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#### Introduction:

- Dr. Sudhir Bhandari MD, DNB, MNAMS, AFICA, is SENIOR PROFESSOR of Medicine at SMS Medical College & Hospital, Jaipur.
- He is a renowned **physician and Diabetologist**. Apart from practicing Internal Medicine, Dr. Bhandari has great interest in **Diabetes and Metabolic Diseases**.
- He was bestowed with **Rotary Foundation Fellowship in Diabetes and Metabolic Diseases at Cardiff (UK)**.
- He has PRESENTED SEVERAL PAPERS in **EASD (European Association for the Study of Diabetes)**, **ADA (American diabetes association)**, **IDF (international diabetes federation)** and **AACE (American association of clinical endocrinologists)**. He has been awarded many gold medals for best scientific research papers.
- He has also given **oration as Faculty in RSSDI, API, and Diabetes India** and was also a **member of Indian consensus group which formulated the guidelines for management of Type 1 Diabetes**.
- Dr. Bhandari has presented papers in more than **50 National and International Conferences on Diabetes and Metabolic Diseases**. His pioneer work is CCA-IMT study in Type 2 Diabetes Mellitus (**A Pioneer study to predict which diabetic patients are likely to have heart problem in future**) and its correlation with micro (**Kidney & Eye**) and macro (**heart & brain**) vascular complications, which was presented nationally and internationally.
- The **awards received** by Dr. Bhandari included – **Dr P.J. Mehta Young scientist award, Dr Chinna Reddy Gold Medal three times of Best Scientific Paper, State Merit award by Govt. of Rajasthan. Best Physician award by H.E the Governor of Rajasthan**. He has lot of academic and research work to his credit and he was part of following international research studies - **ISTART study, PREDICTIVE Study, IMPROVE, LANTRUS, LAUREL, CREATE, INSUTREAT and SHINE study**.
- **Dr. Bhandari** has also have distinction of being **Hon. Physician to H.E. Excellency the Governor of Rajasthan**. He is also **Governors Nominee to Board of management, Rajasthan University of Health Sciences**.
- He organizes regular medical camps in rural areas of his native village following legacy of his father late Dr. D R Bhandari who was bestowed with “Rajeev Gandhi national Award” for rural medical services in 2005.

# Lifestyle DISEASES

AND POSITIVE HEALTH



Dr. Sudhir Bhandari

*...dedicated to my parents.*





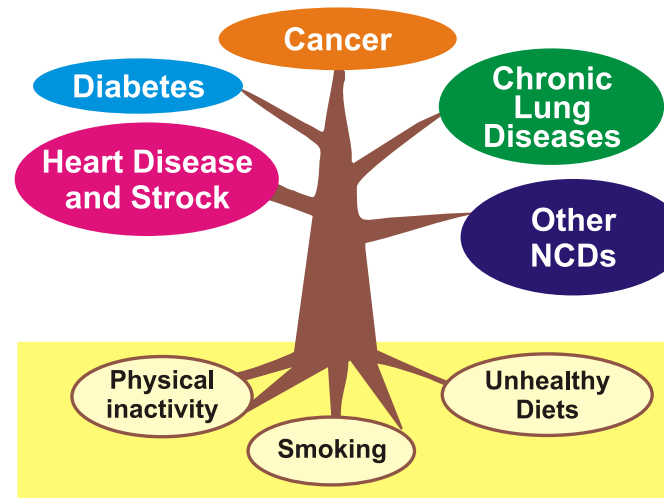
# *Lifestyle* DISEASES AND POSITIVE HEALTH

...by Dr. Sudhir Bhandari

# LIFESTYLE DISEASES

## What are lifestyle diseases?

- Lifestyle diseases characterize those diseases whose occurrence is primarily based on the daily habits of people and are a result of an inappropriate relationship of people with their environment.



- In the present modern era of urbanization and industrialization due to sedentary life style, changed personal habits, unhealthy diet, lifestyle diseases has become the most common cause of death.
- These diseases include hypertension, heart diseases, stroke, diabetes, obesity, anxiety depression, osteoporosis, alzheimers disease, diseases associated with smoking and alcohol and drug abuse, cancer, chronic bronchitis, premature mortality etc.
- At present, cardiovascular disease has become the single largest cause of death worldwide, about 30% of all deaths and 14% of DALYs.

- Heart disease prevalence in urban population has increased from 3% (1960) to 15 % at present.
- In India, around 20 -30 % percent of adults suffer from hypertension while the country is home to 1-2 crores diabetics (5-10% in rural areas and 18-20 % in urban areas develop diabetes).
- Three out of every 1,000 people suffer a stroke.
- Obesity is a serious public health concern and contributes to 30 crore deaths worldwide every year.
- Among children aged 6 through 19 yr in 31.0 per cent are overweight and 16.0 percent were obese.
- And among adults more than 20 year old 65% are overweight and 35% are obese.
- About 90% cases of diabetes mellitus type 2 are directly related to obesity.

## Causes of lifestyle disease

- Common causes include bad diet options, lack of adequate exercise, poor posture, disruption in biological clock, poor lifestyle choices, environmental conditions occupational lifestyle diseases, work environments, stress etc.
- Specifically, the factors contributing to lifestyle diseases of the present day are mostly of occupational in nature.
- Today's job is highly demanding which makes us working for long hours with lots of responsibilities and stress.
- Peoples are too busy to get a balanced, home cooked

food, and instead fast foods and food in restaurants with heavy dietary fats become the substitute.

- There is an old saying , "We are what we eat" which holds good even today. This unbalanced diet contributes to elevated cholesterol and triglycerides, high blood pressure, diabetes, and obesity



- Worldwide, high cholesterol levels cause some 56% of ischemic heart disease and 18% of strokes, amounting to 4.4 million deaths annually.
- 1.9 million deaths are attributable to physical inactivity. At least 60% of the general population does not achieve the minimum recommendation of 30 minutes of moderate intensity physical activity daily.
- People who are physically inactive have twice the risk of heart attack and stroke independent of BMI. Physical inactivity further increases risk of obesity, diabetes, osteoporosis.
- Current guidelines call for moderate exercise for at least 30 minutes, 5 or more days a week, or vigorous exercise for 20 minutes, 3 days a week.

- The shift from physically demanding, agriculture-based work to largely sedentary service industry- and office-based work is occurring throughout the developing world while adolescents spending more time on internet, video games, television.



- Over 1.3 billion people worldwide use tobacco; more than 1 billion smoke and the rest use oral or nasal tobacco.
- In our country more than 50% of population between age of 12 to 60 years smoke. Adolescent is the most vulnerable phase for smoking addiction.
- With observing father's and friend's smoking habit, he once tries as experiment and it becomes habit and





## LIFESTYLE DISEASES

parents are too busy to give proper attention to kids.

- Approximately 20% of adolescents smoke. In adults work stress is the most important determinant for smoking. In a study it was concluded that those who work for long hours are more prone to smoking.
- Approximately 40% of cigarette smokers will die prematurely due to cigarette smoking unless they are able to quit. Approximately 90% of peripheral vascular disease in the non-diabetic population can be attributed to cigarette smoking, as can 50% of aortic aneurysms, 30% of heart disease, and 10% of stroke.
- Smoking increases risk for hypertension, dyslipidemia, early atherosclerosis which further increases risk of cardiovascular disease. Globally, smoking-related CHD deaths totaled approximately 890,000, compared with 420,000 smoking-related cerebrovascular deaths.
- Other forms of tobacco use beyond cigarette smoking also increase the risk for CHD. Bidis, hookah, smokeless tobacco and even second hand smoking are all linked to an increased risk for CHD.
- Tobacco smoking can cause any type of cancer. Within 1–2 years of beginning to smoke regularly, many young smokers will develop inflammatory changes in their small airways, and cigarette smoking is responsible for 90% of chronic obstructive pulmonary disease.
- Both depression and mental stress predispose to increased cardiovascular risk. The adrenergic stimulation of mental stress can augment oxygen requirements of heart and aggravate myocardial ischemia.
- Mental stress can cause coronary vasoconstriction,



particularly in atherosclerotic coronary arteries, and hence can influence oxygen supply of the heart as well. More recently, work related stress has gained recognition as a source of vascular risk.

- Work stress has two components—job strain, which combines high work demands and low job control, and effort-reward imbalance, which more closely reflects economic factors in the workplace.
- Both components are associated with an approximate doubling of risk for heart attack and stroke. Other psychological metrics, including anger and hostility scales, have also been associated with elevated vascular risk.
- In the INTERHEART study evaluating post heart attack patients from 52 countries, psychosocial stress was associated with vascular risk, with a magnitude of effect similar to that of the major risk factors.

## LIFESTYLE DISEASES

hospital visits.

- Here is the brief information about these various lifestyle diseases, risk factors, symptoms and remedies.

- Those with depression have a significantly higher risk of developing heart disease during follow-up. depression is also associated with an increased prevalence of hypertension, smoking, and lack of physical activity, the effects of depression on overall risk remain after adjusting for these and other traditional risk factors.
- In the present modern life style, we do not take care of our health and the consequences of our eating habits and other styles of life.
- Only when we land into trouble we realize the bad state of affairs being the side effects of the modern life style. And by the time we realize its too late to reverse the effects.
- The fast paced life style is creating dangerous disorders on our health and we begin to feel it only above the age of 40. Nowadays even at the age of 30 the symptoms of problems are felt.



- Physical inactivity and unhealthy food habits are very common in children have life long impact on the lifestyle diseases. These leads to early beginning of atherosclerotic process.
- Overweight and obesity leads to insulin resistance and increased risk of developing diabetes at an early age.
- Most of these diseases can be prevented only by ourself efforts. With regular exercise, healthy diet and avoiding smoking & alcohol we can prevent 50 % of

# HYPERTENSION

## What is Hypertension?



- Hypertension or high blood pressure, is a [chronic medical condition](#) in which the force of the blood against your artery walls is high enough that it may eventually cause health problems, such as heart disease.
- Normal blood pressure at rest is within the range of 100–140mmHg systolic (top reading) and 60–90mmHg diastolic (bottom reading). High blood pressure is said to be present if it is often at or above 140/90 mmHg.
- Hypertension is classified as either [primary \(essential\) hypertension](#) or [secondary hypertension](#); about 90–95% of cases are categorized as "primary hypertension" which means high blood pressure with no obvious underlying medical cause. The remaining 5–10% of cases (secondary hypertension) are caused by other conditions that affect the kidneys, arteries, heart or endocrine system.

## Magnitude of the problem?

- Significant numbers of individuals with hypertension are unaware of their condition and, among those with diagnosed hypertension, treatment is frequently inadequate.
- Hypertension is truly a global epidemic, being highly prevalent in all communities worldwide. Globally, the overall prevalence of raised blood pressure in adults aged 25 and over was around 40% in 2008.
- The prevalence of hypertension is rapidly increasing in developing countries and is one of the leading causes of death and disability.
- In India, the prevalence of hypertension has increased in both urban and rural subjects and presently is 25% in urban adults and 10-15% among rural adults.
- Various factors might have contributed to this rising trend, attributable to several indicators of economic progress such as increased life expectancy, urbanization and its attendant lifestyle changes including increasing salt intake and the overall epidemiologic transition India is experiencing currently.
- Hypertension awareness, treatment and control status is low, with only half of the urban and a quarter of the rural hypertensive individuals being aware of its presence. It has been seen that only one in five persons is on treatment and less than 5% are controlled.

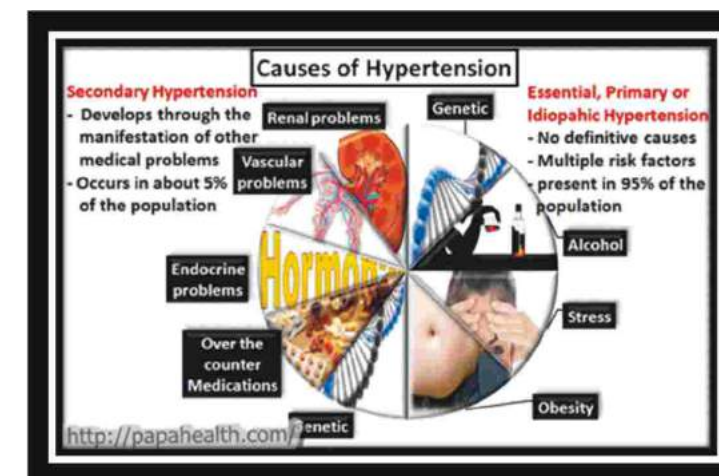
## CAUSES AND RISK FACTORS



High blood pressure has many risk factors, including:

- **Age.** The risk of high blood pressure increases as you age. Through early middle age, or about age 45, high blood pressure is more common in men. Women are more likely to develop high blood pressure after age 65.
- **Family history.** High blood pressure tends to run in families.
- **Being overweight or obese**
- **Not being physically active.**
- **Using tobacco.** Not only does smoking or chewing tobacco immediately raise your blood pressure temporarily, but the chemicals in tobacco can damage the lining of your artery walls.
- **Too much salt (sodium) in your diet.** Aim for a daily salt intake of 2,300 mg or less.

- **Drinking too much alcohol.** Over time, heavy drinking can damage your heart. Having more than two drinks a day for men and more than one drink a day for women may affect your blood pressure.
- **Stress.** High levels of stress can lead to a temporary increase in blood pressure. If you try to relax by eating more, using tobacco or drinking alcohol, you may only increase problems with high blood pressure.
- **Certain chronic conditions.** Such as Kidney problems Adrenal gland tumors Thyroid problems
- **Certain medications.** such as birth control pills, cold remedies, decongestants, over-the-counter pain relievers and some prescription drugs
- **Illegal drugs,** such as cocaine and amphetamines



## SIGNS & SYMPTOMS

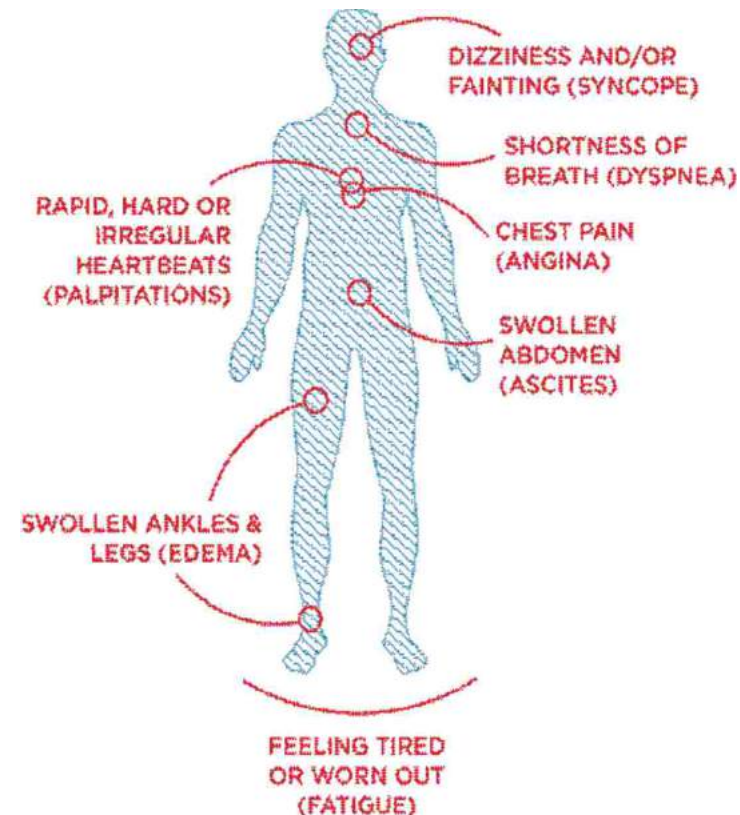
- Most people with high blood pressure have no signs or symptoms, even if blood pressure readings reach dangerously high levels.
- Although a few people with early-stage high blood



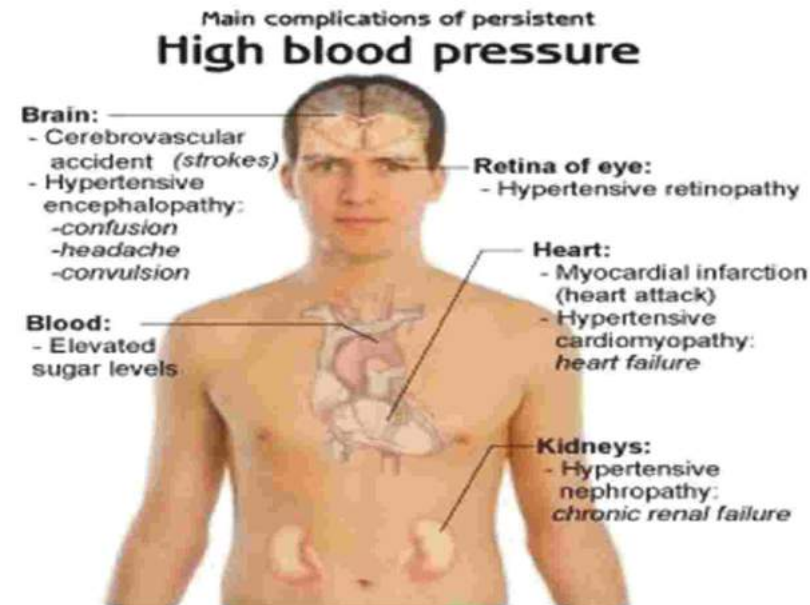
## HYPERTENSION

pressure may have dull headaches, dizzy spells or a few more nosebleeds than normal, these signs and symptoms usually don't occur until high blood pressure has reached a severe or life-threatening stage.

- Its identification is usually through [screening](#), or when seeking healthcare for an unrelated problem. A proportion of people with high blood pressure report [headaches](#) (particularly at the [back of the head](#) and in the morning), as well as [lightheadedness](#), [vertigo](#), [tinnitus](#) (buzzing or hissing in the ears), altered vision or [fainting episodes](#).



## COMPLICATIONS



- Uncontrolled high blood pressure can lead to:
  - **Heart attack or stroke.**
  - **Aneurysm.** Increased blood pressure can cause your blood vessels to weaken and bulge, forming an aneurysm. If an aneurysm ruptures, it can be life-threatening.
  - **Heart failure.**
  - **Weakened and narrowed blood vessels in your kidneys.** This can prevent these organs from functioning normally.
  - **Thickened, narrowed or torn blood vessels in the eyes.** This can result in vision loss.
  - **Metabolic syndrome.** This syndrome is a cluster of disorders of your body's metabolism, including

increased waist circumference; high triglycerides; low high-density lipoprotein (HDL); or "good," cholesterol; high blood pressure; and high insulin levels.

If you have high blood pressure, you're more likely to have other components of metabolic syndrome. The more components you have, the greater your risk of developing diabetes, heart disease or stroke.

- Trouble with memory or understanding. Uncontrolled high blood pressure may also affect your ability to think, remember and learn. Trouble with memory or understanding concepts is more common in people with high blood pressure.

## REMEDIAL MEASURES

Prevention



- Lifestyle changes can help you control and prevent high blood pressure, even if you're taking blood pressure medication. Here's what you can do:
  - **Eat healthy foods.** Try the Dietary Approaches to Stop Hypertension (DASH) diet, which emphasizes fruits,

## HYPERTENSION

vegetables, whole grains and low-fat dairy foods. Get plenty of potassium, which can help prevent and control high blood pressure. Eat less saturated fat and total fat.

- **Decrease the salt in your diet.** A lower sodium level — 1,500 milligrams (mg) a day — is appropriate for people 51 years of age or older, and individuals of any age who are African-American or who have hypertension, diabetes or chronic kidney disease.

Otherwise healthy people can aim for 2,300 mg a day or less. While you can reduce the amount of salt you eat by putting down the saltshaker, you should also pay attention to the amount of salt that's in the processed foods you eat, such as canned soups or frozen dinners.

- **Maintain a healthy weight.** If you're overweight, losing even 2.3 kgs can lower your blood pressure.
- **Increase physical activity.** Regular physical activity can help lower your blood pressure and keep your weight under control. Strive for at least 30 minutes of physical activity a day.
- **Limit alcohol.** Even if you're healthy, alcohol can raise your blood pressure. If you choose to drink alcohol, do so in moderation. For healthy adults, that means up to one drink a day for women of all ages and men older than age 65, and up to two drinks a day for men age 65 and younger.
- **Don't smoke.** Tobacco injures blood vessel walls and speeds up the process of hardening of the arteries. If you smoke, ask your doctor to help you quit.
- **Manage stress.** Reduce stress as much as possible. Practice healthy coping techniques, such as muscle



HYPERTENSION

relaxation and deep breathing. Getting plenty of sleep can help, too.

- Practice relaxation or slow, deep breathing. Practice taking deep, slow breaths to help relax. There are some devices available that can help guide your breathing for relaxation. However, it's questionable whether these devices have a significant effect on lowering your blood pressure.

Medications

- Several classes of medications, collectively referred to as antihypertensive drugs, are currently available for treating hypertension.

- Use should take into account the person's cardiovascular risk (including risk of myocardial infarction and stroke) as well as blood pressure readings, in order to gain a more accurate picture of the person's cardiovascular profile.
- Benefit is related to a person's cardiac disease risk. Evidence in those with mild hypertension (SBP less than 160 mmHg and /or DBP less than 100 mmHg) and no other health problems does not support a reduction in the risk of death or rate of health complications from medication treatment. Medications are not recommended for people with prehypertension or high normal blood pressure.

### Dos and Don'ts to lower blood pressure

✓ **High potassium:** in avocados, seaweeds, sunflower seeds, almonds and Brazil nuts

✓ **High magnesium:** in green leafy vegetables, nuts and seeds, especially almonds, cashew and brazil nuts.

✓ **High fibre:** eat plenty of vegetables, pulses such as beans, lentils and chickpeas and apples.

✓ **High vegetables**

✓ **Keep hydrated**

✓ **Exercise regularly** combining aerobic with resistance training.

✗ **No refined carbohydrates:** white bread, white rice

✗ **Minimal to no grains:** even wholegrains

✗ **No sugar:** in most processed foods, biscuits, cakes, sugary drinks and fruit juices.


✗ **Low salt intake:** avoid processed foods and limit salt intake in general.

✗ **Limit alcohol**

✗ **Avoid smoking**

✗ **Restrict caffeine**

✗ **Reduce stress levels**




**Borecole Nutrition**


About Your Blood Pressure

High Blood Pressure Damages:


How to Lower Your Blood Pressure:




**Lower your sodium:**  
Consume less than 2,300 mg of sodium per day\* from processed foods and table salt.




**DASH diet:**  
Eat a diet rich in fruits, vegetables, low-fat dairy/calcium, nuts, seeds, and legumes with adequate lean protein.



Exercise and control your weight.



If you drink alcohol, drink in moderation each day: 2 drinks for men and 1 drink for women.



Avoid smoking.

\*1,500 mg for people who have or are at risk for high blood pressure

What is your blood pressure?

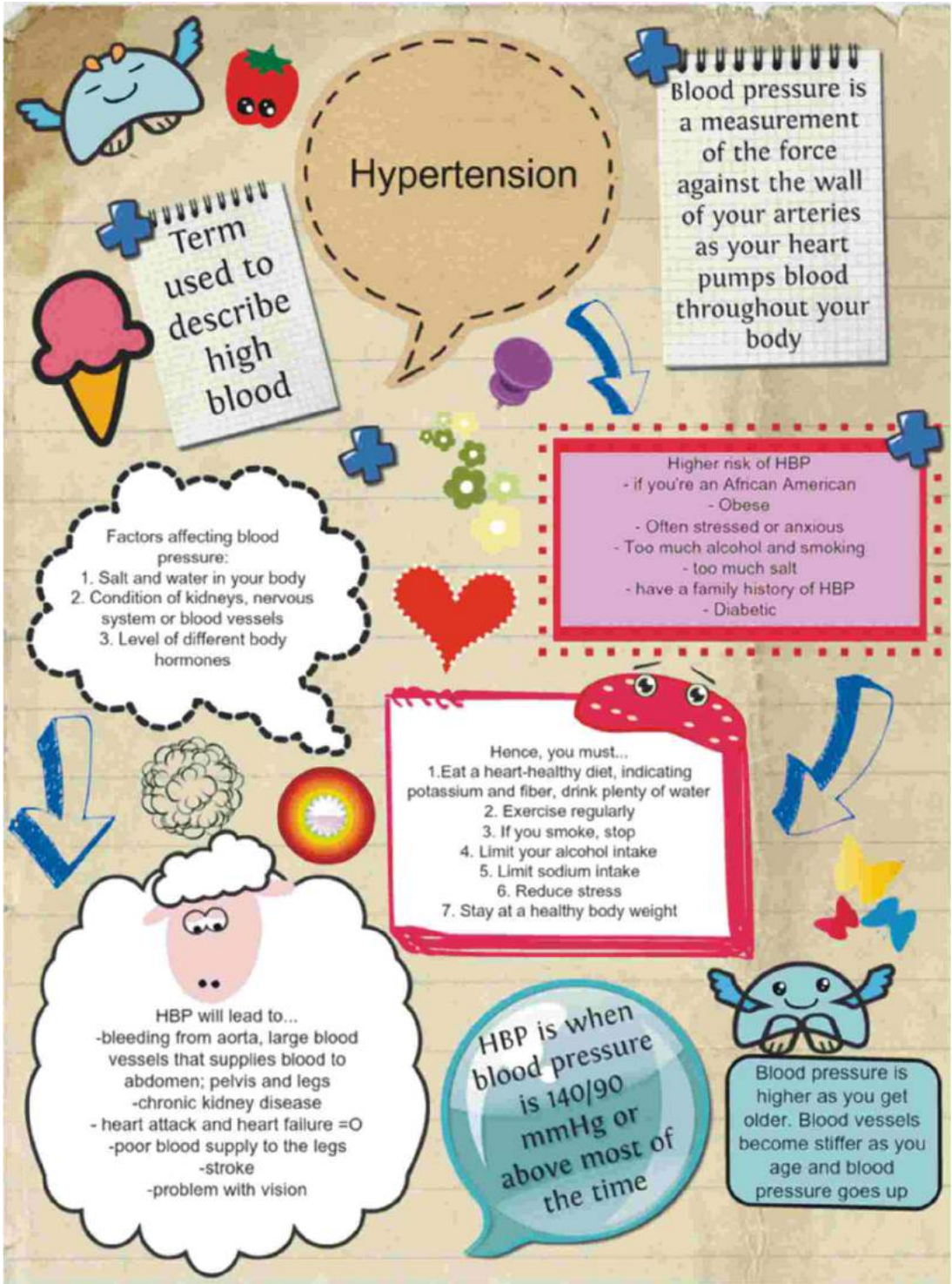
Blood Pressure Level (mmHg)			
Category	Systolic		Diastolic
Normal	Less than 120	and	Less than 80
Prehypertension	120-139	or	80-89
Stage 1 Hypertension	140-159	or	90-99
Stage 2 Hypertension	160 or Higher	or	100 or Higher

People age **59 and younger** should keep their blood pressure below **140/90**

People age **60 and over** should keep their blood pressure below **150/90**



HYPERTENSION

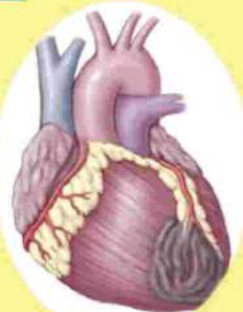


HYPERTENSION

# HYPERTENSION

### Normal blood pressure

- Systolic blood pressure :110-130 mm Hg
- Diastolic blood pressure :75- 85 mm HG



### Symptoms

- Headache
- Dizziness
- Ringing in ear
- Confusion
- Bleeding nose
- Fatigue
- Irregular heart beat

### Hypertension

- A condition where blood pressure is above normal.


### Risk Factors

- Age
- Family history
- Diabetes
- Obesity
- Stress
- Physical inactivity
- High fat diet
- High salt intake
- Alcohol
- smoking

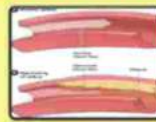
### Classification

	Systolic Blood Pressure	Diastolic Blood Pressure
"Normal" Stage	< 120 mmHg	< 80 mmHg
"Prehypertension" Stage	120-139 mmHg	80-89 mmHg
Stage 1	140-159 mmHg	90-99 mmHg
Stage 2	≥160 mmHg	≥100 mmHg


### COMPLICATIONS OF UNTREATED HYPERTENSION




Stroke



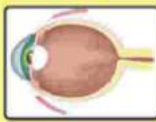
Atherosclerosis



Heart attack



Kidney damage



Blindness

### Prevention

- Weight loss
- Physical activity
- No smoking
- Reduce alcohol
- Reduce salt
- Follow DASH diet

### DASH Diet

Food Groups	1600 Calories/d	2000 Calories/d	2800 Calories/d
Grains	6	6-8	10-11
Vegetables	3-4	4-5	5-6
Fruits	4	4-5	5-6
Fat-free or low-fat milk and milk products	2-3	2-3	3
Lean meats, poultry, and fish	2-6	1-6	6
Nuts, seeds, and legumes	3/week	4-5/week	1
Fats and oils	2	2-3	3
Sweets and added sugars	0	1-5/week	1-2

\*Fruit groups may be substituted for more grain servings as a good source of fiber and nutrients.  
Source: US Department of Health and Human Services. National Institutes of Health. National Heart, Lung, and Blood Institute. Your Guide to Lowering Your Blood Pressure with DASH: A Diet-Driven Approach to Hypertension Treatment. 2001. Bethesda, MD: US Department of Health and Human Services. 2001.



# Hypertension

### Causes and risk factors

### Symptoms

### Treatment

### Prevention

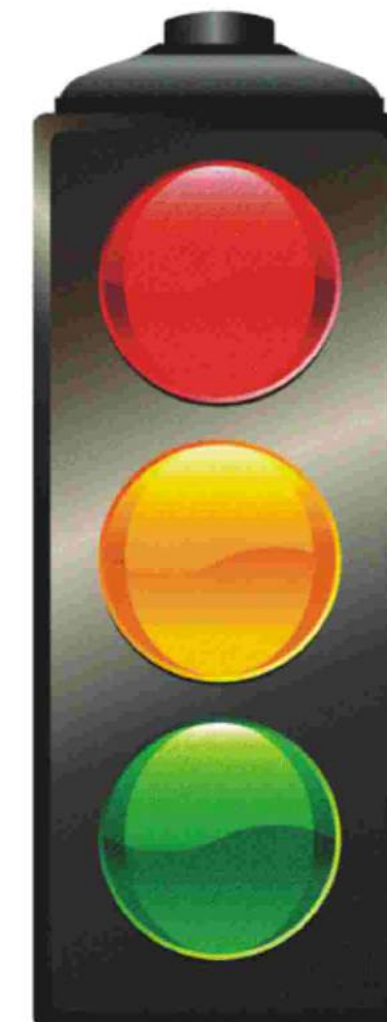
### Complications

## KNOW YOUR BLOOD PRESSURE NUMBERS

MORE THAN 140 SYSTOLIC  
MORE THAN 90 DIASTOLIC

130 - 139 SYSTOLIC  
85 - 89 DIASTOLIC

LESS THAN 120 SYSTOLIC  
LESS THAN 80 DIASTOLIC



**YOUR BLOOD PRESSURE IS HIGH**  
(follow-up with Doctor as required)

Work with your Doctor  
to control you BP

**APPROACHING  
HIGH RISK**  
(recheck in 1 years)

Begin Lifestyle Changes  
to prevent full blown  
hypertension

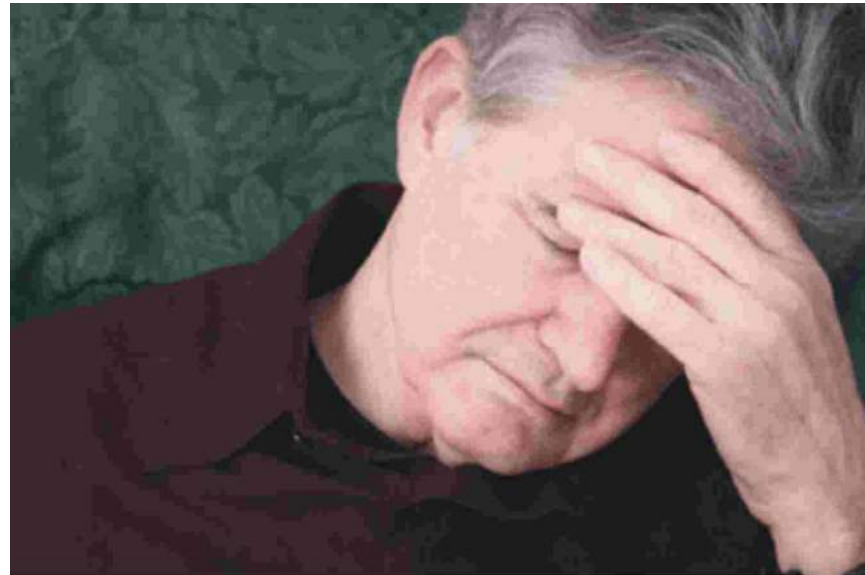
**HEALTHY RANGE**  
(recheck in 2 years)

Maintain a  
Healthy Lifestyle



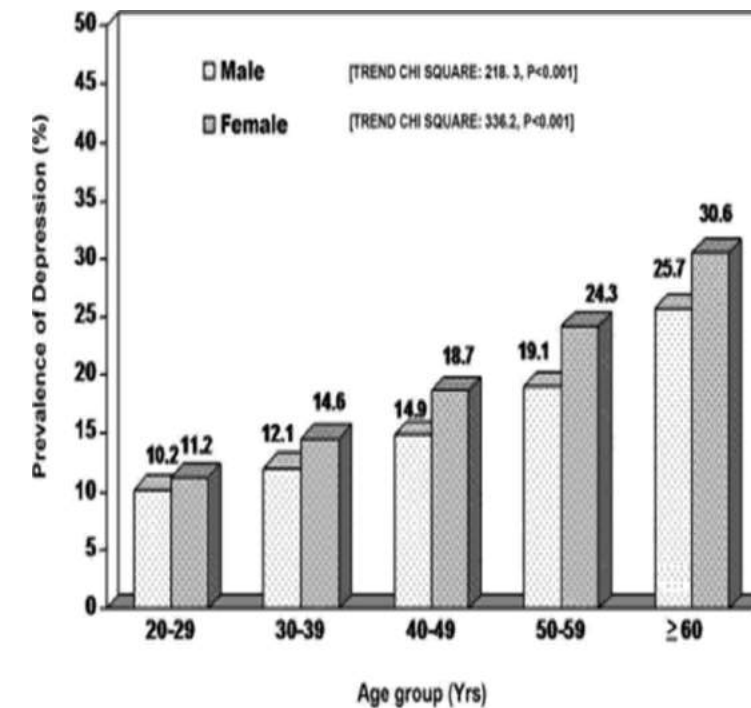
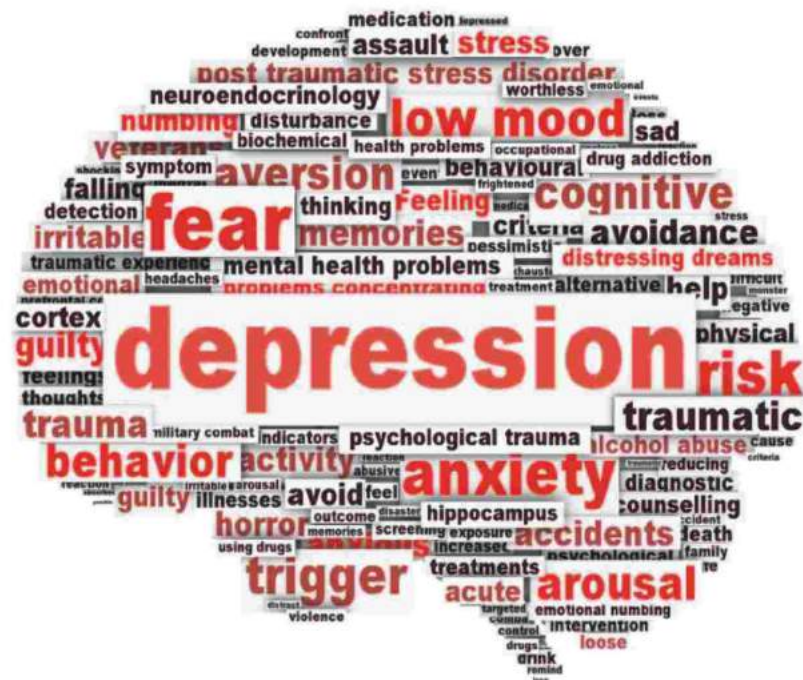
# DEPRESSION

- Definition: Depression is a state of low mood and aversion to activity that can affect thoughts, behavior, feelings and sense of well-being.
- Depressed people can feel sad, anxious, empty, hopeless, worried, helpless, worthless, guilty, alone, irritable, hurt, or restless.
- They may lose interest in activities that were once pleasurable, experience loss of appetite or overeating, have problems concentrating, remembering details or making decisions, and may attempt or commit suicide.



## Burden of depression:

- Globally one-year prevalence has been estimated to be 5.8% for men and 9.5% for women
- By the year 2020 if current trends for demographic and epidemiological transition continue, the burden of depression will increase to 5.7% of the total burden of disease.
- Depression would be the second leading cause of disability-adjusted life years (DALYs), second only to ischemic heart disease. It affects approximately 148 lac American adults, or about 6.7 percent of the U.S. population age 18 and older, in a given year.



## RISK FACTORS

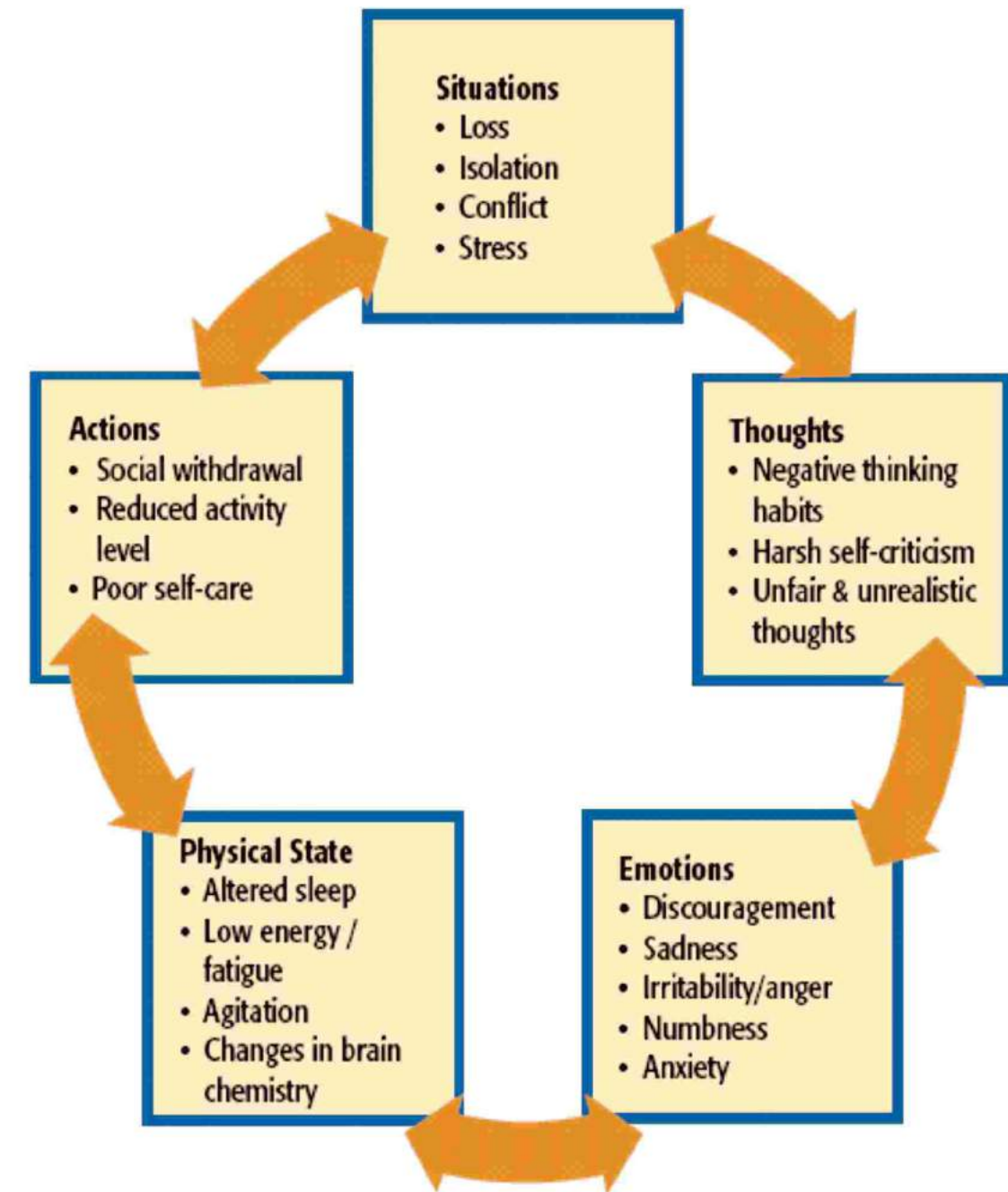
### Who's at risk of depression?

There are certain situations and events that may increase your chance of becoming depressed:





Mechanism of development of depression





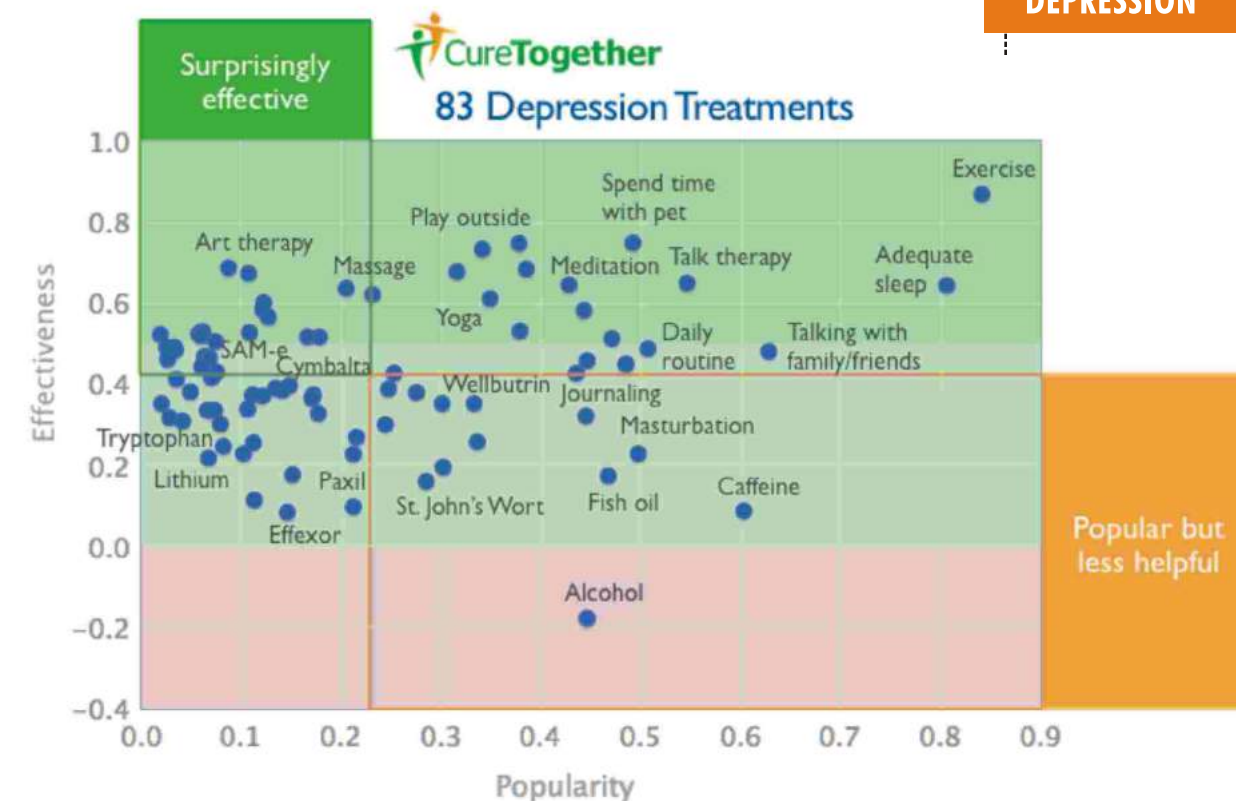


✓	SIGNS AND SYMPTOMS OF DEPRESSION
	Sadness or an "empty" mood
	Feeling guilty, worthless, or helpless
	Problems concentrating, remembering, or making decisions
	Change in eating habits and/or weight changes
	Feeling hopeless
	Lack of energy or feeling tired and "slowed down"
	Problems with sleep: Trouble getting to sleep, staying asleep, or sleeping too much
	Easily angered or irritable
	Wanting to be alone or spending much time alone
	Loss of interest or pleasure in hobbies and activities, including sex, that were once enjoyed

## Depression Relapse Prevention

- ▶ Don't take on too much
- ▶ Try to exercise regularly
- ▶ Pay attention to your physical health
- ▶ Watch your diet / eat healthier foods
- ▶ Take your medications as prescribed
- ▶ Keep all of your doctor appointments
- ▶ Avoid alcohol and other drugs
- ▶ Minimize stress / work with your counselor
- ▶ Get enough rest
- ▶ Don't isolate yourself
- ▶ Keep a journal / record your feelings
- ▶ Take one day, one minute, at a time
- ▶ IF YOU FEEL YOURSELF FALLING BACK INTO DEPRESSION, GET HELP RIGHT AWAY. DO NOT WAIT THINKING IT WILL JUST GO AWAY ON ITS OWN.

Screw Depression



Depression treatments	% who used	% helped a lot
Prescription medication	80%	69%
Meditation	21	36
Yoga	10	35
Deep-tissue massage	10	28
Deep-breathing exercises	18	22
Over-the-counter medication	7	15
Vitamin B complex	14	13
Fish-oil supplements	15	10
Multivitamins	18	8

Differences of less than 8 percentage points are not meaningful.



# DEPRESSION

## NATURAL TREATMENTS



Depression is a prolonged feeling of **unhappiness & despondency**. Many women experience depression after childbirth.

Mild depression can often be treated using these simple, natural techniques:

### Have a cup of tea

Hops, valerian & powdered licorice are mood stabilizers. Ylang ylang, lavender, clary sage & chamomile are sedative and can calm depression.

### St. John's Wort

Has "magical" healing powers. It can be as effective as many antidepressants for treating mild depression thanks to the hypericin it contains. It has an antidepressant effect after regular usage over an extended period.

### Take a break

Go away for a few days. A break from your routine & discovering someplace new will give you a boost.

### Saffron

Just 30 mg of dried extract of saffron is as powerful as 20 mg of the antidepressant drug Prozac, but without the side-effects of Prozac.

### Exercise

It can give back control of the body and its often the first step to feeling in control of other events.

### Milk, fennel & honey

Boil 1 cup of milk with 2 teaspoons of crushed fennel seeds, let it steep briefly, strain & sweeten with honey, sip slowly 30 min. before going to bed.

### No caffeine

Cut back on pop and soft drinks that contain it. Research links caffeine, which suppresses serotonin production, to depression.

### Essential oils

Mixture for fragrance oil burner consists of 2 drops each of rose and lemon balm oil and 3 drops of lavender oil.

### Great scents

A scented sachet of valerian, lavender, primrose, elder or hops placed under your pillow may help you sleep better.

### Light & color

A bright, friendly environment in warm colors such as yellow, red or orange can lift your spirits.

### Fish oil

Contains a fatty acid: EPA, that can help chase the blues away, especially when combined with pharmaceutical antidepressants.

### Vitamin C intake

Depression which sometimes occurs just before menstruation can be caused by a vitamin B12 and folic acid deficiency.

### SOURCES

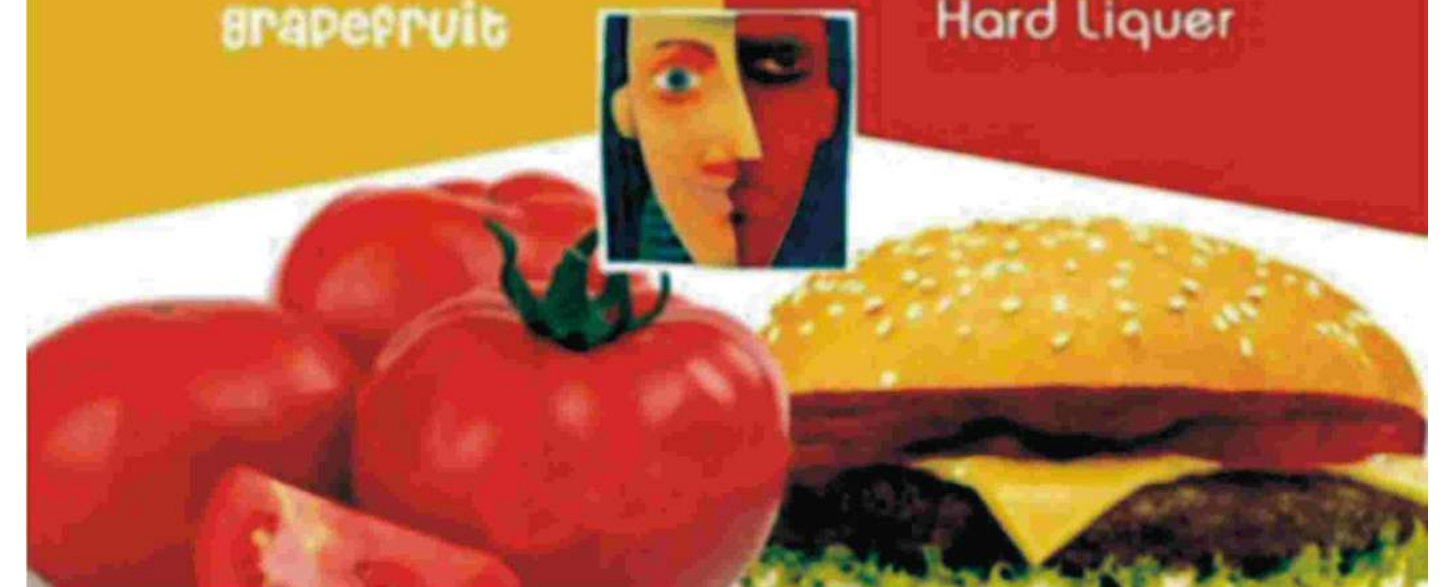
Natural Remedies for Healthy Living, The Reader's Digest Association, 2011  
The Illustrated Encyclopedia of Healing Remedies, C. Norman Shady, 2002

## Foods that can make you **happy**

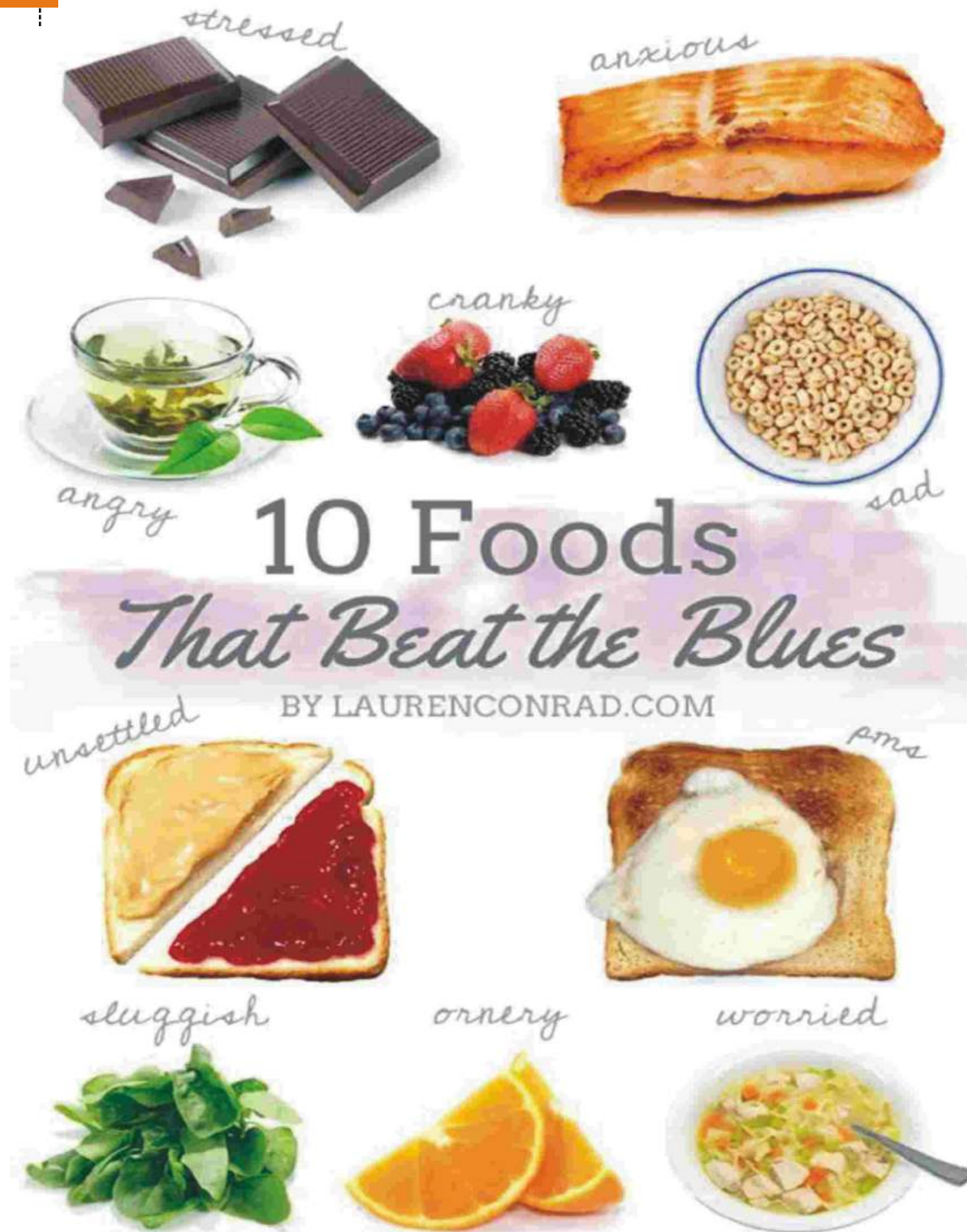
Tomatoes • Swiss chard  
chia seeds • Asparagus  
coconuts • Blueberries  
walnuts • Spinach  
Avocado • Raw cacao  
grapefruit

## Foods that can make you **DEPRESSED**

Cake  
Fast food burger  
Burger King hash browns  
Cotton candy  
French fries  
Coca Cola  
Hard Liqueur

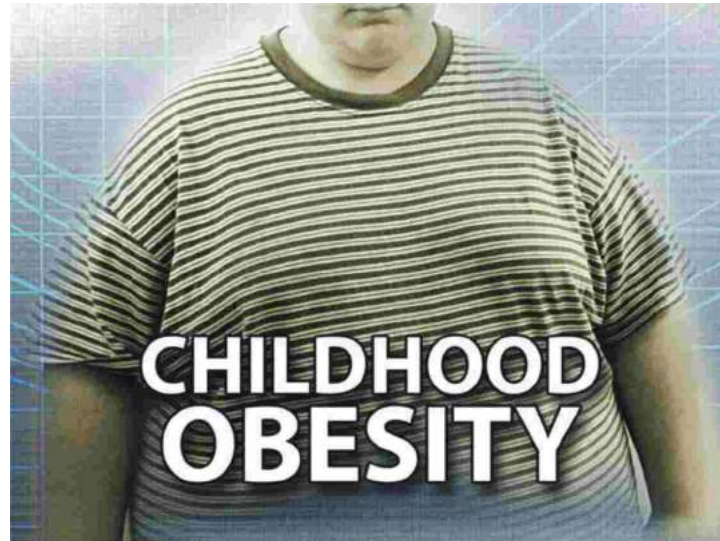








# CHILDHOOD OBESITY



## Introduction

- Childhood obesity is a major public health crisis nationally and internationally. The prevalence of childhood obesity has increased over few years.
- It is caused by imbalance between calorie intake and calories utilized. One or more factors (**genetic, behavioral, and environmental**) cause obesity in children.
- Physical, psychological, and social health problems are caused due to childhood obesity

## Magnitude of the problem

- Childhood Obesity Facts**
- Childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years.<sup>1,2</sup>
- The percentage of children aged 6–11 years in india

who were obese increased from 7% in 1980 to nearly 18% in 2012. Similarly, the percentage of adolescents aged 12–19 years who were obese increased from 5% to nearly 21% over the same period.<sup>1,2</sup>

- In 2012, more than one third of children and adolescents were overweight or obese.<sup>1</sup>

## FACTORS INFLUENCING CHILDHOOD OBESITY

- Childhood obesity is due to the imbalance between caloric intake of the child and the calories utilized.
- Factors causing childhood obesity are **genetic, behavioral, and environmental**. Obesity can be multifactorial in children.



## Genetic factors

- Genetic factors may influence the metabolism, by changing the body fat content and energy intake and energy expenditure.
- Heritability of obesity from parents also influences obesity in children.

## behavioral factors

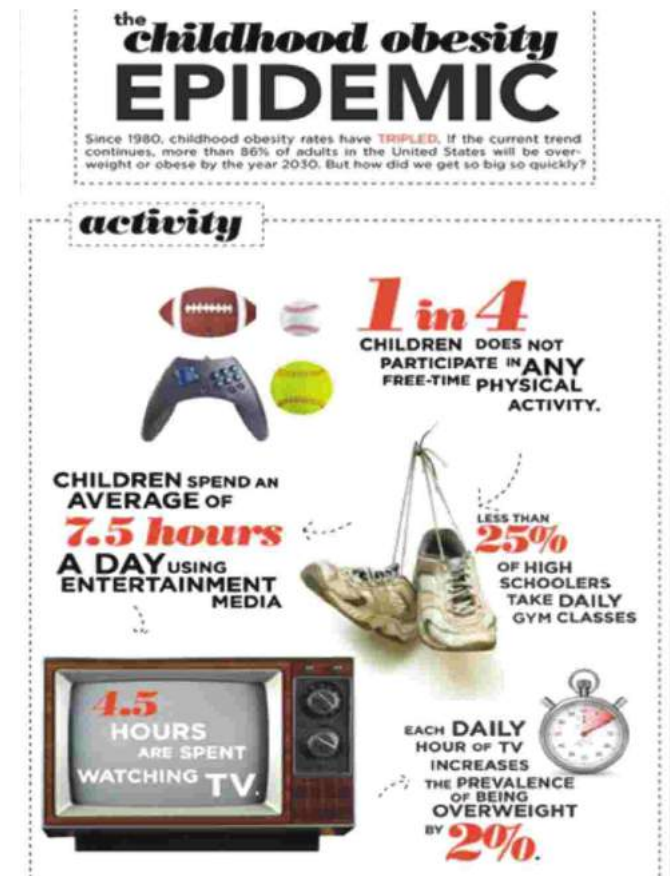
- Sometimes children eat more or consume more energy via food and beverages which are not utilized appropriately.
- Children may eat large portions of food, foods high in sugar, and energy-rich foods.
- Lack of physical activity**- Energy gained should be properly balanced by energy expenditure. It is seen that children and teens nowadays lack the required amount of physical activity; hence the calories are not used properly and can lead to obesity.
- Sedentary lifestyle**- children spend most of their time in front of television sets, play video games, and watch computers. Children snack more in front of television and spent most of their time sitting without any physical activity.
- All these behavioral factors are in a vicious circle with one leading to another
- The television advertisements** of energy-rich and sugar-rich foods influence children to make unhealthy choices. These unhealthy food choices may lead to weight gain and obesity.

## Environmental factors

- Environmental factors are seen in various settings

such as at home, in school, and in the community.

- At home, the parent-child interaction is very crucial as parents can influence children food choices and motivate them to have a healthy lifestyle.
- Children spend most of their time at school, so school can promote healthy food choices and physical activity among them.
- Community's lack of accessibility and affordability of PARKS AND GAMES. lack of physical activity may be because of lack of facilities like safe side walks, bike paths, and safe parks.





PSYCHOLOGICAL AND  
SOCIAL HEALTH ISSUES

- Children who are obese have a negative body-image, which leads to lower self-esteem. Children feel depressed and are nervous about their obesity issue and this has a negative effect on their behavior.
- This may also reflect negatively on their academic and social progress. They feel socially discriminated and stigmatized by their peers and adults.

CONSEQUENCES OF CHILDHOOD OBESITY



FAMILY-BASED  
LIFESTYLE  
INTERVENTIONS

- Parents and siblings are the people around the child who can influence child behavior and lifestyle. Hence, effective



interventions in a family setting can be beneficial to change child's behavior of overeating and unhealthy choice of food.

- Physical activity can be improved by small strategies like parking cars away from stores so that kids can walk and to take stairs instead of elevators or escalators.

SCHOOL-BASED INTERVENTIONS

- Children spend most of their time in schools. Interventions focus on nutrition-based or physical-based aspect of weight-control.
- Children take at least one meal at school. Hence, schools can encourage kids to make a healthy food choice like reducing the intake of carbonated drinks or sugary foods, encourage kids to drink healthy fruit

**STOP CHILDHOOD OBESITY**  
**How to help your child achieve a healthy weight**

**BMI weight\***

- Underweight = less than the 5th percentile
- Healthy weight = 5th percentile to less than the 85th percentile
- Overweight = 85th to less than the 95th percentile
- Obese = Equal to or greater than the 95th percentile

**Sleep**

- Children younger than age 5 – at least 11 hours
- Children age 5 to age 10 – at least 10 hours
- Children older than 10 – at least 9 hours

**Physical activity**

- At least 1 hour

**How much food**

- Children ages 2 to 6 need about 1,600 calories per day\*\*
- Teen girls and most children older than age 6 need about 2,200 calories per day.
- Teen boys need about 2,800 calories per day.

**Leisure time for tv, video and computer**

- No more than two hours daily

juices, water, vegetables, and fruits.

- Schools can involve kids in physical activity by strategies like lengthening the time of physical activity; involving them in moderate to vigorous physical activity for short durations, encouraging them to walk or active commuting, and taking stairs instead of elevators.
- Classroom-based health education can make older children and teens aware of eating nutritious diet and engaging in regular physical activity



COMMUNITY-BASED INTERVENTIONS

- Community support is invaluable in implementing interventions and organizing social events like healthy food festivals, harvest festivals, imparting healthy messages, and educating and encouraging people to adopt healthy lifestyle.
- Community can make the neighborhood safe and accessible to children and motivate them to increase physical activity. Other programs like providing play groups with safe play grounds and bike paths for kids to play outside will reduce their time spent in front of television sets.
- Community can provide children with easy accessible facilities like gymnasiums and supervised physical education with strategies such as music for physical activities.

- Community can influence media or local entertainment to promote healthy educational programs for parents and children.

PLAY-BASED INTERVENTIONS

- Instead of just advising children what to eat they can appreciate nutrition-related education in a better way when it comes to them via fun activities like playing games.
- Instead of just advising children what to eat they can appreciate nutrition-related education in a better way when it comes to them via fun activities like playing games.



HOSPITAL-BASED  
INTERVENTIONS

- Laboratory investigations of children who are obese and at risk of complications.
- Children aged 7 years and younger with no secondary complications of obesity are advised weight management.
- Weight-loss programs like dietary management (eating more of fiber-rich foods) and increasing physical activity are recommended for children above 7 years of age with risk of secondary complications.
- Pharmacological therapy for children with obesity above the age of 12 years can include drugs like orlistat (which blocks fat from the intestine thus giving negative energy balance).
- Medical professionals are considering the benefits of



bariatric surgery in extremely obese children to avoid complications of obesity in adulthood.

STIGMATIZATION OF OBESE CHILDREN

- ⦿ Obese children are mostly discriminated due to their body image. This may lead to a potential challenge for these children to come forward and opt for healthy programs.
- ⦿ Stigmatization of these children by their peers and by others acts as a mental barrier leading to negative body image and fear of food.

FUTURE IMPLICATIONS

- ⦿ Childhood obesity is a major public health problem. Hence, implementation of the available effective intervention programs is essential.

CONCLUSIONS

- ⦿ Childhood obesity has become a public health crisis all over the world.
- ⦿ Childhood obesity problem can be reduced by educating children and parents about healthy nutrition and encouraging them to be physically active. This will lead to a nationwide healthy future for the kids.

# LIVING LIGHTER

Life is a great big canvas, and you should throw all the paint on it you can



THE BEST WAY TO PREPARE FOR LIFE IS TO BEGIN TO LIVE

## FOUR SIMPLE WAYS TO RELAX THE MIND & BODY

Life is tough. It doesn't matter who you are or what you do, all have to face many difficult and stressful situations. The important thing is to have the tools to recover quickly and naturally, find yourself again, and get back on track.

Hare are four tips to help you relax the body and mind.

1. Take A Break

When things are starting to get out of head and you can feel yourself reaching threshold, STOP. Finish what you're doing.

Take a break before you start anything new.

If someone is driving you mad, make an excuse and leave the room. Go and take a walk. Get some fresh air, find some calm within and then prepare yourself to get stuck in again.

2. Listen to Relaxing Music

Music can have a powerful effect on your state. I'm sure there have been times when your heard a piece of music and suddenly you felt great. We all know songs that make you tap your foot or remind you of being in love. Create a collection of music to help you relax and feel good.

Make a tape of those songs that make you smile to help you unwind. Play it as often as you can...when

you're at home, when you're working, when you're in your car. You'll be surprised how good you'll begin to feel.

3. Avoid Stimulants

Tea, Coffee, fizzy drinks and chocolate all contain caffeine. Over the course of the day, this can add to your stress level considerably.

Why not prepare yourself a healthy alternative? Bottled water, freshly squeezed fruit juice and herbal teas are excellent for maintaining your body's natural water balance and helping you keep cool under pressure.

4. Use A Soothing Voice

Use a relaxed and soothing tone of voice, not just out loud, but also when you talk to yourself. A soft, low, melodious tone opens up the relaxation circuits in your mind and helps you stay clam even in heated situations.

A friend on mind one told me "Life is a struggle. But once you accept that, it becomes a lot easier"

We can learn to deal with life's challenges by setting aside some time to go to work on ourselves, developing a state of acceptance. When we can learn to clam our minds and separate ourselves from our problems, we are on the road to significant improvement.



52 PROVEN STRESS REDUCERS

1. Get up fifteen minutes earlier in the morning. The inevitable morning mishaps will be less stressful.

2. Prepare for the morning the evening before. set breakfast table, make lunches, put out the clothes you plan to wear, etc.

3. Dont's rely on your memory. Write down appointment times. when to pick up the laundry, when library books are due, etc.

4. Do nothing which, after being done, leads you to tell a lie.

5. Make duplicates of all keys. Bury a house key in a secret spot in the garden and carry a duplicate car key in your wallet, apart from your key ring.

6. Practice preventive maintenance. Your car, appliances, home, and relationships will be less likely to break down/fall apart "at the worst possible moment."

7. Be prepared to wait. A paperback can make a wait in a post office line almost pleasant.

8. Procrastination is stressful. whatever you want to do tomorrow, do today; whatever you want to do today, do it now.

9. Plan ahead. Don't let the gas tank get below one-quarter full; keep a well-stocked "emergency shelf" of

- home staples; don't wait until you're down to your last bus token or postage stamp to buy more; etc.
10. Don't put up with something that doesn't work right. If your alarm clock, wallet, shoe laces, windshield wipers - whatever-are a constant aggravation, get them fixed or get new ones.
11. Allow 15 minutes of extra time to get to appointments. Plan to arrive at an airport one hour before domestic departures.
12. Eliminate (or restrict) the amount of caffeine in your diet.
13. Always set up contingency plans.
14. Relax your standards. The world will not end if the grass doesn't get mowed this weekend.
15. For every one thing that goes wrong, there are probably 10 or 50 or 100 blessings. Count 'em!
16. Ask questions. Taking a few moments to repeat back directions, what someone expects of you, etc., can save hours.
17. Say "No!" Saying "no" to extra projects, social activities, and invitations you know you don't have the time or energy for takes practice, self-respect, and a belief that everyone, everyday, needs quiet time to relax and be alone.

18. Unplug your phone. Want to take a long bath, meditate, sleep, or read without interruption. Have courage to temporarily disconnect. Or use an answering machine.
19. Turn "needs" into preferences. Our basic physical needs translate into food, water, and keeping warm. Everything else is a preference. Don't get attached to preferences.
20. Simplify, simplify, simplify...
21. Make friends with non-worriers. Nothing can get you into the habit of worrying faster than associating with chronic worrywarts.
22. Get up and stretch periodically if your job requires that you sit for extended periods.
23. Wear earplugs. If you need to find quiet at home, pop in some earplugs.
24. Writing your thoughts and feelings down (in a journal, or on paper to be thrown away) can help you clarify things and can give you a renewed perspective.
25. Get enough sleep. If necessary, use an alarm clock to remind you to go to bed.

26. Create order out of chaos. Organize your home and workspace so that you always know exactly where things are. Put things away where they belong and you won't have to go through the stress of losing things.
27. When feeling stressed, most people tend to breathe short, shallow breaths. When you breathe like this. stale air is not expelled, oxidation of the tissues is incomplete, and muscle tension frequently results. Check your breathing throughout the day, and before, during, and after high-pressure situations. If you find your stomach muscles knotted and your breathing is shallow, relax all your muscles and take several deep, slow breaths.
28. Try the following yoga technique whenever you feel the need to relax. Inhale deeply through your nose to the count of eight. Then, with lips puckered, exhale very slowly through your mouth to the count of 16, or for as long as you can. Concentrate on the long sighing sound and feel the tension dissolve. Repeat 10 times.
29. Inoculate yourself against a feared event. Example; Before speaking in public, take time to go over every part of the experience in your mind. Visualize the experience the way you would have it be. You'll likely find that when the time comes to make the actual presentation, it will be "old hat" an much of your anxiety will have fled.
30. When the stress of having to get a job done gets in

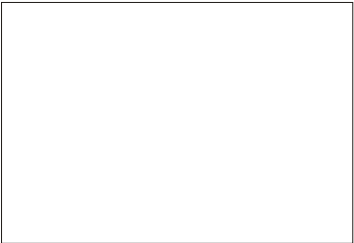
the way of getting the job done, diversion - a voluntary change in activity and/or environment - may be just what you need.

- 31. Talk it out. Discussing your problems with a trusted friend can help clear your mind of confusion so you can concentrate on problem solving.
- 32. One of the most obvious ways to avoid unnecessary stress is to select an environment (work, home, leisure) which is in line with your personal needs and desires. If you hate desk jobs, don't accept a job which requires that you sit at a desk all day. If you hate to talk politics, don't associate with people who love to talk politics, etc.
- 33. learn to live one day at a time.
- 34. Every day, do something you really enjoy.
- 35. Add an ounce of love to everything you do.
- 36. Take a hot bath or shower (or a cool one in summertime) to relieve tension.
- 37. Do something for somebody else.
- 38. Focus on understanding rather than on being understood; on loving rather than on being loved.
- 39. Do something that will improve your appearance. Looking better can help you feel better.
- 40. Schedule a realistic day. Avoid the tendency to schedule back-to-back appointments; allow

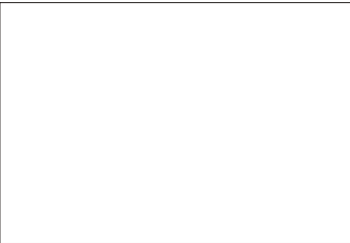


time between appointments for a breathing spell.

- 41. Become mor flexible. Som things are worth not doing perfectly and some issues are fine to compromise upon.
- 42. Eliminate destructive self-talk.
- 43. Use your weekend time for a change of pace. If your work week is slow and patterned, make sure there is action and time for spontaneity built into your weekends. Tackle a job on the weekend which you can finish to your satisfaction.
- 44. "Worry about the pennies and the rupees will take care of themselves." That's another way of saying: take care of the todays as best you can and the yesterdays and the tomorrows will take care of themselves.
- 45. Do one thing at a time. When you are with someone, be with that person and with no one or nothing else. When you are busy with a project, concentrate on doing that project and forget about everything else you have to do.
- 46. Allow yourself time - everyday - for privacy, quiet, and introspection.
- 47. If an especially unpleasant task faces you, do it early in the day and get it over with, then the rest of your day will be free of anxiety.
- 48. Learn to delegate responsibility to capable others.



- 49. Don't forget to take a lunch break. Try to get away from your desk or work area in body and mind, every if it's just for 15 or 20 minutes.
- 50. Forget about counting to 10 . Count to 1,000 before doing something or saying anything that could make matters worse.
- 51. Have a forgiving view of events and people. Accept the face that we live in a imperfect world.
- 52. Have an optimistic view of the world. Believe that most people are doing the best they can.





STRESS & WEIGHT GAIN

Can Stress Make You Fat ?

Metabolism :

When under stress. do you feel like you're prone to putting on more weight, even if you're eating the same amount of food? Too much cortisol can slow the metabolism, causing more weight gain then it is normally experienced. This also makes dieting more difficult.

Cravings:

When You're stressed, do you crave a nice salad, or do you reach for the Mc Donald's? People experiencing chronic stress tend to crave more fatty, salty and sugary foods. This includes sweets, processed food and other things that aren't as good for you. These foods are typically less healthy and lead to increased weight gain.



Blood Sugar :

Prolonged stress can alter your blood sugar levels, causing mood swing, fatigue, and conditions like hyperglycemia, Too much stress has even been linked to metabolic syndrome, a cluster of features that can lead to greater health problems like heart attacks and diabetes.

Fat Storage :

Too much stress even affects where we tend to store fat! Greater levels of abdominal fat are linked with higher levels of stress. Unfortunately,



abdominal fat is not only aesthetically undesirable; it's linked with greater health risks than fat stored in other areas of the body.

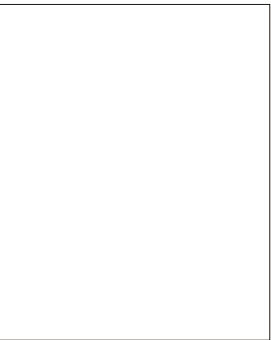
Stress and weight gain are also connected in other ways:

Emotional Eating

Not only can increased levels of cortisol make you crave unhealthy food, excess nervous energy often causes people to eat more than they normally would. How many times have you found yourself scouring the kitchen for a snack, or absently munching on junk food when you're not really hungry, but just overly stressed?

Fast Food

Experts believe that one of the big reasons we're seeing more obesity in our society these days is that people are too stressed and busy to make healthy dinners at home, and are more often opting to get fast food a the nearest drive-thru. Do you ever find yourself paying more than you'd like to for food that's more convenient than healthy?



Too Busy to Exercise

With all the demands on your schedule, exercise may be on of the last things on you're to do list. If so, you're not alone. Unfortunately, from sitting in traffic to sitting at our desks to sitting in front of the t.v. in exhaustion at the end of the day. exercise often goes by the wayside.