



सत्यमेव जयते

HEALTHY INDIA INITIATIVE

October 2016



Vitamins
Vaccine Preventable Diseases
Drugs & Substance Abuse
Breast Cancer
Osteoarthritis
Winter Season
State Health Profile

Health Events

International Day for Elderly People
World Mental Health Day
World Sight Day
Iodine Deficiency Disorders Prevention Day
World AIDS Day

Central Health Education Bureau
Directorate General Health Service
Ministry of Health and Family Welfare



Health Events

October

World Cerebral Palsy day 5th October

World Mental Health Day 10th October

World Thrombosis Day 13th October

World Sight Day 13th October

World Trauma Day 17th October

World Iodine Deficiency Day 21st October

World Polio Day 24th October

World Obesity 26th October

November

World Immunization Day 10th November

World Alzheimer Day 13th November

World Diabetes Day 14th November

December

World AIDS Day 1st December

World Disability Day 3rd December



Dear Readers,

My sincere thanks & gratitude for support in bringing out 'Healthy India Initiative' October 2016 on behalf of Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Welfare.

In this edition an attempt has been made to address health related issues like Vitamin Deficiency, Vaccine Preventable Diseases, problem of Drug & Substance Abuse in adolescents, Breast Cancer, Osteoarthritis, Mental Health, health problems seen in Winter Season & Health Profile of Jharkhand State. Efforts have also been made to generate awareness about Mental Health Day, World Sight Day, World Iodine Deficiency Day, International Day for Elderly People and World AIDS Day amongst common citizen of India.

Time has come to go beyond the treatment of diseases through population based interventions wherein Health Promotion has emerged as a possible tool addressing many of the social determinants of disease. There exists incredible potential for better health outcomes through empowerment of individuals, families and community making healthy citizen and a healthy society.

It is really heart-warming to see all the contributions made by my colleagues in Directorate General of Health Services, Ministry of Health and Family Welfare. Last but not the least; I would like to acknowledge the support of officers and staff of CHEB. Special thanks to CHEB consultants for working day in and day out to bring out the edition timely.

Criticism is the inspiration to improve, please do share your suggestions and views at healthyindia-cheb@gov.in.

See you soon in the next issue, bye till then, eat healthy, maintain physical activity and be healthy.

Dr. Niraj Kulshrestha

From Editor's Pen 2

| Nutrition |

Vitamins 3

| Child Health |

Vaccine Preventable Diseases 6

| Adolescent Health |

Drugs & Substance Abuse 11

| Women Health |

Breast Cancer 14

| Geriatric Health |

Osteoarthritis 19

| Seasonal Health |

Winter Season 23

| State Health Profile |

State of Jharkhand 28

| Health Events |



Editor in Chief

Dr Jagdish Prasad

Director General of Health Services,
Government of India

Editor

Dr Niraj Kulshrestha

Director
Central Health Education Bureau
Directorate General of Health Services

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

Published by

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

Vitamins



Instances of person having difficulty in vision at night, commonly known as 'Ratondhi' (night blindness), is usually encountered in daily life and so are soreness of the tongue cracking at the angles of the mouth, bleeding gums, tingling and numbness in the extremities. These are some of the examples of Vitamin Deficiency.

Vitamins are organic components required in small quantities for normal metabolism, cell production, tissue repair and other vital processes necessary for good health & proper growth. A well-balanced diet provides most of the vitamins essential to stay healthy and prevent disease except *Vitamin D*.

Water-soluble vitamins: Vitamin B and C are consumed quickly and excess amounts are excreted through the urine.

Fat-soluble vitamins: Vitamin A, D, E, & K, are stored in the fatty tissues and liver. These

vitamin should be consumed under medical supervision as they may be harmful if taken in excess quantity.

Vitamin A: Found in whole milk, curd, butter, ghee, egg yolk, liver & liver oils of certain fish, deep yellow orange fruits and vegetables like mangoes, papaya carrots, sweet potato, pumpkin, tomatoes, dark green leafy vegetables such as spinach, coriander, mint, curry leaves, amaranth and palm oil.



Vitamin A Deficiency

Vitamin

Deficiency of Vitamin-A may cause night-blindness, dryness of eyes, bitot spots in eyes as shown in photograph and the prolonged deficiency can lead to blindness.

Vitamin B-1, Thiamine: Found in whole grain cereal, legumes, pulses, groundnuts, nuts & sprouts.



Vitamin B-1 Deficiency

Removal of outer bran layers of grain leads to loss of this vitamin. Vitamin B-1 is heat labile and considerable amounts are lost during processing & cooking. Parboiling of rice retain the vitamin. Mild deficiency may result in tingling and numbness in the extremities. Severe deficiency may cause beriberi which is not seen commonly.

Vitamin B-2, Riboflavin: Found in milk and milk products, eggs, liver, Cereals, millets, nuts and green leafy vegetables.



Vitamin B-2 Deficiency

The vitamin is destroyed by hard cooking. The requirement is related to the energy intake. Rice is a poor source. Its deficiency causes soreness of the tongue, cracking at the angles of the mouth, redness and burning sensation in the eye, scaling of the skin between the nose and the angles of the lips.

Vitamin B-3, Niacin or Nicotinic acid: Found in whole cereals, pulses, nuts and meat. Deficiency may cause soreness of the tongue, pigmented skin, diarrhoea and skin problems in areas exposed to the sun.



Vitamin B-3 Deficiency

Vitamin B-6 Pyridoxine: Found in vegetables, whole grain cereals, meat, liver, bananas and nuts. Freezing and canning can destroy the vitamin. Deficiency causes soreness of mouth and cracking at the angles of the mouth

Vitamin B12- Cyanocobalamin, hydroxycobalamin, methylcobalamin: Found in fish meat, poultry, eggs, milk and dairy products. Deficiency causes production of abnormal red blood cell with shorter life span resulting in anaemia.

Folic acid: Found in fresh green vegetables, fruits, legumes & liver. Deficiency causes production of abnormal red blood cell with shorter life span resulting in anaemia.

Deficiency during pregnancy may cause neonatal birth defects.

Vitamin C- Ascorbic acid: Found in fruits and vegetables like oranges, mausambi, guava, grapes, lemon, amla, tomatoes, berries and green vegetables. Stale, dry and cut vegetables exposed to air loose much of the vitamin C. Heating or drying of fruits and vegetables lead to destruction of most of the vitamin. Deficiency may cause bleeding gums, defective bone growth and anaemia.



Vitamin C Deficiency

Vitamin D- Ergocalciferol, Cholecalciferol: The vitamin is produced in the skin after exposure



Vitamin D Deficiency

to ultraviolet rays from the sun or artificial sources. Also found in fatty fish & egg yolk. It is required for bone growth and calcium metabolism. (helps in calcium absorption and deposition in the bone). Deficiency leads to pain in the bones and subsequently deformed bones causing rickets and osteomalacia. Diseases such as osteoporosis, diabetes, hypertension, arthritis, multiple sclerosis and cardiovascular disorders are also associated with Vitamin D deficiency.

Vitamin E- Tocopherols: Found in oils, cereal grains, nuts & leafy green vegetables. Deficiency causes skin problems like wrinkles, blemishes and pigmentation.



Vitamin E Deficiency

Vitamin K: Found widely in plants and animal food. Deficiency **causes** clotting & bleeding disorder and problems in bone metabolism.

Thus, it is concluded that green leafy vegetables, other vegetables and fresh fruits are rich sources of many vitamins and thus they should constitute at least 30% portion of each meal. Similarly, cereals and pulses also contain a lot of vitamins and should constitute another 30% portion of each meal. The remaining portion should be milk & milk products, egg, fish, chicken and mutton etc. ♦

Vaccine Preventable Diseases



Vaccine is a biological preparation that retains the antigen of the infecting organism without any diseases causing property and improves the immunity of body to a particular disease. A vaccine typically contains an agent that resembles a disease-causing micro-organism and is often made from weakened or killed forms of the microbe, its toxins or one of its proteins.

The agent stimulates the body's immune system to recognize the agent as foreign body, destroy it, and "remember" it, so that the immune system can more easily recognize, recall and destroy all these micro-organisms when exposed later in life.

Vaccination is a highly effective method of preventing certain infectious diseases. Vaccines are generally very safe and serious adverse reactions are uncommon. Routine immunization programmes protect most of the world's children from a number of infectious diseases that previously claimed millions of lives each year.

Various vaccine preventable diseases are :

Diphtheria: Diphtheria is a serious bacterial infection caused by *Corynebacterium diphtheria* affecting the lining of the throat and nose. Although it spreads easily from one person to another, diphtheria can be prevented through the use of vaccines. It spreads through person-to-person contact or through contact with infected objects that have the bacteria on them. Bacterial toxins can also damage heart, brain and kidneys. It is treated with a course of antibiotics.

Pertussis or whooping cough: It is a respiratory illness commonly known as whooping cough, caused by bacteria *Bordetella pertussis*. It spreads from person to person by coughing or sneezing or when spending a lot of time near one another where you share breathing space. The bacteria release toxins, which damage and cause airways swelling.

Tetanus: It is caused by bacteria *Clostridium tetani*. The bacteria that cause tetanus can be found in soil, manure or dust. They infect

humans by entering the body through cuts or puncture wounds, particularly when the wound area is dirty. Animal bites, burns, and non-sterile injection of drugs can also lead to infection with *Clostridium tetani*.

Three doses of DPT (diphtheria-tetanus-pertussis) or Pentavalent vaccine are given between two months and six months of age with booster doses at eighteen month and at school entry for protection against diphtheria-tetanus-pertussis. Adults should get tetanus-diphtheria toxoid at ten year interval.

Polio: Polio is caused by the poliovirus. The virus usually enters the environment through faeces of infected person. In areas with poor sanitation, the virus easily spreads from faeces into the water supply, or by touch into food. Direct contact with a person infected with the virus can cause polio.



Non-paralytic polio also called abortive poliomyelitis, leads to flu-like symptoms that last for a few days or weeks. Paralytic polio causes paralysis in the arms and legs, breathing problems and may affect sight, taste, swallowing also.

Four doses of oral polio vaccine at birth, sixth, tenth, fourteenth week and one injectable



polio vaccine at fourteen week is given for protection from polio.

Tuberculosis: It is caused by *Mycobacterium tuberculosis* and spreads through the air when a person with TB whose lungs are affected, coughs, sneezes, spits, laughs or talks. Tuberculosis usually affects the lungs, but can affect any part of body except nails. In latent TB, the TB bacteria remain in the body in an inactive state. They cause no symptoms and are not contagious, but they can become active. In active TB, the bacteria do cause symptoms and can be transmitted to others.

The disease presents with pneumonia in children and with fever, cough, sometimes with blood, sense of fatigue, loss of weight, loss of appetite and night sweats.

Treatment is with Anti TB drugs taken for atleast 6 months. BCG vaccine is given at birth. It is emphasized that BCG vaccination cannot prevent natural tuberculosis infection of the lungs and its local complications, although it reduces the blood spread complications of primary infection.

Measles: Measles or rubeola, is a viral infection of the respiratory system. It is a

very contagious disease that can spread through contact with infected saliva and nasal discharge. An infected person can release the infection into the air when they cough or sneeze. The measles virus can live on surfaces for several hours and anyone within close proximity can be infected.

It presents with fever, cough and skin rash which appears as red, itchy bumps, starting on the head and spreading to other parts of the body. Measles vaccine is given to children at 9-12 months and repeated again at 16-24 months.

Hepatitis B (HBV): Hepatitis B infection is caused by the Hepatitis B Virus and is transmitted through contact of skin, eyes, mouth, open sores or cuts with the blood or body fluids like semen, vaginal fluids and saliva of an infected person. After infection with the HBV there may be no symptoms, may feel sick for a period of days or weeks or may become very ill quickly called fulminant hepatitis.

It presents with loss of appetite, fatigue, low fever, muscle-joint pain, nausea-vomiting with yellow skin and dark urine. Often people with chronic hepatitis may not have symptoms and doesn't know that they have disease but they are infected and over period of time, they may develop symptoms of liver damage and cirrhosis of the liver.

The best way to prevent hepatitis B is by getting the hepatitis B vaccine. The hepatitis B vaccine is safe effective and is usually given as 3-4 shots over a six month period. Four doses of hepatitis B vaccine are given at birth, sixth, tenth, fourteenth week of age.

Japanese Encephalitis (JE): Commonly known as brain fever is caused by flavivirus and spread through infected mosquito bites. Person-to-person transmission of Japanese encephalitis virus is not seen.

Symptoms usually take 5-15 days to develop and include quick onset of headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions (especially in infants) and spastic paralysis but rarely flaccid.

The Japanese Encephalitis vaccine is available in India & is given to children in endemic area at 9-12 month repeated at 16-24 months of life.

Rota Virus: Rotavirus, a wheel shaped pathogen causes severe diarrhoea among children. It spreads through food and drink contaminated with infected faeces. Infections happen most often in the winter and spring. Vomiting and diarrhea may last from three to eight days.



There is no medicine to treat it. To prevent dehydration, have your child drink plenty of liquids. Your health care provider may recommend oral rehydration drinks. Some children need to go to the hospital for Intra venous fluids. A vaccine against rotavirus infections is available.

Meningitis & Pneumonia caused by Haemophilus Influenzae type b: H. influenzae type b (Hib) affect number of organs and may causes pneumonia, meningitis, bacteremia, epiglottitis, septic arthritis, cellulitis, otitis media, purulent pericarditis, and other less common infections such as endocarditis and osteomyelitis. Transmission occurs through direct contact with respiratory

droplets from persons carrying bacteria or patient. Newborns can acquire infection by aspiration of amniotic fluid or contact with genital tract secretions containing the bacteria.

Hib vaccine is one of the recommended routine childhood immunizations. An infant is given the vaccine at second, fourth and sixth months of age and a booster dose at 12-15 months of age is recommended. In selected states Pentavalent vaccine consisting of Hepatitis B, Diphtheria, Pertussis, Tetanus and Haemophilus influenzae type b is given instead of DPT and Hep B. This protects against Meningitis and Pneumonia caused by Haemophilus Influenzae type b.

Every year in India, 5 lakh children die due to vaccine-preventable diseases. Another 89 lakh children remain at risk, because they are either unimmunized or partially immunized against vaccine-preventable diseases. It is unfortunate that the children are dying of vaccine preventable diseases.

Full immunization against preventable childhood diseases is the right of every child. In order to protect children from these vaccines preventable disease, the Government of India launched the Universal Immunization Program (UIP) in 1985, one of the largest health programs of its kind in the world.

Despite being operational for over 30 years, UIP could fully immunize only 65% children in the first year of their life. Partially immunized and unimmunized children are most susceptible to childhood diseases and are at a much higher risk of dying as compared to fully immunized children.

To strengthen the program and achieve full immunization coverage for all children at a rapid pace, the Government of India launched **“Mission Indradhanush”** in December 2014. Mission Indradhanush will ensure that all children under the age of two years and pregnant women are fully immunized with all available vaccines. The Mission Indradhanush, provide vaccination against

Vaccination schedule :

At birth	BCG,	OPV			HEP B*		
6 Weeks	OPV,		DPT*	HEP B*			
10 Weeks	OPV,		DPT*	HEP B*			
14 Weeks	IPV,	OPV	DPT*	HEP B*			
9-12 Months	Measles		Vitamin A		JE**		
16-24 Months	Measles		Vitamin A		JE**	OPV Booster	DPT Booster
5-6 Years							DPT Booster
10 & 16 Years							TT (Tetanus Toxoid)

*In selected states Pentavalent vaccine (Hepatitis B, Diphtheria, Pertussis, Tetanus and Haemophilus influenzae type b) is given instead of DPT and Hep B.

**In Japanese Encephalitis (JE) endemic districts.

3rd to 9th doses of Vitamin A are given at 6 monthly intervals to children 2 -5 years old.

For pregnant women: Give TT-2 or Booster doses before 36 weeks of pregnancy. However, give these even if more than 36 weeks have passed. Give TT to a woman in labour, if she has not previously received TT.

MISSION INDRADHANUSH

*An Initiative to fully immunize all children against 7 vaccine preventable diseases
(Diphtheria, Polio, T.B., Pertussis, Tetanus, Hepatitis B and Measles)*



Diphtheria, Pertussis, Tetanus, Poliomyelitis, Tuberculosis, Hepatitis B, Pneumonia and meningitis caused by Human Influenzae type B (Hib) and Measles throughout the country while vaccine against Rotavirus and Japanese encephalitis is provided in selected States and Districts respectively

The missions include, 360 degree, 365 days effective communication & social mobilization efforts, to generate demand for immunization targeted amongst the population otherwise covered poorly besides development of health infrastructure, manpower and involvement of all Governmental and nongovernmental stakeholder.

It will be appropriate to make an appeal to all parents to immunize their children for all available Vaccine Preventable Diseases so that no one dies with preventable disease.

To protect and ensure the health of the children in the country, full immunization against vaccine preventable diseases is one of the most critical & important public health interventions. As India emerges as a global economic powerhouse, it will be appropriate that the nation takes right steps by investing in its most important resource - the children of the country, who are the building blocks & future of the nation. ◆

Complete Immunization Saves Your Child from Vaccine Preventable Diseases

Drugs & Substance Abuse



You all must have read the stories of celebrities who have taken to drugs & other substances in high profile social gatherings. On the other hand you must have also seen youngster sitting in some deserted & secluded places taking drugs. Another category takes overdose of selected prescribed medication for pleasure.

It is often mistakenly assumed that drug abusers lack moral principles or willpower and that they cannot stop using drugs. In reality, drug addiction is a complex disease and quitting takes more than good intentions or a strong will. Drug abuse isn't just about street drugs but, over-the-counter (OCT) and prescription drugs (PD) can be addictive and dangerous if they're consumed with wrong intentions.

What are these drugs and Substances?

Tobacco smoking & non smoking forms. Non smoking tobacco is used for chewing in India.

Marijuana also called *grass, pot, reefer, joint, hashish, cannabis, weed, and Mary Jane*. Marijuana acts on central nervous system and gives feeling of euphoria with delusions and hallucinations.

LSD and other Hallucinogens LSD (lysergic acid diethylamide) is a strong hallucinogen. Only tiny amounts are needed to cause effects, such as hallucinations and tremors. Hallucinogens can lead to extreme anxiety and loss of touch with reality, called *bad trips*. These experiences can come back as a *flashback*, even without using the drug again.

Cocaine is a strong stimulant. Other names to describe different forms of cocaine include crack, coke, snow and *speedball*. Cocaine may be taken in different ways:

Snorting: Inhaling it through the nose

Dissolving it in water and injecting

Mixing with heroin and injecting into a vein

Cocaine is changed into smoke able forms

It causes feelings of increased confidence and energy with memory, mood & sleep problems. In higher doses it develops paranoia and violent behaviour.

Amphetamines: Other names used to describe amphetamines include *crystal, go, crank & cross-tops*. These are sold as appetite suppressants or stay-awake/stay-alert aids. It causes exaggerated feeling of well-being (euphoria) with restlessness, sleep disturbances & tremors

Inhalants: Inhalant use became popular with young teens in the 1960s with *glue sniffing*. Since then, a greater variety of inhalants have become popular. Inhalant use typically involves younger teens or school-age children. Aerosols for deodorants or hair sprays, cleaning fluids, gasoline, liquid Model glue, typewriter correction fluid, spray paints etc are some of the substances used. It causes Brain damage, convulsion, liver & kidney damage nerve damage and sudden death

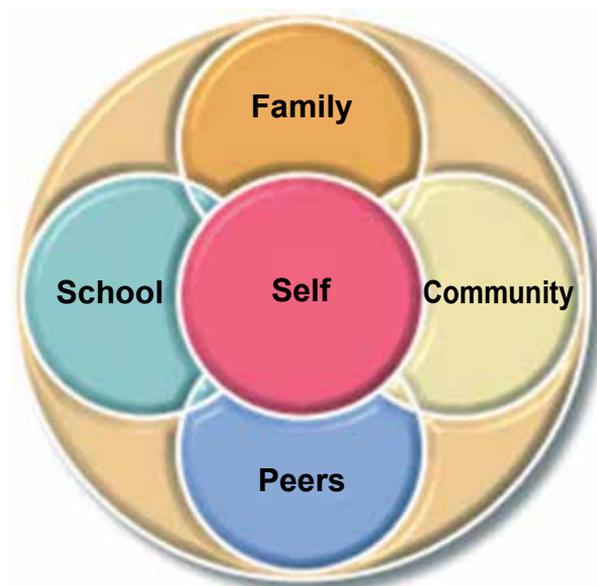
Opiates, Opioids, and Narcotics: Opiates come from opium poppies. These drugs include morphine and codeine. Opioids are synthetic substances that have the same effect as morphine or codeine. These Narcotics are powerful painkillers that cause drowsiness and feelings of euphoria. These drugs include Codeine, Heroin, Hydromorphone, Methadone, Meperidine, Opium and

Oxycodone. It causes sedation, relaxed or euphoric state, *pinpoint* pupils. In high doses it may result in coma, respiratory depression & death. Since Heroin is commonly injected into a vein with contaminated needles risk of developing AIDS and Hepatitis increases many fold.

Central Nervous System Depressants: This includes Barbiturates, (e.g. amobarbital, pentobarbital, secobarbital) also called *yellow jackets*; Benzodiazepines, Chloral hydrate, Alcohol, Paraldehyde etc. These substances may develop dependence and have sedating and anxiety-reducing effects associated with impaired judgment, lack of coordination & slurred speech.

Anabolic Steroids: These are some of the steroid drugs presumptively taken for strengthening the body mass and stamina usually by players.

Risk Factors: No single factor can predict whether a person will become addicted to drugs or not. Risk for addiction is influenced by a combination of factors that include



Risk Factors

individual biology, social, environment and age or stage of development. The more risk factors an individual has, the greater the chance vulnerability leading toward drug addict/abuse.

Effect of drugs on children:

Personal: Unhappy, depressed, unexplainable mood and behaviour swings, paranoid or confused, destructive, anxious, not sharing personal problems & always needs money.

Home: Loss of interest in family activities, disrespect for family rules, verbally or physically abusive, not telling elders where they are going, loss of valuable items or money, lies about self activity and finding the cigarette rolling papers, pipes, small glass vials, syringes plastic baggies remnants of drugs.

School: Sudden fall in grades, loss of interest in learning, sleeping in class, not doing homework, reduced memory, defiant to authority, poor attitude toward sports or other extracurricular activities.



It calls for a medical consultation at nearest health centre if following changes in behaviour are present persistently:

Avoiding school, college and home.

Fights with school friends, family members.

Lethargic, anxious and irritable.

Sudden loss of appetite & altered food habits.

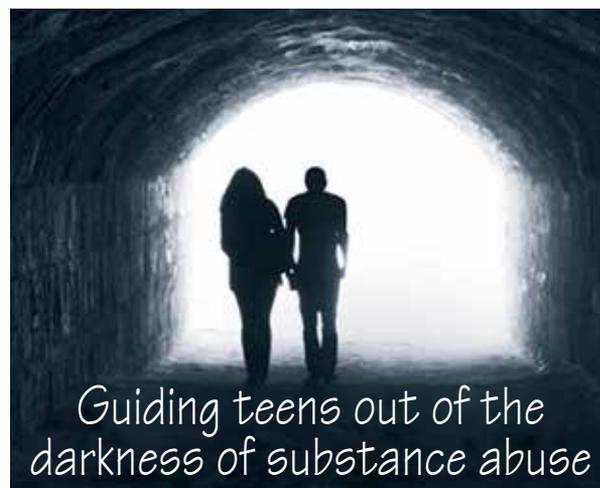
Sudden & persistent weight loss.

Lack of sleep and altered sleep patterns.

Hoarseness, wheezing or persistent cough.

Frequent stomach aches, vomiting, sweats, nervousness and shaking hands/tremors & seizures.

What to do:



Half the problem is resolved when one shows the desire to give up addiction.

One must speak up about his/her problem to someone who would understand and try to get him/her out of the problem.

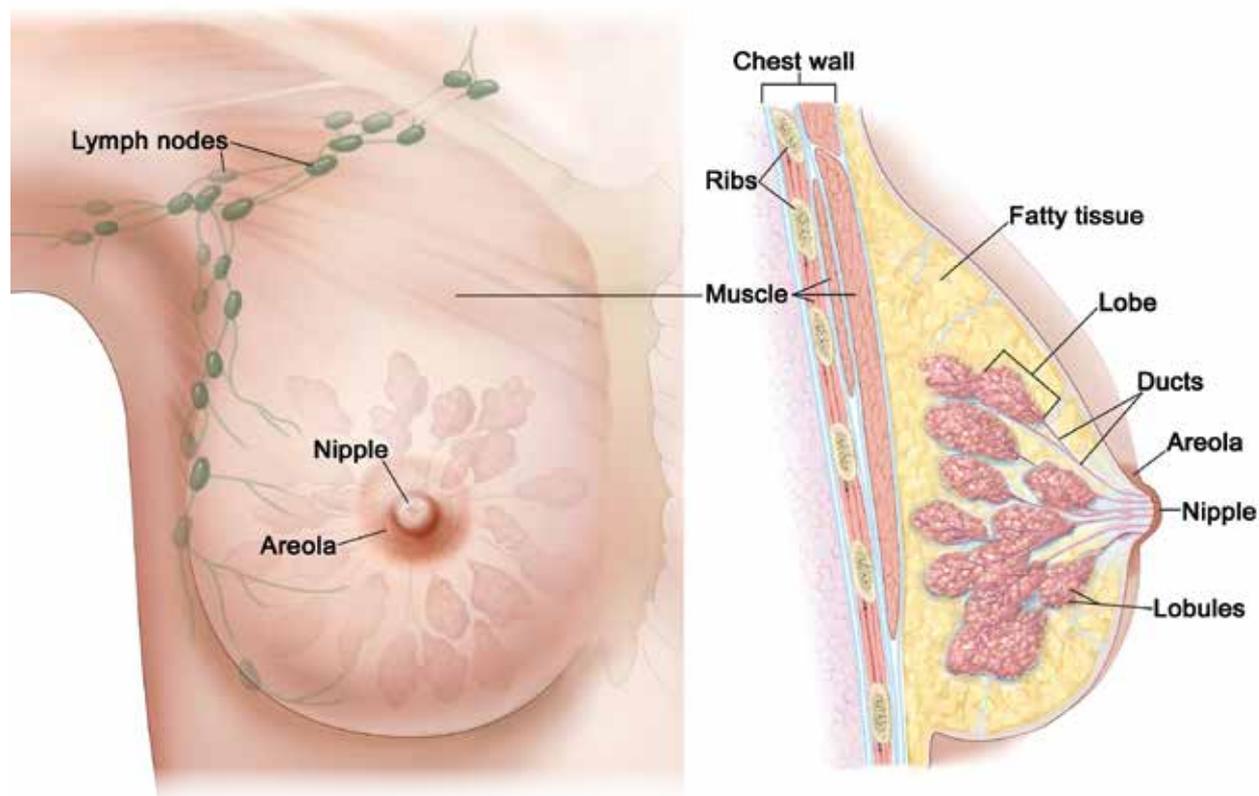
One may try to put restrictions on oneself to stop the drug abuse, rely on self help programs, but without support, it would be really difficult to put an end to it.

Avail support from family members, friends, doctors, counsellors and people who had the same problem but now recovered.

Follow psychiatrist's advice & counselling for treatment adherence & regular follow up sessions

Linkages with local rehabilitation institutes & self help groups

Breast Cancer



At the dinner table Ram informed his wife Reena about sudden and untimely death of Rani, his colleague due to breast cancer. Reena responded 'ohh, she died!' My cousin Indira survived the breast cancer and is still healthy. To this Ram informed her that Rani reported very late. She felt a lump in her left breast about six month back but since it was painless she ignored it and last month, in a routine checkup, it was detected and investigated to be breast cancer that too in advanced stage. Had she not ignored it and reported at that time probably she could have been saved.

Reena shared with Ram that she has learnt a lot from Indira and is practicing the Self Examination of Breast regularly and wish every woman should do it. It does seem that

if we have to fight breast cancer effectively it is time for women to seek the facts about breast cancer, to do self examination of breast as screening and report any abnormality to medical practitioner without any delay or compromise on decisions that affect their health. Simply stated that breast cancer is an inconvenient truth which must be faced with correct information, support and certainly without prejudice & stigma.

A breast is made up of three type of tissue:

Lobules: The lobules are the glandular part that produces milk.

Ducts: The ducts are tubes that connect lobules to nipple and carry milk.

Connective tissue: The connective tissue (which consists of fibrous and fatty tissue) surrounds and holds everything together.

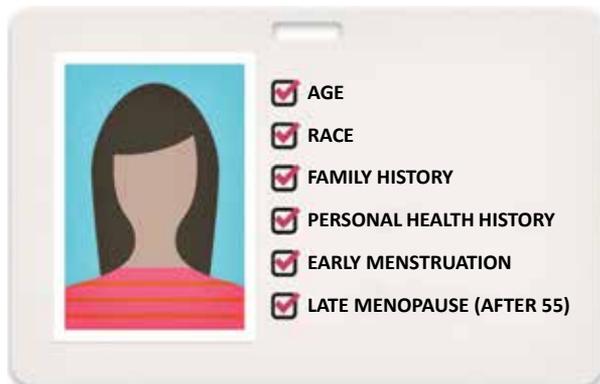
Breast cancer is abnormal, uncontrolled cell growth, with the potential to invade or spread to other parts of the body. This can occur in any tissue of the breast.

Breast Cancer is one of the most common forms of cancer in women. The incidence of breast cancer has gone up steadily over the last decade globally especially in developing countries like India. In India almost 1,50,000 women develop breast cancer every year and outcome is so bad that almost half of them die.

The worrying aspect is that, in India, most of the breast cancer report for diagnosis at an advanced stage and they get cancer at a much younger age when detection and treatment are more challenging. Under the circumstances knowledge & awareness play a crucial role and there is an urgent need to educate the public about what breast cancer is, what are the risk factors, what to do for prevention and in case being a victim of it.

Risk Factor

Inherent Risk factors: These cannot be modified



Gender: More common in women because of female sex hormones estrogens and progesterone.

Age: Increases with age.

Family history of cancer: Risk increases if breast cancer diagnosed in the family.

Genetic Factors: The BRCA1 and BRCA2 genes are associated with cancer breast but having these mutated genes does not necessarily mean that you will have breast cancer.

Menstrual History: Having your first period before age 12 and menopause at an older age increases risk.

Past history of breast cancer: If you have had breast cancer in one breast earlier, you have an increased risk of developing cancer in the other breast.

Lifestyle and Environmental Risk Factors: These can be modified.



SEDENTARY LIFESTYLE



ALCOHOL CONSUMPTION



COMBINED HORMONE REPLACEMENT THERAPY

Obesity: Being obese increases your risk of having breast cancer.

Pregnancy: Women who have never been pregnant have a greater risk of breast cancer.

First child birth after the age 35 years: Giving birth to first child after the age 35 years increase the risk.

Lactation: Lack of or shorter duration of lactation period after child birth increases the risk of breast cancer.

Drinking alcohol: Drinking excessive alcohol increases the risk of breast cancer.

Hormone intake: Women treated with combined estrogens & progesterone hormone therapy have an increased risk of breast cancer and the risk decreases when women stop the medications.

Radiation exposure: Moderate to high-doses of exposure to ionizing radiation increases the risk.

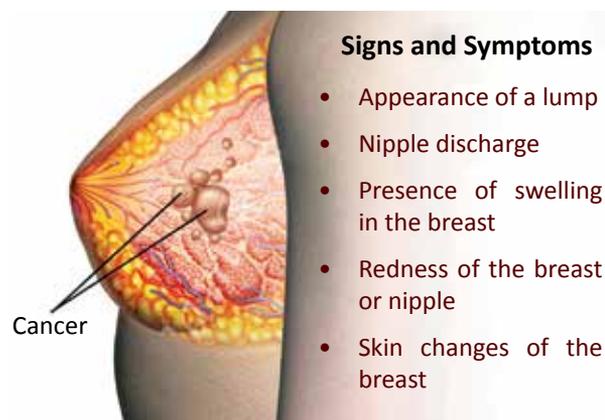
Oral contraceptive pills: Women using oral contraceptive pills for longer duration have higher chances of having breast cancer.

Tobacco: Smoking and non-smoking tobacco increases the risk.

Diet: Lots of fats and low amount of fibre increase the risk.

Physical activity: Inadequate physical activity also increases the risk.

Signs and symptoms:



Lump in the breast: The most common symptom of breast cancer is a new Lump or mass in the breast. A hard mass with irregular edges is more suggestive of cancer.

Changes in the appearance of breast or nipple: Any unexplained change in shape or size of the breast, shrinkage, swelling, unevenness, dimpling of the breast especially on one side.

Discharge from Nipple: Clear or bloody discharge from nipples.

Swelling under the arm or around the collar bones.

Diagnosis

Breast Examination: Examine breasts and under arm tissues by palpation for any lumps. Nipples are examined for any suspected discharge, skin changes and retraction.

Mammogram: A mammography machine uses low-dose X-rays to take images of the breast. First the machine compress each breast and takes X-ray images on film. This is commonly used for early detection of breast cancer.

Breast ultrasound: In this procedure, a device sends high frequency sound waves through breast. The sound signals received from tissues are converted into pictures on computer screen. These images allow the doctor to look for any abnormality.

MRI-Scan: Breast MRIs are recommended only in specific cases where mammogram information is insufficient.

Biopsy: Fine needle aspiration biopsy/ cytology (FNAB/FNAC): After a positive physical examination or mammogram, a small piece of tissue/fluid is taken from an abnormal looking area of the breast and examined for cancer cells.

Treatment: Depending on the type and stage of breast cancer, treatment is planned. It may include one or more of following: **Surgery, Chemotherapy, Hormonal therapy, Biological therapy & Radiation therapy.**

Talk to your doctor about the risks and benefits before you start any kind of complementary or alternative medicine.

Counselling: It is important to counsel patients & family members.

Outcome of treatment: Outcome of treatment depends on the type of cancer and the stage at which the patient has presented for treatment. It is seen that all cases which were treated in early stage have survived for more than five years. But the outcome of late stages remains very bad. Accordingly EARLY and TIMELY detection of breast cancer is essential.

Unfortunately as off now 50 % of breast cancers are diagnosed in late stages due to which treatment and survival becomes difficult. Many women don't experience symptoms in the early stages of breast cancer.

What to do for EARLY and TIMELY detection:

Screening is a systematic evaluation of normal individuals to help detect breast cancer

**KNOW YOUR BODY
KNOW YOUR BREASTS**

BE HEALTHY

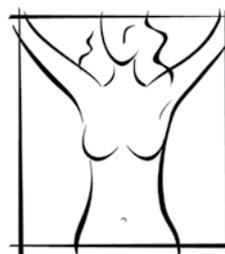
BE BREAST AWARE

BE INFORMED

early when it is best treatable. For screening following is to be done:

Self Examination of breast: It includes systematic observations and palpation of the breast by woman herself to assess any abnormality. The steps involved in 'Breast self Examination' are as under:

Monthly Breast Exams



In front of a mirror

- ◆ Inspect both breasts with your arms at your sides.
- ◆ Raise your arms slowly, paying close attention to any swelling, or change in your breast or nipples.
- ◆ Place hands on your hips, flex your chest muscles and again visually compare both breasts.



In the shower

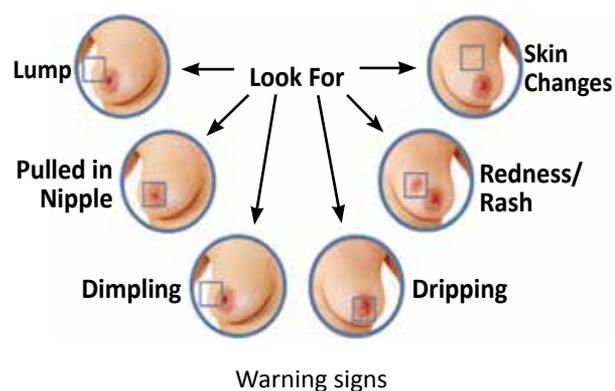
- ◆ Extend right arm upward and examine right breast.
- ◆ Extend left arm upward and examine left breast.



On the bed

- ◆ Examine your right breast with right arm under head.
- ◆ Examine your left breast with left arm under head.

Warning signs: After Breast Self Examination if you see any of the signs, report it to Medical Practitioner for further evaluation immediately.



Breast Awareness: Breast Awareness implies familiarity with one's own breast. A self examination can be done monthly during bath, best time being just at the end of menses. This helps to keep in notice any irregularity, any lumps, the skin, the nipple etc. Breast awareness also includes knowledge of breast cancer. A woman should be aware of what possible changes could occur in a breast when a cancer develops in the breast.

The screening tool considered the gold standard for early detection of breast cancer is the mammogram. While it works well for women over the age of 50, but it is doubtful in women under 40.

A normal screening plan is as follows:

Normal risk woman, 20 to 40 years of age – Clinical Breast Examination every 1 to 3 years & Breast Awareness

Normal risk woman, more than 40 years of age:

Annual Clinical Breast Examination, Annual Mammography from 40 to 50 years of age. After 50 years of age, mammography may be done every 2 years & Breast Awareness.

Women with increased risk of breast cancer

1. Annual clinical Breast Examination

2. Breast Awareness
3. Annual Mammogram: For women
 - Who have received radiation therapy.
 - For those with a family history of breast or ovarian cancer.
 - For women belonging to proven breast and ovarian cancer families.
4. MRI of the breast: In the above high risk categories, an annual MRI of the breast are also recommended as an adjunct to mammogram.

Male breast cancer

The male breast is made up of predominantly small, undeveloped ducts and a small amount of fat and connective tissue. Male breast cancer is rare and accounts for only about 1% of all breast cancers. Risk in men is increased by elevated levels of estrogens and previous radiations. A lump beneath the nipple is the most common symptom of male breast cancer. The outcome of male breast cancer, like breast cancer in women, is predominantly influenced by tumour stage.



Osteoarthritis



Arthritis is not a single disease; it is an informal way of referring to joint pain or joint disease. People with joint pain often think they might have arthritis, but for some reason they never discuss it with their doctors. Many older people accept joint pain as a part of ageing that can't be avoided. They don't talk to their doctor because they assume nothing can be done about it. Younger people with joint pain, swelling or stiffness might not even consider arthritis and are surprised to learn that people of any age can get arthritis, even children.

Common arthritis joint symptoms include swelling, pain, stiffness and decreased range of motion. Symptoms may come and go. They can be mild, moderate or severe.

There are more than 100 different types of arthritis and related conditions. People of all

ages, sexes and races have arthritis and it is the leading cause of disability.

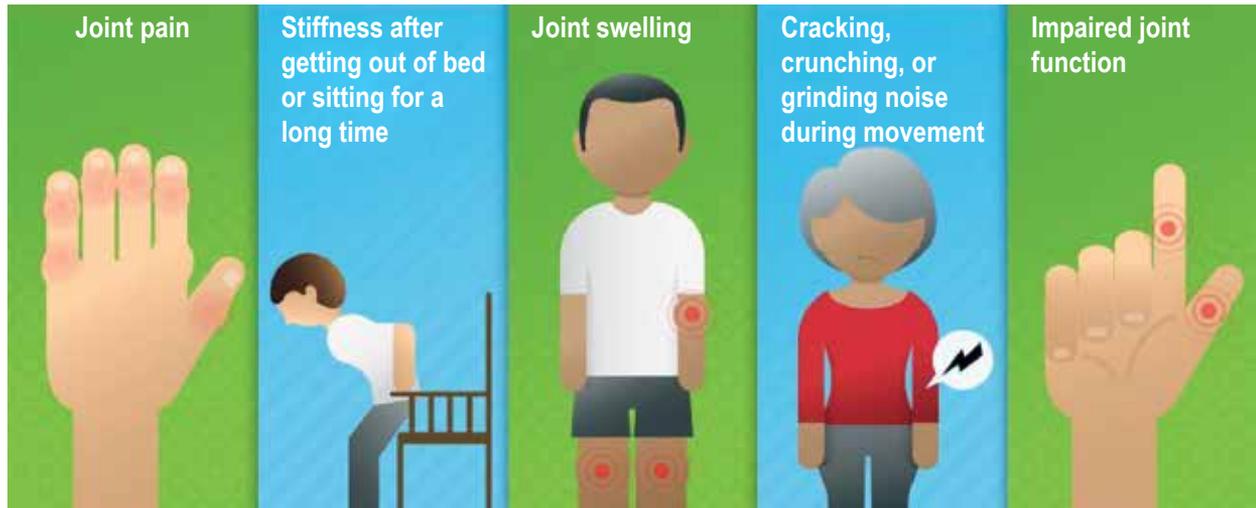
Osteoarthritis (OA)

Often called degenerative joint disease or "wear and tear" arthritis. Osteoarthritis (OA) is the most common chronic condition of the joints. It occurs when the cartilage or cushion between joints breaks down leading to pain, stiffness and swelling.



Symptoms of osteoarthritis vary, depending on which joints are affected and how severely

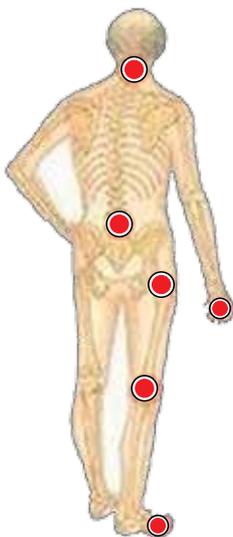
Osteoarthritis



Symptoms of Osteoarthritis

they are affected. However, the most common symptoms are pain and stiffness, particularly first thing in the morning or after resting. Affected joints may get swollen, especially after extended activity. These symptoms tend to build over time rather than show up suddenly.

Symptoms are *stiff joints*, particularly the hips, knees, and lower back, after inactivity or overuse. Limited range of motion or stiffness that goes away after movement. Clicking or



Affected joints

cracking sound when a joint bends. Mild swelling around a joint. Pain that is worse after activity or toward the end of the day.

Affected Joints

Hips: Pain is felt in the groin, buttocks and sometimes on the inside of the knee or thigh. Walking, climbing stairs and lifting objects may become difficult.

Knees: A grating or scraping sensation occurs when moving the knee. Walking and climbing stairs may become difficult.

Fingers: Bony growths (spurs) at the edge of joints can cause fingers to become swollen, tender and red. There may be pain at the base of the thumb. The disease makes it difficult to grasp and hold objects, such as a pencil or to do delicate tasks such as needlework.

Feet: Pain and tenderness is felt in the large joint at the base of the big toe. There may be swelling in ankles or toes. It causes difficulty in walking and driving.

OA symptoms can hinder work, social life and family life if steps are not taken to prevent joint damage, manage pain and increase flexibility. The pain, reduced mobility, side effects from medication and other factors associated with osteoarthritis can lead to negative health effects not directly related to the joint disease. Knee or hip pain may lead to a sedentary lifestyle that promotes weight gain and possible obesity. Being overweight or obese can lead to the development of diabetes, heart disease and high blood pressure.

Decreased function, muscle weakness & impaired balance make these patients 30% more susceptible to falls and have a 20% greater risk of fracture than those without OA.

Risk factor

Genes: Various genetic traits can make a person more likely to develop OA.

Weight: Being overweight puts additional pressure on hips and knees. Many years of carrying extra weight can cause the cartilage that cushions joints to break down faster. Further excess fat tissue produces inflammatory chemicals (cytokines) that can damage the joints.

Injury & overuse: Repetitive movements or injuries to joints (such as a fracture, surgery or ligament tears) can lead to osteoarthritis. In Athlete's, careers that require standing for long periods of time, repetitive bending, heavy lifting also results in quick wear and tear of joints.

Others: Several other factors may contribute to osteoarthritis. These factors include bone and joint disorders rheumatoid arthritis certain metabolic disorders such as hemochromatosis, which causes the body to absorb too much iron, or acromegaly, which causes the body to make too much growth hormone.



Risk factors of Osteoarthritis

Diagnosis

A diagnosis of osteoarthritis may be suspected after a medical history and physical examination is done. Blood tests are usually not helpful in making a diagnosis. However, the following tests may help confirm it:

X-ray can confirm diagnosis of osteoarthritis.

Magnetic resonance imaging (MRI) does not use radiation. It is more expensive than X-rays, but will provide a view that offers better images of cartilage and other structures to detect early abnormalities typical of osteoarthritis.

Osteoarthritis

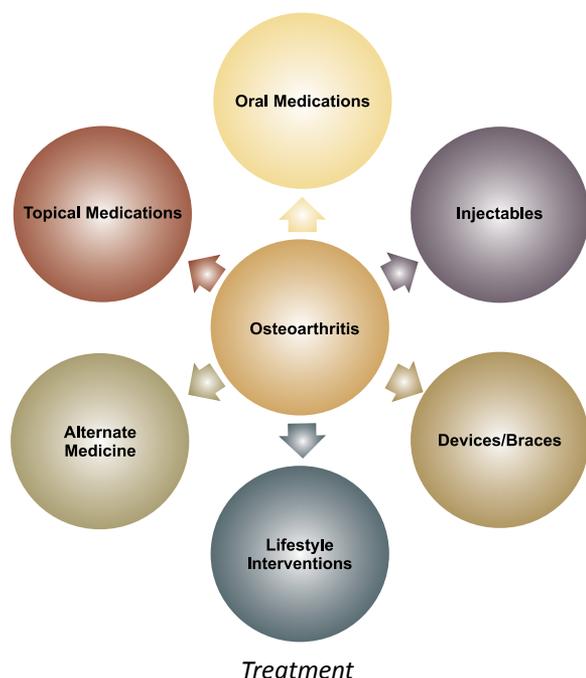
Joint aspiration will be examined for evidence of crystals or joint deterioration. This test can help rule out other medical conditions or other forms of arthritis.

Treatment

Osteoarthritis is a chronic (long-term) disease. Treatments are available to manage symptoms. Long-term management of the disease will include several factors:

Analgesics: These are pain relievers and include acetaminophen, opioids (narcotics) and an atypical opioid called tramadol. They are available over-the-counter or by prescription.

Nonsteroidal anti-inflammatory drugs (NSAIDs): These are the most commonly used drugs to ease inflammation and related pain. NSAIDs include aspirin, ibuprofen, naproxen and celecoxib. They are available over-the-counter or by prescription.



Corticosteroids: Corticosteroids are powerful anti-inflammatory medicines. They are taken by mouth or injected directly into a joint by a doctor in OPD.

Hyaluronic acid: Hyaluronic acid occurs naturally in joint fluid, acting as a shock absorber and lubricant. However, the acid appears to break down in people with osteoarthritis. The injections are given by a doctor in OPD.

Weight management: Losing weight can help people with OA reduce pain and limit further joint damage. The basic rule for losing weight is to eat fewer calories and increase physical activity.

Exercise: One of the most beneficial ways to manage OA is to get moving. Simple activities like walking around the neighbourhood or taking a fun, easy exercise class can reduce pain and help maintain (or attain) a healthy weight.

Strengthening exercises build muscles around OA-affected joints, easing the burden on those joints and reducing pain. Range-of-motion exercise helps maintain and improve joint flexibility and reduce stiffness. Aerobic exercise helps to improve stamina and energy levels and also help to reduce excess weight.

Everyone, including those with arthritis, get 150 minutes of moderate exercise per week.

Prevention: Followings can reduce the risk of OA or delay its onset.

Maintain a healthy weight, control blood sugar, avoid injuries & choose a healthy lifestyle.



Exercises for Osteoarthritis



Winter Season

*W*inter Season in India is the coldest season for all parts of our country. Winter starts in the month of November till the month of March. Many parts of Northern India experience a frozen atmosphere and snowfall during this season. The temperature in Northern India varies from 10 to 15°C and in southern states 20 to 25°C. We can see dew drops in the night and fog in the morning in most places of the country. Rainfalls, mist, fog, snowfalls and dew drops all can be seen during the season

This is one of the most beautiful season of the year & school and college vacations further makes it more enjoyable. In India, start of winter season coincides with Diwali and comes to an end with the Holi festival. During this season nights are long with shorter days & has lots of fruits, vegetables and other festive food to eat. But the season is also associated with some illnesses. Some of the commonly seen problems and how to protect ourselves from ill effect is placed in following section.

Direct effect of cold on skin

Dry skin: Dry skin is a common condition and is often worse during the winter, when environmental humidity is low. Further hot water bath makes skin feel more dry & itchy along with dull looking hairs. Moisturising is essential during winter. Moisturising lotions and creams aren't absorbed by the skin; instead, they act as a sealant to stop the skin's natural moisture evaporating away. The best



time to apply moisturiser is after a bath or shower while your skin is still moist and again at bedtime.

Winter Season

Hypothermia: Hypothermia is a condition characterized by an abnormally low body temperature and can occur in cold weather. The reason for this is when the temperatures dip; our body loses heat faster than it can create. The condition is usually hidden with no evident symptoms. If a person's body temperature drops below 95 degrees Fahrenheit, one needs to seek emergency medical care immediately in order to avoid death. It is thus recommended that during extremely cold days, everyone must stay warmly clad specially children and the elderly.

Damage caused by exposure to cold:

In response to cold temperature human body responds with lowering the dissipation of body heat by narrowing blood vessels of the limbs resulting in reduced blood flow. This reduced blood flow causes lack of oxygen in hands and feet of some persons causing discoloration of the fingers, toes and occasionally other areas. Fingers go white, then blue, then red and have throbbing pain. This condition may also cause nails to become brittle with longitudinal ridges. Persons with some underlying connective tissue disorder, becomes more susceptible to develop such changes. In severe cases, medication can help, but most people live with their symptoms.

Depending on extent of damage it can be :

Frost nip: It is a superficial cooling of tissues without any cellular destruction.

Chilblains: On exposure to cold and humid environment susceptible individuals develop superficial wounds of the skin. Damage to smaller blood vessels in the skin causes redness, tingling, itching and sometimes blisters. Chilblains can be reduced by keeping the feet and hands warm in cold weather and avoiding extreme temperature changes.



Frostbite: This is also known as cold burn lack of blood supply and very low temperature leads to freezing and death of skin tissue in the affected areas and results in tissue destruction. Those taking anti-hypertensive drugs of beta-blocker group and diabetes are more susceptible to develop frostbite.

Prevention: To prevent or reduce your risk of damage caused by cold you need to:



Dress in loose, light, comfortable layers of synthetic material, insulating wool, windproof and waterproof.

Protect your feet and toes: wear two pairs of socks one moisture-wicking fabric & other wool-blend socks. Wear waterproof boot covering ankles.

Protect your head: To protect your ears and head wear heavy wool or fleece hat.

Protect your hands: Wear insulated mittens or gloves.

Make sure snow cannot get inside of your boots or clothing.

Keep yourself hydrated & avoid alcohol.

Recognize the symptoms of redness, stinging, burning, throbbing or prickling sensation & numbness as early warning sign.

Common cold and influenza like illnesses

Common cold: It is a viral infectious disease of upper respiratory tract that primarily affects nose, throat, sinuses and voice box. Signs and symptoms may begin less than two days following exposure.

Symptoms include coughing, sneezing, headache, running nose, watering of eyes, sore throat and fever. People usually recover in five to ten days. Some symptoms may last up to three weeks. In some patients especially those with other underlying health problems, Pneumonia may occasionally develop.

The common cold virus is typically transmitted via airborne droplets, direct contact with infected nasal secretions or contaminated objects. Hand-to-hand and hand-to-surface-to-hand contact is of more importance for transmission of disease .

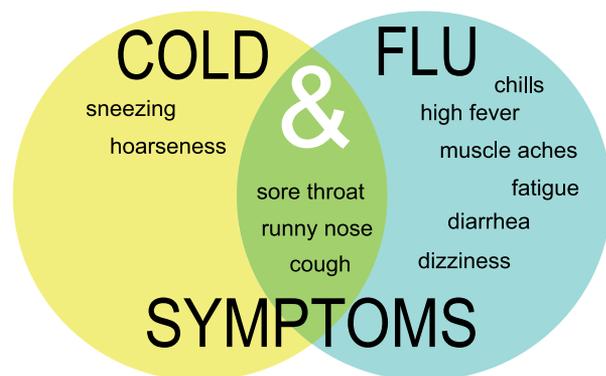


How to protect from common cold

- Regular hand washing appears to be effective in reducing the transmission of cold viruses, especially among children.

- Wearing face masks when around people who are infected may be beneficial.
- Zinc supplements may help.
- Vitamin C supplements may reduce duration.
- Gargling with water.
- Keep the house and any household items such as cups, glasses and towels clean.
- If you get a cold use disposable tissues.

Flu and influenza like illness: Influenza, commonly known as “the flu”, is an infectious disease with symptoms include coughing, sneezing, headache, running nose, discharge from eyes, sore throat, muscle pain and fever. In addition, children may have nausea & vomiting.



The infection may be confirmed by testing the throat, sputum or nose for the virus.

Influenza virus spread in three main ways:

Direct transmission: When an infected person coughs or sneezes directly infects other.

Airborne route: When someone inhales the aerosol produced by an infected person coughing, sneezing or spitting

By Hand: Hand-to-eye, hand-to-nose or hand-to-mouth transmission, either from contaminated surfaces or from direct personal contact such as a hand-shake.

Winter Season

Children are much more infectious than adults and shed virus from just before they develop symptoms until two weeks after infection.

What to do for protection:

Good personal health and hygiene habits such as:

Avoid touching your eyes, nose or mouth with dirty hands, frequent hand washing with soap and water, cover your mouth and nose while coughing and sneezing, avoiding close contact with sick people, if sick, stay at home, avoid spitting in open, wear face mask when caring for the sick. Smoking raises the risk of contracting influenza, as well as producing more severe disease symptoms.

Influenza vaccine is recommended for high-risk groups, such as children, the elderly, health care workers, and people who have chronic illnesses.

Treatment

Plenty of rest, drink plenty of liquids, avoid alcohol and tobacco.

Take paracetamol & avoid Asprin.

Antiviral medication may be effective, if given early.

Typically, symptoms are at their worst after 1-2 days. Then they usually ease over several days. An irritating cough may persist for a week or so after other symptoms have gone. Most people recover completely within 2-7 days and don't require hospitalization.

But sometimes the illness start with influenza like illness and condition does not improve or worsens. Presence of following warning signs and symptom, calls for immediate medical consultation with doctor.



- ◆ **Avoid contact** with sick people.



- ◆ If you have flu-like symptoms, **stay home** until 24 hours after the symptoms disappear.



- ◆ Disinfect surfaces and **wash your hands** often with soap and water.



- ◆ **Avoid touching** your eyes, nose and mouth, as germs spread faster that way.



- ◆ **INSTEAD**, cover your mouth and nose with a tissue when you cough or sneeze, then throw the tissue away.

Protection from influenza like illnesses

Warning Signs - Consult doctor immediately in case of the following :

High grade fever, worsening of cough coughing up blood or blood-stained phlegm, shortness of breath, fast breathing, chest pain, rash - in particular if dark red spots develop that do not fade when pressed, stiff neck very severe headache, dislike of bright lights, drowsiness or confusion & recurrent vomiting.

Besides this following conditions becomes more frequent during winter and we need to take extra precautions to protect us.

Heart Attacks and Strokes

Stroke and heart attack related hospitalizations and deaths rise by more than 50% during the winter months. It is important that people with pre-existing lifestyle diseases or those at high risk of heart disease should consult their doctors at the onset of the winters for a revised dosage of medicines. They should also consume a healthy diet comprising of ample fruits and vegetables. A diet comprising of red meat, alcohol consumption and smoking should be avoided. Regular aerobic exercise at warmer hours is highly recommended.

Asthma: Cold air is a major trigger of asthma. People with asthma should be more careful during winters. They should stay indoors on very cold or windy days. They should go out wearing scarf over the nose & mouth and they should never forget to keep an inhaler close by.



Seasonal Affective Depression (SAD): This condition is characterized by experiencing episodes of depression every year, but only during the winter. The exact cause of it is still unknown but it is believed that a low body temperature, scarcity of sunlight and hormone fluctuations play an important role. Women are more prone to winter depression



than men and have a tendency to indulge in high calorie comfort food to beat the winter blues. This can be extremely dangerous for people suffering from obesity, heart disease and hypertension. It is important that a person consumes a healthy diet and gets adequate exercise to avoid complications.

Vitamin D Deficiency: Indians are at an increased risk of vitamin D deficiency, especially during the winter months because they spend most of their time in indoor spaces. Women and kids often do not step out in the winter months to avoid the cold weather. This deprives them of Vitamin D, which is synthesized from the sun rays. Vitamin D is essential for good bone health, a strong immune system, and a healthy heart. It also helps prevent deadly diseases such as cancer. It is extremely important that all should spend some time out in the sun on a daily basis in the winter months. Supplementation is also advised to avoid health complications. ◆

State of Jharkhand

Jharkhand is the 28th state of the Indian Union, brought into existence by the reorganization of Bihar through an Act on 15th November, 2000. Jharkhand is famous for its rich mineral resources like Uranium, Mica, Bauxite, Granite, Gold, Silver, Graphite, Magnetite, Dolomite, Fireclay, Quartz, Field spar, Coal (32% of India), Iron, Copper (25% of India) etc. Forests and woodlands occupy

more than 29% of the state which is amongst the highest in India.

The state has made significant progress in health sector. In this issue various health indicators, health infrastructure and achievement in Health sector, as provided by the state Health Authorities, are being presented:



Table I: Health Indicators of Jharkhand

Indicator	Name of State Jharkhand	India
Total Population (In crore) (Census 2011)	3.29	121.05
Decadal Growth (%) (Census 2011)	22.4	17.7
Infant Mortality Rate (SRS 2014)	34	39
Maternal Mortality Rate (SRS 2010-12)	208	167
Total Fertility Rate (SRS 2012)	2.7	2.3
Crude Birth Rate (SRS 2014)	23.8	21.0
Crude Death Rate (SRS 2014)	5.9	6.7
Natural Growth Rate (SRS 2014)	17.9	14.3
Sex Ratio (Census 2011)	949	943
Child Sex Ratio (Census 2011)	948	919
Schedule Caste population (In crore) (Census 2011)	0.39	20.13
Schedule Tribe population (In crore) (Census 2011)	0.86	10.42
Total Literacy Rate (%) (Census 2011)	53.56	74.04
Male Literacy Rate (%) (Census 2011)	63.83	82.14
Female Literacy Rate (%) (Census 2011)	38.87	65.46

Table II: Health Infrastructure of Jharkhand

Particulars	Required	In position	Shortfall
Sub-centre	8813	3958	4853
Primary Health Centre	1376	330	1046
Community Health Centre	344	188	156
Health worker (Female)/ANM at Sub Centers & PHCs	4617	2617	2000
Health Worker (Male) at Sub Centers	2050	832	1200
Health Assistant (Female)/LHV at PHCs	----	----	-----
Health Assistant (Male) at PHCs	----	----	-----
Total Number of Doctors in the state	2933	1946	987
Doctor at PHCs	538	327	211
Obstetricians & Gynecologists at CHCs	----	31	----
Pediatricians at CHCs	188	32	156
Total specialists at CHCs	376	143	233
Radiographers at CHCs	----	-----	-----
Pharmacist at PHCs & CHCs	533	216	317
Laboratory Technicians at PHCs & CHCs	513	228	285
Nursing Staff at PHCs & CHCs	5559	3043	2516

Achievements:**Information Education & Communication:****Key Strategies: IEC/BCC**

Establishment and strengthening of IEC bureau for strategic planning, implementation and monitoring of social and behavioral change communication interventions in the state of Jharkhand.

Evidence based planning, implementation, supportive supervision, monitoring and evaluation for roll out of IEC/BCC program in the state.

Media innovation in the form of Sports event roll out' coupled with enabled IPC skill, message recall & reinforcement of key maternal and child health messages.

PC skill building and orientation of front line health functionaries on strategic health communication towards sustainable social and behavior change.

Media Mix- A 360 multimedia strategy using GOI and JRHMS approved mass media, mid media, entertainment education, IEC, Community mobilization, folk media and IPC to increase reach and access of health messages and service promotions.

Monitoring and Evaluation framework to track IEC/BCC program.

RMNCH+A focused strategic communication activities for advancing health outcomes across 11 High Priority Districts in the state. ◆

International Day for Elderly People- 1st October 2016



International Day for Elderly People is celebrated on 1st October 2016 with the theme of *“Take a Stand against Ageism”*. The International Day of Elderly is an opportunity to highlight the importance of contributions made by older people and raise awareness about issues and challenges of ageing in today’s world.

At any time almost 50% of elderly suffer with some illness and 75% of them have more than two diseases. Multiple diseases co-exist together in elderly. Elderly population between 65-74 years of age suffered from an average of 4-6 chronic diseases and for those

above 75 years with almost six diseases. Only 10% elderly reported absence of any problem.

Certain diseases like Ischemic Heart Diseases, Strokes & Osteoarthritis are commoner in elderly while others like Parkinson’s disease, Multisystem atrophy of Central Nervous System, Alzheimer’s disease, Poly-myalgia & Rheumatism is seen only in elderly. Immobility, instability (falls), incontinence and intellectual impairment are giants of old age.

Diseases in an elderly invariably presents with a decline in functional capacity of which only a third is due to disease, another one third is attributable to disuse and the remaining is due

to normal ageing. Clinical presentations differ markedly in elderly. Clinical features may be due to multiple diseases and nonspecific co-morbidities may mask, mimic or aggravate clinical features.

Treatment objective is to control the disease and make patient functionally independent. Treatment priorities shall be based upon life expectancy of the patient, effectiveness of therapeutic intervention & co morbidities. Rehabilitation should be comprehensive and should include early recognition of potential disability and prevention.

In our country, National Policy on Older Persons (NPOP) 1999 & Section 20 of “The Maintenance and Welfare of Parents and Senior Citizens Act, 2007” deal with provisions for medical care of Senior Citizen. The National Programme for Health care for Elderly was launched in 2010 with a vision of providing accessible, affordable and high-quality long-

term, comprehensive and dedicated care services to an Ageing population.

What to do to remain Healthy:

- Consume healthy meals frequently.
- Maintain personal hygiene.
- Regularly do some physical exercise & walk.
- Have a good sleep.
- Avoid smoking, alcohol consumption or irrational use of medication.
- Take part in social activities and share experiences.
- Don't ignore sudden weight loss, pain, loss of hunger, blurred or multiple vision, numbness giddiness.
- Use assistive devices like walking stick & walkers.
- Have health check-up for eye sight, hearing, blood pressure, urine and blood sugar. ◆

Do you know that simple phone call can make them Happy.



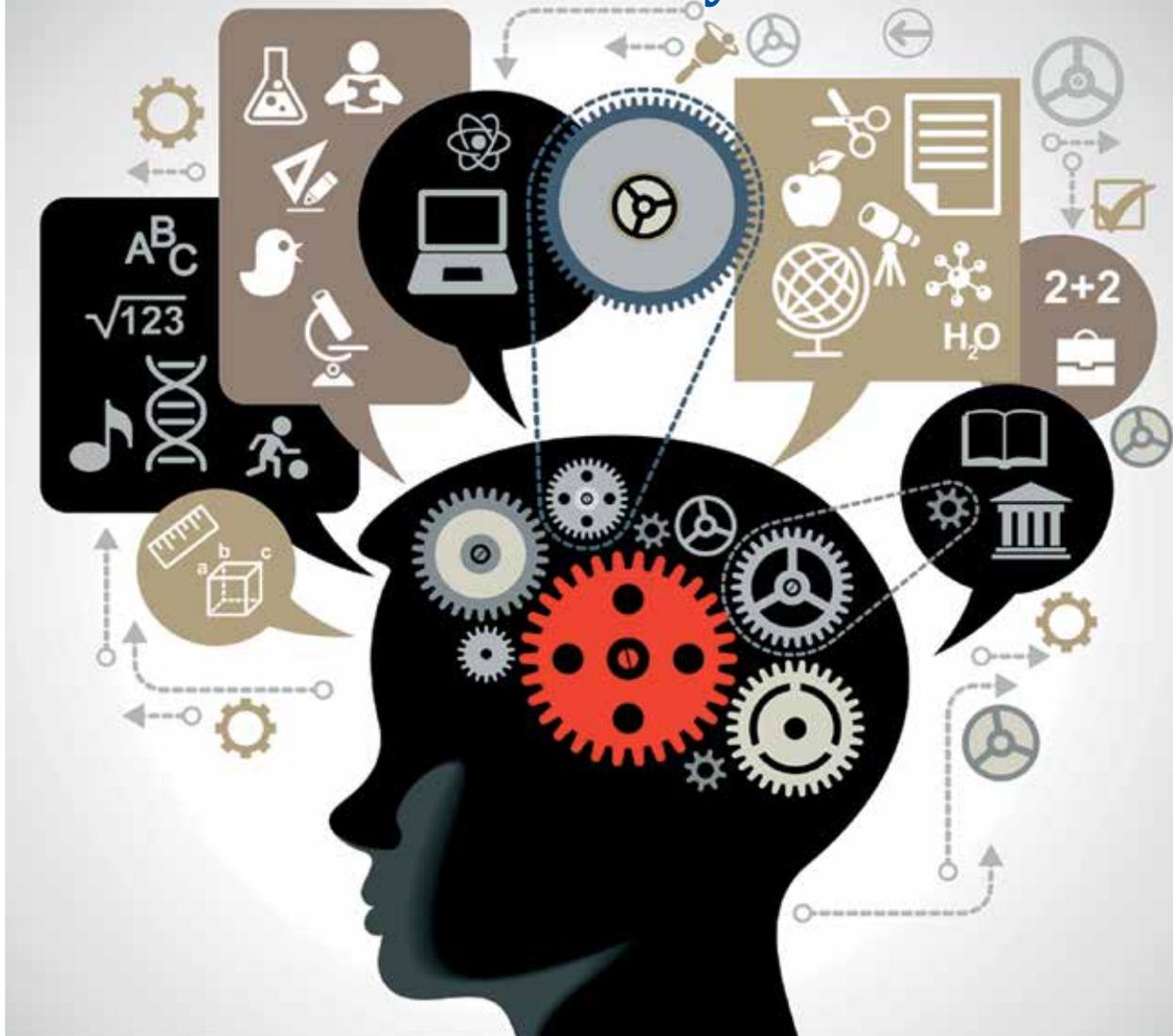
Parents

**They didn't leave you
when you were young.
so, don't leave them
when they are old.**



Enable elderly people to live with sense of dignity and worthiness

World Mental Health Day 10th October



You must have heard the news of a young bright intelligent girl doing extremely well in academics, overtly with no financial, social or other constraint, found dead in her room with her bleeding wrist. A famous personality doing extremely well in his profession suddenly starts behaving aggressively and disappears from limelight. A news flash of your favourite heroine who won

all possible awards during her life span was found dead inside her house.

Further, continuously missing school, office, your work place; thoughts that 'no one understands you'; feeling 'Why all bad happens with me only' is a daily life experience of masses. All these are the examples of mental illnesses and to understand these complex mental illnesses, it is essential to understand the concept of mental health.

- ◆ *Factors related with profession and School:* Inability to acquire a job and hold it, peer rejection, bullying, academic failure, poor attendance, poor connection between family and school.



- ◆ *Factors related with Society:* Discrimination, isolation, socioeconomic disadvantage, lack of access to support services.
- ◆ *Factors related with Life events:* Difficult school transition, death of a family member, emotional trauma, experience of physical or sexual abuse.
- ◆ *Substance abuse:* Use of alcohol, drugs & other substances.

Manifestation of Mental Illnesses:

1. *Personal:* Low energy, altered food, exercises & sleep habits, extra aggressive hurts other people or destroys property, smokes, drinks or uses drugs, self destructive with suicidal thoughts, thinks mind, emotions, thoughts and actions are controlled by some external force, hears voices, sees images and develops

fear for no reason and fails to perform, daily activities.

2. *Problems in basic daily activities:* Looking after the self, health care, grooming; dressing, shopping, cooking, looking after accommodation, low energy, altered food, exercises & sleep habits, unusual and prolonged emotional behaviour.
3. *Problems in Interpersonal behaviour:* Altered interpersonal skills, inability to form relationships and sustain them, inability to leave the home or mix in crowds or particular settings, feeling sad or withdrawn and isolates her/himself & avoids social interactions.

My mouth says, "I'm Ok."
My fingers text, "I'm fine".
My heart says, "I'm broken".



4. *Problem at work place:* Inability to acquire a job and hold it, cognitive and social skills required for the job, dealing with work

place culture, or difficult studying as a student, lack of concentration, very often not attending school, and aggressive behaviour in school.

What to do:



- ◆ *Value yourself:* Treat yourself with kindness, respect & avoid self-criticism. Make time for your hobbies like walking, cycling, playing cricket, hockey, football, gardening, dancing, playing an instrument & learn other languages.
- ◆ *Take care of your body:* Eat nutritious meals, avoid smoking & drugs, drink plenty of water, exercise & get enough sleep.
- ◆ *Surround yourself with good people:* Your family, friends, colleagues, neighbours & meet new people such as a club or support group.
- ◆ *Give yourself:* Volunteer your time and energy to help someone else. A smile, a 'thank you' or a kind word or larger acts, such as volunteering at your local community centre.
- ◆ *Deal with stress:* Do exercise, take a nature walk, try journal writing, music & painting to relieves the stress.
- ◆ *Quieten your mind with meditation.*
- ◆ *Seek help:* Seeking help is a sign of strength, not weakness. People who sought appropriate help recover well.

Despite all above efforts if these manifestations persist, one must consider consultation with a physician.

Whom to contact: Nearest District Hospital, Community Health Centre and Primary Health Centre, Government Mental Hospitals or Medical College Hospitals.

National Mental Health Program has made out-patient & in-patient mental health services, with a 10 bedded inpatient facility with trained psychiatrist and nurse, available at District level. As of now, 241 districts have been covered under the scheme and the services are being expanded across the country in phased manner. Under NRHM these services are also available at Community Health Centres, Primary Health Centres.

At tertiary level mental health services are being delivered through Government mental hospitals or medical colleges hospitals with department of psychiatry. Many of such institutions are being upgraded to provide state of art tertiary level care including basic neurological & neurosurgical facilities to such patients.

Besides this, various partners provide rehabilitation and recovery services to persons with mental illness through Day Care Centres and Residential Long Term Continuing Care Centre. ◆



World Sight Day 13th October 2016

*W*orld Sight Day is celebrated every year on the second Thursday of October and it happens to be on 13th October, 2016 this year. This day is celebrated to create awareness about vision impairment, blindness as well as sight related problems. World Sight Day highlights the importance of good vision for all people. This year, the 'Call to Action' for World Sight Day to promote everyone's right to sight is "**No more Avoidable Blindness**".

Prevention of blindness is the most cost-effective and successful of all the health interventions. The "Right to Sight" is a global initiative by WHO and International Agency for the Prevention of Blindness.

The government of India has organized a campaign to make people aware about the 'Right to Sight' with better opportunities to the blind people. India has the largest burden of global blindness and accounts for about 3.5 million visually compromised people with 30,000 new cases being added each year. Cataract is the most common cause of blindness in our country at 62.6% of all causes of blindness. The other causes of blindness are Refractive Error (19.70%), Glaucoma (5.80%), Surgical Complication (1.20%) & Corneal Blindness (0.90%).

Cataract is clouding of the lens in the eye that affects vision. The lens lies behind the iris and the pupil. It focuses light onto the retina at the back of the eye, where an image is recorded. The lens also adjusts the eye's focus, letting us see things clearly both near and far away.

The lens is made up of mostly water and protein. The protein is arranged in a precise way that allows light pass through it. With

ageing some of the protein may clump together and start to cloud a small area of the lens and forms cataract.

Over time, the cataract may grow larger and cloud more of the lens, making it harder to see. It happens as people age and is also more common in diabetics, people with eye injury, people on long term medicines for chronic illnesses.

Symptoms are blurred vision & frequent change in the number for spectacles, the black centre of the eye may start appearing as white, Colors seem faded, double or multiple vision, lamps or sunlight may appear too bright, a halo may appear around lights & poor night vision. Contact your doctor immediately in case of any of above symptoms.

Treatment : Cataract removal and replacement with artificial lens is the most common operations performed. It is the safest and most effective types of surgery.

Refractory error is a common eye disorder especially in school going children. Refractive errors occur when the shape of the eye prevents light from focusing directly on the retina. The length of the eyeball (longer or shorter), changes in the shape of the cornea or ageing of the lens can cause refractive errors.

Symptoms: Blurred vision is the most common symptom of refractive errors. Other symptoms may include double vision, haziness, glare or halos around bright lights, squinting, headaches and eye strain.

Contact your doctor immediately in case of any of above symptoms.

Correction of Refractory error:

Eyeglasses are the simplest and safest way to correct refractive errors. Eye care professional can prescribe appropriate lenses to correct your refractive error and give you optimal vision.

Contact Lenses work by becoming the first refractive surface for light rays entering the eye, causing a more precise refraction or focus. In many cases, contact lenses provide clearer vision, a wider field of vision, and greater comfort. They are a safe and effective option if fitted and used properly. It is very important to wash your hands and clean your lenses as instructed in order to reduce the risk of infection.

Refractive Surgery aims to change the shape of the cornea permanently. This change in eye shape restores the focusing power of the eye by allowing the light rays to focus precisely on the retina for improved vision. There are many types of refractive surgeries. Your eye care professional can help you decide if surgery is an option for you.

Glaucoma also called the “silent thief of sight” is a leading cause of blindness. Once the loss of vision occurs it cannot be reversed. Glaucoma is a group of diseases that damage the eye nerve which connects the light-sensitive retina to the brain and can result in vision loss and blindness. However, with early detection and treatment serious vision loss can be prevented.

Symptoms: glaucoma may have no symptoms & vision stays normal. Without treatment, people with glaucoma will slowly lose their peripheral (side) vision.

Some glaucoma produces sudden symptoms such as eye pain, headaches, halos around lights, dilated pupils, vision loss, red eye,

nausea & vomiting. These signs constitute a medical emergency. The attack may last for a few hours and then return again for another round or it may be continuous without relief. Each attack can cause progressively more vision loss.

Treatment can involve glaucoma surgery, lasers or medication, depending on the severity. Eye drops with medication aimed at lowering Intra Ocular Pressure usually are tried first to control glaucoma.

Take your glaucoma medicine every day & See your eye doctor regularly.

Corneal Blindness: Infections, mal-nutrition, inflammations, congenital, iatrogenic and degenerative conditions can damage the structure and shape of the cornea leading to visual impairment and blindness. Corneal blindness can be corrected with corneal grafting collected from eye donations. In our country only about 35,000 corneas are collected in a year whereas 1,50,000 are needed to combat corneal blindness.

Protect your vision:

Eat right for a Good Sight: Eat green leafy vegetables, eggs, beans, carrots

- Quit Smoking
- Wearing UV protected Sunglasses
- Wear safety glasses: While working with hazardous materials
- Take frequent breaks and blink more often to reduce eye dryness while on computers
- Use anti glare eye wear while watching television or working on computers.
- Do not read in dim light
- Go for a regular eye check



“Take a pledge to donate eyes & give vision to others”.

Global Iodine Deficiency Disorders Prevention Day 21st October, 2016

Iodine Deficiency Disorders Prevention Day is observed on 21st October every year across the world to create awareness about Iodine Deficiency Disorders and its prevention.

Presently, one third of the world population is exposed to the risk of iodine deficiency disorders and over 740 million people globally are facing this health problem. In India, more than sixty million people are suffering from iodine deficiency disorders including endemic goitre and 88 lakh people from mental or motor handicaps.

Iodine deficiency is the world's most prevalent, yet easily preventable, cause of brain damage. 'Iodine Deficiency Disorders' refers to irreversible ill-effects of iodine deficiency in human beings and can be prevented by ensuring adequate intake of iodine. It starts its ill effects in fetal stage while in womb and continues to harm the newborns, children, adolescents and adults. It can cause following disorders:

Enlargement of thyroid- Goitre

Mental illness: Subnormal intelligence, mental retardation, impaired cognitive development in children and brain damage.

Neuromuscular weakness and spasticity, stunted physical and mental growth, stillbirth, spontaneous abortion in pregnant women,

congenital abnormalities such as deaf-mutism, dwarfism, problem in vision, hearing and speech. Majority of iodine deficiency disorders are permanent & irreversible but can be prevented. Women of reproductive age group and children are the most vulnerable groups for the nutritional iodine deficiency disorders. Impaired mental and physical development of children and adolescents is a matter of great concern since it causes immense economical burden on the family, society and country but can be prevented by taking adequate amount of iodine daily.

A wide variety of foods contain iodine including eggs, meat, milk & milk products, cereal, grains, legumes, vegetables and fruits but the rich sources are limited to seaweeds, marine fish and shell fish.

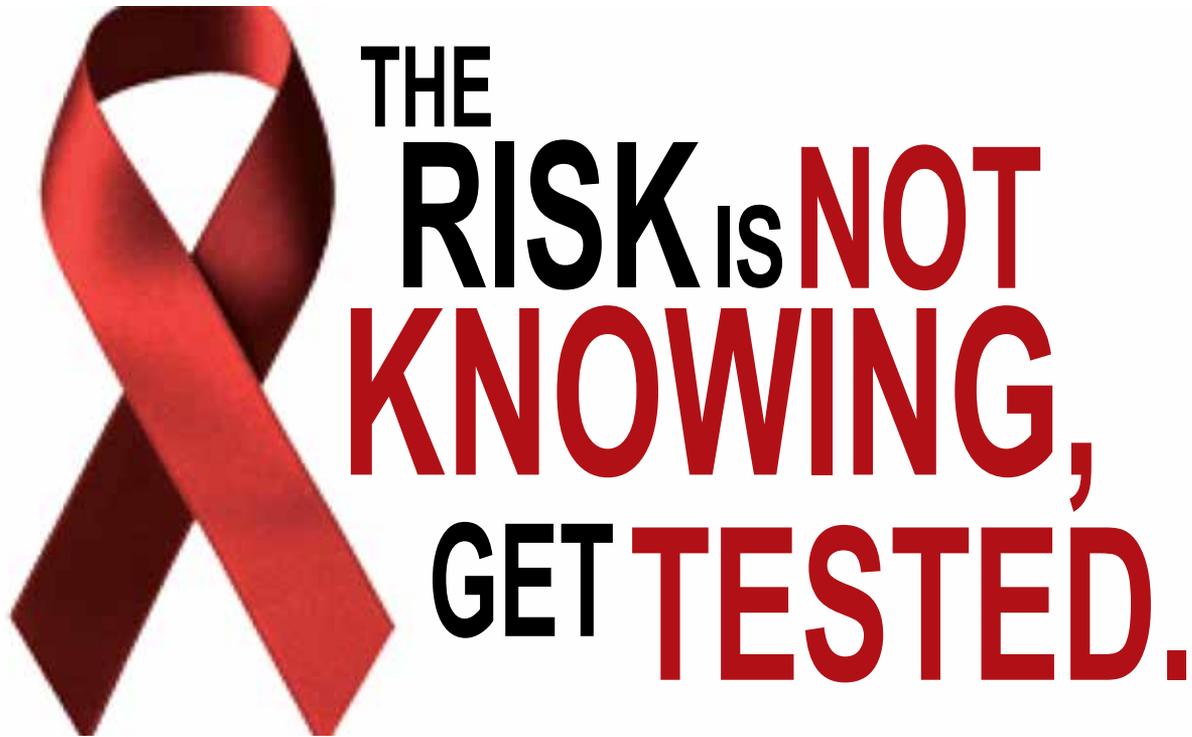
Iodized salt with the recommended salt iodine fortification of 30 PPM at production level and 15 PPM at consumption level is available across the country. Daily iodized salt consumption of 10 gm will provide 150 micrograms of iodine per day which is normally sufficient. However pregnant & lactating women will require additional amount.

As iodine is easily excreted through the kidney into urine, the consumption of iodated salt is safe. Iodine is required to be consumed daily for growth and development. ◆



Use iodized salt to improve mental and physical growth of your children

World AIDS Day 1st December 2016



World AIDS Day is observed on 1st December each year. It is an opportunity for people worldwide to unite in the fight against HIV, show their support & solidarity with the millions of people living with HIV by wearing a red ribbon and commemorate people who have died. Acquired immune deficiency syndrome caused by the human immunodeficiency virus which attack the immune system of the human body.

High Risk Groups:

- Female sex workers and their partners
- Men who have High-risk sex behavior
- Trans-genders (TGs)
- Injecting drug users (IDUs)

Modes of transmission of HIV/AIDS:

Sexual Contact: The most frequent mode of

transmission of HIV is through unprotected sexual contact with an infected person.

Blood Transfusions: In some cases, the virus may be transmitted through blood transfusions.

Sharing Infected Needles: HIV can be transmitted through needles and syringes contaminated with infected blood.

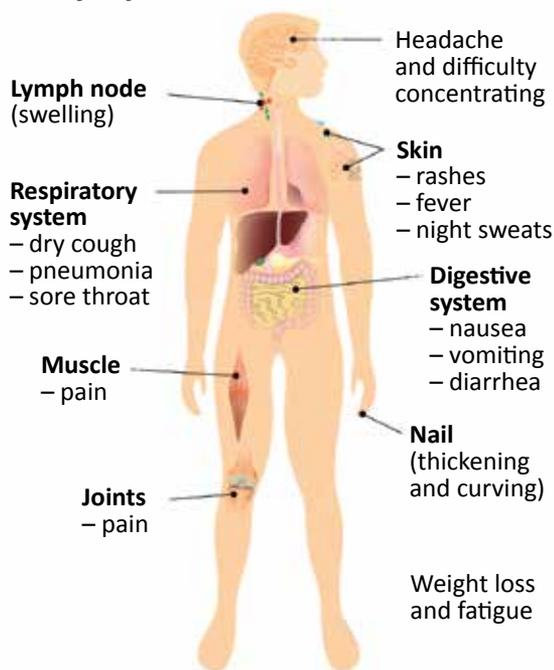
From Mother to Child: A pregnant woman infected with HIV virus can transmit the virus to her foetus through their shared blood circulation during natal period or through her breast milk in post natal period.

The majority of people infected by HIV develop a Influenza (flu) like illness within a month or two after the virus enters the body. This illness, known as primary or acute HIV infection, may last for a few weeks.

Practise safe and protected Sex

Symptoms are headache, fever, sore throat, muscle soreness, rash, mouth or genital ulcers, swollen lymph glands, mainly on the neck, joint pain, diarrhoea & night sweats.

Symptoms of HIV infection



Diagnosis:

Rapid or point-of-care tests: The rapid test is an immunoassay used for screening and it produces quick results, in 20 minutes.

ELISA (enzyme-linked immunosorbent assay): ELISA is set of blood tests used to diagnose HIV infection. ELISA test is performed by inserting a needle to draw blood.

Western Blot: A positive ELISA test is always followed by Western blot test which confirm the HIV infection.

Window period: is 3-4 weeks time between HIV infection and the appearance of anti-HIV antibodies.

CD4 count: CD4 cells are a type of white blood cell that's specifically targeted and destroyed by HIV.

Treatment: Definitive cure for AIDS is yet to be discovered. However, a combination of anti retro viral drugs given at certain stages of the disease, are helpful

Prevention

- Safe protected sex & use condoms.
- Generating awareness among high risks population ensuring safe sexual practices.
- Safe injections using auto disposal syringes
- Safe blood transfusion procured only from authorized and accredited blood banks.
- Counselling of HIV positive pregnant mother on the issue of how to prevent parent to child transmission. ♦





Maa Sankalp – Breast Feeding Promotion Programme

Mental Health begins with me



"Don't be ashamed of your symptoms.
Reaching out for help is the best thing you can do."