

January 2017



Healthy India

INITIATIVE

Minerals & Health
Developmental Milestones
Healthy Puberty
Contraceptives
Accidental Falls
Diseases of Spring Season
Hand Wash
Health Events
World Leprosy Day
World Cancer Day
World Glaucoma Week
World Kidney Day
World Oral Health Day
World Tuberculosis Day



Central Health Education Bureau
Directorate General of Health Services
Ministry of Health & Family Welfare



"Release of Healthy Children Healthy India"



Release of "Healthy India Initiative" October 2016 issue

January 2017



Dear Readers,

I take this opportunity to express my gratitude for making October 2016 issue of 'Healthy India Initiative' published quarterly by Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Welfare in Hindi & English a big success. This has encouraged me to bring out the January 2017 issue in 13 vernacular languages in addition to Hindi & English.

This issue is an attempt to address health related problems like minerals & health, developmental milestones in under five children, healthy puberty in girls and boys, contraceptives & women health, accidental falls in elderly, health problems in spring season and importance of hand wash. Efforts have been made to generate awareness about World Leprosy Day, World Cancer Day, World Glaucoma Week, World Kidney Day, World Oral Health Day, and World Tuberculosis Day in simple and easy language for better understanding of the common citizen of India.

Health is not mere absence of physical illness but includes social & psychological well being also. Economic segregation both in terms of consumption and availability of health care services becomes a significant determinant of holistic health.

In order to provide affordable, acceptable & accessible health care services to common citizens of India, the time has come to move towards on-demand, online healthcare consultation using digital platforms. The target group oriented health policies and Government health Insurance schemes for rural poor are totally cashless and will go a long way to provide thrust for universal health coverage.

The contributions made by my colleagues in Directorate General of Health Services, Ministry of Health & Family Welfare and CHEB are acknowledged and appreciated. Thanks to CHEB consultants for their constant support in bringing out the issue in fifteen languages within stipulated time frame.

As always, a word of criticism and suggestions towards improving the magazine are welcomed at healthyindia-cheb@gov.in.

Stay healthy, see you soon in the next issue, bye till then, with best wishes for New Year.

Dr Niraj Kulshrestha

From Editor's Pen

1

Nutrition

Minerals & Health 2

Child Health

Developmental Milestones 6

Adolescent Health

Healthy Puberty 8

Women Health

Contraceptives 13

Geriatric Health

Accidental Falls 18

Seasonal Care

Spring Season 21

Personal Hygiene

Hand Wash 24

Health Events

World Leprosy Day 26

World Cancer Day 28

World Glaucoma Week 31

World Kidney Day 33

World Oral Health Day 36

World Tuberculosis Day 39

Editor in Chief

Dr Jagdish Prasad

Director General of Health Services,
Government of India

Editor

Dr Niraj Kulshrestha

Director
Central Health Education Bureau

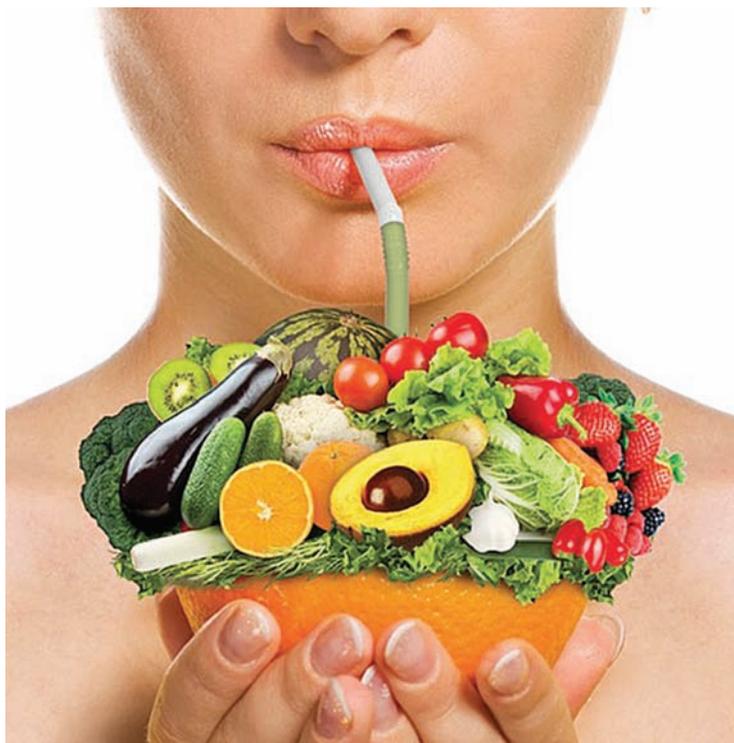
Editorial Board

Dr BD Athani, Special DGHS
Dr NS Dharamshaktu, Principal Advisor
Dr S Venkatesh, Director NCDC
Dr A C Dhariwal, Director NVBDCP
Dr S K Singh, DDG
Dr Shaukat Ali, DDG
Dr S Khaparde, DDG
Dr Anil Manaktala, DDG
Dr Promila Gupta, DDG
Dr Inder Prakash, DDG
Dr Anil Kumar, DDG

Published by

Central Health Education Bureau,
Directorate General of Health Services,
Ministry of Health and Family Welfare
5, Kotla Road, New Delhi-110002.

Minerals & Health



Calcium



Magnesium



Potassium



Iron



Zinc

*M*inerals are the naturally occurring inorganic elements which are present in the soil and water. Plants absorb them from soil & water and human beings consume them through their diet. Human body consists of about four percent of minerals which are important for body metabolism, water balance, bone & teeth growth, blood, skin, hair, nerve function and muscles to effectively boost health.

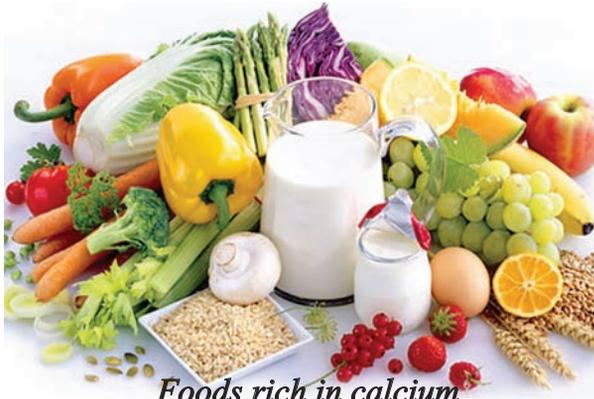
There are two kinds of minerals: macro minerals and trace minerals. Macro minerals are minerals required by body in larger amounts and include calcium, phosphorus, magnesium, sodium, potassium, chloride and sulphur. Trace minerals are required in small amounts and include iron,

manganese, copper, iodine, zinc, cobalt, fluoride and selenium.

Calcium (Ca) provides the major part of the matrix structure of bone. It is needed for coagulation of blood & for activation of nerves. It allows the muscles to contract and acts as a messenger for many secretion in the digestive system. It is also required for maintaining the integrity of the cell membrane and keeping junctions between cells intact which is critical for absorption.

Lower level of calcium in blood causes release of calcium from the bones making them weaker. Sudden fall of calcium in blood may result in neuromuscular irritability, laryngeal stridor and seizures besides some irregularities in conduction

of impulse in the heart. Increase in calcium level are often asymptomatic, while very high levels are associated with neurological, renal and gastrointestinal symptoms like, drowsiness, altered mental status, coma, abdominal pain & polyurea.



Foods rich in calcium

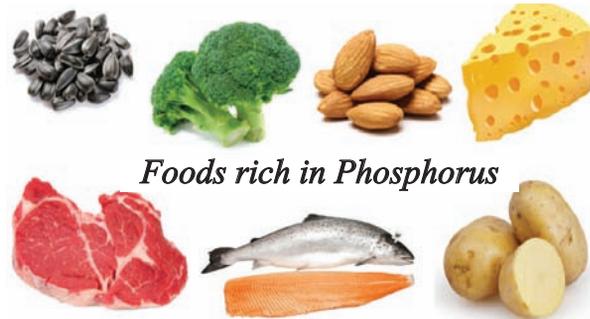
Sources: Dairy products and yogurt, dark leafy greens, broccoli, oranges and asparagus. Absorption requires vitamin D and a parathyroid hormone. Calcium in milk and dairy products are easily absorbed in comparison to the green vegetables.

Phosphorus (Ph) is stored in the bones along with calcium and is also a component of soft tissue and cells, where it contributes to the body's chemical processes to provide the energy necessary for metabolism. Too much phosphate can be toxic.

An excess of the mineral can cause diarrhea, as well as a hardening of organs and soft tissue. It can combine with calcium causing mineral deposits in muscles. It is rare to have too much phosphorus in your blood. Typically, only people with kidney problems or those who have problems regulating their calcium develop this problem.

Low phosphorus can cause joint or bone pain, loss of appetite, irritability or anxiety, fatigue, poor bone development in children. Some commonly used drugs like insulin, ACE inhibitors, corticosteroids, antacids, anti-convulsants drugs may result in low phosphorous.

Sources: Phosphorus is found in most foods but dairy products, meat and fish are particularly rich sources.



Foods rich in Phosphorus

Magnesium (Mg) is an essential component of cellular membrane lipid layer (phospholipids) and intracellular compounds like nucleic acids and nucleoprotein. It plays an important part in muscle contraction, bone mineralization, energy metabolism and the transmission of nerve impulses. Many enzymes depend on magnesium to perform their function; particularly those that make the fuel that powers our body and those that assist in the construction of body tissue.

Magnesium deficiency: Weak bones, sleep disorders, muscle spasm, cramps and abnormal heart rhythm are some of the effects of magnesium deficiency. Increased magnesium initially is asymptomatic but at higher levels it causes lethargies, nausea, flushing, headache, somnolence, hypotension, heart irregularities, paralysis, respiratory failure, heart block and cardiac arrest. Normal serum level does not exclude total body magnesium deficiency.

Foods rich in magnesium



Sources: Found in Nuts and seeds; legumes; leafy, green vegetables; seafood; chocolate; "hard" drinking water.

Sodium (Na) regulates water balance in our

Minerals & Health

body, maintains blood pressure, electrical nerve signals and muscle contraction. Low sodium levels are caused by kidney disease, adrenal disease, diuretics, diarrhea and occasionally conditions that cause fluid retention in the body. High sodium is caused by dehydration.

Sources: Most of our sodium comes from normal table salt, processed foods and from the food itself.

Potassium (K) is needed for proper fluid balance, nerve transmission and muscle contraction. High Potassium concentrations can be due to kidney disease or drugs that can decrease potassium excretion from the body. Low potassium can be a consequence of using certain diuretics or of dehydration.

Sources: Soya flour, fresh apricots, tomato puree, figs, raisins and wheat bran are good source of potassium.

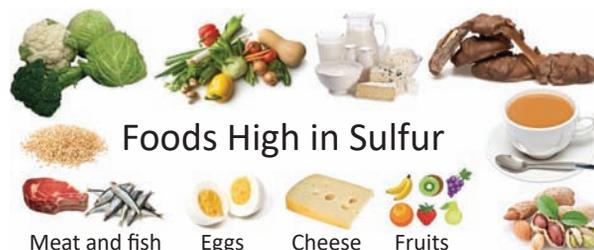
Chloride (Cl) is needed for proper fluid balance & stomach acid. Chloride levels usually fluctuate with sodium levels. Low chloride levels can occur in chronic lung disease, prolonged vomiting and loss of acid from the body. High chloride levels may result from dehydration, but can also occur with other problems that cause high blood sodium, such as kidney disease.

Sources: Table salt, soya sauce; large amounts in processed foods; small amounts in milk, meats, breads and vegetables.

Sodium, potassium, chloride when electrically charged are called Electrolytes which help to move nutrients into and wastes out of the body's cells. It also maintains a healthy water balance and help stabilize the body's acid level. The balance of sodium, potassium, chloride and bicarbonate in the blood is a good indicator of how well the kidneys and heart are functioning.

Sulphur (S) is a part of the protein molecule and is needed for protein synthesis in the body tissues, hormones, enzymes and antibodies. Sulphur is known as a healing mineral. Sulphur plays a critical role in detoxification, as it is part of one of the most important antioxidant that body produces.

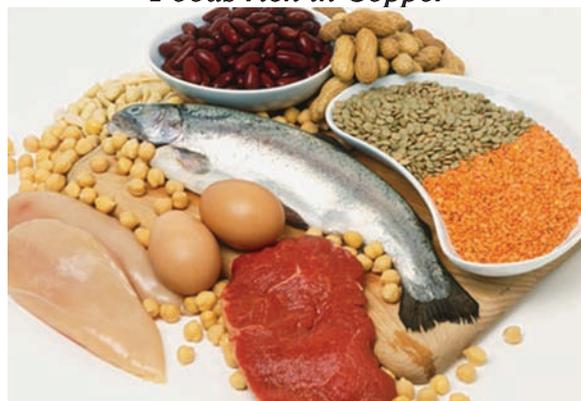
Deficiency often leads to pain and inflammation associated with various muscle and skeletal disorders.



Sources: Meats, poultry, fish, eggs, milk, legumes, nuts are rich in sulphur.

Copper (Cu) is one of the most important trace minerals in food. It is needed by enzymes that aids the absorption and release of iron from tissues and thus is important for haemoglobin production.

Foods rich in Copper



Other uses include maintenance of blood vessels, tendons & bones; proper working of the central nervous system; pigmentation of hair and normal fertility. Large amounts of copper reside in the liver, brain, heart, spleen and kidneys.

Sources: Copper is obtained from organ meats, shellfish, lamb, pork, tofu and nuts. Whole grain cereals, dairy products, lentils, mushrooms, dried beans, canned tomatoes, curry powder and chocolate are also good sources of copper.

Chromium (Cr) is a cofactor of insulin meaning that it has to be present for insulin to do its job. It is abundant in the soil as chromites which are absorbed by plants.

Sources: Spices and brewer's yeast contain the highest concentrations and meat, dairy products and eggs are also good sources.

Fluoride (F) makes us smile! It is needed for the growth of bone and enamel which protects us both from brittle bones and dental caries (cavities). Since most food is low in fluoride, many communities fluoridate their municipal water supply.

Fluoride occurs naturally in water at some places. Natural fluoride levels above the currently recommended range for drinking water may increase the risk for severe fluorosis.

Sources: Foods that are higher in fluoride include tea, grape juice, sardines, fish and chicken.

Iodine (I) is primarily used for the production of thyroid hormone. Thyroxin is the major hormone excreted by the thyroid. The iodine content of food and water is related to the iodine content of the soil.

Iodine deficiency disorders (IDDs), include endemic goitre, hypothyroidism, cretinism, decreased fertility rate, increased infant mortality and mental retardation.



Source: Seafood is good source but iodized salt is the main source of Iodine.

Iron (Fe) blood cells are pretty important to our well being and iron is responsible for making new red cells and white blood cells. Iron also promotes normal brain function.

Iron deficiency anaemia is the most common type of anaemia and it occurs when body doesn't have enough of the mineral iron.

Sources: Iron is found only in meat, fish and poultry

fruits, vegetables, dried beans, nuts and grain products.

Foods High in Iron



Selenium (Se) is one of the essential trace minerals in food and is a component of the enzymes. As such it acts to protect body membranes from damage. Selenium also forms complexes with heavy metals and can protect against cadmium and mercury toxicity. It has received a lot of attention for the prevention of prostate cancer.

Sources: Kidney, fish, shellfish, organ meats, Brazil nuts and whole grains.

Zinc (Zn) is essential for the immune system and is present in more than 2000 enzymes involved in the digestive process. Research shows that zinc deficiency causes a rapid decline in immunity-the power to fight with infection.

Zinc Rich Food



Sources: Seafood, beef, lamb, pork, crab, turkey, chicken, milk, cheese, yeast, peanuts, beans, whole grain cereals, brown rice, whole wheat bread, potato and yogurt contain good amount of zinc. 🌈

Minerals, the invisible key to health

Developmental Milestones



With increase in number of educated working women, change in values & ways of living, there is a rise in number of nuclear families. The joint family with support system of elders, having experience in child rearing, is on the decline at times leading to avoidable anxieties in the minds of young parents regarding fear of developmental delays in their newborns, from the moment they step into this competitive world. Over ambitious parenting and unwanted comparisons with other children in same age group makes matters worse.

The rate of mental and physical growth is too fast during the first year of life and babies acquire lots of skills in this short span. As no two babies are identical, similarly no two babies have the same growth pace. One baby may learn to sit up first but it may be the last one to talk or walk amongst same peer group.

Still there is certain predictable range of growth pattern and developmental milestones which can be a guide for everyone, more so for young first time parents, and help them in early recognition of developmental delay. In case of problem, consultation with a child specialist & early subsequent action can make a lot of

difference. Here follows in brief, an idea about normal developmental milestones from birth till five years of age to enable early recognition of developmental delays and take timely action. These are the expected milestones and there may be some variations at any stage of development.

A newborn baby lies with knees tucked up (in foetal position), sleeps a lot or may cry vigorously and is unable to raise head. Sucking and swallowing are obviously seen in a new born when their mouth or lips are touched. If the cheek of the baby is touched with finger then the baby turns his mouth toward the finger and try taking into mouth. This helps baby to find the nipple for feeding.

At 1 month the baby can turn its head towards side and tries to recognize mother. A social smile appears by 2 months of age and the child focuses on the parent, brings hand to his mouth and sucks his own hand as it cannot hold its head. *At this stage as a parent consult child specialist if the baby sucks poorly and refuses the feeds or seems stiff or floppy.*

At 1-3 Months babies become more aware and interested in their surroundings. They start following light, moving objects, recognizing familiar people and things. They also start using their hands and eyes in coordination, turn towards

familiar voices and smile at their parents face. This smile comes at 6 weeks of age. By 3 months of age, babies lying on their stomachs can support their heads and chests. Arm and hand movement develops fast during this stage. The earlier tight clenched fist is now open. *At this stage as a parent consult child specialist if the baby is unable to hold the head, or doesn't watch moving objects or doesn't respond to loud sounds.*

At 4-7 Months babies learn to coordinate their abilities of vision, touch, hearing and motor skills like grasping, rolling over, sitting up and crawling etc. At this stage babies usually smile and play with everyone they come across but they develop a strong attachment for their parents and main care taker. By the end of this period, babies are able to roll over from stomach to back and are able to sit without any support. Baby starts laughing and babbles chain of consonants. They respond to people's expressions of emotions and sounds, by making sounds, raising and lowering their voices as if asking a question or making a statement. They can distinguish emotions by tone of voice and can find partially hidden objects. The first tooth erupts between 6 to 9 months. *Contact the doctor if the child does not roll over, sit up, crawl and does not respond to sounds to show attachment & emotions with parents.*

At 8-12 Months most babies can sit up without support, crawl and starts standing with support. Around 12 month babies usually start taking steps with support. Babies begin to grasp objects like spoon using the thumb and first or second finger. They begin to make recognizable sounds like "ma" or "da" which eventually make them speak "mama" or "dada". Babies start non-verbal communication by pointing, crawling, or gesturing. Around this time urinary control starts developing initially during day time and fully develops by 4 years progressively. The birth weight triples and height increases to 28-32 inches around the first birthday. They master the skills like rolling over, sitting up, crawling, picking up objects and standing by the end of the first year. *Contact the doctor if child doesn't bear weight on legs, crawl or stand with*

support and speaks not even a single word.

At 13-18 months baby is able to walk independently, drinks from a cup and identify common things like spoon, phone, brush etc. The bowel control starts developing around 18 months and full control is achieved by 4 years. *Consult the doctor if baby fails to walk independently by 18 months and does not speak recognizable sounds.*

At 2 years baby can run, jump and climb stairs with both foot on one stair. Child can speak small two-three word sentence. Child tries to wear clothes and is able to put on clothes rightly.

At 3 years the baby walks up and down the stairs with one foot per step, can copy a circle, follows instructions with two or three steps, can play with toys with buttons, levers & moving parts. Child can identify and starts writing alphabets, numbers etc. *Contact the doctor if child cannot climb the stairs, walk steadily, does not copy actions or words and does not follow simple instructions.*

At 4 years children are curious, express their likings and dis-likings, recite poems, tell stories and identify common colours & numbers.

At 5 years they know gender differences. Children can sing, dance, speak & communicate properly. Child can read, write and draw images. *Contact the doctor if the child is unusually aggressive or fearful and cannot write, read & draw pictures.*

Parental knowledge about their child's development has been shown to be very effective in identifying children with developmental delays. This helps them to know when to consult their health care providers and seek a timely intervention to manage some problems at an early stage to avoid further complications and mismanagement. 🌸



Good child care is an investment in future

Healthy Puberty



Puberty is a time when many physical & hormonal changes give new shape to body and is associated with mood swing, frustration and new energy. The period is full of confusion & uncertainties but is an exciting time as they move from childhood to adulthood and take on the rights & responsibilities that come with being an adult.

Adolescence is defined as the period of life between 10 to 19 years of age works as a bridge between childhood and adulthood. It refers to the behavioural characteristics of this period, which is influenced both by culture as well as environmental changes. Adolescent phase comprises of pre puberty, puberty and post puberty phase.

Puberty is the time in life when a boy or girl becomes physically & sexually mature. It is a process that

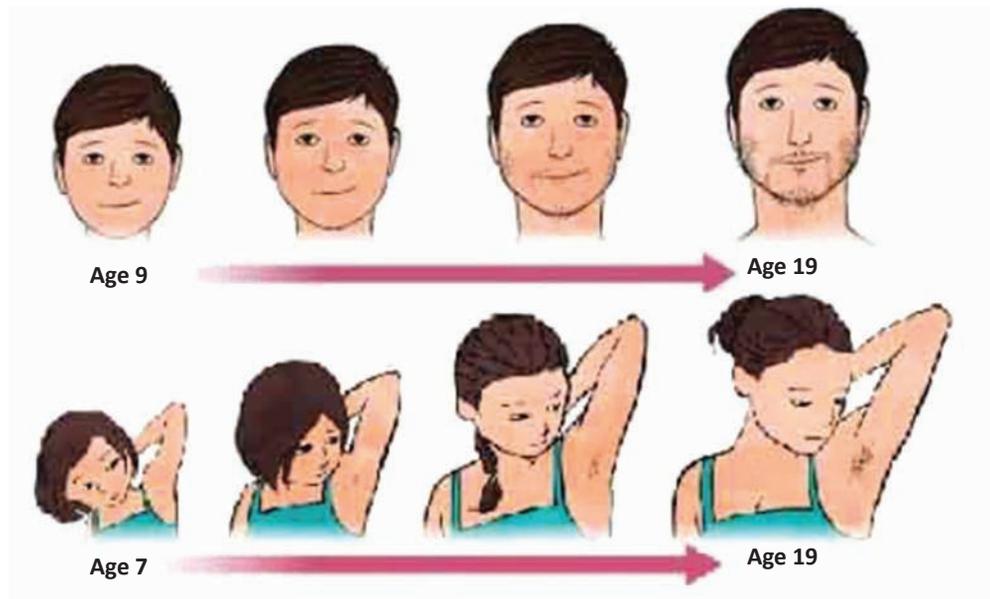
usually happens between age of 10 to 14 years for girls and age of 12 to 16 year for boys. It causes physical changes and affects boys and girls differently.

On an average, boys enter puberty two years later than girls. At this time a gland located at the base of the skull (pituitary) and a part of the brain called hypothalamus begin sending out new hormones that trigger the pubertal changes.

Both boys and girls exhibit changes that include sudden increase in height and weight, the development of secondary sex characteristics (the appearance of being a man or woman) and increased sexual interest.

Several physiological changes take place during this period, the most prominent in girls being the

onset of menstruation (menarche) and nocturnal emissions or wet dreams (spermarche) in boys. In girls, the bodily change continues to include the enlargement of breast, widening of hips and the appearance of pubic and underarm hair. In the case of boys, the shoulders broaden, the length of bones in arms and legs increases and there is an increase in the amount of body and facial hair.



Puberty in Girls: Every girl enters into puberty at her own time. The average age at puberty for girls in India is found to be around 13.1 years.



There is a great deal of variation in terms of the average age at menarche between the rural and urban areas, as well as across various socio-economic and ethnic groups. This variation depends on factors such as body girths, weight, and nutrition.

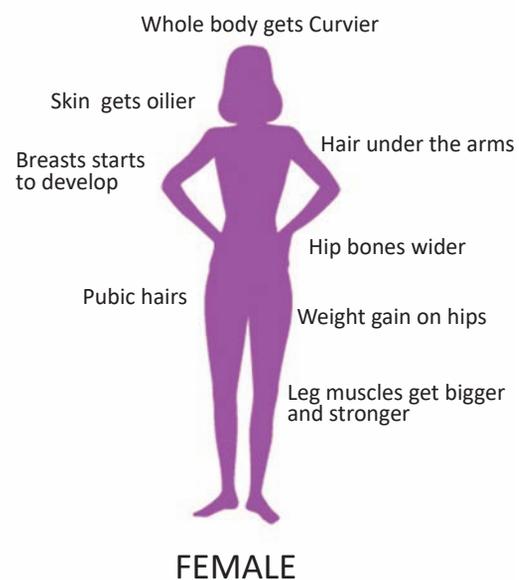
Initially, there are no outward signs of development, but a girl's ovaries are enlarging and hormone production is beginning (adrenarche).

The first pubertal change is the breast development including "breast buds" in which a small mound is formed by the elevation of the breast and papilla (nipple). The circle of different coloured skin around the nipple called areola increases in size. A girl may also gain considerable height and weight. Soft, fine and straight pubic hair grow in a small area around the genitals.

The breasts continue to enlarge with growth of the nipples and the areolas. Pubic hair coarsens and becomes darker as it continues to spread. Ovaries

and uterus begin to increase in size. The inner length of the vagina starts enlarging and may begin to produce a clear or whitish discharge, which is a normal self-cleansing process. Most of the girls experience their first menstrual period late in this stage but it remains irregular.

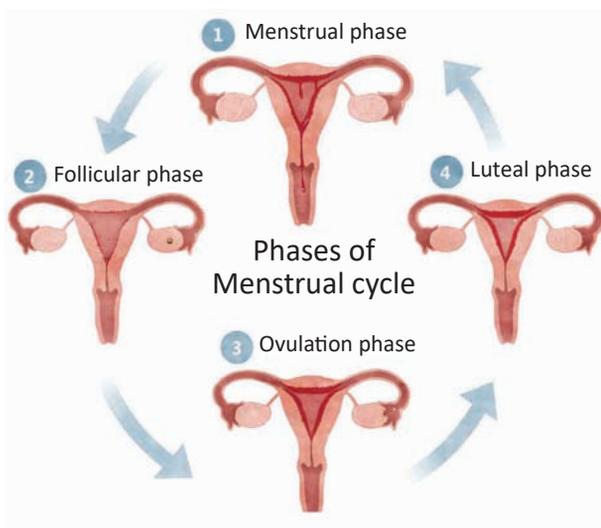
There may be an increase in hair growth, not only in the pubic area, but also under the arms and on the legs. It may spread to the thighs and sometimes up the stomach. By this time, ovulation begins in some girls.



Healthy Puberty

The females' body shape also begins to change. The hips may get wider and the waists get smaller. There may also be an increase in fat in the buttocks, legs and stomach.

As the hormones of puberty (androgens) increase, adolescents may experience an increase in oily skin and sweating. This is a normal part of growing. It is important to wash face frequently otherwise acne may develop.



Finally, girl is physically an adult. Breast and pubic hair growth are complete and full height is usually attained by this point. The final size of breast is unique for girl and varies from girl to girl. Menstrual periods are well established and ovulation occurs monthly. If the egg is fertilized with a sperm, it will grow into a baby inside the uterus. If the egg is not fertilized, the tissues and the lining inside the uterus are shed through the vagina as menses. Two third of the menstrual discharge is blood, the remaining one third is mucous, fragments of uterine lining and cells from the vaginal lining.

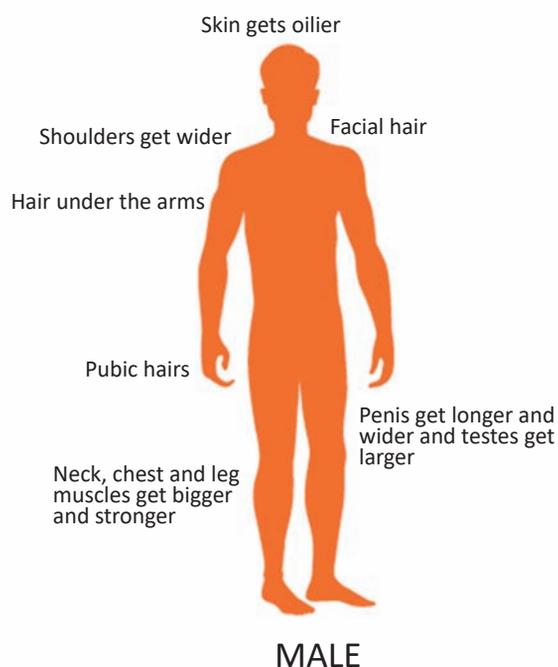
Puberty in Boys: Every boy also enters the puberty at his own time. Initially no outward signs of sexual development but the increased androgen production in the body prepare a boy for undergoing the pubertal changes. Many boys



may experience an enlargement in the size of the testicles and scrotum. At this point, the penis does not enlarge.

First appearance of soft, fine and straight pubic hair cover a small area around the genitals. The scrotum and testis start enlarging that is accompanied by reddening and folding of the skin followed by penis enlargement about one year later.

The penis starts enlarging mostly in length, although there may be small changes in the diameter of the penile shaft. Pubic hair coarsens and becomes darker as it continues to spread. Body size increases. Some boys may get some swelling in the area of their breasts as a result of the hormonal changes that are occurring. Most boys have the capacity to ejaculate at this stage. They also might experience nocturnal emissions or wet dreams.



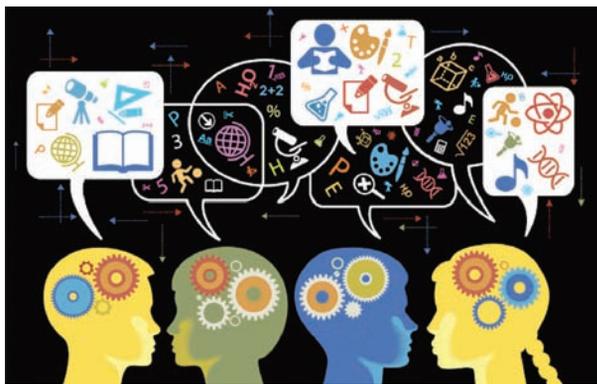
Further enlargement and development of the scrotum and testis takes place and pubic hair thickens. There may be an increase in hair growth on the face, under the arms and on the legs.

The penis, scrotum and testis are fully matured. The size of penis, scrotum and testes are unique to

the boy and varies from boy to boy. Pubic hair fills the pubic area and extends onto the surface of the thighs and up the abdomen. Pubic hair growth is complete and full height is usually attained by this point. There is an increase in oily skin, pimples and sweating.

Psychological Changes:

Besides above mentioned physical changes Psychological Changes also take place. During puberty, emotions become stronger and more intense. The mood swing is from on top of the world to down in the dumps. More of sexual thoughts and attraction towards girls & boys is a part of puberty.



Some teens choose to masturbate to release sexual feelings and others just wait for the feelings to pass. Both are normal. Out of control feelings and changing moods are normal part of growing up.

Feeling really sad is difficult and calls for help from parents, older siblings, cousins, aunts, uncles and grandparents, who have experience of puberty.

Many teens find that sports, dancing, writing, music, art or hanging out with friends are good ways to manage stress and help them feel more in control of their moods. Changing hormones may cause restlessness but finding a physical or creative outlet can be a great way to release excess energy and feel good.

Medical conditions associated with puberty:

While puberty consist of normal physiological changes but it may be associated with many

medical conditions which appear during puberty. Some of them are:

Acne is an inflammation of the hair follicles and secretary glands of the skin, which is most prominent on the face but may occur on the back, neck, chest or other areas. This happens due to the hormonal changes in both boys & girls.

Body odor is because of strong smelling sweat. To keep away the odor, children must bathe regularly and keep the underarms clean.

Gynecomastia is enlargement of breasts in men. The hormonal changes during puberty can cause transient gynecomastia that typically lasts for 6 to 18 months. It is normal for the boys at this stage and becomes alright without any treatment.

Anemia: Pubertal girls are at risk of developing anemia because of poor dietary intake as well as blood loss through menstrual bleeding. Iron folic acid, if needed, along with good diet will take care of anemia.

Dysfunctional uterine bleeding occurs following menarche when girls usually have irregular, prolonged or heavy menstrual bleeding which becomes normal & regular on its own without any treatment after a few cycles.

Musculoskeletal injuries: Adolescents may be prone to musculoskeletal injuries during the growth spurt since bone growth usually precedes full bone mineralization which increases the risk of fractures on slightest trauma.

Myopia (near sightedness) has a high incidence during puberty because of growth in the axial diameter of eye. Do contact eye doctor if reading road signs and seeing distant objects clearly become difficult, while able to read and work on computer properly.

Risk of sexually transmitted disease exists in all sexually active teen during puberty. This includes Acquired Immune Deficiency Syndrome (AIDS) also. Use of condom protects from STDs.

Precocious puberty is the medical term for puberty that occurs earlier than usual, less than 8 years in

Healthy Puberty

girls & less than 9 in boys, rest of the changes are like normal puberty. Exact cause is not known but could be hormonal imbalances, tumor of hormone releasing glands. Often it is associated with socio-emotional problems.

Delayed puberty is the late onset of puberty, usually considered when there has been no increase in testicular size by 14 years in boys and no breast development by 13 ½ years in girls. In such cases seek a medical consultation. In most of the cases delayed puberty runs in families and development proceeds normally after the initial delay. Delayed puberty is more common in boys than in girls. Malnutrition, chronic medical conditions like diabetes and some genetic disorders can cause delayed puberty.

Actions for healthy puberty

Drink more water: Keeping body well hydrated with several glasses of water a day will help regulate metabolism and flushes the toxins out of the body. It also gives skin a healthy glow and helps prevent spots and is beneficial, if one has acne.

Maintain a regular sleep pattern: The average child needs at least 8 hours of sleep a night. Getting 7 to 8 hours of sleep is a major factor contributing to health. Getting enough sleep raises alertness during the day and minimizes anxiety. Regulate a set bed time each night and try to stick to it.

Healthy nutritive balanced diet is needed to fulfil the requirement of increased growth. Stick to healthy foods that are high in protein, vitamins and minerals.

Eat breakfast every day: Breakfast is the most important meal, because it provides body with its first fuel of the day. Good breakfast foods include fruit, eggs, milk, oatmeal, etc.

Never miss a meal

Junk food are high in fat, sugar and salt contents but have limited nutritional value. They have harmful effect on body and need to be avoided.

Stick to healthy foods.

Calcium and Iron requirement of the body increases. Most of the bone mass develops during puberty years, it becomes vital to get enough calcium and iron.

Personal hygiene must be maintained. Brush teeth twice a day; take shower, clean underarms & pubic area and change undergarments regularly.

Exercise & physical activity is essential for proper growth. Exercise for at least thirty minutes, 5 times a week. The physical activity may not be restricted to work outs at the gym but also walking, biking & playing outdoor games.

Body odour remains a big problem for most of teens at this stage because of strong-smelling sweat. To keep away from the odor children must bathe regularly and keep the underarms clean. Deodorants can also be used.

Feminine Hygiene: Girls entering puberty need to wash the genital area after each use of toilet including urination and keep the area dry.



Menstrual Hygiene needs use of good quality sanitary napkins, periodic change of napkin and proper disposal during menstrual periods. Remember to carry it, if going out.

Young people must think the changes around puberty as process of self development from a child to full grown adult, ready to bear full responsibility as an individual, in family and in society, figuring out their own standards and ideals form their own ideas, morals and values. 🌈

Healthy puberty, healthy teens, healthy India

Contraceptives



In the modern era, the woman has reached the space but is still struggling for her rights to protect her health from unwanted pregnancies. Preference for son and financial dependence further affects the women contraceptive behaviour. Unplanned pregnancy can turn life upside down and throw all carefully laid dreams out the window. Unplanned pregnancies, especially among the youth constitute a growing health and social problems. Unintended pregnancies can have serious public health, social and economic consequences.

The ability of couples to plan the number, spacing and timing of births is an important fundamental human reproductive right. Total fertility rates are helpful in estimating the effect on demography but they do not shed much light on the extent to which individual women exercise their right to decide when they want to get pregnant. These unwanted pregnancy accounts for almost one fourth of total pregnancies. Reduction in unwanted pregnancies has important health, socio-economic and

demographic consequences. Preventing unwanted birth at the individual level, enhances the well being of women, their children, family and the society.

The unplanned pregnancies may occur as a result of not utilizing contraceptive methods or due to the failure of the chosen contraceptive methods. Simultaneously, the number of pregnancies in teenager & young unmarried women has increased and large number of them are going for abortion which has its associated risk. Effective, high quality counselling about contraceptive to teens, unmarried girls, antenatal, post-partal women can reduce unintended pregnancies reducing maternal & fetal problems and death. This will further reduce the number of unsafe abortions.

Contraceptives are the ways and means of preventing pregnancy which are available in various forms. Contraception is the process of taking protection to ensure that one does not become pregnant when leading a sexually active life. There are many options available and all

Contraceptives



have pros and cons. No contraceptive method is perfect and fit for all. The objective is that “every pregnancy should be a planned pregnancy” and never unwanted pregnancy.

There are many methods of contraception available which are effective. However, no method is completely 100% reliable. The effectiveness of some methods depends on the skill with which it is used. For example, the combined oral contraceptive (COC) pill (often referred to as “the oral pills”) is 100% effective if taken correctly and regularly. In India the knowledge of contraceptive is present, but the actual number of women practising contraception remains low. Wide range of contraceptives are available. An overview is presented in following section.

Temporary methods of contraception:

- Natural Methods: abstinence
- Hormonal methods: combined hormones pill, patch, ring
- Barrier methods: chemical and physical, condoms (male condom & female condom)
- Intrauterine Device (IUD): Copper & Hormonal
- Emergency Contraception.

Natural Methods:

Withdrawal method (Coitus Interruptus) involves

withdrawal of penis from vagina before ejaculation.

Calendar-Based Methods involve calculating the fertile days using the dates of previous months’ cycles. The first day of a menstrual period is counted as day one of a cycle. Cycle length is measured from the start of one period to the day before the start of the next. If the menstrual cycle is regular of 28 days then unprotected sex needs to be avoided from 7th to 18th day of the cycle.

Calendar-based methods alone are not very reliable. It should be used in combination with other fertility awareness based methods.

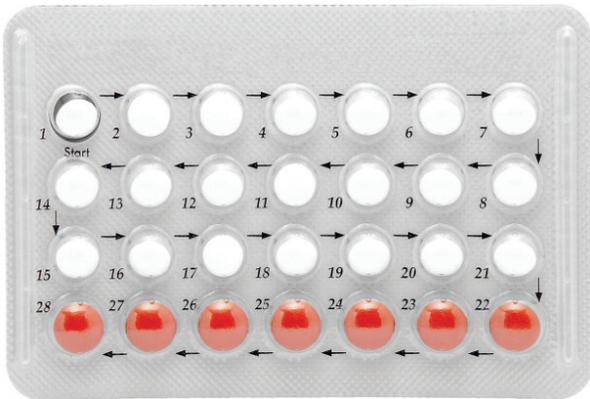
Symptoms-Based Methods involve identifying one or more signs of fertility using the basal body temperature, cervical mucus secretions or cervical changes.

Temperature Method: The basal body temperature (BBT) is the lowest temperature taken immediately after waking, before getting out of bed. The fertile period ends when there are three consecutive days of recorded temperatures that are higher than the preceding six days. After this it is considered safe to have unprotected sex.

Cervical Mucus: This method involves the observation of the variations in cervical mucus secretions found at the vaginal opening. Mucus becomes clear, more watery and elastic during fertile period.

Lactational amenorrhoea method (LAM) is the use of breastfeeding as a contraceptive method. Breast feeding has an effect on the production of hormones that reduces the probability of ovulation.

Hormonal Methods includes birth control pills, injectables, skin patch and vaginal ring. These hormones prevent eggs from being released from the ovaries, thicken cervical mucus to prevent sperms from entering the uterus and thin the lining of the uterus to prevent implantation of fetus.



Oral contraceptive pills (OCPs): These are hormonal pills to be taken by a woman daily preferably at a fixed time. The pill contains two female hormones called oestrogen and progesterone. The method should be used in consultation with trained provider. The brand “MALA-N” is available free of cost at all public healthcare facilities and Mala-D is available on drug stores at a very low cost. The method is best suited for newly married couple for delaying their first pregnancy and for spacing the childbirth. It can't be used by women with certain medical conditions. Most packs contain one hormonal tablet for 21 and one non hormonal (vitamin and iron etc) for next 7 days of cycle. Menstrual period occur during the fourth week, when non hormonal tablet is taken.

Hormone patch releases estrogens and progesterone for 7 days when worn on the skin. Over a menstrual cycle one patch per week is used for three weeks followed by no patch in the fourth week when menstrual period will take place. The patch can be worn on buttocks, upper arm, lower

abdomen, upper torso but never on breast.

Hormone vaginal ring is placed in the vagina for first 3 weeks of the cycle. On the first day of the fourth week, the ring is removed which is followed by menstrual period. The exact position of the ring in the vagina is not critical for the ring to work.

Hormone implants are small, thin plastic rod filled with long acting hormone which is inserted under skin to prevent pregnancy. The rod slowly releases hormone in the body and works for 3-year period. It may not work well in overweight obese women.

Injectable contraceptive is a shot that contains hormones that stop release of eggs and thickens the mucus at the cervix. Both one month and three month acting injections are available. Once injected, it is not reversible, i.e. in case of side effects it cannot be stopped.

Side effects of hormonal contraceptives: Inter menstrual spotting, nausea, breast tenderness, headache, weight gain, mood changes, missed periods, decreased libido, vaginal discharge, increased sensitivity of skin to sunlight, brown, blotchy spots on exposed skin, excessive or loss of hair and visual changes with contact lenses are some of the common side effect.

Other severe side effects: Healthy women who do not smoke cigarettes have almost no chance of having a severe side effect from taking hormonal contraceptives. But for some women who have special health problems, hormonal contraceptives can cause some unwanted effects. Some of these unwanted effects include problems of liver, or blood clots or related problems, such as a stroke. These effects are very rare but can be serious enough to cause death.

Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. The risk increases with age and with heavy smoking and is quite marked in women over 35 years of age.

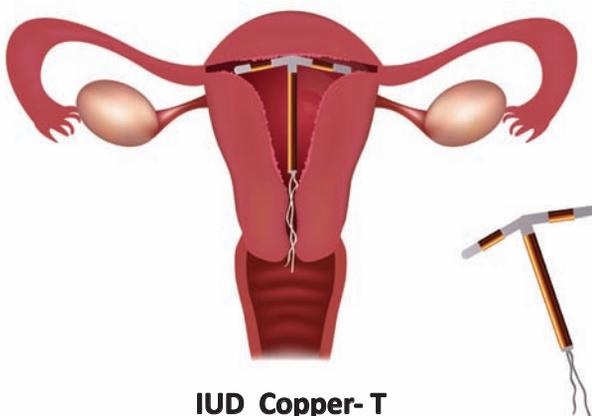
Before starting the hormonal contraceptive, consult a gynecologist with entire past, family and medical history, especially disease like asthma, high blood

Contraceptives

pressure, diabetes, liver diseases, kidney disease, blood clotting diseases, heart disease, stroke and breast disorders. Complete menstrual history and events during past pregnancy should be shared before decision is taken.

Barrier methods include the male condom, diaphragm, cervical cap, female condom, spermicidal foam, sponges and film. Barrier methods are used during sexual intercourse.

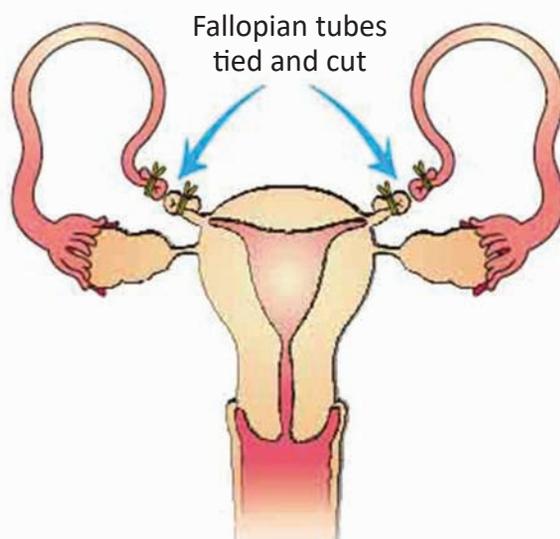
Condoms: It is a barrier method of contraception and can be used by both men (male condom) and women (female condom & diaphragm). These are the barrier methods and offer the dual protection of preventing unwanted pregnancies as well as transmission of Reproductive Tract Infection and Sexually transmitted diseases including HIV. The brand "Nirodh" is available free of cost at Government Health Facilities. There are no serious risks or side-effects. They need to be used properly every time you have sex. The method is suitable for everyone. Spermicidal foam, sponges and film are also available but are of limited effectiveness when used alone.



Intrauterine Contraceptive Devices is a small contraceptive device, often 'T'-shaped and containing either copper or hormone which is inserted into the uterus. They are one form of long-acting reversible contraception which are the most effective types of reversible birth control. IUCD is a small device which is inserted in uterus (womb) of a woman at a Health Care Facility. It can be effective for 3 years, 5 years, 10 years and 15 years depending upon the type of device used. Copper

containing IUCDs are a highly effective method for long term birth spacing. They should only be used by women after consulting a qualified doctor. The acceptor needs to keep watch over the thread in vagina and to return for follow up visit after 1, 3 and 6 months of IUCD insertion. It is best suited for delaying the planning of next child after delivery. They are also suitable for mothers who are breast feeding their babies.

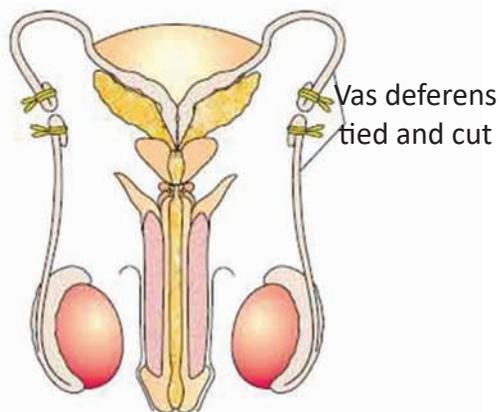
Permanent methods - Sterilization: These methods may be adopted by men or women and are not reversible, hence categorized as permanent methods. Sterilization involves operation. The male sterilization stops sperms travelling from the testes and female sterilization prevents the egg from travelling along the fallopian tube to meet a sperm. Male sterilization is easier than female sterilization and these methods are only used when the family is complete. For deciding for permanent method one should be sure of their decision as they are difficult to reverse. It is very effective method and one need not think about contraception once operation is done.



Female Sterilization: There are two techniques of doing it.

Minilap - Minilaparotomy involves making a small incision in the tummy. The fallopian tubes are brought out through the incision and are cut & ligated.

Laparoscopic-Laparoscopy involves inserting a long thin tube with a lens into the abdomen through a small incision. This laparoscope enables the doctor to see and block or cut the fallopian tubes in the abdomen. The woman is discharged from the hospital on the same day.



Male Sterilization: There are two techniques of doing it.

Conventional: A small incision is given and stitches are put.

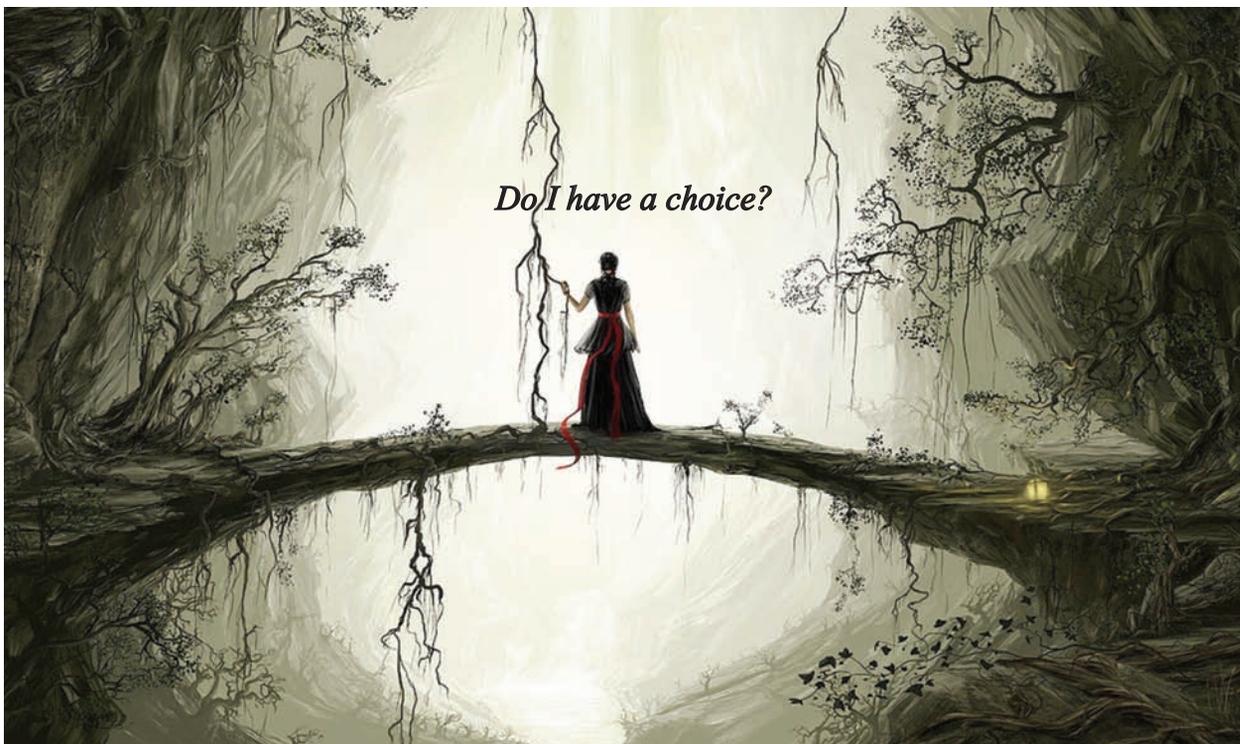
Non-scalpel vasectomy (NSV): No incision, only puncture and hence no stitches. The patient can be discharged from hospital in few hours.

The couple needs to use an alternative method of contraception for first three months after sterilization till no sperms are detected in semen.

Emergency Contraception: It can be used if one had sex without using any contraception or error in use of contraception like condom rupture, missed taking oral pills at more than two occasions and there is potential risk of conceiving.

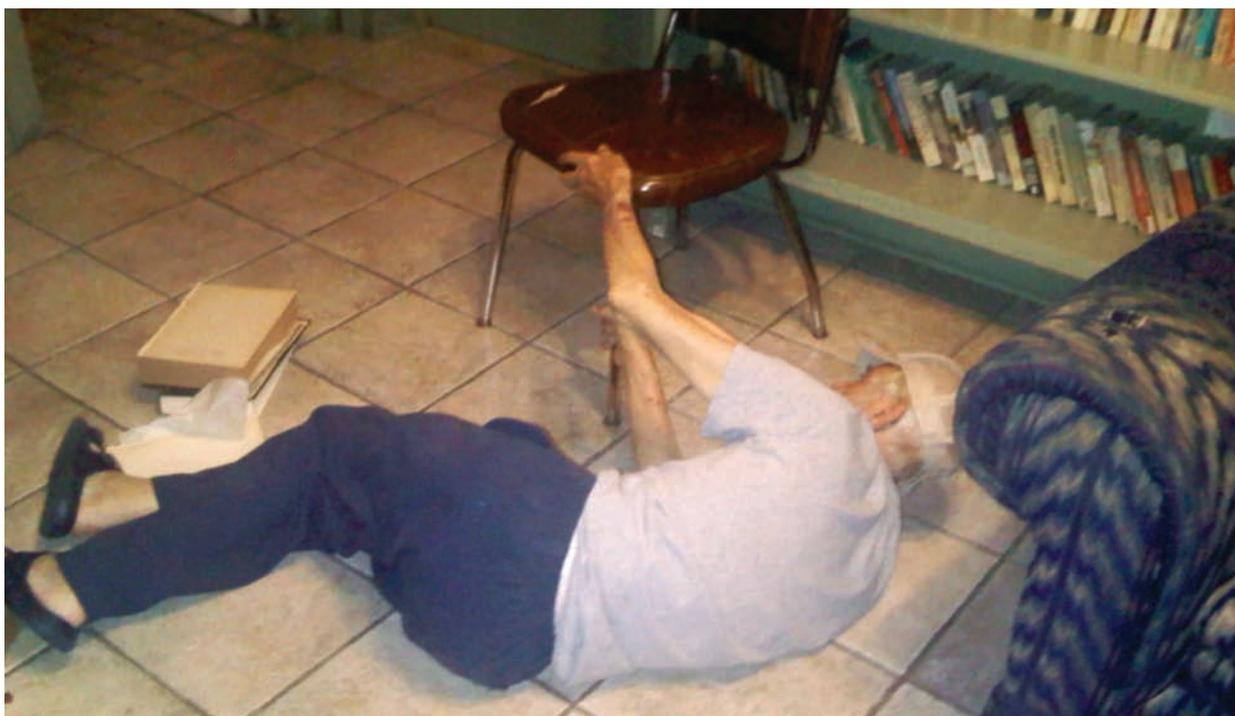
Emergency Contraceptive Pill: To be consumed in cases of emergency arising out of unplanned/unprotected intercourse. The pill should be consumed within 72 hours of the sexual act and should never be considered a replacement for a regular contraceptive. The earlier you take this pill, the more effective it is.

All the spacing methods, IUCDs, OCPs and condoms are available at the public health facilities right from sub centre to district hospital. Further, these are also carried by ASHA to village level. 🌈



Plan pregnancy for healthy & happy family

Accidental Falls



The socio-economical development coupled with lifestyle changes and availability of better health care has resulted in substantial decrease in diseases and deaths causing increase in life expectancy. This along with decline from high to low fertility, has resulted in ever increasing geriatric population. Medical problems in the elderly can involve any organ or system in the body and most conditions result from decreased function or degeneration of the involved organ. Besides social issues can have a significant impact on physical and mental health of seniors.

India is going through socio cultural transformation at a great pace. The joint family system is waning away and is replaced by nuclear family system. Further, gender roles are changing and women too are seeking employment outside homes. Dependence on private jobs which take long hours from the employees, long hours of commutation, traffic jams, high cost of living etc has left people insensitive towards elderly people even in their homes.

As people get older, physical & physiological changes occur in almost every organ in body as a natural part of ageing. Some diseases and conditions become more prominent in the elderly. Most commonly encountered medical conditions in seniors are arthritis, dementia, poor vision, chronic diseases of heart & lungs, diseases of blood vessels and urinary problems. Another most common phenomenon which results in medical problem mostly in elderly is 'accidental fall'.

The elderly persons have a higher risk of falls because, with ageing, many normal reactions of an individual start fading. Vision, hearing, loco motor abilities, ability to respond and reflex actions begin to decline. The vulnerability to injuries increases due to fragility of organs and time to recover is long due to slow recovery process.

Accidental Falls are the second leading cause of deaths worldwide. Falling increases risk of injury, hospitalization and death, particularly in elderly people who are frail and have pre-existing diseases co morbidities and deficits in activities

of daily living. Almost half of falls among elderly people result in an injury and most of injuries are not serious. Fall-related injuries account for about five percent of hospitalizations in patients above sixty five years of age. Five percent of falls result in fractures of the shoulder, elbow, wrist, or pelvis and two percent of falls result in a hip fracture. Ten percent of falls result in head injury, lacerations and other internal injuries.

This has an impact on our traditional values and most of the elderly people live alone and are required to fend for themselves. This has led to care giving crisis in case of accidental falls of elderly persons. About half of elderly people who fall, cannot get up without help and remain on the floor for more than two hours and increases risk of dehydration, pressure ulcers, hypothermia, pneumonia and muscle mass degeneration.

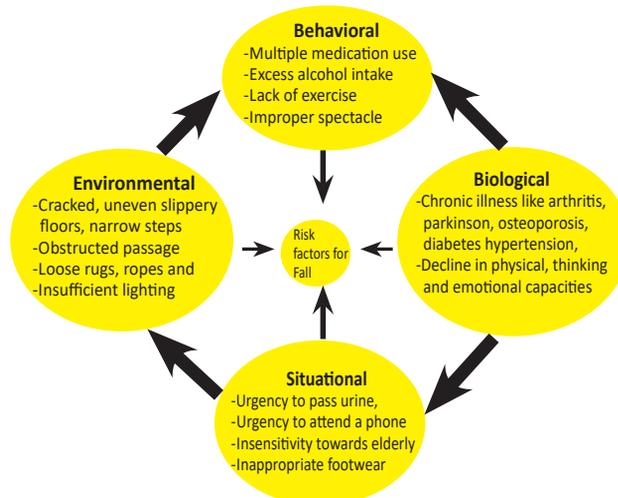
Function and quality of life may deteriorate drastically after a fall. Elderly person who was ambulatory before fall, do not recover their previous level of mobility and have loss of confidence with fear of falling again restricting their mobility and physical activity which may increase joint stiffness and weakness, further reducing mobility.

Falls, if fatal, can result in serious injuries and fractures. The person could suffer from intolerable immobility, dependency, hospitalization and even permanent disability. Loss of time, money and wages by family members are other aspects of such injuries. Sometimes such injuries require long-term institutionalized care which is great impediment to overall welfare of the whole family. The financial costs that are incurred on treatment and rehabilitation of fall-related injuries are significant.

Risk factors for fall in elderly person:

Biological: Age-related changes can impair systems involved in maintaining balance and stability. Weakness of muscle activation patterns and ability to generate sufficient muscle power and velocity may impair the ability to maintain or

recover balance. Chronic and acute disorders like hypertension, diabetes mellitus, renal diseases etc and use of drugs also makes elderly more susceptible to falls. Further decline of visual acuity, contrast sensitivity, depth perception and dark adaptation increase the risk of falls in elderly.



Behavioral factors: Multiple medication, use of excess alcohol intake, lack of exercise, improper spectacle and avoiding use of hearing aids are important factors and can increase the risk of falls.

Environmental factors can increase the risk of falls. Risk is highest when the environment requires greater postural control, mobility and changed physical environment. Home hazards that include cracked, uneven or slippery floors surfaces and stairs, narrow steps, looser rugs and insufficient lighting could make elderly vulnerable to falls.

Situational factors: Certain activities or decisions may increase the risk of falls and fall-related injuries. While walking, talking or multitasking, elderly person may fail to notice an environmental hazard. Similarly rushing to the bathroom at night in inadequate light when not fully awake or rushing to answer the telephone increases the chances of fall.

We need to understand that there is interplay of biological, environmental, behavior factors and situational factors that increase the risk of accidental falls.

Accidental Falls

Prevention of fall

Physical activity like walking, swimming or doing mild exercises are of paramount importance for an elderly person as these activities improve circulation of blood, reduce stiffness, increase flexibility, improve coordination of muscles, help in maintaining a balance and strengthens body parts which in turn reduces the risk of falls.

Shoes and clothes: Use non slippery and well comfortable shoes to prevent falls and reduce joint pains as well. Well fitted clothes will protect them from fall by preventing entanglement of loose clothes while walking.

Treatment of chronic diseases like diabetes, hypertension, arthritis, depression, correction of visual, hearing impairment etc and proper intake of all drugs prevents from fall. Ensure use of spectacles with proper correction of vision and hearing aids.

Safe environment: Provide unobstructed free passage without any boxes, old newspapers, wires,

ropes and loose rugs in the walkways and corridors.

Ensure dry floor round the clock by cleaning spilled water, oil and other fluids immediately.

Easy reach: Keep battery torch, clothes, dishes, food, medicines etc within easy reach of elderly.

Maintain illumination: Use proper light at home to have visibility of objects at ease, maintain proper illumination at night in bedroom, corridors and wash rooms Self illuminating stickers on light switches, head end of the walking stick and others supports are of great help.

Elderly friendly interior: Use elderly friendly interiors in homes like hand rails in stairways. Put nonslip mats on the floor and grab bars on the side walls of bathroom or shower. A proper toilet seat and bath seat with proper support will be very useful to prevent fall.

Elderly friendly tools: To have a fall free walking encourage elderly to use tools like walking stick and walker etc. 🌸



Care for their smile who cared for you

Spring Season



The spring season brings extraordinary beauties and charms with blooming of large number of good-looking flowers in dazzling colours. The lovely roses win our hearts. Bees are very busy during this season and move from one flower to another in search of honey. We see the attractive butterflies flying around catching the imagination of children. Spring is the season of charming sounds from humming of bees to maddening joy song of cuckoo and twittering of birds in trees.

Despite these pleasant sights and melodious notes when the nature pours in colours, fragrances and passionate magic during spring, man is confronted with large number of health related problems and diseases. Main causes of spring ailments are allergies to certain substances that are present only during this period or are abundant at this time. One of the allergens that are present during this time is pollen. Another one is poison ivy, which usually grows during the springtime.

People also get sick from the small insects that emerge during spring. Ticks, for example, emerge

after winter; and they can bring ailments with them when they bite the people that they cling to.

Further, changes in the weather from cold to warm and the cold wind floats due to the thawing of ice after winter during this season also causes disease. There are some specific diseases or sicknesses that are common in spring season. In this article the focus is on the most common diseases during spring and how one can manage them or prevent from getting these illnesses.

Flu and common cold is one of the commonest diseases during the season. Maintaining a healthy diet and drinking plenty of fluids to ensure good hydration, helps in warding off such problems.

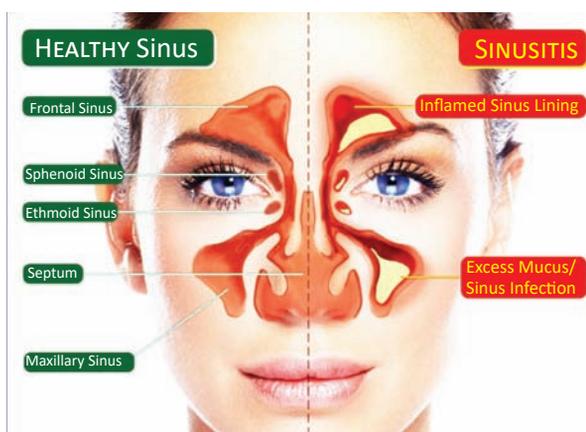
Cough and Asthma are other conditions that are also common during this season. Bronchial asthma or allergic bronchitis increases because of the presence of pollen and higher quantities of dust in the atmosphere. Staying away from asthma triggering factors, help in preventing asthmatic attacks.

Throat and Oral diseases increases because of

Spring Season

huge amount of pollen and higher amount of dust in the environment. These diseases start as allergic phenomena but sometimes get superimposed with bacterial or viral infection. These problems can be mitigated by eating fruits, vegetables & coarse food grains. Warm saline gargles also help in keeping throat and oral diseases at bay. These spring ailments have almost similar symptoms of which respiratory problems, wheezing, coughing, sneezing and fevers are most common.

Sinus infections (Sinusitis): Sinus is a hollow, air filled chamber in the bone. Human head has four pair of these sinuses as shown in image below. Normally mucus produced by sinuses drains into the nasal cavity through small opening. In sinusitis, these openings get blocked because the swelling of lining of sinus wall and fail to drain the secretions resulting in collection of mucous in the sinus air cavity.



Risk factors of sinusitis: Anything that interferes with the airflow into the sinuses can cause sinusitis. Common colds, allergies and irritants in the environment, weak immune system, recent upper respiratory infection, a condition that causes thick mucus (cystic fibrosis) and airplane travel are other risk factors.

Signs and symptoms of a sinus infection or sinusitis include the following:

Facial pain because trapped air and mucus put pressure on the membranes of the sinuses.

Headaches may be caused by persistent pressure

and swelling in sinuses. Sinus pain is usually severe in the mornings but slowly decreases as the day passes.

Nasal secretion which is thick white, yellowish, greenish in color, sometimes blood-tinged. Sore throat and coughing due to persistent dripping of secretions in throat.

Fever, fatigue, bad breath, decreased sense of smell and itching eyes are other symptoms.

Treatment includes rest in comfortable position, hot drinks, warm packs and proper hydration beside other medications as prescribed by doctor.

Warning signs: Most of the cases are managed with routine treatment but consult a doctor in case the symptoms are severe and not settling within 7 days, or even worsening in some cases, severe pain and swelling at the front of your head, swelling around the eye and the face, bloody discharge from the nose and frequent episodes of sinusitis.

Prevention of sinusitis: Avoid exposure to irritants such as cigarette smoke, dusty places, strong chemicals fumes etc. If you know the allergy causing agents then avoid exposure to them. Wash hands frequently to avoid infections during common cold season and try to avoid touching your face.

Gastrointestinal infections like bacterial dysentery, typhoid, cholera, etc are more common during the season.

Viral hepatitis increases because of ingestion of fruit juices that might have been contaminated.

Intestinal parasites: In spring, more people become infected with parasites by the ingestion of grimy veggies and fruits, water contaminated by sewage and by lightly cooked foods.

Acidity: During spring, body's metabolism increases and production of acid in stomach increases. This can lead to gastritis. In some cases, there may be formation of ulcers or relapse in those who already had ulcers. Symptoms of acidity are burning and pain in upper abdomen, nausea, belching and vomiting. To prevent this, avoid fried and spicy foods and take small frequent meals including more fruits & vegetables.

Itchy skin or Spring skin : Is another condition that is common during spring. The infections of the skin caused by bacteria and fungus rise and aggravate through spring time. In spring, the skin is exposed to invisible airborne allergens, such as pollen, which in some individuals causes eczema and allergies. Consume foods rich in vitamins A and take plenty of fluids to remain hydrated to prevent itchy skin.

Insect bite: Is also a common problem in spring. Some infections transmitted by mosquitoes and other insects are also hazard for human beings during the season. To protect against insect bites wear full-sleeve clothes and use insect repellents, insecticides and screening of houses etc.

Flies & cockroaches spread illnesses, by walking on food and utensils.

Prevention of Spring Diseases

Avoid contact with the allergens.

Keep
cold and flu
away



Try to keep yourself warm.

Take healthy balanced diet with plenty of vegetables and fruits.

Take a lot of vitamin C and other supplements.

Avoid alcohol.

Avoid use of Tobacco.

Exercise and maintain physical activity.

Wash your hand and face with soap and water frequently.

Keep surroundings clean and free from insects. 🌸



Use home remedies

Hand Wash



“Hey! Wash hands”, the usual advice from parents, not well understood by youngsters who, often get irritated and start defending in one way or the other. Hand washing is the easiest and most important thing with lasting impact on public health. Hand wash is essential for prevention of number of diseases.

Some diseases spread by fecal-oral transmission through infected hands because of lack of proper hygiene especially lack of hand wash. Some of the bacterial diseases are salmonellosis, shigellosis, hepatitis A, giardiasis, amoebiasis, enterovirus and campylobacter which spread through ingestion of tiniest amount of fecal material with unwashed hand.

During coughing and sneezing some secretions fall on the table, chair and other surfaces in the vicinity. Later on contact with these surfaces may contaminate the hand and if not washed properly, may transmit the illness. Common cold virus, flu and influenza like illnesses, streptococcus, and respiratory syncytial virus disease are some of the examples of diseases spread through indirect contact with respiratory secretions. Further, trachoma, the leading cause of preventable

blindness worldwide, is related to the lack of hand wash.

Direct contamination of hands with infected saliva & other body fluids, if not properly washed, may transmit diseases like typhoid, staphylococcal infections, cytomegalo virus and epstein bar virus.

If you don't wash your hands well, you may pick up germs from other sources and then infect yourself. You're at risk every time you touch your eyes, nose, or mouth. In fact, one of the most common ways people catch flu and common cold is by rubbing nose and eyes with hands contaminated with common cold virus. Similarly, an ill person can spread infection by touching house hold articles, commonly used by others also, with unwashed hand infected with nasal secretions.

Hand washing has a big impact on health and significantly reduce the number of diarrheal and acute respiratory diseases. Thus, hand washing is very effective and is considered as an essential “do-it-yourself” for disease prevention. Unfortunately hand washing with soap at key times is not widely practiced. Knowledge about hand washing is not enough but it needs to be practised regularly to reduce the disease burden.

When to Wash Hands:

- When you come back home from outside.
- When you come back from indoor or outdoor play.
- Before, during, and after preparing food.
- Before and after eating food.
- After using the toilet.
- After changing diapers or cleaning up a child who has used the toilet.
- After blowing your nose, coughing, or sneezing.
- After touching an animal, animal feed, or animal waste.
- After touching garbage.
- Before and after caring for someone who is sick.
- Before and after treating a cut or wound.

How to Wash Hands:

Use running water preferably, instead of standing water that could become contaminated through use. Washing hands with soap and water will remove substantially more disease causing organisms than washing hands with water alone. Warm water is better than cold water for hand wash as soap makes better froth. However, cold water and soap are still suitable. All soaps are equally effective and help washing away germs such as bacteria and viruses. It is better to use liquid soap from dispensers than bar soap, particularly at public places.

Wash your Hands Correctly

There's a right way to wash your hands. Follow these simple steps to keep your hands clean:

- Wet your hands with clean, running water (warm or cold), turn off the tap and apply soap.
- Lather your hands by rubbing your palms together with the soap. Be sure to lather the backs of your hands, between your fingers; and under & around your nails and thumb. Scrub your hands for at least 20 seconds.
- Rinse well under running water.
- Dry your hands using a clean towel or air dry them.
- If soap and water aren't available, waterless hand sanitizer or scrubs are a good alternative. They are usually available as a liquid, wipes, spray. Good hand washing is, therefore, the key to preventing the spread of many common infections.

Hand washing doesn't take much time or effort, but it offers great rewards in terms of preventing illness. Adopting this simple habit can play a major role in protecting your health. Thus, make hand washing a habit and keep yourself away from infections and remain healthy. 🌈



Practise hand wash and remain healthy

World Leprosy Day

30th January 2017



World Leprosy Day is annually observed on the last Sunday of January, falling on 30th January 2017, across the world as a way to raise global awareness about the disease. Leprosy is one of the oldest diseases known to mankind and has been stigmatized and considered to be at the extreme margins of the society. World Leprosy Day calls for a change in this attitude and increase public awareness of the fact that leprosy can now be easily prevented and cured.

On this day, public organizations and non-governmental organizations (NGOs) hold public and educational outreach events where they give information to public about how to prevent the spread of the disease. Doctors and other medical professionals spend time talking to the public about how to recognize the symptoms of leprosy. In addition, seminars and workshops are held around the world to address the problems faced by leprosy patients and to find ways to reduce the social stigma faced by them.

Leprosy is caused by a bacteria called *Mycobacterium Leprae*. The bacteria attacks the nerves. The first sign of leprosy is usually the appearance of light colour patches on the skin,

most often, affecting the cooler places on the body like eyes, nose, earlobes, hands, feet and testicles. These patches are accompanied by a loss of sensation in the affected areas. In untreated cases of leprosy, nerve damage and other complications occur as the disease progresses. The numbness and loss of sensation due to nerve damage often leads to neglected injuries progressing to infected ulcers on the hands and feet and deformity like clawed finger, foot-drop and paralysis of eyelids.

The disease is believed to spread through droplets from the nose or mouth of the untreated patient to the skin and respiratory tract of healthy person. These droplets are produced when the infected person sneezes or coughs. Most people have natural immunity against leprosy. It takes a very long time for symptoms to appear after coming into contact with the leprosy bacteria.

Symptoms mainly affect the skin, nerves and mucous membranes.

Light colour patches on the skin, most often, affecting the cooler places on the body like eyes, nose, earlobes, hands, feet and testicles. These patches are accompanied by a loss of sensation to

touch, temperature, or pain, growths on the skin, thick, stiff or dry skin, severe pain, numbness on affected areas of the skin, muscle weakness or paralysis in the hands and feet, eye problems that may lead to blindness, thickened nerves (especially those around the elbow and knee), a stuffy nose, nosebleeds, wounds on the soles of feet and loss of feeling or sensation can occur.

Types of Leprosy

Multibacillary leprosy (MB) - Patients with six or more skin lesions or patients with less than six skin lesions but having bacteria detected in skin smear.

Paucibacillary leprosy (PB) – patients with 1-5 leprosy skin lesions.

Diagnosis: Physical examination to look for light coloured patch with insensitivity to touch temperature and pain.

Skin biopsy or scraping: small piece of skin is removed and send to a laboratory for testing.

Lepromin skin test: small amount of leprosy-causing bacteria are injected into the skin.

Treatment: The drugs used in Multi Drug Therapy are a combination of rifampicin, clofazimine and dapsone for MB leprosy patients and rifampicin and dapsone for PB leprosy patients. In selected cases minocycline & ofloxacin can also be used with these drugs. Treatment taken with one drug may develop drug resistance. Treatment need to be taken regularly. In case of any side effect do contact doctor.

Integration of basic leprosy services into general health services has made diagnosis and treatment of the disease more accessible. Treatment is available free of cost in all public health facilities.

Prevention of Complications

Prevention of foot ulcer: Avoid walking barefoot; don't use tight shoes, wear foot protective shoes. Daily inspect feet and report to the doctor in case of injury.

Prevention of ulcers of anesthetic hands: Avoid handling of hot or sharp objects & use clothes or non

plastic gloves to avoid injury in anesthetic hands.

Prevention of contracture & muscle atrophy: Do finger & thumb exercises and physiotherapy.

Protection of the eyes: For early eyelid weakness do daily exercise i.e. close eyelid 20 times three times a day and daily inspection of eyes. At night use of simple cotton eye shield which prevents dust falling into the eyes.

Rehabilitation: Contact doctor at public health facility for corrective surgeries and rehabilitation services which are available under the 'National Leprosy Elimination Program.'

Prevention of Leprosy: Good nutrition and physical activity maintain good immunity and body resistance to fight with the infections.

Leprosy causes more social stigma and prejudices than medical problems thereby causing major obstacles in its detection & treatment. Leprosy is a disease of public health concern not only because of the case load but also because of social stigma.

Early detection of all cases in a community and completion of treatment are most important things to reduce disease burden due to leprosy but the stigma attached to the disease prevents the cases to come to the health facilities for detection and treatment. To overcome the problem, active case detection has been adopted by National Leprosy Elimination Program in India. The programme has launched the biggest Leprosy Case Detection Campaign (LCDC) in the country on 5th September 2016 across 149 districts. The 'Leprosy Case Detection Campaign' is a unique initiative wherein a search team consisting of one male and one female volunteer will examine each and every member of the target population in house to house visit.

The objective of the campaign is the early detection of leprosy in affected persons so that they can be saved from physical disability and deformity by providing them timely treatment and thus also halting the transmission of disease at the community level. 🌸

Dispel stigma and move towards a world with no leprosy

World Cancer Day

04th February 2017



World Cancer Day is observed on 4th February to make people aware about the risk factors, early detection, treatment and prevention of the cancer. World Cancer Day also targets misinformation and raises awareness to reduce stigma. World Cancer Day is an initiative to unite all those involved in fight against cancer to promote greater equity in healthcare to reduce the global cancer burden. The day also helps to remove social myths related with the cancer.

Just as cancer affects everyone in different ways, all people have the power to take various actions to reduce the impact that cancer has on individuals, families and communities. The “we can, I can,” campaign depicts how everyone as an individual or collectively can play their role to achieve the objectives. World Cancer Day aims to save millions of preventable deaths each year by raising awareness, education about cancer and simultaneously, encouraging governments and non-governmental, individuals and organizations across the world to take action against the disease.

During this event, awareness is generated about the importance of healthy lifestyles, balanced diet, regular physical activity, weight management and ill effects of alcohol, tobacco, substance abuses in occurrence of cancers. Some positive stories need

to be shared with cancer affected persons to boost their morale and make them feel energetic and self-confident to defeat cancer or, at least, to make their journey easy and happy. It is also necessary to realize on this day that cancer patients are not an object of sympathy and should be provided comfortable social environment.

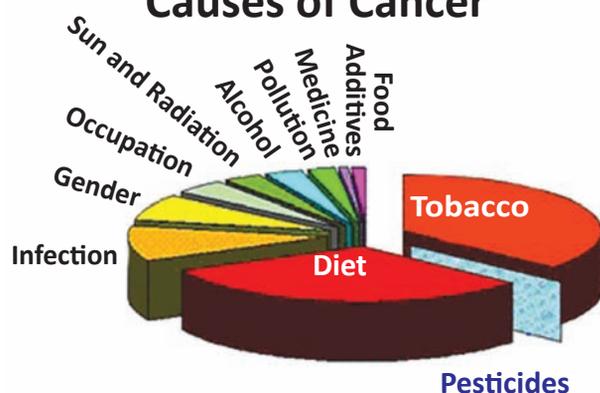
The day is a key opportunity for everyone working on cancer and affected by cancer to work together to make a dent on the impact of cancer on individuals, families and communities. All Governmental and non-governmental organizations organise various workshops, seminars and hold public educational outreach events to highlight various aspects of cancer. Doctors and other medical professionals spend time talking to the public about how to recognize the earliest symptoms of cancer. Common people are the main target of the event and a toolkit, having templates, leaflets and guidelines are disseminated.

The goal of cancer awareness day is to ensure fewer people develop cancer; more cancers are detected early & treated successfully and improving quality of life of people during treatment and beyond.

Cancer is a large group of different diseases, all involving unregulated cell growth. In cancer, cells divide and grow uncontrollably, forming malignant

tumors, which invade nearby parts of the body. The cancer may also spread to more distant parts of the body through the lymphatic system or blood stream. All tumors are not cancer. The most common cancers in India are those occurring in breast, cervix, uterus, ovaries, lungs, oral cavity, stomach, colon, kidney and prostate. In addition, cancers that originate from bone marrow or from the blood and lymphatic system, called blood cancers, are also prevalent. Cancer is a major public health concern in India.

Causes of Cancer



Warning signs of cancer: Normally the sign and symptoms of cancer vary according to the organ involved in cancer but following warning sign and symptoms are indicative of cancer and calls for medical consultation:

Change in bowel and bladder habits, non healing sore, unusual bleeding or discharge, thickening or lump in breast, testicles abdomen or elsewhere, difficulty in swallowing & indigestion, change in the size, colour, shape, or thickness of a skin wart, mole or sore, persistent hoarseness of voice and cough, persistent headache and pain in bones, persistent unexplained fever, loss of appetite & weight.

Diagnosis: Most cancers are initially recognized either because of the appearance of sign or symptoms or through screening. People with suspected cancer are investigated with medical tests like blood test, x rays, CT scans and endoscopies. Final diagnosis is by histopathological examination of the tissue taken by biopsy.

Treatment: *Surgery* is the primary method of treatment for most isolated, solid cancers and may play a role in palliation and prolongation of survival. In localized cancer, surgery typically attempts to remove the entire mass along with, in certain cases, lymph nodes in the area. For some types of cancer, this is sufficient to eliminate the cancer.

Chemotherapy: Is the treatment of cancer with one or more anti cancer drugs as part of a standard regimen. Traditional anticancer drugs act by killing cells that divide rapidly stopping the growth of cancer, a critical property of most cancer cells. Even when chemotherapy does not provide a permanent cure, it may be useful to reduce symptoms such as pain or to reduce the size of an inoperable tumor in the hope that surgery will become possible in the future.

Radiotherapy: Involves the use of ionizing radiations in an attempt to either cure or improve symptoms of cancer.

Palliative care: Includes action to reduce physical, emotional, spiritual and psycho-social distress. Unlike treatment that is aimed at directly killing cancer cells, the primary goal of palliative care is to improve the quality of life.

Cancer Screening: It means checking healthy body for cancer before development of symptoms. Regular screening may find breast, cervical and colorectal (colon) cancers at early stage when treatment is likely to work best. Periodic screening for following cancer is recommended:

- Screening for Breast cancer: self examination of breast and mammography are the best way to find breast cancer early.
- Screening for Cervical cancer: The Pap test can find abnormal cells in the cervix suggestive of cancer.
- Screening for Colorectal cancer (Colon): Presence of benign tumour polyps in colorectal area is suggestive of colorectal cancer.
- Screening for Prostate cancer: PSA test helps in early detection of prostate cancer.

World Cancer Day

- Screening for Lung Cancers: with low-dose computed tomography (LDCT) is for people who have a history of heavy smoking and smoke now or have quit within the past 15 years and are between 55 and 80 years.

What to do: Cancer, like most other diseases, are caused by a variety of choices we make throughout our lives. Smoking, drinking, eating junk food, exposure to radiation, a sedentary lifestyle and many more factors play a part in causing cancer. Here are some suggested changes to lifestyle to avoid the dreaded disease:

- Quit smoking or exposure to smoke.
- Practice sun safety by application of ultra violet protecting creams.
- Include fruits and veggies into diet: green, orange and yellow fruits and vegetables contain the highest amount of antioxidants and are a great way to prevent cancer.
- Limit red meat consumption: diet high in animal fat increases the risk for several types of cancer.
- Think before you drink alcohol.
- Exercise: boosts a person's morale by releasing endorphins, the feel good hormone and reduces risk of various types of cancer.
- Know about your family history: a number of cancers are hereditary in nature and screening plan for early detection could be of help.
- Avoid contact with carcinogen: constant exposure to chemicals can increase risk of developing cancer.
- Practise safe sex: unsafe sex can result in virus infections that are known to cause cervical cancer.
- Get annual health checkups done. 🌈



Healthy lifestyle protection from cancer

World Glaucoma Week

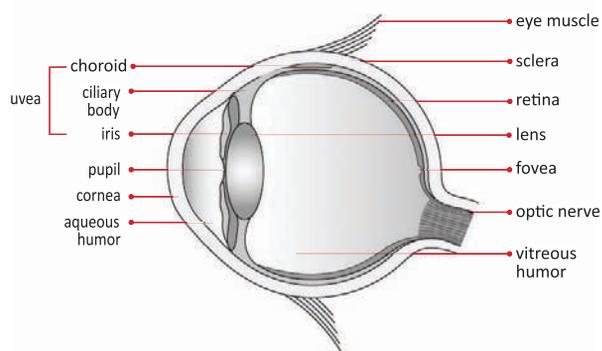
06th to 12th March 2017



World Glaucoma Week' is observed across the country from 6th to 12th March every year in order to create awareness for prevention and control of glaucoma amongst the general public. Glaucoma is an emerging cause of preventable irreversible blindness and at present accounts for almost 5.8% of total blindness in India. Glaucoma is also known as 'silent thief of vision'.

The World Glaucoma Week is collaborative efforts of glaucoma care providers and the glaucoma patient to eliminate glaucoma blindness by alerting people to have regular eye checkups, including optic nerve checks.

What is glaucoma? Glaucoma is the name given to a group of eye diseases in which the optic nerve at the back of the eye is slowly destroyed.



In most people this damage is due to an increased pressure inside the eye as a result of blockage of the circulation of aqueous fluid, or its drainage. In other patients the damage may be caused by poor blood supply to the vital optic nerve fibres, a weakness in the structure of the nerve, or a problem in the health of the nerve fibres.

Who is at risk? Although anyone can get glaucoma but risk is more with family history of glaucoma, diabetes, migraine, short sightedness (myopia), long sightedness, eye injuries, blood pressure, past or present use of cortisone drugs (steroids).

Types of Glaucoma: following forms of Glaucoma are seen:

Primary open-angle glaucoma: Most people with open-angle glaucoma feel fine and they initially do not notice a change in their vision because the initial loss of vision is of side/ peripheral vision and the sharpness of vision is maintained until late in the disease. The disease has few warning signs or symptoms before damage has occurred. It is therefore important to see a doctor for regular eye examinations.

Angle-closure glaucoma: The eye pressure is raised because of obstruction of outflow of aqueous eye fluid which leads to increase in eye pressure causing optic nerve damage and possible vision

World Glaucoma Week

loss. This rise in eye pressure may occur suddenly or gradually.

Congenital glaucoma is rare form of glaucoma caused by an abnormal drainage system. It can exist at birth or develop later. Parents may note that the child is sensitive to light, has enlarged, cloudy eyes and excessive watering. Surgery is usually needed.

Secondary glaucoma can develop as a result of other disorders of the eye such as injuries, cataracts, eye inflammation. The use of steroids (cortisone) has a tendency to raise eye pressure and therefore pressures should be checked frequently when steroids are used.

Symptoms of Glaucoma:

Early stages of open -angle glaucoma have no obvious symptoms. As the disease progresses more blind spots develop in the peripheral view. These points can go undetected until the optic nerve has had serious damage, or until it is detected by an ophthalmologist through a complete eye examination.

Early symptoms Angle- closure glaucoma may include blurred vision, halos, mild headaches or eye pain. An acute attack of angle-closure glaucoma includes severe pain in the eye or forehead; redness of the eye; decreased vision or blurred vision; vision rainbows or halos; headache; nausea and vomiting.

Consult the eye doctor if any of the above mentioned symptoms are present.

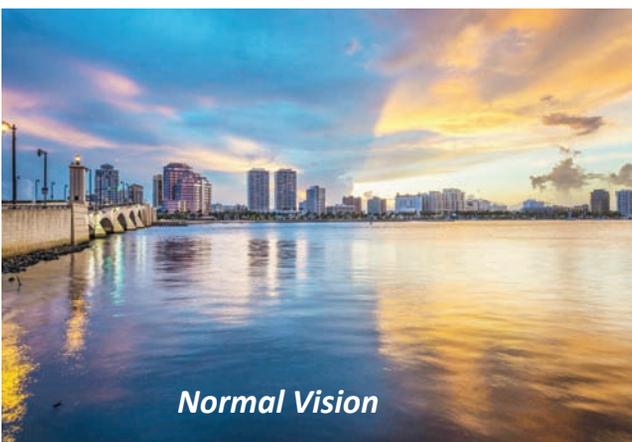
Treatment: Regular check-up and medication as advised by the eye doctor is a must for lifetime. In certain cases, eye doctor may advice surgery also. But even after surgery, medication as advised by the doctor from time to time must be strictly followed to avoid blindness.

Free check-up & treatment are available in all designated health facilities like Primary Health Centre, Community Health Centre, District Hospital, Medical College, Regional Institute of Ophthalmology and selected NGO hospitals under "National Programme for Control of Blindness." Early detection and regular treatment can beat glaucoma.

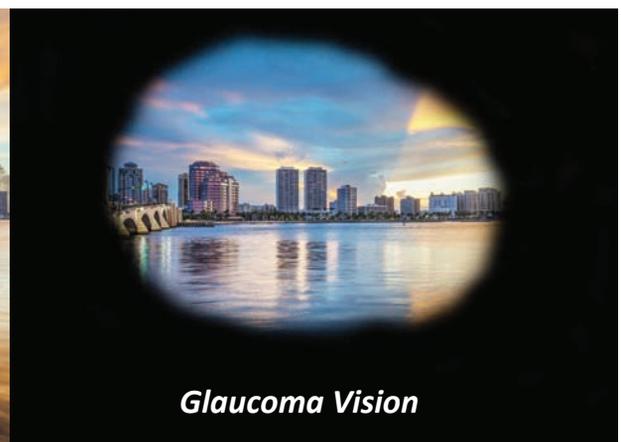
Prevention: Glaucoma cannot be prevented but blindness due to glaucoma can be prevented if it is detected early and treated properly.

All glaucoma patients should inform their close relatives that they have increased risk, up to 10 times higher than the general population, to develop glaucoma.

The best protection is to have regular and comprehensive eye checkups that include a review of their optic nerves. This is more than just an eye pressure test. 🌈



Normal Vision



Glaucoma Vision

Beat Invisible Glaucoma

World Kidney Day

09th March 2017



World Kidney Day' held every year on the second Thursday of March and this year it will be observed on 9th March 2017. The aim is to generate awareness about the importance of kidney health by highlighting signs & symptoms, treatment, prevention and the risk factors that can lead to Chronic Kidney Disease (CKD). Further, it is a day to sensitize public to encourage kidney donation for transplants as an effective way to help those with kidney failure.

All governmental, non-governmental organizations working in kidney health organize campaign mode activities like conferences, workshops and other outreach activities to focus attention on the importance of kidney health in maintaining a happy and fulfilling life.

What is Kidney? Kidneys are two bean-shaped organs, one on each side, located on the back side under a rib, helping the body to excrete waste and excess fluid, sodium and potassium through urine. While filtering the blood regulates blood pressure, releases critical hormones and optimize the blood

composition. Besides this kidneys enable the body to make red blood cells. Any breakdown of Kidney function can lead to poor health. Only one kidney is sufficient to lead a healthy life.

Healthy lifestyles, balanced diet, regular physical activity and maintenance of optimal weight will be useful to improve the kidney health. Further people at risk of kidney disease should go for regular screening for blood pressure, diabetes and avoid overusing over-the-counter and prescription drugs.

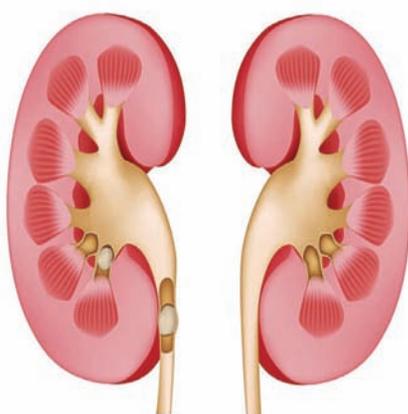
Chronic kidney disease (CKD) is a progressive loss in kidney function over a period of months or years. Each kidney has about a million tiny filters, called nephrons which stops functioning when damaged. If the damage is less, the work of the damaged filters is compensated by increased activity of other healthy filters but with time more filters stop working and the kidney function falls below a critical point. It is called kidney failure which affects the whole body and untreated kidney failure can be life-threatening.

World Kidney Day

Usually early chronic kidney disease has no signs or symptoms but when detected early effective treatment can be given to stop the process before it reaches stage of kidney failure. CKD increases the risk of premature death from heart attacks and strokes.

Risk factors: High blood pressure and diabetes are the most common causes of kidney disease. Other less common conditions include inflammation (glomerulonephritis) or infections (pyelonephritis). Sometimes CKD is inherited as in polycystic disease or is the result of long standing blockage of the urinary system like enlarged prostate or kidney stones. Some drugs can cause CKD, especially some pain-killer drugs when taken for long time. Kidney disease is more likely to develop in obese people.

Symptoms of kidney disease



- Reduced urine output
- Fatigue
- Nausea
- Tiredness
- Poor sleep
- Poor appetite
- Unexplained itchiness
- Swelling of feet
- Puffiness of face and eyes
- Shortness of breath

Diagnosis: Simple blood and urine tests can detect CKD

The main indicator of kidney function is blood level of creatinine, a waste product produced by body and excreted by the kidneys. If kidney function is reduced, creatinine accumulates in the blood leading to an elevated level.

Kidney function is best measured by an indicator called GFR (Glomerular Filtration Rate) which measures the blood filtration rate by kidneys. This indicator allows doctors to determine if the kidney function is normal and if not, to what level the reduced kidney function has deteriorated. In

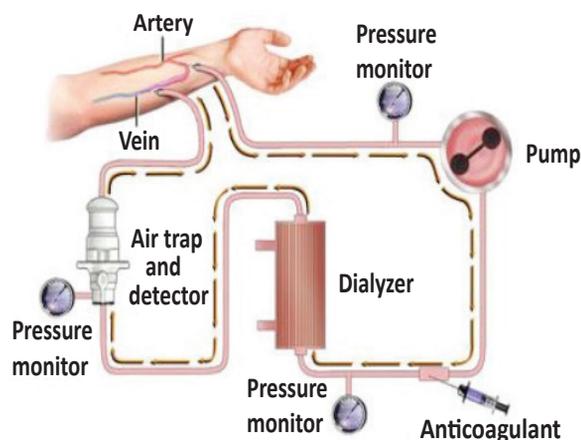
everyday practice, GFR can easily be estimated (eGFR), from measurement of the blood creatinine level, and taking into account, age, ethnicity and gender.

Treatment: There is no cure for chronic kidney disease, although treatment can slow or halt the progression of the disease and can prevent other serious conditions from developing.

In the early stages of kidney disease, a proper diet and medications may help to maintain the critical balances in the body that kidneys would normally control. Patients of 'End Stage Renal Disease' will require long term dialysis treatment or kidney transplantation.

Dialysis: In kidney failure, wastes and fluids accumulate in body and dialysis is done to remove these wastes & excess fluid from blood. Dialysis can be done either by machine (hemodialysis) or by using fluid in abdomen (peritoneal dialysis) and can be done at home also.

Hemodialysis



Kidney Transplant: A kidney transplant is an operation to replace a diseased kidney with a healthy kidney from a donor. In suitable patients a kidney transplant combined with medications and a healthy diet can restore normal kidney function. Dialysis and kidney transplantation are known as renal replacement therapies (RRT) because they attempt to "replace" the normal functioning of the kidney.

Kidney transplantation is considered the best treatment for most of people with severe CKD because quality of life and survival are often better than in people who use dialysis. However, there is a shortage of organs available for donation and many patients have to be managed on dialysis until an organ is available. Overall short-term and long-term transplant success rates are good for people of all age groups.

Kidney donation: A kidney for transplantation can be taken from a living relative, a living unrelated person, or from a person who has died. In general, organs from living donors function better and for longer periods of time than those from donors who are deceased. Kidney is the most common organ donated by a living person. A healthy person can lead a normal life with one working kidney.

Prevention:

- Manage Diabetes with diet, exercise, and medications within a target range.
- Manage Blood pressure with diet, exercise, and medications at 130/80.
- Manage weight with diet and exercise.
- Manage cholesterol levels.
- Manage balanced diet including plenty of fruit and vegetables, starchy foods such as potatoes, bread, rice or pasta, dairy products, some beans, pulses, eggs, fish, meat and other sources of protein and low levels of sugar and saturated fats.
- Maintain adequate physical activity and exercise.
- Control tobacco and alcohol intake.
- Avoid use of analgesic especially non steroidal anti inflammatory drugs like ibuprofen, diclofenac sodium, and Etoricoxib, etc. Take medicine only on advice of doctor.

Warning Signs: The key to prevent kidney diseases and slow down the progression to kidney failure is early detection and aggressive intervention. Therefore, it is essential to recognise the symptoms

of kidney diseases early in order to seek timely care. Awareness about following signs and symptoms is necessary as a warning sign to contact doctor.

- Changes in your urinary function.
- Difficulty or pain while urinating.
- Blood in the urine.
- Foamy urine is caused due to the leakage of protein from kidneys.
- Swelling: extra fluid builds up in body causing swelling of feet, ankles, puffiness of the face.
- Extreme fatigue, anemia and generalized weakness: kidneys produce a hormone called erythropoietin which helps red blood cells production.
- Dizziness and Inability to concentrate: Anemia associated with kidney disease depletes brain of oxygen and may cause dizziness, trouble with concentration.
- Feeling cold all the time; anemia, also gives a sensation of cold even when in a warm surrounding.
- Skin rashes and itching: Renal failure causes waste build-up in blood. This causes severe itching.
- Ammonia breath and metallic taste: Kidney failure increases the level of urea in the blood which is broken down to ammonia in the saliva causing urine-like bad breath called ammonia breath.
- Nausea and vomiting: The build-up of waste products in your blood in kidney disease can also cause nausea and vomiting.
- Lack of appetite: One suffers from this symptom due to the buildup of toxins and waste materials.
- Shortness of breath: If the kidney disease is severe enough, it can cause a build-up of fluid in the lungs leading to breathlessness.
- Pain in the back or sides: Severe cramping pain spreading from the lower back into the groin is characteristic of kidney diseases. 🌸

Donate kidney to save life

World Oral Health Day

20th March 2017



World Oral Health Day: To generate awareness about the oral health amongst the community, 'World Oral Health Day' is celebrated on 20th March every year. The theme of the year 2017 is 'Live Mouth Smart'. The mouth is essential for gestures of chewing, talking, smiling and reflects on over all personality. The oral health should be treated as a window to general health resulting in freedom from preventable diseases and pain in old-age.

Oral health is a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss and other diseases & disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing. Oral health is multi-faceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow

and convey a range of emotions through facial expressions with confidence, without pain and discomfort.

It is a fundamental component of physical health and mental well-being. It reflects the physiological, social and psychological attributes that are essential to quality of life. It is influenced by the individual's changing experiences, perceptions, expectations and ability to adapt to circumstances.

The mouth or oral cavity is made up of numerous components that work together in coordination for breathing, speaking, eating and digesting food. These components are:

Lips and Cheeks are made up of muscles that help shape facial expressions. Lips let air into mouth for breathing and together with cheeks, help to speak. They also keep food and saliva in mouth while chewing.

Tongue is a powerful muscle that facilitates chewing, swallowing, speaking, tasting food allowing detection of sweet, salt, bitter and savory flavours.

Teeth, anchored on the jaw bone with the roots covered with gums and alveolar bone give shape to the face and are used for chewing the food and giving a smile.

Salivary Glands produce the clear liquid known as saliva which contains substances that break down food to begin the digestive process. In addition, saliva moistens mouth to speak, chew, swallow and repeatedly washes bacteria from teeth & gums.

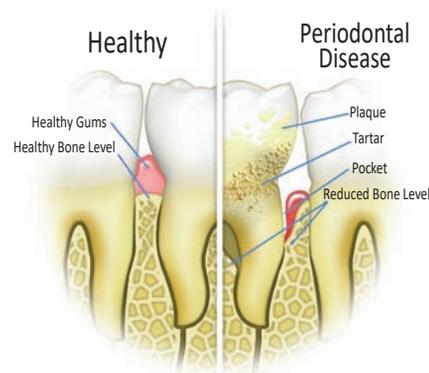
Temporo-mandibular Joint helps to open and close the mouth.

Oral hygiene is the practice of keeping the mouth and teeth clean to prevent dental problems, most commonly, dental cavities, gingivitis, periodontal (gum) diseases and bad breath. There are also oral pathologic conditions in which good oral hygiene is required for healing and regeneration of the oral tissues.

Risk factors for Oral Diseases: Poor oral hygiene is most common risk factor for oral disease. Besides this unhealthy diet, tobacco use, alcohol and other substance abuse, make one more susceptible to oral diseases. Poor hygiene and dysfunction of any of the component of mouth will result in oral disease causing problems to speak, chew and swallow.

The most common oral diseases are dental caries, periodontal (gum) disease, tooth loss, malocclusion of jaw, oral cancer, oral infectious diseases, trauma from injuries and hereditary lesions.

Dental Caries: Dental Caries is decay of tooth which progressively becomes a cavity where food gets stuck up. It presents with pain and sensitivity to hot & cold. More than half of the children suffer from dental caries during their preschool and school years. Caries in preschool children spreads to many teeth and most of the time front teeth are also affected.



Periodontal disease: The gum diseases start as swelling and redness of gums due to improper cleaning of teeth. There may be bleeding from gums after brushing as the first symptom which can increase to pain, big swelling and pus from gums. Dental Plaque, a thin, adherent microbial film on the tooth surfaces, is the main pathological cause of gingival and periodontal inflammation.

Tooth loss: Dental cavities and periodontal disease are major causes of tooth loss. Complete loss of natural teeth is widespread and particularly affects older people.

Malocclusion: Improper jaw approximation, irregular over-crowding and spacing of teeth may result in poor oral hygiene. The conditions could be corrected with elective tooth extraction and corrective jaw surgeries.

Oral cancer: The oral cancer is the most common cancer in men and 3rd most common cancer in women in our country. Most of oral cancers are associated with tobacco use in some form. Other contributing factors are alcohol use, oral infections, chronic irritation like sharp edges of teeth and exposure to radiation. Cancers in mouth are generally preceded by some precancerous condition like white patch (Leukoplakia), red patch (Erythroplakia), non-healing ulcer and hard patch (sub mucous fibrosis).

Fungal, bacterial or viral infections: These infections are seen frequently in people affected with HIV.

Oro-dental trauma: Unsafe playgrounds, unsafe schools, road accidents, or violence often results in oro-dental trauma.

World Oral Health Day

Cleft lip and palate: Birth defects such as cleft lip and palate may result in poor oral hygiene.

Bad Breath (Halitosis): When teeth are not brushed and floss is not removed daily, food particles remain in mouth, promoting bacterial growth between teeth, around the gums and on the tongue which causes bad breath.

Most oral diseases and conditions require dental care & oral hygiene professional care. Although pretty teeth are important, a healthy mouth is much more than that. Keeping all the parts of your mouth in good working order will ensure good dental health, but a healthy body too. Therefore please do seek advice from a dental surgeon and oral hygiene professional in case any of above condition is suspected.

What to do:

1. Ensuring proper oral hygiene;
 - Brush teeth twice a day using correct technique with good toothpaste, clean tongue and gums.
 - Replace your toothbrush every three or four months, or sooner if the bristles are frayed.
 - Clean between teeth daily with floss or an inter-dental cleaner.
2. Self examine your mouth in mirror in good light

and contact your doctor in case of white patch, red patch, non healing ulcer or hard patch is seen in mouth.

3. Visit your dentist regularly for professional cleaning and oral examination.
4. Consumption of balanced diet with vegetables, fruits and fibrous foods which require rigorous chewing releasing saliva promotes oral health.
5. Special dietary care during pregnancy, lactation and infancy for proper development of teeth.
6. Avoid use of tobacco in any form.
7. Avoid use of alcohol.
8. Use protective for sports and motor vehicle equipment and safe physical environment to reduce the risk of oro-facial injuries.

Objective of 'Oral Health Day' is to empower people to take control of their oral health throughout life so that they can enjoy a healthy, functional mouth from childhood to old age. People should take decision about good oral hygiene, adopting preventive measures, regular dental check-ups and by managing oral disease risk factors like smoking, alcohol & sugar etc. 🌈



Laugh through life', 'Chew through life', and 'Be healthy through life'.

World Tuberculosis Day

24th March 2017

**COUGH FOR OVER 2 WEEKS COULD BE TB
MEET A DOCTOR NOW**

Other Symptoms of Tuberculosis (TB):

- Fever
- Night Sweat
- Loss of Appetite
- Weight-loss

Visit your nearest government health facility for high quality free diagnosis and treatment

Irregular or incomplete treatment may lead to Drug Resistant TB

- TB germs spread through the air
cover your mouth while coughing

TB HAREGA, DESH JEETEGA

The World Tuberculosis Day is observed annually on 24th March to create awareness about tuberculosis disease, its causes, cure, prevention and the efforts to eliminate the disease. A number of events are organized across the world by government and non government organizations including other health agencies to raise the awareness among public, about tuberculosis through variety of campaign related activities such as debates on TB, award ceremonies, photo exhibitions, for the organizations involved in field of TB.

Time has come for active participation of all groups of people, communities in government and private sector in health and non health areas to work together and fight against TB. The theme of World TB day 2016 was “Find TB, Treat TB, Working together to eliminate TB” and the theme for the year 2017 is “Unite to End TB”.

India has largest number of TB case almost accounting for one fifth of total number of new cases in the world. The worst part is that despite having effective drugs against TB, two tuberculosis deaths take place in India every three minutes. Emergence of drug resistant TB and TB in HIV patients, further worsen the situation. TB has huge impact on the productivity & economy of the country owing to loss of man days, wages due to TB illness and TB

deaths, besides the cost of management & out of pocket expenditure of TB case.

What is TB? Tuberculosis (TB) is caused by bacteria, Mycobacterium tuberculosis, that most often affect the lungs but can involve any part of the body.

Who are at risk: Tuberculosis affects all irrespective of age, sex, race etc but close contacts of a person with infectious TB disease, immigrants, persons in night shelters, prison, drug users, persons with HIV infection and health workers are more susceptible. Certain medical conditions that weaken the immune system like HIV infection, substance abuse, silicosis, diabetes mellitus, severe kidney disease, taking steroids are also vulnerable.

How it spreads: The disease spread from person to person through the air. A person with lung TB, not taking any treatment, throws a shower of infected droplets in the air while coughing, sneezing or spitting. These droplets when inhaled will transmit the disease to a healthy person. Around 40% of Indian population have TB infection but don't have TB disease & are not ill since bacteria remain inactive (latent TB). It is only one tenth of such infected persons whose body resistance is poor because of poor nutrition, diabetes, use of tobacco or other underlying diseases who develop the TB disease.

World Tuberculosis Day

Symptoms of active TB include cough with mucous and sometimes blood, fever often with chills, night sweats associated with loss of appetite and weight. Tuberculosis usually affects the lungs, but when left untreated, it can spread through the bloodstream and cause TB of other parts of the body. In such cases, the symptoms can vary accordingly to the organ involved.

Diagnosis is by showing presence of bacteria in sputum either by direct smear examination or by detecting the bacterial genome by technology known as CB NAAT which gives result quickly. X-Ray, Skin test where a small injection of PPD tuberculin is made just below the inside forearms and is read after 48 to 72 hours are also used in some cases. All cases with more than two weeks cough should get sputum examined for TB.

Treatment is done with number of antibiotics administered simultaneously in doses and duration depending on a person's age, overall health, resistance to drugs and the location of infection. Duration is usually around six months but can be more at discretion of the treating specialist. Regular intake of medicine is essential, failing which infecting bacteria will develop resistance to commonly used drugs and the treatment will become longer, more toxic and more expensive. Healthy high protein diet during the treatment is essential along with the medicine for recovery. Regular uninterrupted intake of TB medicine is essential for cure.

Ministry of Health and Family Welfare has made

provision of TB care under "Revised National TB Control Programme (RNTCP)". The goal of TB control Programme is to decrease disease and death due to TB and cut transmission of infection. TB has been made a notifiable disease. It mandates all the healthcare providers to notify every TB case diagnosed or treated to local authorities on monthly basis.

The RNTCP is maintaining a network of more than 13,000 Designated Microscopy Centres and more than 4,00,000 DOT Centres for diagnosis and treatment of TB patients. Diagnosis of Drug Resistant TB is being undertaken at 66 Culture & drug susceptibility testing (CDST) laboratories. The diagnosis and treatment at these centres is provided free of cost to all patients including those of drug resistance & HIV TB cases.

Prevention: Healthy lifestyles, balanced diet, regular physical activity will improve the body resistance to fight against TB. The most important thing to ensure regular uninterrupted complete treatment of patients as prescribed. MDR-TB bacteria are far deadlier than regular TB bacteria. Cases of MDR-TB require extensive courses of medicines which are more toxic and expensive. Good ventilation, sunlight in rooms is essential. Overcrowding in rooms helps in transmission of TB disease. Cough etiquettes like covering mouth while coughing or sneezing prevent spread. Avoid close contact with patients specially those who are not taking treatment. BCG injections are given to children in order to vaccinate them against tuberculosis. 🌸



Unite to End TB

Food in Newspaper

Use of newspapers for wrapping, packing and serving food is a common practice in India. The ink contains many hazardous chemicals which trigger serious health problems. Government of India has issued following advisory restricting use of newspaper as food packaging material.

File No. 1/Std/News/Printing/FSSAI-2016

Food Safety and Standards Authority of India

(A Statutory Authority established under the Food Safety & Standards Act, 2006)

FDA Bhawan, Kotla Road, New Delhi - 110 002.

Dated, the 06th December, 2016

Subject: Restricting the use of newspaper as food packaging material

1. Use of newspapers for wrapping, packing and serving food is a common practice in India. However, this is a food safety hazard. Wrapping food in newspapers is an unhealthy practice and the consumption of such food is injurious to health, even if the food has been cooked hygienically. Indians are being slowly poisoned due to newspaper being widely used as food packaging material by small hotels, vendors and also in homes in lieu of absorbent paper.
2. Foods contaminated by newspaper ink raise serious health concerns since the ink contains multiple bioactive materials with known negative health effects. Printing inks may also contain harmful colors, pigments, binders, additives, and preservatives. Besides chemical contaminants, presences of pathogenic microorganisms in used newspapers also pose potential risk to human health.
3. Newspapers and even paper/ cardboard boxes made of recycled paper may be contaminated with metallic contaminants, mineral oils and harmful chemicals like phthalates which can cause digestive problems and also lead to severe toxicity. Older people, teenagers, children and people with compromised vital organs and immune systems are at a greater risk of acquiring cancer-related health complications, if they are exposed to food packed in such material.
4. Newspapers should not be used to wrap, cover, and serve food or to absorb excess oil from fried food. There is an urgent need to discourage the use of newspaper as food packaging material by creating awareness among businesses, especially unorganized food business operators and consumers on its harmful effects. Suitable steps need to be taken to restrict and control the use of newspapers for packing of food material.
5. Commissioners of Food Safety of all States/UTs are requested to initiate a systematic campaign for generating awareness amongst all stakeholders to discourage the use of newspapers for packing, serving and storing of food items.


6-12-2016

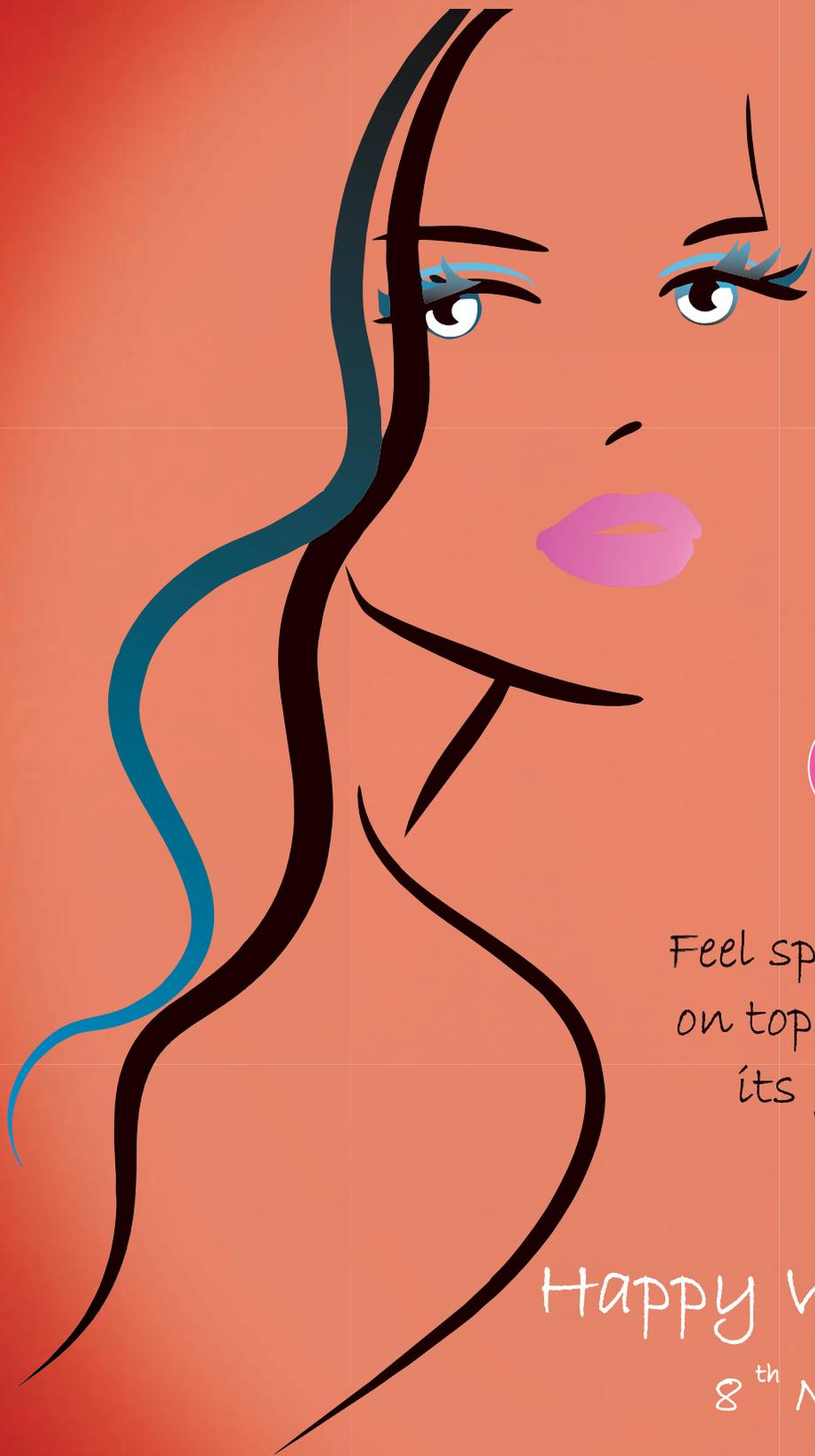
(Kumar Anil)

Advisor (Standards)



Don't do it.





Feel special, unique,
on top of the world..
its your day!!

Happy Women's Day
8th March 2017