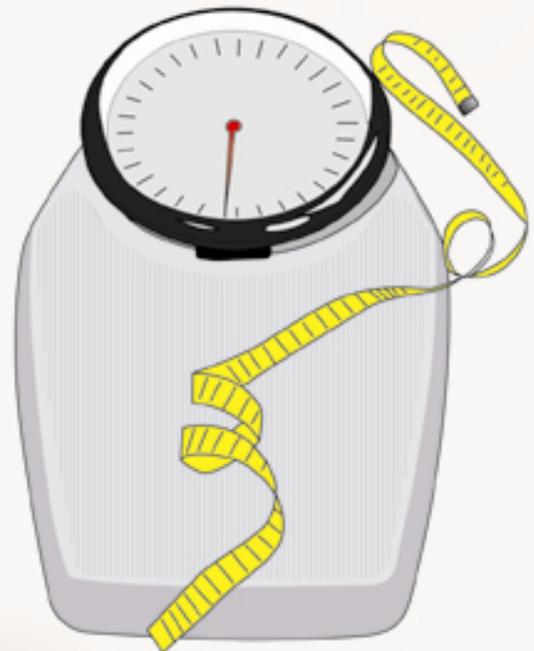
Ideal body weight



Is based on your height, age and sex

Maintaining an ideal body weight can significantly reduce your risk of

- Heart disease
- Diabetes
- Stroke
- Depression
- Certain cancers
- High blood pressure
- High blood cholesterol



The more weight one gains, the greater the risk for NCDs

WHAT IS BODY MASS INDEX ?



$$\text{Body Mass Index(BMI)} = \frac{\text{Body weight (in kilograms)}}{\text{Height (in metres)}^2}$$

BMI < 18 Kg/m ²	: Under weight
" 18-23 Kg/m ²	: Ideal body weight
" 23.1- 25 Kg/m ²	: Over weight
" > 25 Kg/m ²	: Obese



**Remember
"Fatness" is not "Fitness"**

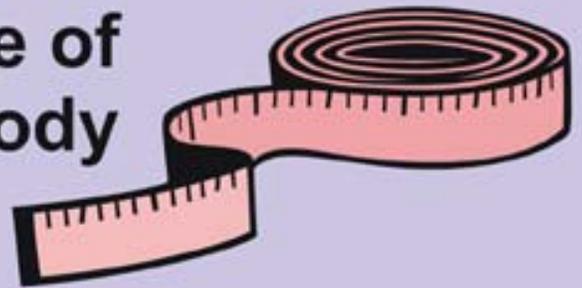
If BMI increases, it increases the risk of

- Diabetes
- High blood pressure
- Heart attacks and
- Stroke



WAIST CIRCUMFERENCE MATTERS !

Waist circumference- an indirect measure of abdominal fat in the body

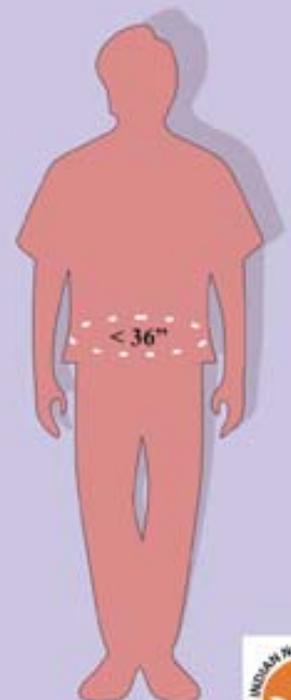


MEASURE YOUR WAIST, MEASURE YOUR RISK FOR:



Diabetes,
Hypertension
Heart disease
Stroke
Abnormal cholesterol levels

Waist circumference	
	Normal
Males	<90 cm [36 inches]
Females	<80 cm [32 inches]



IMPORTANCE OF VEGETABLES & FRUITS

They contain :



Essential nutrients,
Vitamins,
Dietary fibre
and
Other bioactive
compounds



Daily intake of vegetables and fruits decreases
risk of

- ☞ Heart disease
- ☞ Cancer
- ☞ Type 2 diabetes
- ☞ Obesity
- ☞ Nutrient deficiency disorders



DIETARY FAT & NCDs

' REDUCE FAT – PREVENT/CONTROL NCDs '

WHICH FAT TO USE



USE

Monounsaturated fatty acids
Groundnut oil
Mustard oil
Olive oil

USE

Polyunsaturated fatty acids
Sunflower oil
Safflower oil
Corn oil

RESTRICT

Saturated fatty acids
Ghee, butter
Palm oil
Vanaspathi
Coconut oil

COOKING TIPS FOR REDUCING FAT



Use very little cooking oil 

Instead of frying foods, bake, boil, grill, steam, roast, or microwave them



Trim the fat and take skin off meat before cooking

Eat chicken instead of beef, pork or mutton



EXERCISE & NCDs

Increase physical activity
to decrease
Non Communicable
Diseases



Physical activity lowers the risk of NCD's by:

- Lowering blood sugar, blood pressure and blood fats
- Increasing oxygen levels in the body
- Helping to lose weight
- Reducing stress
- Strengthening the heart, muscles and bones
- Improving blood circulation
- Toning up muscles

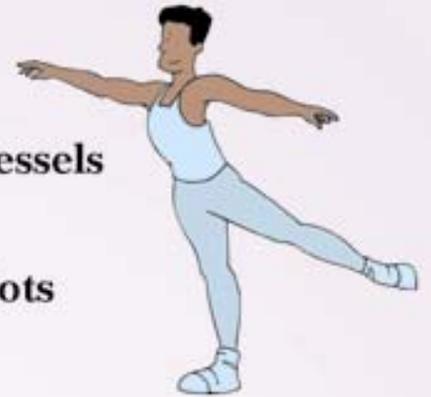


HOW EXERCISE HELPS PREVENT CHRONIC DISEASES

HEART DISEASE :

Exercise

- Increases the capacity of the heart's blood vessels
- Increases blood flow to the heart
- Enhances blood enzymes that break down clots



DIABETES :

Exercise

- Increases utilisation of blood sugar
- Reduces serum cholesterol
- Reduces blood pressure



OBESITY:

Exercise

- Increases energy utilisation and thus reduces body weight



COLON CANCER :

Exercise

- Increases intestinal activity
- Reduces contact time of carcinogens with digestive tract

REMEMBER - YOU CAN CUT DOWN HOSPITAL AND MEDICAL BILLS BY REGULAR EXERCISE



EXERCISE

HOW OFTEN?

At least
5 Times
a week

HOW INTENSE?

Start slowly and
work up gradually
EVERY WEEK

HOW LONG?

Should last at least
30 minutes (if possible, go
upto 45mins-1Hr/Day)
Have a warm up and
cool down period
TAKE PLENTY OF FLUIDS



TIPS FOR DISTRIBUTING YOUR EXERCISE THROUGH OUT THE DAY

Climb stairs - Don't take escalator



Park your vehicle further away and walk

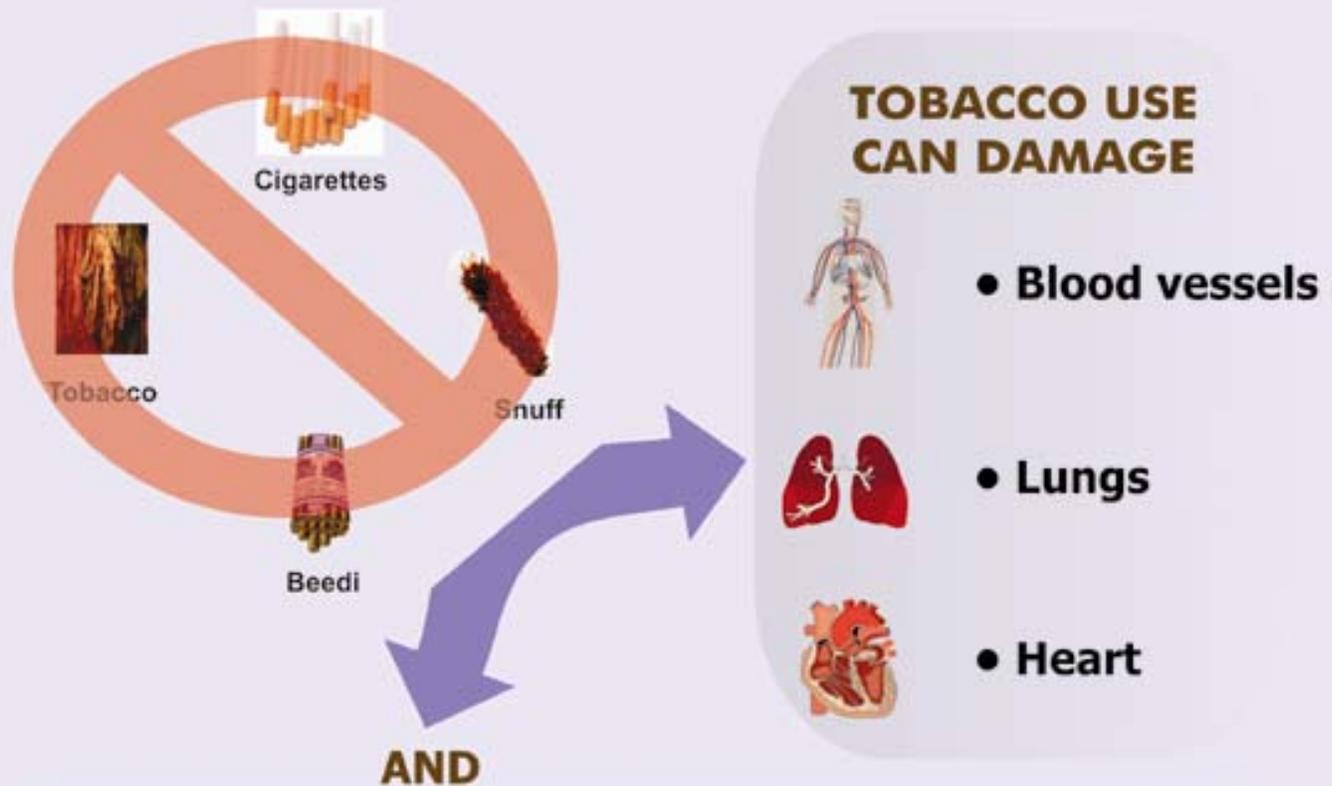
Play with your children



**Involve in House hold work
[Washing, Cleaning and Gardening]**



TOBACCO USE - INCREASES RISK FOR NCDs



AND

INCREASE RISK OF:

- Cancer
- Lung Disease
- Heart Attack

BENEFITS OF QUITTING TOBACCO :

- Decreases risk of heart attacks and strokes
- Decreases risk of cancer
- Improves blood circulation
- Decreases blood pressure
- Improves sense of taste and smell
- More oxygen in the bloodstream
- You will feel less tired and more refreshed
- Remember, not only you, but your whole family, will also benefit

ALCOHOL CONSUMPTION & NCDs

Excess alcohol consumption increases risk of:

- 
- Road accidents
 - Depression
 - Cancer
 - Damage to the brain
 - Birth defects
 - Diabetes
 - Cirrhosis of Liver

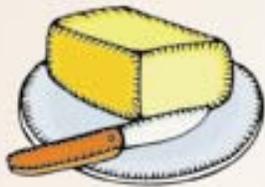
What can you do?

- Avoid consumption of alcohol

“ Reduce alcohol, improve quality of life”

CHANGE LIFE STYLE - PREVENT NCDs

BE ACTIVE



REDUCE FAT INTAKE

EAT MORE VEGETABLES & FRUITS



CONTROL WEIGHT

DECREASE STRESS



QUIT TOBACCO CHEWING & SMOKING

REDUCE ALCOHOL USE



IMPORTANCE OF NCD RISK FACTOR SURVEILLANCE

Helps to:

- ▶▶ Obtain representative data on risk factors for NCDs
- ▶▶ Reduce the level of exposure of individuals/populations to common risk factors for NCDs
- ▶▶ Monitor current and ongoing trends in NCDs burden
- ▶▶ Reduce morbidity and premature mortality due to NCDs
- ▶▶ Plan and implement effective health policies