Healthy India Initiative
First Issue, July 2016

Healthy Lifestyle
Nutrition, Exercise, Hygiene
Summer-Monsoon, Malaria, Dengue
Child, Adolescent, women and Geriatric Health
Make TB the enemy and TB patients your friends

- Complete cure is possible
- TB does not spread through touch or by shaking hands
- Befriend patients, don’t discriminate

TB HAREGA. DESH JEETEGA.

For more information, consult your doctor.
Healthy Lifestyle
Nutrition, Exercise, Hygiene
Summer-Monsoon, Malaria, Dengue
Child, Adolescent, Women and Geriatric Health
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, Special DGHS
  Dr S Venkatesh, DDG
  Dr A C Dhariwal, DDG
  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.

Contents

Nutrition & Health 7
Exercise & Health 10
Oral Hygiene & Health 14
Healthy Lifestyle 17
Herbs and Spices 22
Health - National Level 24
Summer & Monsoon 26
Child Health - Emotional Behavior 28
Adolescent Health - Menstrual Hygiene 30
Women Health - Cancer Cervix 31
Geriatric Health - Alzheimer’s Disease 33
Tobacco & Health 34
Stop Malaria & Dengue 35
Events 36
It is a matter of great pleasure that the “Central Health Education Bureau”, Directorate General of Health Services, Ministry of Health and Family Welfare is bringing out first issue of “Healthy India Initiative”, the first ever health magazine from Government of India. This magazine is an instrument to disseminate authentic health related information to address the dynamic health issues of common citizen.

In a country like India, provision of affordable health care to every citizen remains a big challenge. The demographic transition with an increasing geriatric population accompanied with Epidemiological shift from communicable to non communicable and lifestyle diseases further aggravate the problem. Expansive curative treatment of these diseases is available at tertiary care hospitals that masses fail to avail.

Time has come to go beyond the standard treatment of Illness & Injury and deal with these challenges through population based approaches. Health Promotion has emerged as a viable tool for comprehensive, equitable health development. Health promotion interventions have been proven to be effective in addressing many social, economic and environmental determinants of health.

The Health magazine is a step forward for awareness generation and will provide a forum to common man to seek answers to their health queries. My best wishes to “Healthy India Initiative”.

(Jagat Prakash Nadda)
Socio-economic and industrial development, together with lifestyle changes, have resulted in a big shift of disease pattern from communicable to non-communicable diseases. There has been a demographical transition with increase in life expectancy and old age problems. Disparity in social justice and equity adds to the problems. Further, the curative treatment of these diseases remains inaccessible to masses for various reasons and prognosis is often poor.

This calls for a paradigm shift from curative to preventive approach to disease, both at individual and population level. Creating healthy environment and working across sectors to address health determinants of these diseases remains the most effective way to meet the challenges.

In the given contexts the approaches of Health Promotion empower the common men to take well informed and rational decisions about the health. The need of the hour is effective communication for awareness generation and enhanced community engagement using locally available resources, backed with healthy policies.

To achieve this, the quarterly magazine “Healthy India Initiative”, being published by “Central Health Education Bureau”, Directorate General of Health Service, Ministry of Health and Family Welfare is a good initiative. I am confident that it will disseminate adequate health information and will effectively respond to needs of common citizen.

My best wishes for successful publication of “Healthy India Initiative”.

(B.P. Sharma)
Universal Access ensures availability of free, comprehensive primary health care services, related with reproductive, maternal, child & adolescent health and for the most prevalent communicable and non-communicable diseases in the population.

The Goal of 'health for all' is attainment of the highest possible level of good health and well-being, through population based approach of health promotion. Health promotion interventions have been proven to be effective in addressing many social, economic and environmental determinants of health.

Health promotion approaches such as action across sectors, and social mobilization by effective community engagement in health are important strategies for integrated health promotion actions. Therefore, emphasis is on awareness generation about prevention of diseases to enable people to take well informed and rational decision about their health and environment.

Mass media, both Electronic and Print, and other newer media need to be used to disseminate knowledge and create awareness for influencing public behavior, particularly in youth to improve the health of populations.

“Central Health Education Bureau", Directorate General of Health Service, Ministry of Health and Family Welfare is publishing a quarterly magazine "Healthy India Initiative" to educate people about health issues and update common man about preventive, promotive, curative, palliative and rehabilitative services available in the country.

I wish all the success to “Health India Initiative.”

(Dr. Jagdish Prasad)
Dear Readers,

I feel privileged to bring out the inaugural issue of first ever Health Magazine, ‘Healthy India Initiative’ published quarterly by Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Welfare. The objective of the magazine is to provide authenticated information about Health and disease to a common citizen of India. It will also be a platform from where health queries of audience could be answered.

Globally the efforts are being made towards shifting from curative care to prevention and health promotion. The goal of Health Promotion is to improve the quality of life for individuals, families and communities through health communication and community engagement using community resources and locally available appropriate technology.

Adequate efforts need to be made for developing alliance and partnerships based on agreed ethical principles, mutual understanding & respect with stakeholders across the sectors. This will strengthen health system to address socio-economic determinant of disease and health. Government is committed to provide healthcare to all but at the same time the private and non-governmental sector contribution is unmatched.

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 express my deepest gratitude to officer and staff of CHEB. Special thanks to CHEB consultants and the National Health Portal who worked day in and day out to make it success

As always, a word of criticism and suggestions towards improving the magazine are welcome.

See you soon in the next issue, bye till then, remain healthy.

(Dr Niraj Kulshrestha)
Nutrition is the science that interprets the interaction of nutrients and other substances in food (e.g., anthocyanins, tannins, phytonutrients etc.) in relation to maintenance, growth, reproduction, health and disease of an organism. The essential nutrients for life include carbohydrates, proteins, and lipids (fats), as well as fiber, vitamins, minerals, and water—the solvent for all soluble ingredients in the blood and cells. The absorption of nutrients starts the moment we begin to digest our foods, as they are transported to assist all the metabolic processes in the human body.

Good nutrition means getting the right amount of nutrients from healthy foods in the right combinations. A poor diet may have an injurious impact on health, causing deficiency diseases such as blindness, anemia, scurvy, preterm birth, stillbirth, cretinism, mental retardation; health-threatening conditions like obesity and metabolic syndrome; and such common chronic systemic diseases as cardiovascular disease, diabetes, and osteoporosis. A poor diet can cause wasting (kwashiorkor) in acute cases, and stunting in chronic cases of malnutrition. With the knowledge of Nutrition and a smart choice about the food one can remain healthy.

Then what is the healthy food? The healthy plate in our diet should include all the five food groups:

- Vegetables
- Fruits
- Grains
- Protein
- Dairy
Vegetables

The vegetable portion of the plate is shown in green. It’s one of the largest sections on the plate. That is because vegetables provide many of the vitamins and minerals we need for good health. Veggies are naturally low in calories, and the fiber in them helps us feel full.

Grains

The orange section on the graphic Plate shows the proportion of grains you should eat. Whole grains (like whole-wheat flour) are more nutritious and have lots of dietary fibers that can help you feel full for longer time. So try to choose at least half of your day’s gains from whole-grain sources like whole-wheat bread, brown rice, or oatmeal.

Fruits

Like vegetables, fruits contain vitamins, minerals, and fiber. The red section of Plate is slightly smaller than the green, but together fruits and veggies should fill half your plate. Whole fruit is the best choice: Fruit juices have more calories per serving than whole fruit but we do not get adequate fibers.

Protein

Foods that are high in protein help the body build, maintain, and repair tissue. They also have nutrients like B vitamins and iron. The purple section on the graphic Plate shows the proportion of protein you need. Foods high in protein include mutton, beef, pork, fish, poultry, seafood, dry beans and peas, eggs, nuts, and seeds. Tofu or vegetarian meat substitutes are also good sources of protein. When eating non-vegetarian food, choose lean or low-fat options and try to minimize deli meats and other processed meats that are high in sodium content.
Junk food is a pejorative term for cheap food containing high levels of calories from sugar and fat with little fiber, protein, vitamins or minerals. Use of the term implies that a particular food has little “nutritional value” and contains excessive fat, sugar, salt, and calories. Junk food can also refer to high protein food like meat prepared with saturated fats - which some believe may be unhealthy, although some studies have shown no correlation between saturated fat and cardiovascular diseases; many hamburger outlets, fried chicken outlets and the like supply food considered as junk food.
The physical activity has number of health benefits and acts like a magical cure for number diseases. Regular physical activity is one of the most important things one can do for maintaining health and preventing diseases. It is useful right from boosting mood to improving sex life and life as whole. Since; there’s strength in numbers don’t forget to take family members and friends. Further, physically active parents become role model for healthy lifestyle behaviours to their children and physically active children become physically active adults. Everyone can gain the health benefits of physical activity irrespective of age, ethnicity, shape or size and socio-economic status.
Heart disease and stroke are two of the leading causes of death but the risk can be lowered by doing regular exercise. Regular physical activity can also lower blood pressure and improve cholesterol levels.

Regular physical activity can reduce your risk of developing diabetes and metabolic syndrome. Metabolic syndrome is a condition in which you have some combination of too much fat around the waist, high blood pressure, low HDL cholesterol, high triglycerides, or high blood sugar. Regular physical activity can help control blood glucose levels in diabetics.
WEIGHT CONTROL

Both diet and physical activity play a critical role in controlling your weight. You gain weight when the calories you burn, including those burned during physical activity, are less than the calories you eat or drink. To maintain body weight, the exact amount of physical activity needed to do this varies greatly from person to person.

To loose weight you need to adjust amount of physical activity and available calories by adjusting your diet. Staying at healthy weight requires both regular physical activity and a healthy eating.
Reduce Risk of Cancer
Colon, Breast, Endometrial and Lung Cancer.
In cancer survivor, regular physical activity improves physical fitness and gives a better quality of life.

Improve Mental Health and Mood
Regular physical activity can help keep your thinking, learning, and judgment skills sharp as you age. It can also reduce your risk of depression and may help you sleep better. Physical activity helps reduce stress, anxiety.

Ageing more gracefully
Regular physical activity allows ageing more gracefully by maintaining your looks and your agility.
Get your smile to talk for YOU. “A genuine smile comes from the heart, but a healthy smile needs good dental care.”

One of the best things we can gift ourselves is healthy teeth. A healthy mouth not only makes us look good, it also enhances our personality and is necessary for eating and speaking. This can be achieved by maintaining good oral hygiene as oral health is important for overall well being. The following steps should be followed for maintain goods oral hygiene:

- The first and foremost step is brushing properly twice a day and use of floss
- Go for regular check up
- Limit snack intake between meals and eat a balanced diet
- Use fluoride toothpaste
- Rinse mouth after every meal
- Use of mouthwash as prescribed by your dentist
Tilt the brush at a 45° angle against the gumline and sweep or roll the brush away from the gumline.

Gently brush the outside, inside and chewing surface of each tooth using short back-and-forth strokes.

Gently brush your tongue to remove bacteria and freshen breath.

Use about 18” of floss.

Gently follow the curves of your teeth.

Be sure to clean beneath the gumline.
It is better to drink milk, fortified orange juice and to eat yogurt, broccoli, cheese and other dairy products. Calcium and Vitamin D are necessary for maintaining the health of gums and teeth. Vitamin B complex is also essential for the protection of gums and teeth from cracking and bleeding.

Avoiding tobacco will not only save you from oral cancer and gum diseases, it will also save you from ill effects of other agents that are used to mask the smell of tobacco. Often coffee, tea, candies, chewing gums etc are used to hide smoky breath and these can further damage your teeth, odour. This doubles the amount of damage caused.

Soft drinks contain high amounts of sugar which can cause tooth decay. They may also contain additives which make teeth appear dull.
Health

World Health Organization (WHO), defines Health as a state of complete physical, mental, and social well-being, not simply just the absence of disease. The actual definition of Healthy Living is the steps, actions and strategies one puts in place to achieve optimum health.

Wellness

Wellness is the integration of many different components (mental, social, emotional, spiritual, and physical) that expand one’s potential to live (quality of life) and work effectively and to make a significant contribution to society. Wellness reflects how one feels (a sense of well-being) about life as well as one’s ability to function effectively. Wellness, as opposed to illness (a negative), is sometimes described as the positive component of good health.

Quality of Life

A term used to describe level of wellness. An individual with quality of life can enjoyably do the activities of life with little or no limitation and can function independently. Individual quality of life requires a pleasant and supportive community and environment.

Activity days

A self-rating of the number of days (per week or month) a person feels that he/she can perform usual daily activities successfully and in good health. Illness is the ill feeling and/or symptoms associated with a disease or circumstances that upset homeostasis.
Lifestyles

Lifestyles are patterns of behaviour or ways an individual typically lives. Healthy Living is about taking responsibility and making smart health choices for today and for the future. Eating right, getting physically fit, emotional wellness, spiritual wellness and prevention are all apart of creating a healthy lifestyle. Since the entire YOU, meaning all aspects of one’s self, must work in harmony to achieve wellness, you need to put balanced energy into each aspect of yourself.

A healthy lifestyle is made up of

• healthy balanced diet,
• regular exercise,
• good work-life balance
• adequate sleep
• absence of harmful drugs, alcohol, tobacco
• absence of illness
• absence of Stress.

Diseases associated with lifestyle:

The most common lifestyle diseases are Diabetes and Hypertension. Adopting healthy life style will help in management of these diseases and can change the outcome. It will also affect future course of the disease and will prevent further damage to body organs.
Diabetes:
Diabetes mellitus is a condition in which the pancreas no longer produces enough insulin or cells stop responding to the insulin that is produced, so that glucose in the blood cannot be absorbed into the cells of the body. Diabetes limits the body’s ability to process glucose normally.

Risk factors

• Being overweight, especially at the waist
• A couch potato lifestyle
• Smoking
• Eating a lot of red meat, processed meat, high-fat dairy products, and sweets
• Unhealthy cholesterol and triglyceride levels
• Lethargy, agitation, forgetfulness, or just strange behaviour can be a sign of very low or very high blood sugar levels.

Symptoms:
Frequent urination, Excessive thirst, Unexplained weight loss, Extreme hunger, Sudden vision changes, Tingling or numbness in hands or feet, Feeling very tired much of the time, Very dry skin, Sores that are slow to heal.
There are two types of Diabetes:

**Type 1:** Diabetes, previously called insulin-dependent diabetes mellitus or juvenile onset diabetes, because it tends to develop in childhood or young adulthood, though it can be diagnosed in people of any age.

**Type 2:** Diabetes was previously called non-insulin-dependent diabetes mellitus or adult-diabetes. In Diabetes raised blood sugar levels affect Heart, Kidneys, Eyes, Nerves and blood vessels.

**Diagnosis**

- Fasting Plasma Glucose Test (FPG)
- Oral Glucose Tolerance Test (OGTT)
- HbA1C (A1C or glycosylated haemoglobin test)

**Treatment**

**Type 1:** Diabetes is treated with insulin (by multiple daily injections or pump), diabetic diet, and other lifestyle modifications.

**Type 2:** Diabetes is generally treated with diabetic diet, lifestyle changes such as moderate to vigorous exercise and medication.

**Hypertension:**

High blood pressure is defined as high pressure (tension) in the arteries, which are the vessels that carry blood from the heart to the rest of the body. High blood pressure is a major public health problem & very common condition in older adults. The blood pressure is the physical force exerted by the blood as it pushes against the walls of the arteries. An elevated blood pressure means that the heart must work harder to pump blood.

Hypertension may not produce any symptoms, even if you have had it for years. That’s why it is sometimes referred to as a “silent killer.”
Symptoms:
Head ache, Dizziness, Shortness of breath, Blurred vision

Risk factors

Genetics: Race (genes),

Environmental: Inactivity, Stress, Obesity, Tobacco, Age, Salt, Alcohol

Effects of high blood pressure:
• Enlargement of Heart muscles, heart failure
• Kidney failure
• Hardening of the arteries
• Increased risk of aneurysms

Diagnosis
The only way to tell whether you have high blood pressure is to have your blood pressure measured with a blood pressure instrument. For most patients, health care providers diagnose high blood pressure when blood pressure readings are consistently 140/90 mmHg or above.

Treatment: treatment is with Antihypertensive drugs and diuretics. Please consult doctor for treatment.
Healing Herbs and spices: Herb refers to any part of the plant like fruit, seed, stem, bark, flower, leaf, stigma or a root, including non-woody plant. These are one-stop solutions to cure a number of health related problems and diseases. Herbs such as Neem, Aloe, Tulsi, Ginger and Turmeric cure several common ailments. These are considered as home remedies in many parts of the country. Apart from the medical use, herbs are also used for pest control, natural dye, perfume and food. The herbs are comparatively safe, eco-friendly and locally available.

Basil, Fennel, Chives, Cilantro, Apple Mint, Thyme, Golden Oregano, Variegated Lemon Balm, Rosemary, Variegated Sage are some important medicinal herbs and can be planted in kitchen garden. These herbs are easy to grow, look good and taste good.

These Herbs are of great utility in daily life and have number of benefits like healing properties, carminative (cures gastric issues), diaphoretic (controls water retention), lipolytic (helps in weight loss, anti-spasmodic, analgesic
(relieves pain), deodorant, aphrodisiac (increases sexual drive), antiseptic, digestive, and stimulant. Some of the important use of Herbs are as follows:

1. **Strengthen the Immune System**: Herbs are rich in many essential oils antioxidants, phytosterols, vitamins, and other nutrients that strengthen immune system and equip our body to fight against toxins and germs. Garlic, Ginger, Onion, cinnamon falls under this category.

2. **Anti-Inflammatory Properties**: The essential oils present in some herbs have excellent anti-inflammatory properties which facilitates anti-inflammatory reactions in your body. Ginger root and turmeric have anti-inflammatory properties.

3. **Reduce Blood Sugar**: Some herbs have positive effects on the pancreas thereby balancing Blood sugar level. For instance, fenugreek, bilberry and cayenne pepper extracts are said to be good blood sugar-stabilizing herbs.

4. **Herbs Reducing Cholesterol Levels**: Some herbs can cause a noteworthy reduction of cholesterol and in blood pressure levels, thereby preventing various coronary ailments. Herbs like psyllium, fenugreek and licorice.

5. **Antacids**: Some herbs are used to neutralize the acid produced by the stomach. Herbs such as marshmallow root and leaf. They serve as antacids. The healthy gastric acid needed for proper digestion is retained by such herbs.

6. **Antibiotic**: Turmeric is useful in inhibiting the growth of germs, harmful microbes and bacteria.

7. **Antipyretic** herbs such as Chirayta, black pepper, sandal wood and sunflower are recommended by traditional Indian medicine practitioners to reduce the fever.

8. **Antiseptic**: Some herbs like aloe, sandalwood, turmeric, sheetrajhindi and kharekhasak are commonly used as antiseptic and are of great medicinal values.

9. **Appetizer**: Herbs like Cardamom and Coriander are renowned for their appetizing qualities. Other aromatic herbs such as peppermint, cloves and turmeric add a pleasant aroma to the food, thereby increasing the taste of the meal.

10. **Antitussive and expectorant**: Ginger and cloves are used in certain cough syrups. They are known for their expectorant property, which promotes the thinning and ejection of mucus from the lungs, trachea and bronchi. Eucalyptus, Cardamom, Wild cherry and cloves are also expectorants.

11. **Prevents Alzheimer’s disease**: Many herbs have antioxidant, anti-amyloid and anti-inflammatory properties. These can effectively prevent Alzheimer’s disease.

12. **Prevents Cancer**: Since ancient times, especially in Chinese medicine, herbs were extensively used for treating cancer symptoms. In fact, herbs also help to soothe the after effects of chemotherapy.

13. **Skin Care**: Since ages, herbs have shown significant benefits for natural skin care. Neem, Turmeric, Aloe Vera and holy basil assure you radiant and healthy skin.

14. **Hair care**: Massaging hair with oil having herbs stimulates bountiful growth to your hair. There are many more herbs like Jojoba, Gotu Kula, Horse tail Ginseng, and Marigold extract that improve growth of hairs.

15. **Dental Care**: There are numerous herbs that, when used directly on the teeth and gums, gives wonderful and quick results. For instance, rubbing Sage leaves over the teeth and gums cleans them instantly and makes the texture smooth.
Ministry of health and Family Welfare looks after all medical and health related issues of the country. It has two divisions:

- Department of Health and Family Welfare
- Department of Health Research

It also has an attached office “Directorate General of Health Services” which provides the technical knowhow to Ministry of Health.

**Department of Health and Family Welfare**

The Department of health is responsible for developing policies, planning and implementation of health related activities. To carry out the function the department has financial management system, procurement division. Department has in built information collection system. Medical Education and training division looks after the production of doctor, nurses and other paramedical staff. A Media division look after interaction with public and International Health Division takes care of international regulation in the country. Emergency Medical Relief Division looks after various health needs during emergencies and disasters.
Department of Health Research

Promotion and coordination of basic, applied and clinical research including clinical trials and operational research in areas related to medical, Health, biomedical and medical profession and education. Further, the department promotes and provides guidance on research governance issues including ethical issues in medical and health research.

Directorate General of Health Services (DGHS)

It is an attached office of the Department of Health & Family Welfare and has subordinate offices spread all across the country. The DGHS renders technical advice on all Medical and Public Health matters and is involved in the implementation of various Health services. Central Health Education Bureau, Central Health Intelligence Bureau, Central Drug Standard Control organization, Medical store Organization, international health are some of the divisions providing support to DGHS. Further some disease control program like National Programme For Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke, National Programme for Health Care of the Elderly (NPHCE), Revised National Tuberculosis Cancer Control Programme, National Programme for Prevention and Control of Deafness (NPPCD), National Vector Borne Disease Control Programme, Mental Health program, Blindness Control program provide technical inputs for controlling the disease.
SUMMER & MONSOON

The Rains may have brought with them a much needed respite from the heat, but what most people do not realise is that the monsoon season brings with it a lots of diseases and necessary precautions must be taken. The dramatic change in weather during and post monsoon results in a range of health concerns. The monsoon season can prove to be a health menace as there are various diseases that come with the rains. Here we have discussed some common monsoon disease

**Typhoid**

Typhoid is a water-borne disease, which is on high-rise during monsoon. Poor sanitation also causes this disease to spread. The common symptoms of typhoid are fever, headache, weakness, pain and sore throat.

**Cholera**

Cholera is a deadly monsoon disease. Cholera is usually caused by consuming contaminated food and water. Severe diarrhoea with lose motions are the most common symptoms of cholera.

**Gastroenteritis**

The monsoon also brings in serious stomach infections like gastroenteritis, which can cause severe vomiting, diarrhoea and stomach pain.

**Leptospirosis**

This bacterial infection causes enlargement of the spleen jaundice, and nephritis. The infection is usually transmitted by exposure of unhealed blisters and open wounds to water contaminated with infected animal urine. The initial symptoms usually include fever accompanied by chills, intense headache, severe muscle ache, abdominal pain, red eye and occasionally a skin rash.
Jaundice

Viruses causing jaundice by infecting liver are usually spread through contaminated water and food. The main symptoms of jaundice are weakness, yellow urine, nausea and vomiting.

Heat stroke

Often known as Sun stroke, it is manifested by extremely high body temperatures (generally greater than 104-degree F), and short and rapid breathing, fainting, dry skin etc. Heat stroke might lead to serious complications and the victim will die if not treated in time.

Sun burns

Exposure to ultraviolet (UV) radiations may cause sunburn, which if severe can develop swelling and blisters and even flu like symptoms -- fever with chills, nausea, headache, and weakness.

Prevention

- Try not to go out into the sun during mid noon. If it is inevitable, use umbrella and UV filter sunglasses.
- Wear light, loose-fitting clothing to help you stay cooler.
- Drinking plenty of water keeps body hydrated in summers and helps prevent dehydration.
- Fruits such as water melons, cucumber and tender coconut water can help to prevent dehydration during summer. Take light, less fatty and nutritious food; avoid heavy and spicy food.
- Keep your skin hydrated and moisturized and uses sunscreens of good quality.
- Daily Morning walk and adequate physical activity.

What to do

- Wash hands before every meal. Carrying hand sanitizer can save you from picking germ-related illnesses.
- Avoid eating at unsanitary places.
- Take hygienic food.
- Drink potable water or only clean / boiled water or use water purifiers.
- Taking a warm water bath as soon as you get home is the best way to increase your body’s immunity.
Have you watched the popular Hindi film ‘Taare Zameen par’ (Stars upon the Ground)? The film portrayed the tormented life at school and at home of a child with dyslexia and his eventual success after his artistic talents was discovered by his art teacher at the boarding school. Same is exemplified in the lives of people like Leonardo da Vinci and Albert Einstein also.

Every child bumps into emotional difficulties from time to time, as do adults. Feelings of sadness or loss and extremes of emotions are part of growing up. Conflicts between parents and children are also inevitable as children struggle from the “terrible two’s” through adolescence to develop their own identities. The most important issue is whether the child’s behaviour is sufficiently different to require an evaluation by professionals. The following information may be useful for taking decision:

**Types of disorders and Symptoms:**

- **Disruptive Behaviour Disorders:** Disruptive Behaviour disorders are among the easiest to identify of all coexisting conditions because they involve Behaviours that are readily seen such as temper tantrums, physical aggression such as attacking other children, excessive argumentativeness, stealing, and other forms of defiance or resistance.

- **Oppositional Defiant Disorder:** Oppositional defiant disorder is defined as persistent symptoms of “negativistic, defiant, disobedient, and hostile Behaviours toward authority figures.” A child with Opposition Defiance Disorder (ODD) may argue frequently with adults; lose his temper easily; refuse to follow rules; blame others for his own mistakes; deliberately annoy others; and otherwise behave in angry, resentful, and vindictive ways.

- **Conduct Disorder:** Conduct disorder is a more extreme condition than Opposition Defiance Disorder (ODD). Defined as “a repetitive and persistent pattern of Behaviour in which the basic rights of others or major age appropriate social rules are
violated,” Conduct Disorder (CD) may involve serious aggression toward people or the hurting of animals, deliberate destruction of property (vandalism), stealing, running away from home, skipping school, or otherwise trying to break some of the major rules of society without getting caught.

**Common causes and risk factors of Behaviour Disorders:**

The development of Behavioural Disorder is theorized to be the result of a variety of contributing factors, including genetic, physical and environmental components. The following are examples of what these factors might include:

1. **Genetic:** Children with Behavioural Disorder typically have family members who also suffer from some form of mental illness, including mood disorders, personality disorders and anxiety disorders.

2. **Environmental:** If children are surrounded by a chaotic home life or without any appropriate discipline they may begin to act out simply because it allows them to have something that they can control since they have no power over the chaos around them.

**Common Risk Factors:**

- Exposure to violence
- Family history of mental illness or substance abuse
- Familial discord
- Suffering from abuse and/or neglect
- Poor or inconsistent parenting / lack of parental involvement
- Dysfunctional home life

**Diagnosis**

Majority of the times the diagnoses is made on the history provided by the primary care givers, teachers, peers and by examining the patient’s state of mind. There are some psychometric (the scale to gauge the quality and quantity of psychological difficulties) tests which can help further qualify and quantify the specific aspects of behavioural disorders.

**Complications**

The symptoms of Attention Deficit/Hyperactivity Disorder (ADHD) may be carried forward into adulthood. Academic progress may suffer due to lack of attention. Mood disorders, drug, alcohol abuse and dependency are quite common later in the course of illness.

**Management and Treatment**

Parents have to decide whether their child or adolescent has abnormal Behaviours. If the answer is yes then do consult mental health professional.
First and foremost menstruation is not an illness but a normal physiological process. It is totally a different thing that it may be preceded by Pre Menstrual or is associated with menstrual syndrome in some girls and women because of some hormonal changes.

Poor menstrual hygiene not only results in various infections and diseases, but also affects physical, social and mental well-being. Anaemia, weight loss often results in absence or decreased menstruation.

Menstrual hygiene is fundamental right of every girl and women. General hygiene measures necessary for essential health during menstruation are as follows:

1. Take a bath or shower at least once a day.
2. Use clean undergarments and change them regularly.
3. Change pads or tampons regularly.
4. Wash the genital area with plain water (no soap) after each use of toilet and even after urination.
5. Keep the area between the legs dry, otherwise you may experience chafing.
6. It is very important to remember that vagina has its own self cleaning mechanism and an external cleaning agent like deodorant or soap should not be used inside it.

Government of India has started Scheme for Promotion of Menstrual Hygiene targeting rural adolescent girls in the age group of 10-19 years, as a component of Adolescents Health with following activities:

1. Community based Health education and outreach in the target population to promote menstrual health;
2. Ensuring regular availability of Sanitary napkins to the adolescents;
3. Sourcing and Procurement of Sanitary napkins;
4. Storage and distribution of Sanitary napkins to the adolescent girls;
5. Training of ASHA and nodal teachers in Menstrual Health;

Now Menstrual Hygiene scheme has been subsumes as Community based interventions under Rashtriya Kishor Swasthya Karyakram (RKS) to reach out to 253 million adolescents-male and female, rural and urban, married and unmarried, in and out-of-school adolescents.
Cervical cancer is the fifth most common cancer in human beings, the second most common cancer in women worldwide and leading cancer in Indian women accounting for 22.86% of all cancer cases in women. It is the most common cause of death due to cancer in developing countries. One woman dies of cervical cancer every 8 minutes in India.

**Risk factors**

- **Pregnancy:** Women who have had three or more full-term pregnancies, or who had their first full-term pregnancy before age 17, are twice as likely to get cervical cancer.
- **Family history:** Women with a sister or mother who had cervical cancer are two to three times more likely to develop cervical cancer.
- **Sexual history:** Certain types of sexual behavior are considered risk factors for cervical cancer and HPV infection. These include: sex before age 18, sex with multiple partners and sex with someone who has had multiple partners.
- **Smoking:** A woman who smokes doubles her risk of cervical cancer.

**Signs and symptoms of cervical cancer:** Women with early cervical cancers and pre-cancers usually have no symptoms. The most common symptoms are:

- Abnormal vaginal bleeding, such as bleeding after vaginal intercourse, bleeding after menopause, bleeding and spotting between periods, and having (menstrual) periods that are longer or heavier than usual. Bleeding after douching or after a pelvic exam may also occur.
- An unusual discharge from the vagina “the discharge may contain some blood and may occur between your periods or after menopause.
- Pain during intercourse.

**Screening and Diagnosis:** Early diagnose of cancer cervix is essential to avoid poor outcomes of the disease.

- **Pelvic examination:** In this examination, the doctor feels a woman’s uterus, vagina, ovaries, fallopian tubes, cervix, bladder, and rectum to check for any unusual changes. A Pap test is often done at the same time.
- **Pap’s Smear:** Gentle scrapes from outside the cervix are taken for cytological examination.
- **HPV typing:** An HPV test is similar to a Pap test, where the test is done on a sample of cells from the patient’s cervix. HPV-16 and HPV-18, are seen more often in women with cervical cancer and may help confirm a diagnosis
- **Biopsy:** A biopsy is the removal of a small amount of tissue for examination under a microscope. Other tests can suggest that cancer is present, but only a biopsy can make a definite diagnosis. If the biopsy indicates that cervical cancer is present, the woman should attend to a gynaecologist oncologist for further evaluation to see the extent of spread around and in other parts of body.
• **Oral contraceptive use:** Women who take oral contraceptives for more than five years have an increased risk of cervical cancer, but this risk returns to normal within a few years after the pills are stopped.

• **Human Papilloma Virus infection (HPV):** HPV is a skin infection, spread through skin-to-skin contact with a person who has the virus. Though HPV causes cancer, having HPV does not mean you will get cancer. Almost 80 percent of women contract HPV during their lifetime. A healthy immune system will usually clear the HPV virus before there is a symptom, including the high-risk types of HPV. Only a small percentage of women with high-risk HPV develop cervical cancer.

• **Weak immune system:** People with HIV or other health immune compromised conditions have a higher risk of developing cervical cancer.

---

**Prevent pre-cancers:**

**Prevent Human papilloma virus (HPV):** Since HPV is the main cause of cervical cancer and pre-cancer, avoiding exposure to HPV could help you prevent this disease. HPV is passed from one person to another during skin-to-skin contact with an infected area of the body. Although HPV can be spread during sex, sex doesn’t have to occur for the infection to spread. All that is needed is skin-to-skin contact with an area of the body infected with HPV. This means that the virus can be spread through genital-to-genital contact (without intercourse). It is even possible for a genital infection to spread through hand-to-genital contact.

- **Use condoms:**

  Condoms (“rubbers”) provide some protection against HPV but they don’t completely prevent infection. **Don’t Smoke:** Not smoking is another important way to reduce the risk of cervical pre-cancer and cancer.

- **Vaccination:** Vaccines are available that can protect against certain HPV infections. HPV vaccines should be given before a person becomes exposed to HPV (such as through sexual activity). The vaccines require a series of 3 injections over a 6-month period. Side effects are usually mild. The most common one is short-term redness, swelling, and soreness at the injection site.

---

**Find and treat pre-cancers:** Periodic Pap’s test (sometimes called the Pap smear) and the Human Papilloma Virus Test are used for this. If a pre-cancer is found, it can be treated, stopping cervical cancer before it really starts. Most invasive cervical cancers are found in women who have not had regular screening.

Since no HPV Vaccine provides complete protection against all of the HPV types that can cause cancer of the cervix, it cannot prevent all cases of cervical cancer. This is why it is very important that women continue to have cervical cancer screening even after they’ve been vaccinated.

**Treatment:** Cancers diagnosed and treated in earlier stages have better survival rates.

**Treatment of Pre cancers:** Treating women with abnormal Pap test results and pre-cancers can prevent cervical cancer from developing. If an abnormal area is seen during the colposcopy, the area needs to be removed with minor electrosurgical procedures. Other options include a cone biopsy and destroying the abnormal cells with cryosurgery or laser surgery. These treatments are almost always effective in destroying pre-cancers and preventing them from developing into true cancers. Regular follow ups are needed to make sure that the abnormality does not recur.

**Treatment of cancers:** Rarely, surgery to remove the cervix is used to treat pre-cancers. These procedures called trachelectomy and hysterectomy are used to invasive cancers.
Geriatric Problems

In elderly due to poor physiological reserve, diseases manifestations are reported late due to socio economic factors, dementia or marking of symptoms by co-morbidities. Immobility, instability (falls), incontinence and intellectual impairment are four designated as giants of geriatrics. Most of the times, multiple diseases co-exist. Disease like Parkinson's disease, Multisystem atrophy of CNS, Alzheimer's disease are seen only in elderly whereas certain other disease like ischemic heart diseases, strokes, osteoarthritis occur more frequently amongst them. Alzheimer's disease is one which is very commonly seen in this age group.

Alzheimer’s disease

In India, more than 4 million people have some form of dementia. Worldwide, at least 44 million people are living with dementia, making the disease a global health crisis that must be addressed.

Alzheimer’s disease is an irreversible, progressive brain disease that slowly destroys memory and thinking skills, and eventually, the ability to carry out the simplest tasks of daily living.

Stages:

Severity of the disease may vary from mild Neurocognitive Disorder characterized by level of cognitive decline that allows to perform activities of daily living to Major Neurocognitive Disorder characterized by symptoms which severely impair activities of daily living such that patient is completely dependent on others for basic needs.

Risk factors:

- Age. Advancing age is the greatest risk factor for developing Alzheimer’s disease.
- Family history of Alzheimer’s.
- Genetics. Researchers have identified several gene variants that increase the chance of developing Alzheimer’s disease.
- Mild Cognitive Impairment (MCI).
- Cardiovascular and hypertensive Disease. Cardiovascular and hypertension disease are linked to a higher risk of developing Alzheimer’s and other dementias.
- Other Life style disorders: smoking, obesity, diabetes, and high cholesterol.
- Traumatic Brain Injury.

Symptoms:

- Forgetfulness
- Language difficulties including difficulty in remembering names
- Difficulty in planning and problem solving
- Difficulty in doing previously familiar tasks
- Difficulty in concentration
- Difficulty in spatial relationships like remembering roads and routes to a particular destination
- Difficulty in social behaviour

Diagnosis:

Although definitive diagnosis of Alzheimer’s can be made only after death, yet the doctors can usually diagnose the disease with the help of:

- Past medical history and current health status
- Changes in the behaviour and personality of the patient
- Conducting cognitive tests involving memory, problem solving, language, etc
- Standard medical tests, such as blood and urine tests, in order to rule out other causes
- Brain scans including CT/MRI scans

Treatment: Psychosocial interventions, proper care giving to patient and drugs are part of treatment. Adequate social support by family members remains the most important part of management.

Prevention: Good nutritious diet along with adequate physical and mental activities is essential to delay the onset of dementia.
In India more than one third of adults above 15 years use tobacco in some form or the other. The use of smokeless tobacco is more prevalent than smoking. The use of tobacco is responsible for causing 8-9 lakh deaths annually in the country which is more than the deaths caused by HIV/AIDS, TB, and Malaria taken together.

And tobacco is a risk factor for cardiovascular diseases, cancers, chronic lung diseases and many others. As per available evidence, use of chewing tobacco is associated with oral cancer and India shares the maximum burden of oral cancer in the world. Tobacco is not just a health problem but more of a social development issue at large.

As per Ministry of Health & Family Welfare economic costs attributable to tobacco use in India is huge, almost comparable to total expenditures incurred by states and centre together on health.

Government of India is addressing the threat of tobacco use in the country under “National Tobacco Control Programme” NTCP. As of now NTCP is being implemented in over 200 districts across 36 states and is being expanded in phased manner.

The programme emphasize increasing awareness generation amongst the communities along with an Act of parliament, enacted in 2003 (COTPA-2003) to prohibit advertisement and regulation of tobacco business in India.

Massive IEC campaigns across the country to increase awareness about menace of tobacco related products have been launched with Mr. Rahul Dravid as Brand Ambassador. A National Quit-line [1800112356] has also been launched to assist community to quit tobacco.

Strict implementation of smoke free Rules, prohibition on sale of tobacco products to and by minors, and prohibition on sale of tobacco products within 100 yards of educational institutions and pictorial health warnings on tobacco products are some of newer initiatives taken up by the program. Ban has been enforced on manufacture, sale and storage of Gutkha and Pan Masala containing tobacco and other Smokeless Tobacco.

Toll free helpline (1800110456) has been established to report specific violations of the provisions under the anti-tobacco law.

All said and done, the mission of “Quit tobacco” need appropriate communication and advocacy to empower community with knowledge about threats of tobacco use and community engagement at various levels to take the mission forward.
Mosquitoes have long association with human beings for disturbing sleep. Over a period of time due to industrial development, urbanization, poor and open drainage, agriculture and water storage practices the mosquito problem has increased. All mosquitoes do not spread disease but some of them transmit Malaria, Dengue, Chikungunya, Japanese Encephalitis and Filaria. Only female mosquitoes bite to suck blood required for development of their ovaries. Male mosquitoes cannot bite due to their special mouth parts and survive on fruit juices & nectars etc. Female mosquito lay eggs under water which develop in larva & pupa over a period of 7-8 days and finally into adult stage.

Fevers and mosquito

The most common acute febrile illnesses due to mosquito bite in India are malaria, dengue and chikungunya. Malaria is a protozoal disease caused by Plasmodium. Malaria is transmitted by bite of female Anopheles mosquito. Dengue and chikungunya are caused by arbovirus. Dengue and chikungunya are transmitted by the bite of Aedes mosquito.

Malaria- usual symptoms are Fever with or without chills and rigor, accompanied by profuse sweating, headache, nausea, vomiting, and muscle pain. Malaria may also cause convulsions, coma, anemia and bloody stools. Enlarged spleen may be present in chronic cases of malaria. If the case is not diagnosed and treated timely it may lead to complications like cerebral malaria, renal failure, acute respiratory distress, hemolytic etc. and may be fatal.

Dengue- It is a self limiting disease characterized by fever, headache, nausea, vomiting, muscle, joint pains, pain behind the eyes and hemorrhagic manifestations. Some infections result in Dengue Hemorrhagic Fever (DHF) and in its severe form it is life threatening.

Chikungunya- Chikungunya usually presents with sudden fever, chills, headache, nausea, vomiting, joint pain, rash and pain joints.

Diagnosis and Treatment

Malaria can be diagnosed by examining peripheral blood smear through microscopy. Antigen detecting, bivalent Rapid Diagnostic Test (RDT) is also available. Malaria is fully treatable. P. vivax cases is to be treated with Chloroquine, Pf cases should be treated with Artemisinin based combination therapy and severe case should be treated with injection Artemesinin derivatives. For radical treatment recommended dose of Primaquine should be used.

For Dengue, the programme recommends use of ELISA based antigen detection test (NS1) for diagnosing the cases with history of fever less than 5 days and use of antibody detection test ‘IgM Capture ELISA (MAC ELISA)’ for confirmation of Dengue infection after 5th day of onset of disease. For dengue there is no specific treatment. Symptomatic management is recommended for all fever. For fever, only paracetamol is recommended and patient should not take other brufen, aspirin, analgesic, etc.

Protective measures

General measures for protection against mosquito bites like wearing full clothes, using mosquito repellants should be taken. Mosquito breeding in the surrounding areas should be checked and avoided. Domestic water storage containers should be regularly cleaned. Any incidental collection of water should be avoided.

In malaria endemic areas, special vector control measures like indoor residual spraying (IRS), distribution of Long lasting Insecticide treated Nets (LLINs), biological methods like larvivorous fish and minor engineering measures for source reduction are being taken. In households simple painting of inner surface of water tank of coolers is useful to prevents mosquito breeding.

Timely recognition of illness and ensuring correct and complete treatment helps in effective disease management.
Events of Last Quarter

WORLD HEALTH DAY 2016
Diabetes
Scale up prevention, strengthen care and enhance surveillance

Eat healthy stay healthy
World Health Day

7 April
World Malaria Day (WMD)

World Malaria Day, which was instituted by the World Health Assembly at its 60th session in May 2007-is a day for recognizing the Global efforts to provide effective control of Malaria. Since then, every year 25th April has been observed as World Malaria Day by WHO and its member countries. The theme for 2016 was “End Malaria For Good”

Over the last decade, the world has made major progress in the fight against malaria. A major scale-up of vector control interventions, together with increased access to diagnostic testing and quality-assured treatment, has been key to this progress. World Malaria Day gives people a chance to promote or learn about the efforts made to prevent and reduce Malaria around the world. NVBDCP has developed ‘National Framework for Malaria Elimination in India 2016 to 2030’ which was launched by Hon’ble Union Health Minister in February, 2016.

Towards the journey for elimination of Malaria, an intensified community awareness campaign is required at National as well as Regional level. The states/UTs observed WMD by organizing the various activities i.e. State/District level workshop, Inter-sectoral coordination meeting, Rally with school children, Print & Electronic media campaign etc. At the National level, an advocacy workshop was organized on Malaria jointly by NVBDCP, WHO and Caritas India. A half page coloured newspaper advertisement was released across the country for sensitization of the community on Malaria.
National Dengue Day (NDD)

Dengue is transmitted by *Aedes* mosquito which is also vector for Chikungunya and Zika virus. The *Aedes* mosquito lives in urban habitats and breeds mostly in man-made containers. *Aedes* mosquito is known as day biter and domestic breeder. Natural larval habitats include tree holes, leaf axils and coconut shells. Under the optimal conditions, the life cycle of the *Aedes* (from eggs hatching to adult emergence) is of one week.

In absence of any specific drug and vaccine for Dengue, prevention and control exclusively depends on vector control to minimize the risk of transmission. An effort was made to observe 16th May as ‘National Dengue Day’ (NDD). It was observed 1st time in India during this year, which will be observed every year across the country. At National level, an advocacy meeting was organized to bring together various stakeholders for ensuing effective community participation for prevention and control of Dengue. It should not be seen as merely stand alone public health concern. Equal participation of all the stake holders is imperative in preventive activities. A national level newspaper advertisement was published across the country with an appeal from Hon’ble Prime Minister to observe NDD.

![National Dengue Day](image.png)

Mobile App for Dengue

A Mobile App ‘*India Fights Dengue*’ has been launched by Hon’ble Union Minister for Health & Family Welfare, Government of India to empower the community which can be downloaded on [www.nhp.gov.in/mobile-app/](http://www.nhp.gov.in/mobile-app/). The App includes FAQs, Myths & Facts, Ensure Dengue Mosquito free area, Do’s & Don’ts, Ask for help, Locate Facilities and Dengue Symptoms etc. The App to work as a citizen interface, where community can report Dengue larvae breeding by uploading a picture and location of the site. The link for downloading the App has been shared with the states/UTs for wider circulation.
Kilkari

Interactive Voice Response (IVR) based mobile service for information on pregnancy and child health

• For pregnant women, mothers of infants and families
• Awareness on Ante- & Post-Natal Care, Institutional Delivery, and Immunization
• Service from 4th month of pregnancy until the child is one year old

• Subscribers get one pre-recorded system generated call every week
• Each call is two minutes long and reminds about the task for the week
क्या आप जानते हैं कि कृमि संक्रमण से बच्चों में हो सकती है:
• खून की कमी • कुपोषण • कमजोरी • एकाग्रता में कमी या रोज झुकने में अनुपरिशिष्टित

कृमि संक्रमण से बचाव के तरीके:
1. स्वच्छ नीले करें, होमेग्राइज़ का प्रयोग करें
2. आप पास समायी रखें
3. स्वास्थ्य पानी में फल द सहजियां भरें
4. होमेग्राइज़ साफ़ पानी दिखें खाने के उपर करें
5. नस्खुरुण साफ़ और घोटेर रखें
6. जूते-सपत पहनें
7. आपने हाथ साफ़ रखते से जोड़ी, विदेशकर खाने से पहले और तीव्र जाना के बाद

कृमि से मुक्ति, बच्चों को शक्ति
Dear readers,

“Healthy India initiative” is the first health magazine published by Government of India. It is also available at www.mohfw.nic.in and www.cheb.nic.in.

Please feel free to send your queries on any health issues and we will be more than happy to answer.

Further criticism is inspiration to improve, please do share your suggestions and views.

Our Address is:
Central Health Education Bureau
CHEB Building, 5-Kotla Road
New Delhi 110-002, INDIA
e-mail: healthyindia.cheb@nic.in
Regular Yoga keeps you healthy