



Inspiring Better Health



2nd April World Autism Day

Autism is often referred to as an enigma out of all the known childhood psychiatric disorders. The awareness regarding this mysterious disorder is very low in our country.

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7th April World Health Day

According to the WHO, the greatest obstacle in treatment is the identification of the person and getting him/her appropriate treatment while overcoming the stigma. To further this cause, WHO decided to declare this year's theme as "**depression**" with the slogan: **Lets Talk**

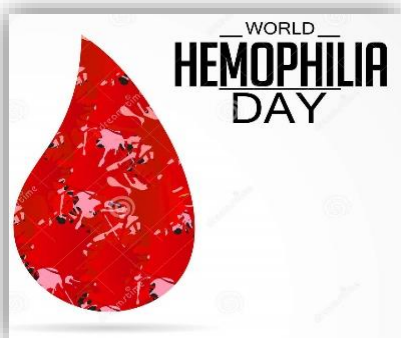
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17th April World Hemophilia Day

World Hemophilia day is observed internationally on 17th April every year since 1989 on the birthday of Frank Schnabel, founder of World Federation of Hemophilia (WFH).

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24-30th April World Immunization Week

World Immunization Week – celebrated in the last week of April – 24-30 April, aims to promote the use of vaccines to protect people of all ages against disease. Immunization saves millions of lives and is widely recognized as one of the world's most successful and cost-effective health interventions.

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25th April World Malaria Day

World Malaria Day (WMD) is an international observance commemorated every year on 25 April and recognizes global efforts to control malaria. The World Health Assembly instituted World Malaria Day in May 2007.

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28th April World Day for Safety and Health at Work

The day is celebrated on 28th April annually by the International Labour Organisation since 2003. 28th April was chosen especially as it has long been associated with the world's trade union movements commemoration of the victims of occupational accidents and disease.

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News to Use

Do you know the Signs and symptoms of Malaria?

The most common symptoms of Malaria are:-

- Fever and Chills
- Headaches
- Nausea
- Vomiting
- General weakness
- Body aches

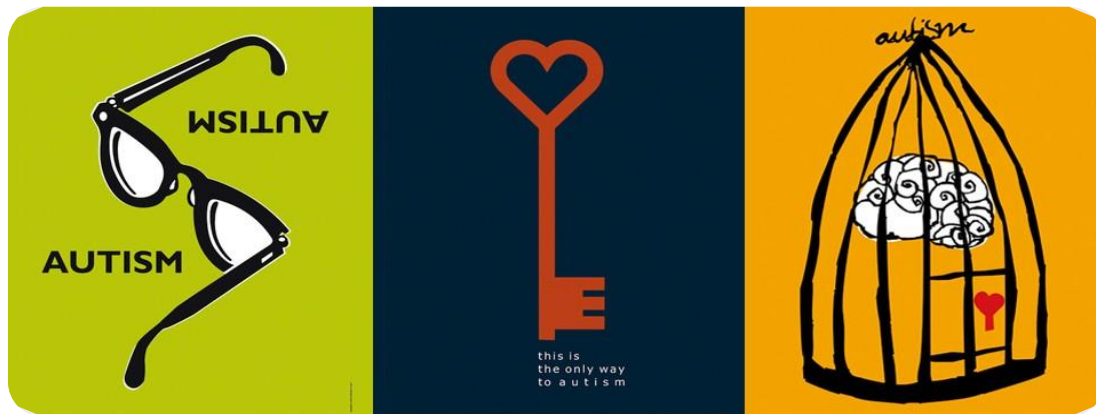
Signs and Symptoms of Depression

- a loss of energy
- a change in appetite
- sleeping more or less
- anxiety
- reduced concentration
- indecisiveness
- restlessness
- feelings of worthlessness, guilt, or hopelessness thoughts of self-harm or suicide

World Autism Day

AN ENIGMA CALLED AUTISM

Autism is often referred to as an enigma out of all the known childhood psychiatric disorders. The awareness regarding this mysterious disorder is very low in our country. The lives of many autistic children could change for the better if it was identified at an early age and treated appropriately. More than 60 years after it was described by American Psychiatrist Leo Kanner, there are still more questions than answers about this complex disorder. Its causes are still uncertain.



WHAT IS AUTISM?

The basic problem of an autistic child is a qualitative impairment in social interaction and impaired communication skills.

These impairments give rise to specific constellation of symptoms, some of which are listed below:

- Marked impairment in non - verbal behaviours like eye -to-eye contact, social smile.
- Failure to develop peer relationships
- A lack of spontaneous attempt to share enjoyment, interests and achievements.
- A lack of the ability to reciprocate emotionally with the outside world.
- Delay in, or total lack of development of spoken language, in severe cases.
- Inability to initiate or sustain a conversation in milder cases
- Stereotyped or repetitive use of a specific word or a phrase
- Preoccupation with one or more small area or a phrase.
- Marked resistance to change in the routine or a change in the environment.

WHAT IS WRONG WITH THE BRAIN OF AN AUTISTIC CHILD?

Recent researches have unveiled that the brain of an autistic child is in many ways in comparison of a normal child of the same age. For example, the frontal lobes, home to higher reasoning, of autistic children are significantly larger. The corpus callosum, which is the connecting link between the two hemispheres of the brain, is undersized in such children. Brain cells are linked by axons -long cables insulated with myelin. In autistic people, there are too many axonal



connections within local areas of the brain but not enough links from one region and another. These anatomical aberrations somehow lead to the development of the classical problem of lack of emotional response in autistic children.

What is most imp to understand is that these children are blessed with normal intelligence. They are by no means, mentally retarded although their appliance and behaviour might look like one.



HOW ARE AUTISTIC CHILDREN?

Autism is an extremely difficult disorder to treat. There is no drug known till date which can reverse the symptoms of autism. However, the associated problems like violence, agitation, seizure(if any), self injurious behaviour are amenable to pharmacotherapy

Autistic children require time and patience, skill. They need empathy and support. Such children benefit from group therapy with similar children. Their parents too, need to be aware of the specific problems of their son/daughter .Prolonged counselling sessions over many months have been shown to be significantly effective.

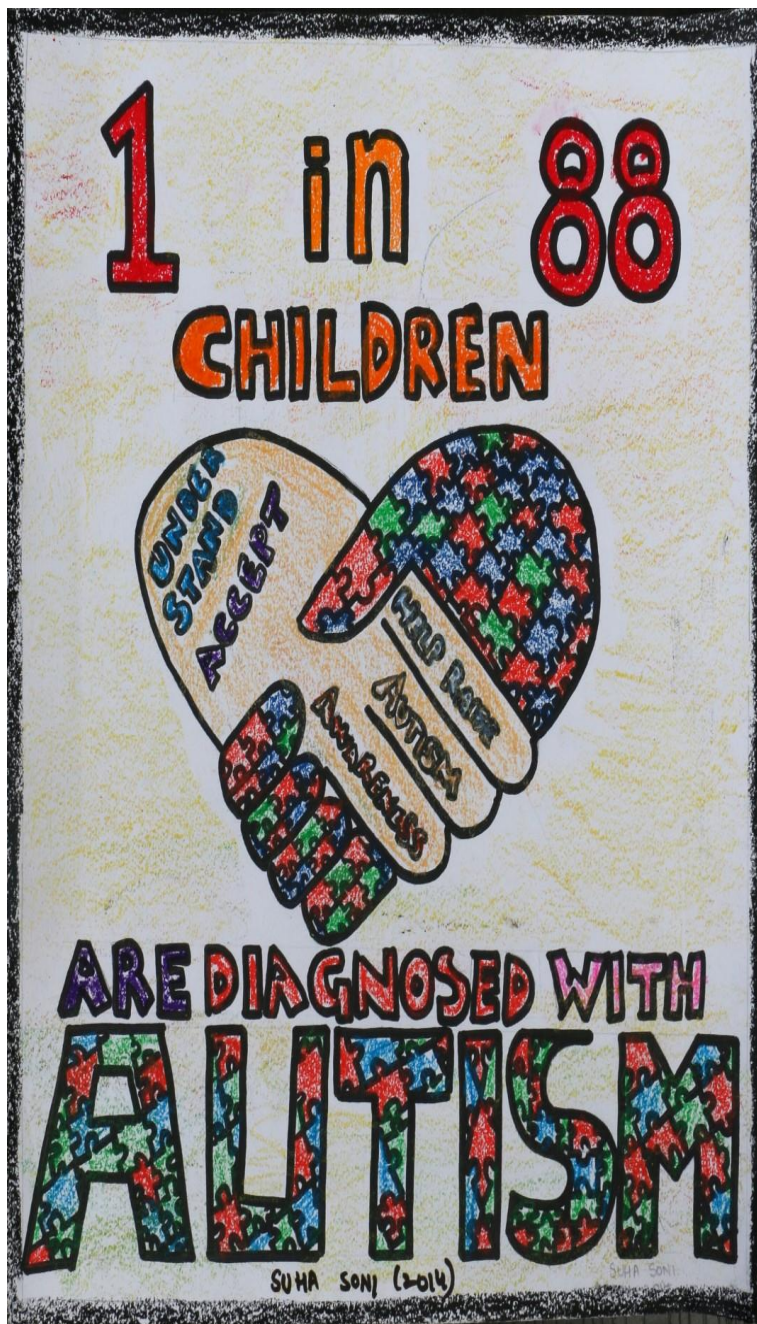
As an after thought, was Mr. Spock, the character in the television the series: “**STAR TREK**” autistic? Despite being brilliant, he lacks emotion and hence is not able to relate to his colleagues.



Definitely some food for thought!

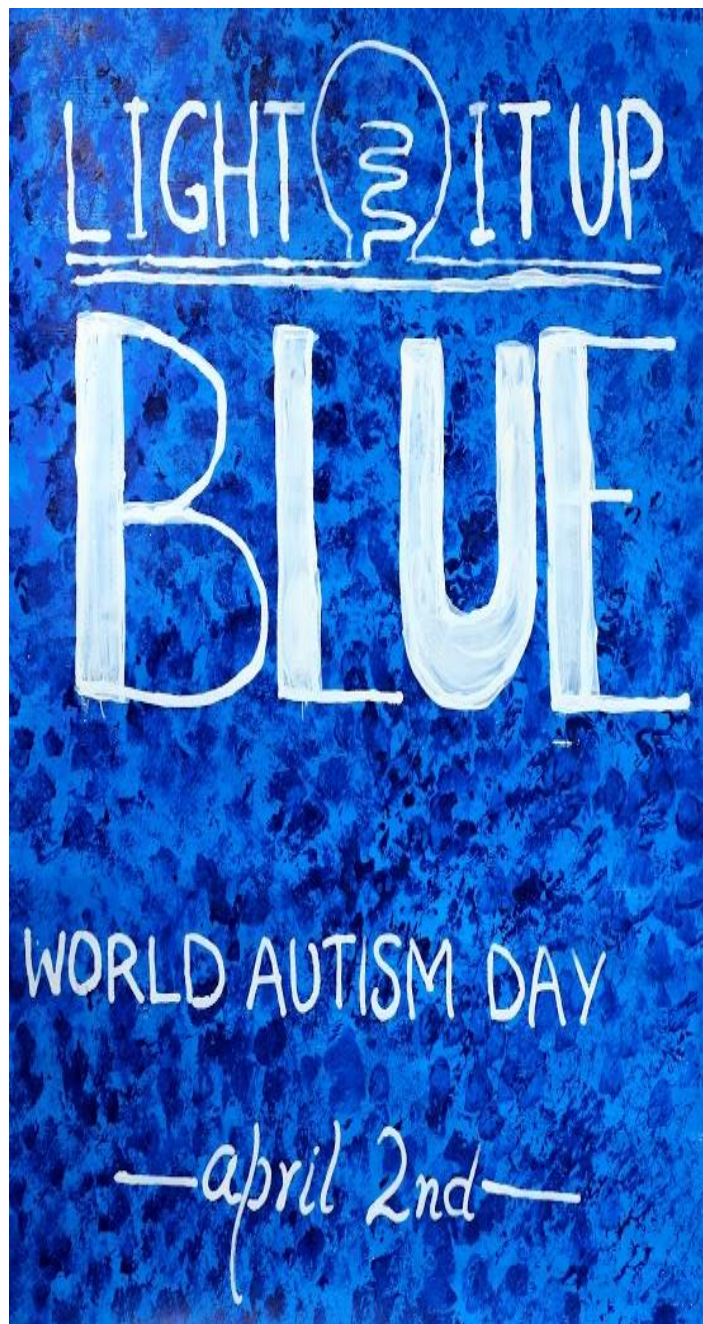


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Poster By:

Suha Soni
Batch 2014



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Simran Kaur
Batch 2015



The signs of Autism..



World Autism Awareness Day



**YOU ARE
NOT
ALONE**

Ask questions
Understand
Tell A Friend
Include
Show your support
Make a difference



**THIS CHICK
SUPPORTS
AUTISM**



I don't need
Autism awareness,
Autism acceptance
will do just fine.

*April is
Autism
Awareness
Month*

**EVERY DAY is
Autism Awareness Day!**

World Autism Awareness Day

April 2nd

Support Autistic Children All Over the World



Poster By:
Dr Megha Manhas
Intern



World Health Day

Depression: “Let’s talk”

Common mental disorders are increasing worldwide. Between 1990 and 2013, the number of people suffering from depression and/or anxiety increased by nearly 50%.



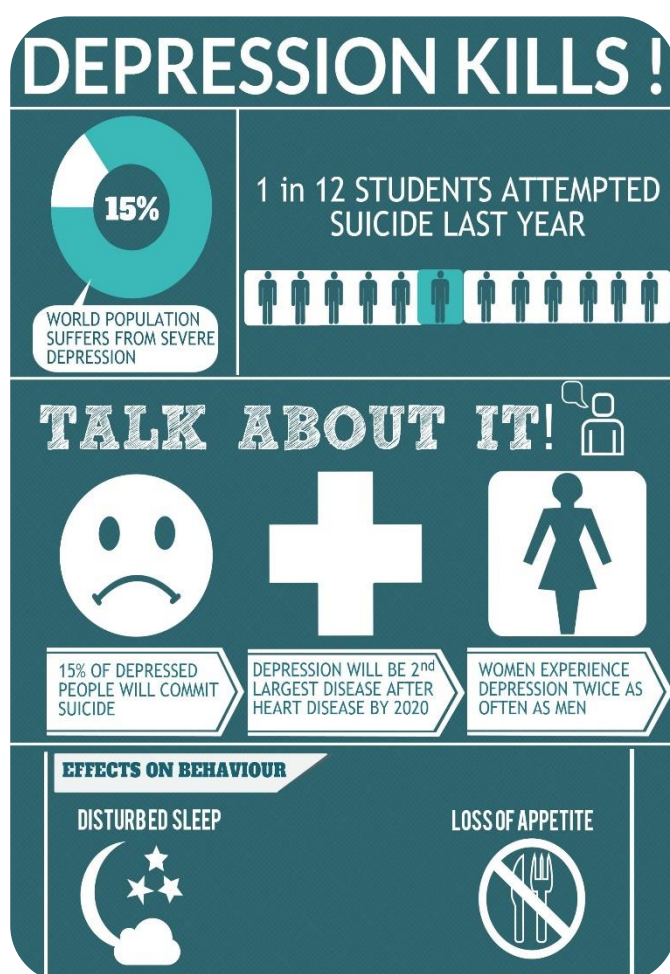
What is depression?

- Depression is an illness characterized by persistent sadness and a loss of interest in activities that you normally enjoy, accompanied by an inability to carry out daily activities, for at least two weeks.
- In addition, people with depression normally have several of the following symptoms:
 - a loss of energy
 - a change in appetite
 - sleeping more or less
 - anxiety
 - reduced concentration
 - indecisiveness
 - restlessness
 - feelings of worthlessness, guilt, or hopelessness
 - thoughts of self-harm or suicide

At a global level, over 300 million people are estimated to suffer from depression, equivalent to 4.4% of the world’s population. Nearly half of these people live in the South-East Asia Region and Western Pacific Region, reflecting the relatively larger populations of those two Regions. The number of persons with common mental disorders globally is going up, particularly in lower-income countries, because the population is growing and more people are living to the age when depression and anxiety most commonly occurs.

As per a recent study by the WHO, in 2015, close to 5 crore Indians suffered from depression and over three crore people dealt with various anxiety disorders. It will be the leading cause of disability worldwide by 2030. Depression alone accounts for 10% of years lived with disability globally. In humanitarian emergencies and ongoing conflict as many as 1 in 5 people are affected by depression and anxiety.

Depression increases the risk of other non-communicable diseases, such as diabetes and cardiovascular disease. In addition, diseases such as diabetes and cardiovascular disease increase the risk of depression.



Depression in women following childbirth can affect the development of newborns. In many countries of the world, there is no, or very little, support available for people with mental health disorders. Even in high-income countries, nearly 50% of people with depression do not get treatment. Lack of treatment for common mental disorders has a high economic cost: new evidence from a study led by WHO shows that depression and anxiety disorders cost the global economy more than US\$ 1 trillion each year. The most common mental health disorders can be prevented and treated, at relatively low cost.

Who is most likely to get depressed?

Although depression can and does affect people of all ages, from all walks of life, the risk of becoming depressed is increased by poverty, unemployment, life events such as the death of a loved one or relationship break-up, physical illness & problems caused by alcohol and drug use.

Why was it chosen as the theme for this year?

According to the WHO, the greatest obstacle in treatment is the identification of the person and getting him/her appropriate treatment while overcoming the stigma. To further this cause, WHO decided to declare this year's theme as "depression" with the slogan: ***Lets Talk***

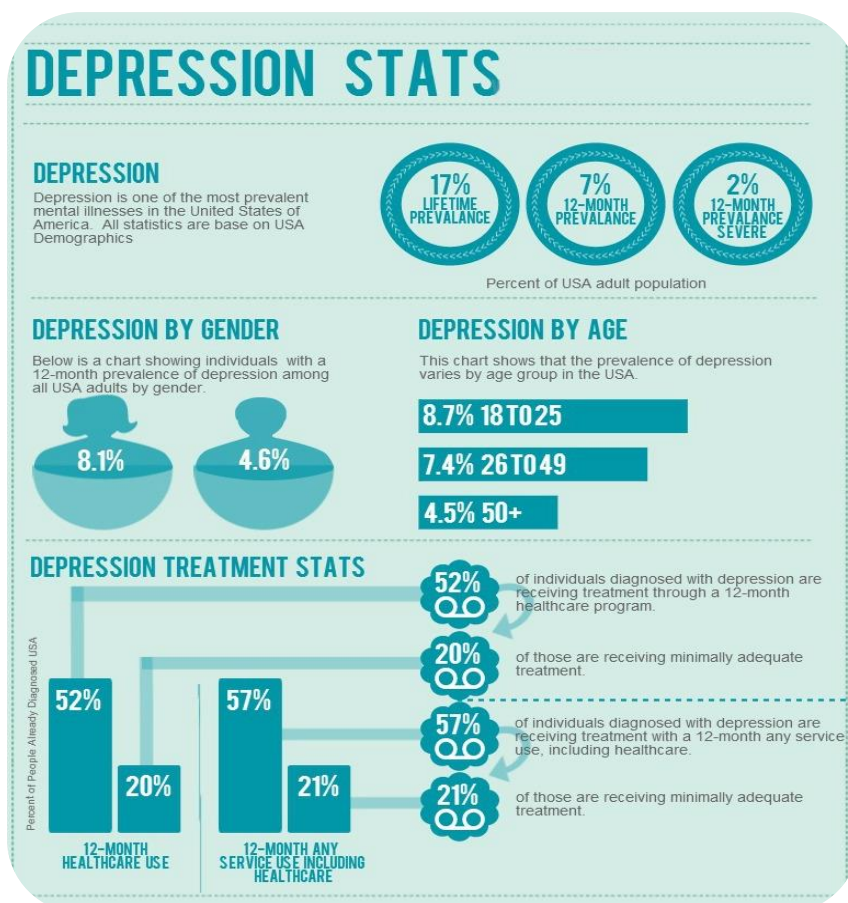
At the core of the campaign is the importance of talking about depression as a vital component of recovery. The stigma surrounding mental illness, including depression, remains a barrier to people seeking help throughout the world. Talking about depression, whether with a family member, friend or medical professional; in larger groups, for example in schools, the workplace and social settings; or in the public domain, in the news media, blogs or social media, helps break down this stigma, ultimately leading to more people seeking help.

Contributing factors and prevention

Depression results from a complex interaction of social, psychological and biological factors. People who have gone through adverse life events (unemployment, bereavement, psychological trauma) are more likely to develop depression.

Depression can, in turn, lead to more stress and dysfunction and worsen the affected person's life situation and depression itself. There are interrelationships between depression and physical health. For example, cardiovascular disease can lead to depression and vice versa.

Prevention programmes have been shown to reduce depression. Effective community approaches to prevent depression include school-based programmes to enhance a pattern of positive thinking in children and adolescents. Interventions for parents of children with behavioural problems may reduce parental depressive symptoms and improve outcomes for their children. Exercise programmes for the elderly can also be effective in depression prevention.



Why Early and Adequate Treatment is Essential?

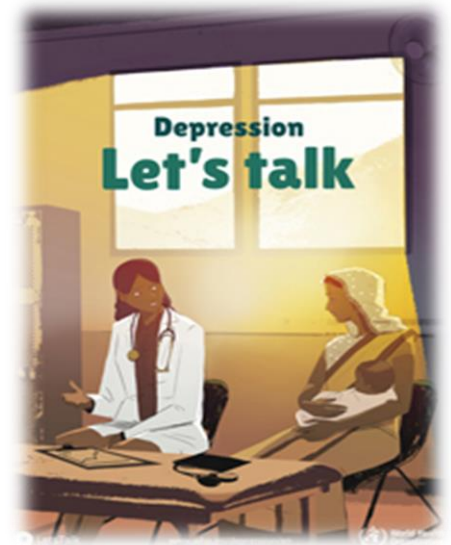
- When untreated, a major depressive episode may last, on average, for about 9 months
- Remits with treatment in 70% of individuals within 2 years of the first episode
- At least 50% of depressives will recur, recurrence within 3 years increases to 70% - 80% if no preventive treatment is given
- An initial episode may evolve into discreet and recurrent episodes
- Each new episode brings new risks of chronicity, disability and suicide

Goals of Treatment

- The goals of treatment are to attain the absence or near absence of depressive symptoms and the restoration of normal physical and emotional function.
- Acute phase of treatment, remission is achieved.
- With continued treatment, remission is preserved.
- Through maintenance treatment, a recurrence, or new episode of major depression, is prevented.

Treatment

- Psychological interventions
 - Interpersonal psychotherapy
 - Supportive psychotherapy
 - Group therapy
 - Cognitive behavioural therapy
- Psychopharmacology
 - SSRI's
 - TCA's
 - Other antidepressants



Psychosocial treatments alone are also effective for mild depression. Antidepressants can be an effective form of treatment for moderate-severe depression but are not the first line of treatment for cases of mild depression. They should not be used for treating depression in children and are not the first line of treatment in adolescents, among whom they should be used with caution.

What you can do if you think you are depressed?

- Talk to someone you trust about your feelings. Most people feel better after talking to someone who cares about them
- Seek professional help. Your local health-care worker or doctor is a good place to start
- Remember that with the right help, you can get better
- Keep up with activities that you used to enjoy when you were well
- Stay connected. Keep in contact with family and friends
- Exercise regularly, even if it's just a short walk
- Stick to regular eating and sleeping habits
- Accept that you might have depression and adjust your expectations. You may not be able to accomplish as much as you do usually
- Avoid or restrict alcohol intake and refrain from using illicit drugs; they can worsen depression
- If you feel suicidal, contact someone for help immediately

What you can do for people who are depressed?

- Make it clear that you want to help, listen without judgment, and offer support.
- Find out more about depression.

- Encourage them to seek professional help when available. Offer to accompany them to appointments.
- If medication is prescribed, help them to take it as prescribed. Be patient; it usually takes a few weeks to feel better.
- Help them with everyday tasks and to have regular eating and sleeping patterns.
- Encourage regular exercise and social activities.
- Encourage them to focus on the positive, rather than the negative.
- If they are thinking about self-harm, or have already intentionally harmed themselves, do not leave them alone. Seek further help from the emergency services or a health-care professional. In the meantime, remove items such as medications, sharp objects and firearms.
- Take care of yourself too. Try to find ways to relax and continue doing things you enjoy

What you should know if you are worried about someone?

- Suicides are preventable.
- It is okay to talk about suicide.
- Asking about suicide does not provoke the act of suicide. It often reduces anxiety and helps people feel understood

Warning signs that someone may be seriously thinking about suicide

- Threatening to kill oneself.
- Saying things like "No-one will miss me when I am gone."
- Looking for ways to kill oneself, such as seeking access to pesticides, firearms or medication, or browsing the internet for means of taking one's own life.
- Saying goodbye to close family members and friends, giving away of valued possessions, or writing a will

Conclusions

- Depression is a common mental disorder that affects people of all ages, from all walks of life, in all countries.
- Depression causes mental anguish and can impact on people's ability to carry out even the simplest everyday tasks, with sometimes devastating consequences for relationships with family and friends.
- Untreated depression can prevent people from working and participating in family and community life.
- At worst, depression can lead to suicide.
- Depression can be effectively prevented and treated. Treatment usually involves either a talking therapy or antidepressant medication or a combination of these.
- Overcoming the stigma often associated with depression will lead to more people getting help.
- Talking with people you trust can be a first step towards recovery from depression



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DEPRESSION IN TEENS

It's not unusual for young people to experience "the blues" or feel "down in the dumps" occasionally. Adolescence is always an unsettling time, with the many physical, emotional, psychological and social changes that accompany this stage of life.

Unrealistic academic, social and family expectations can create a strong sense of rejection and can lead to deep disappointment. Adolescent depression is increasing at an alarming rate. It can be difficult to diagnose in teens because adults may expect teens to act moody. When things go wrong at school or at home, teens often overreact many young people feel that life is unfair or that things "never go their way". They feel "stressed out" and confuse. To make matters worse, teens are bombarded by conflicting messages from parents, friends and society. They are also being influenced by television, magazine and internet.

Recognition of depression is really difficult but some of these symptoms indicate depression like poor performance in school, or withdrawal from friends and activities, sadness and hopelessness, lack of enthusiasm, anger and rage, feelings of being unable to satisfy ideals, poor self esteem, change in eating or sleeping, indecision and suicidal thoughts or actions. They may experiment with drugs or alcohol or become sexually promiscuous to avoid feelings of depression.

It is extremely important that depressed teens receive prompt and professional treatment. They are so depressed that they consider ending their lives. Each year almost 5,000 young people between the age of 15-24 years kill themselves. For treating this disaster, we all have to join hands which includes family, friends and teacher. They have to help the teens by encouraging them to participate and joining organizations.

If all this doesn't work then psychotherapy, cognitive behavioural therapy are there to help teens out. Meditation is the best treatment one can get. This can have a dramatic effect on their lives and can bring them hope for the future.



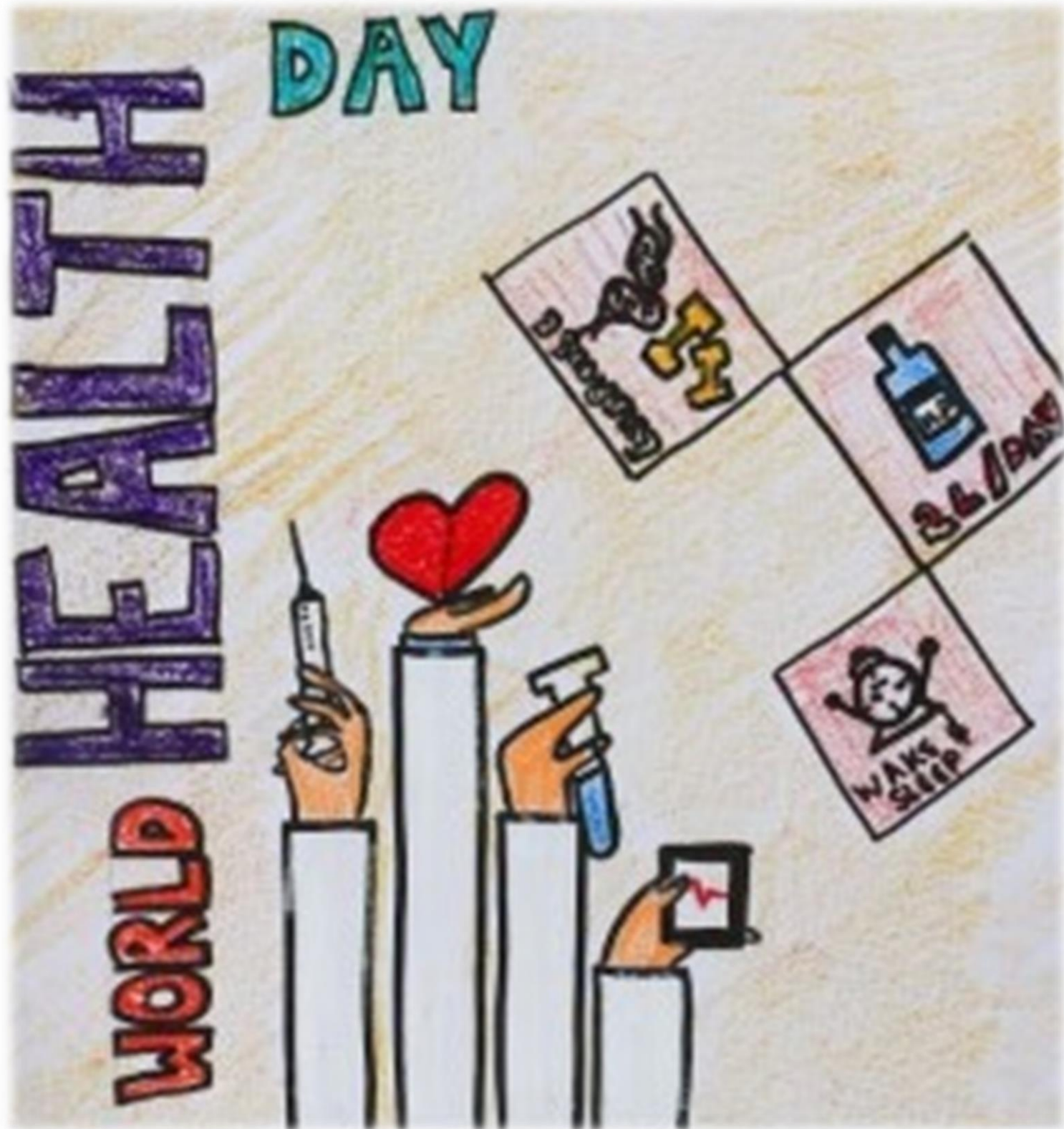
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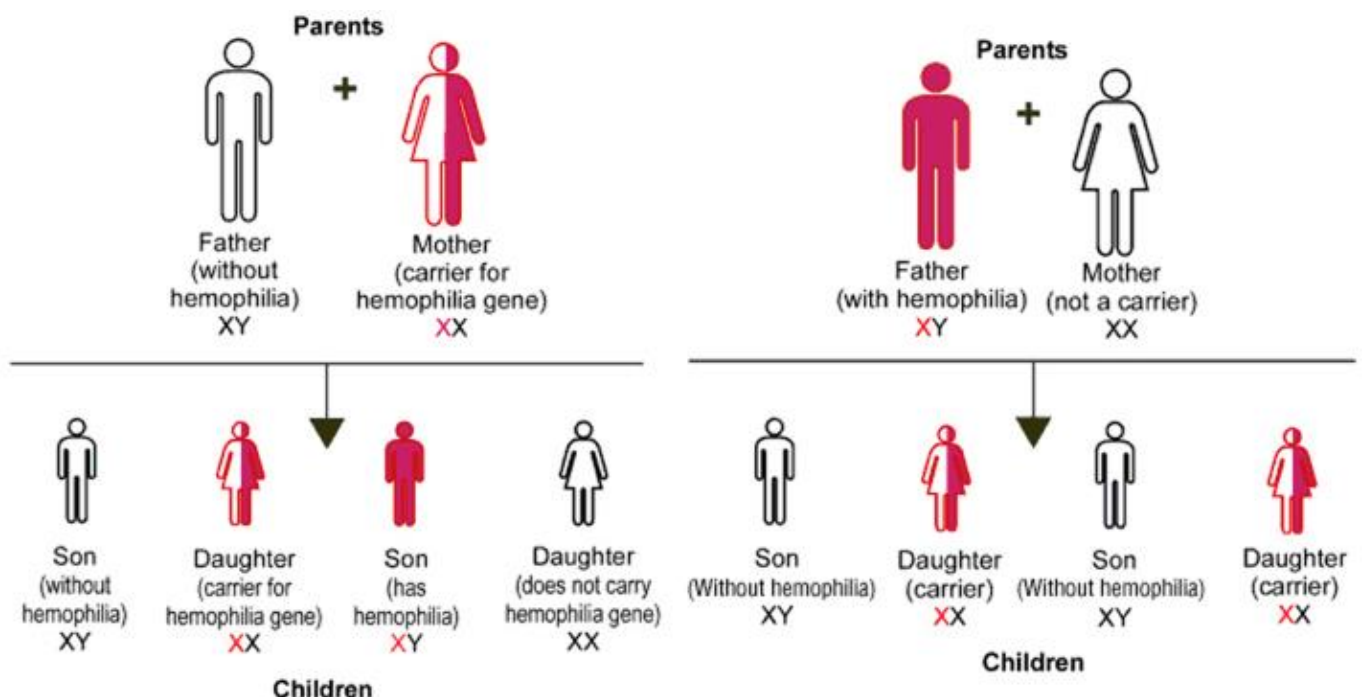
World Hemophilia Day

World Haemophilia day is observed internationally on 17th April every year since 1989 on the birthday of Frank Schnabel, founder of World Federation of Haemophilia (WFH). The Day is observed to create awareness for haemophilia and other bleeding disorders and also to raise funds for WFH having member organizations in 113 countries. Theme for 2017 is 'Lighting it up Red' and people in cities around the world will continue to light up major landmarks in red to show support for the global bleeding disorders community.



Haemophilia is an inherited sex linked recessive disorder which leads to deficiency of clotting factors, the anti-haemophilic factor (AHF) or factor VIII in Haemophilia A and factor IX in Haemophilia B due to defective genes on the X chromosome resulting in prolonged bleeding after injury, injections, tooth extractions, surgeries. It also causes painful swelling of the joints either after injury or without injury, and internal bleeding in vital organs (head, abdomen), which may be life threatening.

Haemophilia is inherited from the mother, but male children suffer from the disease. Females are carriers and do not get the symptoms of Haemophilia. A family history of maternal uncles or other male affected relatives on the mother's side are often present. Some cases may occur due to an **acquired genetic mutation**, so no family history is present.



Prevalence of Haemophilia

- Haemophilia A is more common and occurs in about 1 in 5,000 male births.
- Haemophilia B is less common and occurs in around 1 in about 20,000 male births.
- World over estimated number of Haemophilia patients is 40000 and 70 percent of people with Haemophilia do not have adequate knowledge of the disease or access to treatment.
- In India There are 100000 cases of haemophilia in India but only 15% are diagnosed and only 16000 are registered.
- In Punjab there are 3000 cases of this disease

Severity of haemophilia A or B depends upon amount of factor present in the blood.

Severe haemophilia patients have less than 1 % of factor VIII or IX

Moderate haemophilia has 1-5% of factor VIII or IX

Mild have greater than 5 – 40% of factor VIII or IX

Diagnosis

- History of prolonged or excessive bleeding and easy bruising.
- Family history of bleeding disorders.
- Swollen and painful joints on physical examination
- Blood tests to measure the coagulation time of blood like PT, APTT.
- Assay of level of specific clotting factor VIII (8) or IX in blood.

Treatment

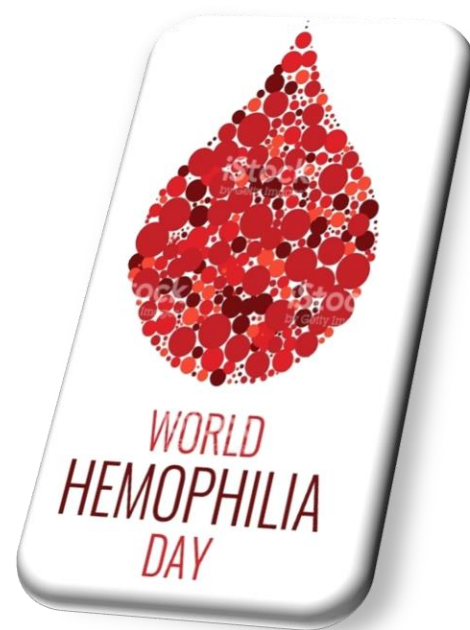
- Replacement of deficient clotting factors by
 - Transfusion of fresh blood, Fresh Frozen Plasma or cryoprecipitate
 - Purified plasma derived concentrates of clotting factor VIII (for haemophilia A) or clotting factor IX (for haemophilia B).
 - Recombinant factor VIII or factor IX. They are given to the patient by an i/v injection. .

As cost of factor concentrates is very high and 80% of patients are from poor families. Some states are providing free factor replacement.

- Recombinant factor VII (7) may be used to control bleeding in
- Antifibrinolytic medicines (such as Tranexamic acid and Epsilon, Aminocaproic acid) may be used along with replacement therapy or alone in mild cases.
- Physiotherapy done under supervision of a trained physical therapist and under guidance of doctor may help to protect the joint
- Gene therapy to replace defective genes with normal genes. It is still under clinical trials.

Complications of replacement Therapy

- Risk of transmission of viral infection- like hepatitis B and C or HIV due to repeated transfusion of blood or blood components .
- Risk of development of inhibitors to clotting factors. This can develop in about 20–30 percent in patients with severe haemophilia A and 2–5 percent of haemophilia B.



Prevention of Hemophilia

Carrier Detection

When there is a family history of haemophilia. It is now possible to identify, almost accurately, most females carrying the haemophilia gene and the couples can plan their families accordingly.

Prenatal Diagnosis

Women who know they are carriers, or who might be carriers, may have options for prenatal diagnosis to obtain information on foetal status. Foetal DNA can be obtained from the Chorionic Villi (CVS), from amniotic fluid (AF) between 14 to 18 weeks and from foetal blood sample (FBS) between 16 to 20 weeks.

Facilities are available in Department of Genetic Medicine in **All India Institute Of Medical Sciences, Sir Ganga Ram Hospital**, New Delhi. **KEM hospital**, Mumbai, **CMC Vellore** and **Indian Institute of Chemical Biology**, Kolkata

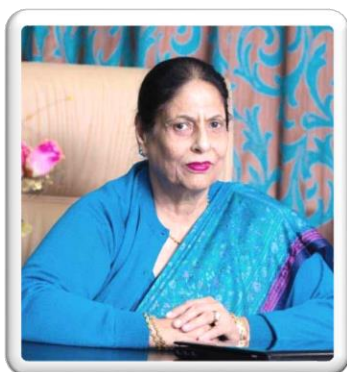
Precautions

- Avoid injury as much as possible.
- Children should be watched for falls.
- Avoid intramuscular injections. Most children's vaccines can be given in the skin with a thin needle.
- Avoid strong massage or rough exercise, particularly in a painful joint.
- If a joint becomes painful or swollen, immediately contact the doctor.

Haemophilia Federation of India is a self-help, NGO Established in 1983 run by Persons with Haemophilia themselves, with help from the medical fraternity. It represents India as a National Member Organization at the World Federation of Haemophilia, based in Canada. It works in close collaboration with World Health Organization (WHO) and National Aids Control Organization (NACO).

Its aim is to

- Have Haemophiliacs without disability and children free of pain.
- Locate undiagnosed "Persons with Haemophilia (PWH)"
- To educate and provide proper information on Haemophilia Care to both Persons with Haemophilia, their families and the medical fraternity
- Make treatment available at affordable cost



Dr. Kulbir Kaur
Director Principal
Professor | Pathology & Transfusion Medicine

WORLD HAEMOPHILIA DAY 17th April

You may be suffering from haemophilia in case you :

- Bruise easily
- Have nosebleeds that do not stop easily
- Bleed excessively during dental treatment
- Have painful or swollen joints

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WORLD HEMOPHILIA DAY 2017 | APRIL 17

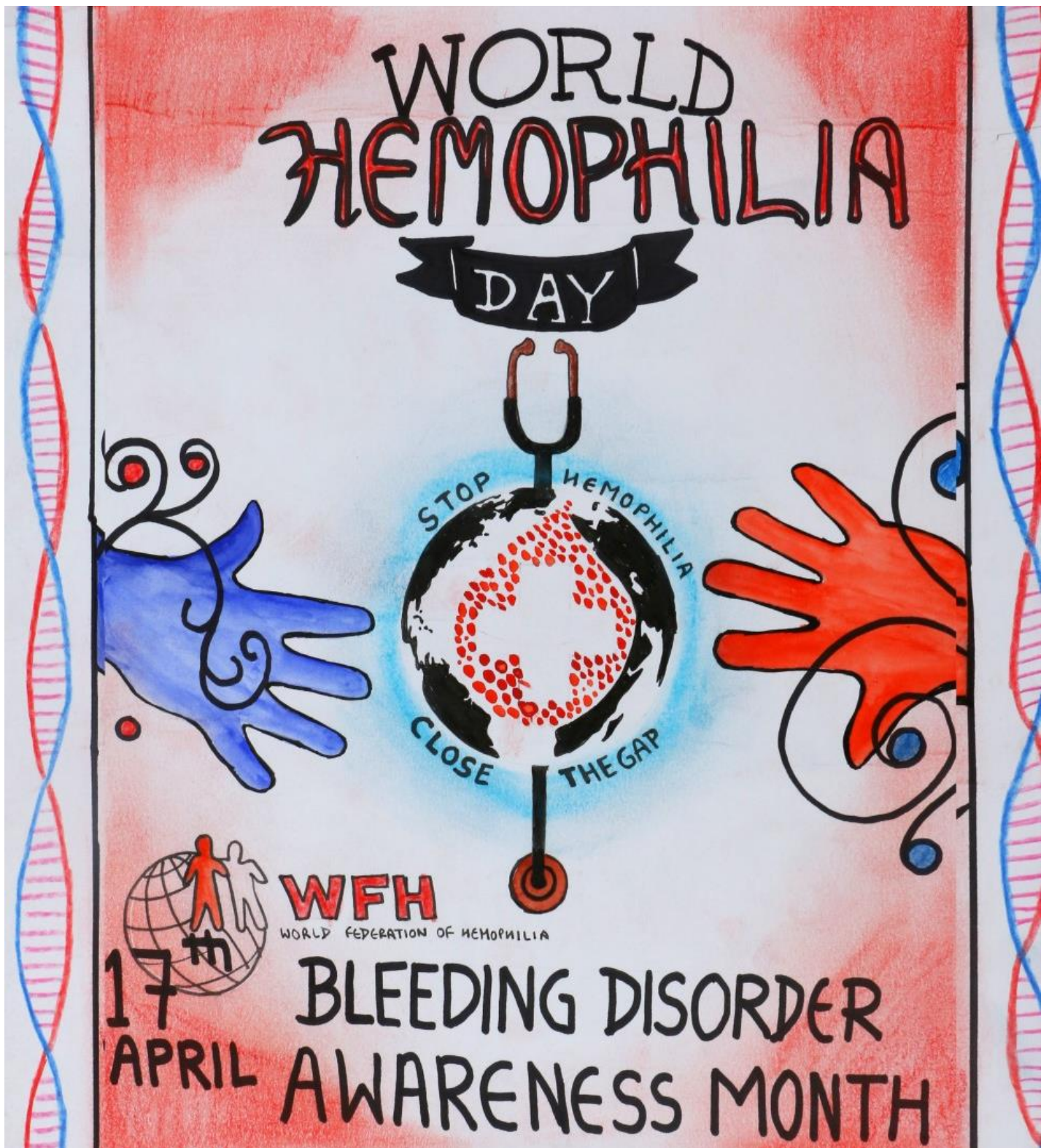
HEAR THEIR VOICES

On World Hemophilia Day let's come together to show our support for the millions of women and girls affected by bleeding disorders.



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Dr. Jatin Kanda
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WORLD
HEMOPHILIA
DAY



Poster By:
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World Immunization Week

World Immunization Week – celebrated in the last week of April – 24-30 April, aims to promote the use of vaccines to protect people of all ages against disease. Immunization saves millions of lives and is widely recognized as one of the world's most successful and cost-effective health interventions. Today, there are still 19.4 million unvaccinated and under-vaccinated children in the world.

2017 marks the halfway point in the Global Vaccine Action Plan (GVAP) – endorsed by 194 Member States of the World Health Assembly in May 2012 – which aims to prevent millions of deaths from vaccine-preventable diseases by 2020 through universal access to immunization. Despite improvements in individual countries and a strong global rate of new vaccine introduction, all of the targets for disease elimination—including measles, rubella, and maternal and neonatal tetanus—are behind schedule. In order for everyone, everywhere to survive and thrive, countries must make more concerted efforts to reach GVAP goals by 2020. Additionally, those countries that have achieved or made forward progress towards achieving the goals must work to sustain those efforts over time.

With this year's Theme: **#VaccinesWork**

The main goal of the campaign is to raise awareness about the critical importance of full immunization throughout life.

Immunization is a process in which a person is given vaccine to make him/her immune or resistant to an infectious disease. Vaccine stimulates immune system to protect the person against the disease or infection. Immunization is one of the most cost effective public health investments. Almost one-third of deaths among children under five are preventable by a vaccine shot.

According to World Health Organisation (WHO), one out of five children worldwide is missing out on vital immunization. There are 25 diseases that can be prevented by vaccines including diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhoea, rubella and tetanus.

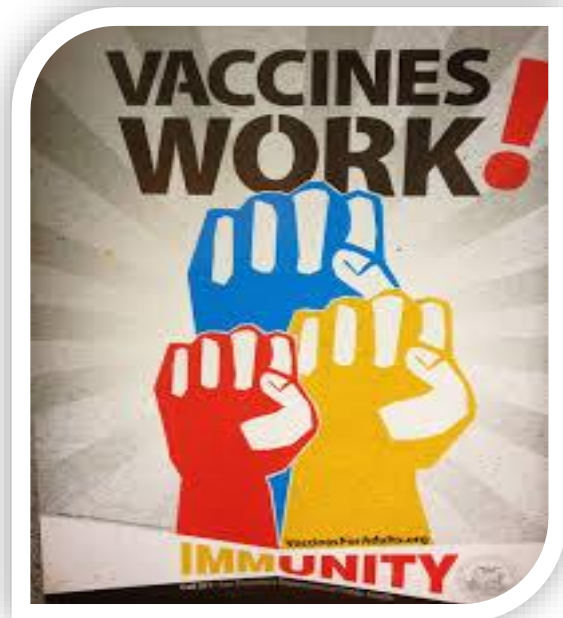
India has one of the largest Universal Immunization Programs (UIP) in the world. Immunization services are offered free in public health facilities under the Universal Immunization Programs, but despite rapid increases, the immunization rate remains low in some areas. Vaccination coverage in India is far from complete despite the long-standing commitment to universal coverage. While gains in coverage proved to be rapid throughout



from 1980s to 2016, taking off from a below 20% coverage to about 62% coverage, subsequent gains have been limited, there are still pockets of low coverage areas.

Ministry of Health and Family Welfare also launched Mission Indradhanush on 25th December 2014 with the aim of expanding immunization coverage to all children across India by year 2020. The Mission Indradhanush, depicting seven colours of the rainbow, targets to immunize all children against seven vaccine preventable diseases namely diphtheria, pertussis, tetanus, childhood tuberculosis, polio, hepatitis b and measles.

Immunization is a fundamental strategy in achieving other health priorities, from controlling viral hepatitis, to curbing antimicrobial resistance, to providing a platform for adolescent health and improving antenatal and newborn care. We must work to sustain those efforts over time, accelerate control of vaccine-preventable diseases and prevent millions of deaths.



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World Malaria Day

Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected mosquitoes. About half of the world's population is at risk of malaria, particularly those in lower-income countries. It infects more than 500 million people each year and kills more than one million people, according to WHO. However, Malaria is preventable and curable.

World Malaria Day (WMD) is an international observance commemorated every year on 25 April and recognizes global efforts to control malaria. The World Health Assembly instituted World Malaria Day in May 2007. The purpose of the event is to give countries in affected regions the chance to learn from each other's experiences and support one another's efforts. World Malaria Day also enables new donors to join in a global partnership against malaria, and for research and academic institutions to reveal scientific advances to the public. The day also gives international partners, companies and foundations a chance to showcase their efforts and reflect on how to scale up what has worked.

For **World Malaria Day 2017** we have decided to build on the momentum from last year by keeping the theme:



What is malaria?

Malaria is a serious, sometimes fatal, disease spread by mosquitoes and caused by a parasite. The illness presents with flu-like symptoms that include high fever and chills.

There are three necessary aspects to the malaria life cycle:

1. The Anopheles mosquito carries the parasite and is where the parasite starts its life cycle.
2. The parasite (*Plasmodium*) has multiple subspecies, each causing a different severity of symptoms and responding to different treatments.
3. The parasite first travels to a human's liver to grow and multiply. It then travels in the bloodstream and infects and destroys red blood cells.

What is the incubation period for malaria?

Following the mosquito bite, there is about a seven- to 30-day period before symptoms appear (incubation period). *P. falciparum* usually has a short incubation period.

Is malaria contagious?

Malaria is not spread from person to person (except in pregnancy as noted below) but can be spread in certain circumstances without a mosquito. This occurs rarely and is usually found in a transmission from the mother to the unborn child (congenital malaria), by blood transfusions, or when intravenous-drug users share needles.

What are malaria symptoms and signs?

Malaria has a wide spectrum of symptoms. After the bite by the infected mosquito occurs, it can take between seven and 30 days (average is seven to 15 days) before symptoms start (incubation period).

Malaria is classified as uncomplicated or complicated (severe).

Uncomplicated malaria

The most common symptoms are

- fever and chills,
- headaches,
- nausea and vomiting, and
- general weakness and body aches.

The classic description of a malaria attack (which is rarely observed), would be a six- to 12-hour period of cold and shivering alternating with fever and headaches and then a stage of sweating and tiredness (sometimes divided into the cold and hot stage).

Complicated or severe malaria

This occurs when different body systems are affected by malaria.

- Severe anemia (due to destruction of red blood cells)
- Kidney failure
- Cerebral malaria -- seizures, unconsciousness, abnormal behavior, or confusion
- Cardiovascular collapse
- Low blood sugar (in pregnant women after treatment with quinine)

Other complications that can arise as a result of severe malaria include:

- liver failure and jaundice – yellowing of the skin and whites of the eyes
- shock – a sudden drop in blood pressure
- pulmonary oedema – a build-up of fluid in the lungs
- acute respiratory distress syndrome (ARDS)
- abnormally low blood sugar – hypoglycaemia
- kidney failure
- swelling and rupturing of the spleen
- dehydration

Malaria in pregnancy

If you get malaria while pregnant, you and your baby have an increased risk of developing serious complications, such as:

- premature birth – birth before 37 weeks of pregnancy
- low birth weight
- restricted growth of the baby in the womb
- stillbirth
- miscarriage
- death of the mother

Diagnosis of malaria

- Microscopic Diagnosis
- Antigen Detection
- Molecular Diagnosis
- Serology

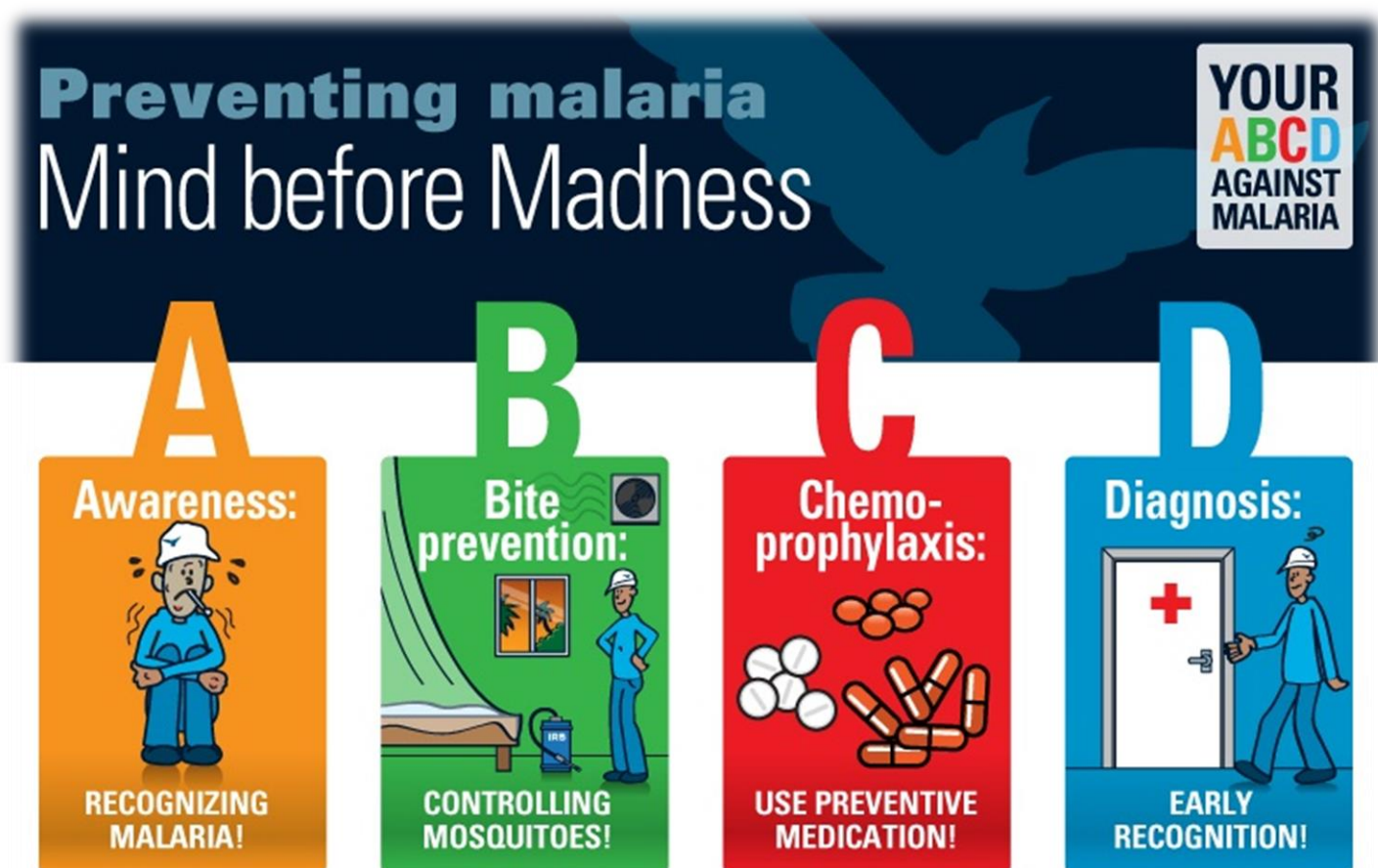
Treatment

Aims	Causation	Therapy	Drugs
To alleviate symptoms	Symptoms are caused by blood forms of the parasite	Blood schizonticidal drugs	Chloroquine, quinine, artemisinin combinations
To prevent relapses	Relapses are due to hypnozoites of <i>P. vivax</i> / <i>P. ovale</i>	Tissue schizonticidal drugs	Primaquine
To prevent spread	Spread is through the gametocytes	Gametocytocidal drugs	Primaquine for <i>P. falciparum</i> , Chloroquine for all other

Malaria prevention

The ABCD of malaria prophylaxis:

- Awareness of the risk of malaria.
- Bites - reducing likelihood of bites from anopheline mosquitoes.
- Chemoprophylaxis.
- Diagnosis and prompt treatment to prevent complications.



About the WHO Global Malaria Programme

The WHO Global Malaria Programme (GMP) is responsible for coordinating WHO's global efforts to control and eliminate malaria. Our work is guided by the Global Technical Strategy for Malaria 2016–2030 (GTS) adopted by the World Health Assembly in May 2015.

The Global Technical Strategy provides a technical framework for all malaria-endemic countries working towards malaria control and elimination. It sets ambitious but attainable global targets for 2030, including:

- Reducing malaria case incidence by at least 90%
- Reducing malaria mortality rates by at least 90%

- Eliminating malaria in at least 35 countries
- Preventing a resurgence of malaria in all countries that are malaria-free

The timeline of 2016–2030 is aligned with the 2030 Agenda for Sustainable Development, endorsed in 2015 by all United Nations Member States

National malaria control Programme

The government launched the **National Malaria Eradication Program (NMEP)** in 1958. Under this program, the government makes extensive use of local bodies for fuller implementation. Realizing the difficulties in eradicating malaria, the NMEP has been renamed as **National Anti-Malaria Programme**. Malaria is also covered under the **National Vector Borne Disease Control Programme**.

Under the programme, the main aim is the reduction of the disease to a tolerable level in which human population can be protected from malaria transmission with the available means. The government has also set up Drug Distribution Centres and Fever Treatment Depots in rural areas for providing easy access to anti-malaria drugs to the community.



Dr. Tarundeep Singh
Assistant Professor
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Interesting facts on Malaria

- Mosquitoes have been around for 170 million years. Only Female mosquitoes bite. They need blood for fertilised eggs developing in them. Otherwise, mosquitoes are vegetarians.
- Some people attract mosquitoes more than others. One in 10 people are highly attractive to mosquitoes.
 - ❖ There is a tremendous amount of research being conducted on what compounds and odours people exude that might be attractive to mosquitoes. Scientists do know that genetics account for 85% of our susceptibility to mosquito bites. People with high concentrations of steroids, uric acid, lactic acid, octenol or cholesterol on their skin surface (not necessarily related to serum levels) appear to attract mosquitoes.
 - ❖ In addition to skin odour, mosquitoes are attracted to carbon dioxide, movement, dark clothing, moisture and heat.
 - ❖ Larger people and pregnant women emit more carbon dioxide and attract more mosquitoes.
 - ❖ People who are exercising are highly attractive to mosquitoes, as warm, moving bodies emit large amounts of carbon dioxide and lactic acid.
- Mosquitoes can smell their dinner from an impressive distance of up to 50 meters.
- A study carried out in the 1960s, showed that thiamine (Vitamin B1) produces a skin odour female mosquitoes don't like. But no other study has confirmed thiamine's effectiveness as a mosquito repellent.
- In mosquito, the Gametocytes mature because of lower body temperature of the mosquito. The Male Gametocyte is a little slower to mature as compared to the Female Gametocyte. Consequently Ova of Plasmodia may be fertilised by spermatozoa produced by male gametocyte from an earlier meal.
- Malarial parasite and mankind have co-existed for many centuries. Evolution has attempted to bring about changes in human Genome (related to Haemoglobin/RBCs) so that Malarial parasites cannot feed upon RBCs.
 - ❖ Glucose-6 Phosphate Dehydrogenase Deficiency Trait offers protection against P. falciparum infection
 - ❖ Duffy Blood Group factors (Fy-a or Fy-b) serve as a site for attachment of Vivax to RBCs. Certain people in West Africa have evolved to be Duffy factor Negative. This gives them some protection against Vivax malaria.
 - ❖ In a person with Sickle cell anemia, Malarial parasites -particularly Falciparum, cause distortion of RBCs. It facilitates removal of RBCs (and the parasites inside) from circulation. This offers such persons some protection against malaria. Sickle cell Trait, a hetrozygous form, is a trade off for life without malaria with possible mild anemia.
- The Tharu people are an ethnic group indigenous to parts of the Terai, the southern

foothills of the Himalaya in Nepal and India.

Incidence of malaria is nearly seven times lower amongst Tharu. Investigators have found genes for thalassemia in nearly all Tharus.

Haemoglobin F does not support malarial parasites and protects against all types of Malaria.

- Melanesia is a group of several hundred islands east of New Guinea. Some people there have abnormal Oval shaped RBCs (Melanesian Ovalocytes) that appear to protect them against Malaria.
- What is common to these famous personalities, namely Alexander the great, Gengis Khan and Christopher Columbus?

All of them apparently succumbed to Malaria.

- It is rare to find Malaria in areas situated more than 2000 meters above sea level.
- Malaria also infects many other mammals.

One type of malaria (Plasmodium Knowlesi), normally found in monkeys, has found its way to human beings.

- Hippocrates, a physician born in ancient Greece, today regarded as the "Father of Medicine", was the first to describe the manifestations of Malaria, and relate them to the time of year and to where the patients lived.
- Sir Ronald Ross received the Nobel Prize in 1902. His discovery of the malarial parasite in the gastrointestinal tract of a mosquito proved that malaria was transmitted by mosquitoes, and laid the foundation for the method of combating the disease.

He made this discovery while working in Indian Medical Service – now known as Army Medical Corps. PIMS workforce currently has several people who have served in the same organization.



Dr. Kulbir Sharma
Medical Superintendent
Professor | Department of General Medicine



Poster By:

Priyanka

Batch 2016



World Malaria Day

25th April

DID YOU KNOW
A CHILD DIES FROM
MALARIA
EVERY MINUTE
Spread Awareness to Save
Many Lives

LIFE CYCLES

MALARIA (parasite)

The male Anopheles mosquito feeds only on plant nectar, while the female needs a blood meal for the development of her eggs. Starting at dusk, she will continue her search throughout the night until taking a meal. If not treated, those who get malaria, can die. Pregnant women and children are particularly at risk of dying from malaria.



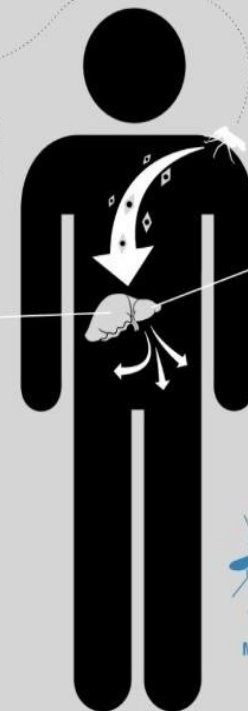
If the female Anopheles mosquito has fed on the blood of a malaria-infected human, she becomes infected, the malaria parasite matures in her body and migrate to her salivary glands. She can pass the Plasmodium parasite on to other people she bites.



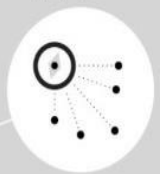
Ultimately the parasites destroys red blood cells throughout the body which release even more parasites in waves that are experienced as recurring waves of high fever.



Studying blood under a microscope confirms whether someone has malaria or not but the general rule is, "fever equals malaria unless proved otherwise".



Once they have entered the new host, microscopic parasitic cells flow through the blood stream and settle in the liver where they multiply rapidly.



Their new host will not experience any symptoms for between **8-30 days**



Malaria needs people and mosquitoes to exist.



Poster by
Dr. Aditya Saholi
Intern



World Day for Safety and Health at Work

What is it?

The day is celebrated on 28th April annually by the International Labour Organisation since 2003. 28th April was chosen especially as it has long been associated with the world's trade union movements commemoration of the victims of occupational accidents and disease



Why it is celebrated?

1. It is celebrated to promote safe, healthy and decent work
2. Also seeks to raise awareness of the role of the employees, employers and the government in making safer and healthier work places.
3. Also to eliminate work place hazards like :-
 - Chemical Poisoning
 - Risks from equipment heavy machinery
 - Psychological hazards like work performance, greater competition, more expectations, longer working hours, health and job satisfaction leading to undue greater stress.

How to achieve it?

According to the ILO to achieve the goals, the codes of practices has been identified and categorized according to the industry such as the:-

- a) Agriculture
- b) Mining
- c) Heavy Industry
- d) Shopping
- e) Chemical and Biological Industries

What is covered under these codes:-

1. Issues like workplace violence, discrimination against HIV/AIDS patients and the differently able people.
2. Giving the highest priority to the principle of prevention.
3. Awareness and education programmes for employees.
4. Easy access to safety related information.
5. An on site doctor or paramedic.
6. Incorporate a wellness programme.
7. Having a well equipped gym with a trainer.
8. Regular inspections about hygiene maintenance of work places.
9. Maintenance positivity.
10. On hand emergency equipments like fire extinguishers.

Sustainable Development Goal 8 is one of the codes which in particular provides for the promotion of:-

- A. Inclusive and sustainable economic growth
- B. Full and productive employment
- C. Decent work for all.

Target 8.8 focuses on the:-

- i. Protection of labour rights.
- ii. Promotion of safe and secure working environment for all workers including migrant workers and women in particular.
- iii. Countries are also asked to report on the following indicators :-
 - Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status
 - Detection of new hazards and their emerging risks
 - The identification of hazardous sectors
 - The development of preventive measures
 - The implementation of policies and programmes at international , national and enterprise level
- iv. Respecting at all levels the right to a safe and healthy working environment through a system of defined rights, responsibilities and duties.



Conclusion:-

To fulfill the aim and achieve the designated goal, it is essential that the:-

1. Good practices should be shared, promoted and emulated wherever possible
2. Partnerships be forged to accelerate the progress towards building a global prospect of prevention, which is actually the most neglected one
3. Raising awareness and knowledge of occupational hazards and risks and also how to prevent these to justify the age old saying that “PREVENTION IS BETTER THAN CURE”



Dr. Aashrya Malik
Intern

World Day for Safety

- The ILO celebrates the **World Day for Safety and Health at Work** on the **28 April** to promote the prevention of occupational accidents and diseases globally.
- It is an awareness-raising campaign intended to focus international attention on emerging trends in the field of occupational safety and health and on the magnitude of work-related injuries, diseases and fatalities worldwide.



OPTIMIZE THE COLLECTION AND USE OF OSH DATA

A CONTRIBUTION TO THE IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT GOAL 8

WORLD DAY FOR SAFETY AND HEALTH AT WORK
28 APRIL 2017



www.ilo.org/safeday



The ILO's campaign for the 2017 World Day for Safety and Health at Work focuses on the critical need for countries to improve their capacity to collect and utilize reliable occupational safety and health (OSH) data.

The United Nations 2030 Agenda for Sustainable Development adopted on September 25, 2015 encompasses a global plan of action with specific targets to end poverty, protect the planet, and ensure prosperity for all. With its adoption, the capacity to collect and utilize reliable OSH data has also become indispensable for countries to fulfil their commitment to implement and report on some of the agenda's 17 sustainable development goals and their targets.



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