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Beat Plastic Pollution

YOUR HEALTH

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YOUR HEALTH

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Editorial

The United Nations in India has launched the Plastic Pollution Literacy Kit, a new digital educational tool designed to empower everyone from schoolchildren to CEOs with practical knowledge to tackle the growing problem of plastic waste.

Developed by the UN Environment Programme (UNEP), the kit targets a wide audience — from policymakers and educators to industry leaders, youth and local communities. It lists accessible, role-specific actions to phase out single-use plastics and foster circular economy practices.

"This Kit is a timely contribution to India's important efforts to tackle plastic pollution. It sets out in simple, clear language the many ways in which we can all play our part to make a difference, to create a *jan andolan* (people's movement) of change," said Shombi Sharp, UN Resident Coordinator in India.

A Full Week of Action

The launch capped a full week of coordinated events for World Environment Day led by UNEP India, bringing together key partners to share solutions and inspire collective action:

Media Orientation Workshop: Held on 30 May, in partnership with Mongabay India and the Centre for Media Studies, and UN Information Centre New Delhi, this workshop equipped journalists and content creators with tools to translate complex data on plastics into compelling stories. The three-hour session focused on solution-oriented storytelling rather than doom-mongering.

Tide Turners Plastic Challenge National Youth Summit: One of the world's largest youth-led environmental movements celebrated its winners on 2 June — young Indians turning the tide through local innovations. A stand-out feature was a youth photo exhibition, showcasing creative solutions such as coconut leaf straws replacing single-use plastic, and life jackets made from recycled materials. Other highlights included the launch of *Waves of Change,* a collection of youth-led impact stories, and a panel discussion on storytelling for advocacy, featuring UNEP Goodwill Ambassador Ms. Dia Mirza, WWF India CEO Mr. Ravi Singh, and Centre for Environment Education Founder Mr. Kartikeya Sarabhai.

Dr. Khwaja Alim Ahmed
Hony. Editor, Your Health

Roundtable on Industry Solutions: In a dialogue with private sector leaders, UNEP convened a roundtable focused on sustainable packaging, Extended Producer Responsibility (EPR), and circular economy innovations on 3 June. Amitabh Kant, India's G20 Sherpa, delivered the keynote address, urging deeper corporate commitment to ending plastic pollution. Moderated by Dia Mirza, the discussion featured industry case studies now being compiled for submission to the Ministry of Environment, Forest and Climate Change. Companies shared innovations in packaging, collaboration with recyclers, and efforts to bring small businesses into the fight.

Why It Matters

Plastic pollution is a planetary crisis. Since the 1950s, the world has produced more than 9.2 billion tons of plastic — nearly 7 billion tons have ended up as waste. Only 9% has been recycled. In just two months, countries will come together to try to hammer out a new global treaty to end plastic pollution. UN Secretary-General António Guterres, in his World Environment Day message, called for an “ambitious, credible and just agreement” that tackles the full

lifecycle of plastics, reflects community needs, aligns with the SDGs and is implemented quickly and fully.

World Environment Day 2025: #BeatPlasticPollution

To rally momentum, UNEP is leading the 52nd annual World Environment Day on 5 June, the world's largest platform for environmental outreach. This year's commemoration is hosted in Jeju, Republic of Korea, under the theme #BeatPlasticPollution. Since launching in 2018, the UNEP-led campaign has advocated for a just and inclusive transition away from plastic dependency. The day brings together governments, businesses, communities, and individuals in a shared mission to protect and restore the planet, while advancing progress towards the Sustainable Development Goals (SDGs), especially those linked to climate action and sustainable consumption.

Celebrating life after cancer, honoring survivors, and raising awareness about the challenges and triumphs of the survivorship journey

Prof. (Dr.) Sankar Sengupta
Hony. Secretary, Your Health

Cancer is increasing rapidly in our country today, one that seeps into every level of the social strata. Rich or poor, educated or illiterate, nobody is immune to it. There are almost 25 lakh people that are affected by it in our country, while the causes of this illness are only poorly understood. Every year 12 lakh men and women are diagnosed with one of the various kinds of cancer, and 8-lakh die from it. The numbers are likely to go up by at least 50 % by 2040.

This Day is for those who have faced off against this most dreaded of ailments.

A survivor is anyone who has been diagnosed with cancer and subsequently survived by treatment. We must remember that even survivors have lasting effects on their lives left by the cancer, and this can affect them and their near ones in many ways.

Cancer Survivor Day was established to recognize and celebrate efforts of those who have battled cancer and won, and to help bring hope to those still battling this terrible disease. While the numbers shown above sound terrible, there is plenty of hope, as there are lakhs of people who have beaten this illness in our country and risen again to live full happy and normal lives.

Word cancer hangs over the minds and hearts of most people as a death sentence, and the reaction in informing someone you know has it is extreme. But both those suffering from Cancer and their families need to know that it is far from extreme helpless. Treatment is getting more effective, and we should all get together to help the Cancer patient and their families make it through this long and hard journey that is treatment and recovery. Now days many cancers are curable and one can live a normal life after cure.

This is a day of celebration for all cancer survivors and their friends and families and a day to raise awareness of cancer and how it affects lives. The event is also a hope for the newly diagnosed, support for affected families and outreach in the community. If you know a Cancer Survivor, take some time today to congratulate them on surviving and bring them to meet those who are being treated for cancer to bring hope to these cancer sufferers

CARPAL TUNNEL SYNDROME

Guest Editorial

INTRODUCTION

Carpal Tunnel Syndrome (CTS) is a common neurological condition that occurs when the median nerve, which runs from the forearm into the hand, becomes compressed or pinched at the wrist. This nerve passes through a narrow passageway in the wrist called the carpal tunnel, along with tendons that control finger movement.

When pressure builds up within the carpal tunnel — due to swelling, repetitive hand movements, or certain medical conditions — it can lead to numbness, tingling, weakness, and pain in the hand and fingers, particularly the thumb, index, and middle fingers.

CTS is especially common among individuals who perform repetitive tasks with their hands, such as typing, using vibrating tools, or assembly line work. It is also associated with conditions like diabetes, rheumatoid arthritis, obesity, and pregnancy.
Early diagnosis and treatment are crucial to prevent permanent nerve damage. Treatment options range from wrist splinting and activity modification in mild cases to corticosteroid injections or surgical decompression in more severe or persistent cases.

RISK FACTORS
Factors Involved in the Pathogenesis of Carpal Tunnel Syndrome
Anatomy

Decrease in Size of Carpal Tunnel
- Bony abnormalities of the carpal bones
- Acromegaly
- Flexion or extension of wrist

Increase in Contents of Canal
Forearm and wrist fractures (Colles fracture, scaphoid fracture)
- Dislocations and subluxations (scaphoid rotary sublux-ation, lunate volar dislocation)
- Posttraumatic arthritis (osteophytes)
- Musculotendinous variants
- Aberrant muscles (lumbrical, palmaris longus, palmaris profundus)
- Local tumors (neuroma, lipoma, multiple myeloma, ganglion cysts)
- Persistent medial artery (thrombosed or patent)
- Hypertrophic synovium

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Guest Editor, Your Health of IMA June 2025 Edition
Publication Director, JDN – IMA (HQ) New Delhi

- Hematoma (hemophilia, anticoagulation therapy, trauma)

Physiology
Neuropathic Conditions
- Diabetes mellitus
- Alcoholism
- Double-crush syndrome
- Exposure to industrial solvents

Inflammatory Conditions
- Rheumatoid arthritis
- Gout
- Nonspecific tenosynovitis
- Infection

Alterations of Fluid Balance
- Pregnancy
- Menopause
- Eclampsia
- Thyroid disorders (especially hypothyroidism)
- Renal failure
- Long-term hemodialysis
- Raynaud disease
- Obesity
- Lupus erythematosus
- Scleroderma
- Amyloidosis
- Paget disease

External Forces
- Vibration
- Direct pressure

- **PATHOGENESIS OF CARPAL TUNNEL SYNDROME**
  Pressure of carpal tunnel in normal people is 2.5 mmHg at neutral wrist position.
- About 30mmHg,90° wrist flexion or extension.
- In those Pt with CTS baseline pressure is 32 mmHg.
- Increase to 94 mm hg at 90degree wrist extension.

Increased carpal tunnel pressure

Median nerve compression and entrapment

Changes of microvascular structure of the nerve

Biochemical disturbances

Reduction in the endoneurial blood flow

Increased permeability of endoneurial vessels

Edema

Increased diffusion distance for oxygen

Hypoxia

Upregulation of angiogenic factors (HIF-1 and VEGF) VEGF

Axonal degeneration of median nerve and neuritis

CLINICAL FEATURES

Clinical Features of Carpal Tunnel Syndrome (CTS):

Carpal Tunnel Syndrome is caused by compression of the median nerve as it passes through the carpal tunnel in the wrist. The clinical features typically include:

1. Sensory Symptoms (often early signs):
Tingling, numbness, or burning sensation in:
- Thumb
- Index finger
- Middle finger

PHYSICAL EXAMINATION FINDINGS
Tests for Nerve Compression

TEST	HOW PERFORMED	CONDITION TESTED	POSITIVE RESULT	INTERPRETATION OF POSITIVE RE
Phalen test	Elbows on table, forearms vertical wrists flexed	Paresthesia in response to positi	Numbness or tingling on radial digits within 60 s	Probable CTS (sensitivity 0.75, specifici
Percussion test (Tinel sign)	Lightly tap along median nerve fro proximal to dista	Site of nerve lesio	"Electric" tingling response in finge	Probable CTS if positive at the wrist (se 0.60,specificity 0.67)
Carpal tunnel compression tes (Durkan)	Direct compressio of median nerve a carpal tunnel	Paresthesia in response to compression	Paresthesia withi 30 s	Probable CTS (sensitivity 0.87, specific
Hand diagram	Patient mar site of pain or altered sensation on outlined hand diagram	Patient's percepti of symptoms	Markings on palm side of radial digit without markings palm	Probable CTS (sensitivity 0.96, specific negative predictive value 0.91)
Hand volume stress test	Hand volume measured by displacement, rep after 7 min stress test and 10 min rest	Hand volume	Hand volume	Probable dynamic CTS
Direct measureme of carpal tunnel pressure	Wick or infusion catheter placed i carpal tunnel	Hydrostatic pressu in resting and provocative positioning	Resting pressure 25 mm Hg (variab and technique related)	Hydrostatic compression is probable ca CTS
Static two-point discrimination	Determine minim separation of tw distinct points wh applied to palma fingertip	Innervation densi of slow-adapting fibers	Failure to determi separation of at le 5 mm	Advanced nerve dysfunction
Moving two-point discrimination	As above, with movement of the points	Innervation density of fast-adapting fibers	Failure to determi separation at leas mm	Advanced nerve dysfunction

- Radial half of the ring finger
- Symptoms often worse at night or on waking up

PHALEN

May be triggered or worsened by:

- Prolonged wrist flexion/extension
- Repetitive hand use

REVERSE PHALEN

2. Motor Symptoms:

Weakness of thumb movements, especially:

- Thumb opposition
- Abduction
- Loss of grip strength
- Difficulty with fine motor tasks (e.g., buttoning clothes)

TINEL

3. Thenar Muscle Atrophy:

Wasting of the muscles at the base of the thumb (thenar eminence) in advanced cases

INVESTIGATIONS

- Electromyography(EMG) and nerve conduction studies (NCV) can confirm the diagnosis, determine the severity of nerve damage, guide and measure the effect of treatmentElectro diagnostic testing is the gold standard test for CTS.
- Ultrasonography.
- X ray wrist
- Blood tests - CBC,BS-F,PP,THYROID PROFILE, ESR,RF
- MRI WRIST.

ELECTRODIAGNOSTIC TEST

- Useful in diagnosis and Assessing severity and excluding other neurological disease.
- Sensory abnormalities are typically seen earlier than motor abnormalities.

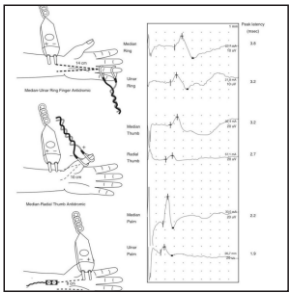
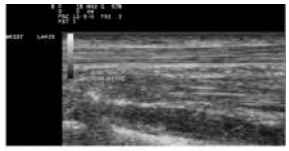


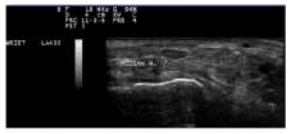
FIGURE 1**The CSI (sometimes referred to as the Robinson index) is obtained by recording the three tests noted below. The CSI is suer of the median ulnar or median radial differences. In this case, it is (3.8 - 3.2) + (3.2 - 2.7) + (2.2 - 1.9) = 0.6 + 0.5 + 0.3 = 1.4. The upper limit of normal is 0.9 ms.**

- Median sensory latency are prolonged.
- Median motor responses are affected in more severe disease and can show decreased conduction velocity across the forearm.
- Needle EMG demonstrate ACUTE OR CHRONIC denervation in the abductor pollicisbrevis or opponens pollicis muscle.

ULTRASOUND IN CTS

ANATOMICAL LANDMARKS





- Patient sits with the forearm resting comfortably on a flat surface, with the elbow in Mid flexion and the wrist in supination while the fingers are semi extended.
- Ultrasound assessment of median nerve performed at the proximal carpal tunnel that is at the level of the Pisiform bone or distal forearm.
- The tunnel contains flexor digitorum tendons which are hyperechoic as well as median nerve (anterior to the tendon.) The nerve appears as hypoechoic with multiple bright reflectors and hyperechoic border.
- At the proximal wrist the normal median nerve appears elliptical and flat and is progressively as it causes distally.

CROSS-SECTIONAL AREA

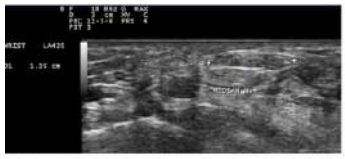
- Compression of median nerve leads to congestion of Epineural and endoneural veins, subsequently causing nerve edema which manifest as increase in the median nerve CSA.

Table 10.2. Sonographic carpal tunnel changes stratified into subjective and objective outcomes

Subjective criteria	Objective criteria
Flattening of the nerve, especially at the level of the hamate bone	The mean crosssectional area of the median nerve is greater than 10 mm2 at th pisiform bone level
Volar bulging of the flexor retinaculum	The flattening ratio of the nerve (transverse diameter divided by Antero-posterior (AP) diameter) is greater than 4:1 at the level of the hamate bone
Enlargement of the median nerve as it enters the carpal tunnel	Volar bulging of the flexor retinaculum is greater than 3.1 mm
Large fluid or fat layer surrounding the tendons	Power doppler assessment of the median nerve vasculature
Decreased mobility of the median nerve on flexion and extension of the fingers, hand, or wrist	

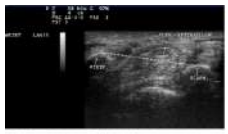
MEDIAN NERVE FLATTENING

- Flattening of the median nerve reflects theMorphopathological changes in response to persistent pressure over the median nerve.



- We have to calculate flattening ratio(FR).This is the ratio of the mediolateral diameter to anteroposterior diameter on cross section.

BOWING OF THE TRANSVERSE CARPAL LIGAMENT



- Thepalmar bowing of the flexor retinaculum is a measure used to quantify the internal pressure exerted on the retinaculum from the contents within the carpal tunnel.
- The Palmar bowing of the flexor retinaculum is displacement (measured in mm) of the retinaculum from a line connecting the pisiform bone with the scaphoid bone.

DIFFERENTIAL DIAGNOSIS

- Cervical radiculopathy in C5- T1 distribution.
- Brachial plexopathy
- Proximal median neuropathy
- Arthritis of CMC joint of Thumb.
- Arthritis of wrist
- Raynaud phenomenon
- Gout
- Cervical myofascial pain
- Acute compartment syndrome
- Diabetic neuropathy

TREATMENT

- Conservative treatment usually responds in mild to moderate CTS.
- Exacerbating activities such as repetitive or excessive wrist flexion and extension, gripping should be avoided.
- The wrist should be splinted in 0 to5° of extension to limit the wrist motion.The splint is worn at night and as tolerated during the day time.
- NSAIDS and neuropathic pain medication can be used.
- Oral steroids can be used.(Prednisone of 20 mg daily for the first week and then 10 mg daily for the second week)
- Local corticosteroid injection into the carpal tunnel. Two injection can be required if nocturnal paraesthesia persist after the initial management.
- Underlying conditions such as hypothyroidism, rheumatoid arthritis and diabetes should be treated.
- Frequent period of rest should be prescribed, especially when vocational activities involve sustained positioning or repetitive and forceful flexion and extension of the wrist.
- **Hydrodissection**- Hydrodissection is a minimally invasive technique used to treat Carpal Tunnel Syndrome (CTS). It involves injecting a solution, often a combination of local anesthetics and corticosteroids, into the carpal tunnel to separate the median nerve from surrounding tissues and tendons. This procedure aims to relieve pressure on the median nerve, reducing symptoms like numbness, tingling, and pain in the hand and fingers.

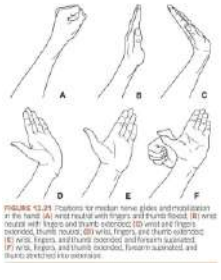
USG guided Hydrodissection in a case of CTS

PHYSICAL THERAPY

Mobilise restricted joints, connective tissue and muscle / tendon- Mobilise carpals if restricted, tendon gliding exercises, median nerve mobilisation exercises

- Improve muscle performance-Gentle multi-angle muscle setting, progress to resistance and endurance.
- Progress functional independence-Involve Patient in all aspects of program, self monitoring of symptoms.
- Modality - UST (0.5 watt/cm2 for 5-7 min,15 days)

SURGERY IN CTS



- Severe and rapidly progressive weakness and atrophy.
- Fail to respond to conservative treatment.
- If there is a mass lesion causing the median nerve compression
- Surgical approach - MINI PALM OPEN CT RELEASE,EXTENDED OPEN CT RELEASE.

PARENTING: THE REAL CHALLENGES

Parenting is the process of raising and nurturing children to become healthy, responsible, and well-adjusted adults. It includes everything from meeting a child's physical needs (like food, safety, and shelter) to their emotional, social, and intellectual development.[1] The key aspects of parenting are as follows (Table 1)

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Prof., Dept. of Psychiatry,
Bankura Sammilani Medical College & Hospital

Table 1: Parenting aspects

1. Love and Affection ○ Expressing unconditional love and providing emotional support. ○ Building a secure attachment through presence, attention, and care.	**2. Discipline and Guidance** ○ Setting clear boundaries and expectations. ○ Teaching right from wrong in a respectful, consistent manner.
3. Communication ○ Listening actively and encouraging open, honest dialogue. ○ Age-appropriate explanations and validation of feelings.	**4. Role Modelling** ○ Demonstrating behaviors and values you want your child to learn. ○ Being consistent in actions

Parenting comes with a wide range of challenges that can vary depending on the child's age, temperament, family dynamics, and external circumstances.[2] Here's a breakdown of some common parenting challenges by category:

1. **Infancy & Toddlerhood (0–3 years)**
- Sleep deprivation: Frequent night waking and sleep regressions.
- Feeding issues: Breastfeeding/formula challenges, picky eating.
- Tantrums & emotional regulation: Difficulty expressing needs.
- Separation anxiety: Clinginess, especially during daycare drop-offs.
- Milestone pressure: Stress around walking, talking, toilet training.

2. **Preschool to Preteen (4–12 years)**
- Discipline: Setting and enforcing consistent boundaries.
- Screen time: Managing access to devices and digital content.
- Socialization: Helping with friendships, bullying, or shyness.
- Academic pressure: Supporting schoolwork without pushing too hard.
- Sibling rivalry: Managing conflicts between siblings.

3. **Teenage Years (13–19 years)**
- Independence vs. control: Balancing freedom with safety.

- Mental health: Identifying signs of anxiety, depression, or stress.
- Substance use and risky behavior: Open dialogue and prevention.
- Identity and self-esteem: Supporting gender, sexual, or cultural identity.
- Academic and future pressure: College, career, and self-worth concerns.

4. **General & Ongoing Challenges**

- Parental burnout: Emotional and physical exhaustion.
- Work-life balance: Managing careers while being present as a parent.
- Cultural or generational gaps: Navigating different parenting styles.
- Financial stress: Cost of childcare, schooling, activities.
- Co-parenting or single parenting: Managing responsibilities and relationships.

5. **Tips for Managing Parenting Challenges**

- Consistency: Clear rules and routines help kids feel secure.
- Empathy & active listening: Understand your child's point of view.
- Self-care: Prioritize your own well-being to stay patient and grounded.
- Seek support: Talk to other parents, therapists, or parenting groups.
- Stay flexible: Parenting often requires adjusting expectations and approaches.Would you like help with a specific age group or situation you're facing?

Parenting styles refer to the broad strategies and emotional climate that parents use in raising their children. These styles shape a child's behavior, emotional development, and even long-term outcomes. [3]Psychologist Diana Baumrind initially identified three main styles, later expanded to four. Here's a breakdown:

1. **Authoritative Parenting (Balanced & Supportive)**

- High responsiveness, high demandingness
- Parents are warm, set clear rules, and enforce them with explanation.
- Encourages independence within limits.

Examples:

"I expect you to do your homework, and I'll help you schedule your time to get it done."

Outcomes:

- High self-esteem, better academic performance, strong social skills.

2. **Authoritarian Parenting (Strict & Controlling)**

- Low responsiveness, high demandingness
- Emphasis on obedience and discipline, often with little warmth.
- Rules are enforced with little explanation.

Examples:

"Because I said so. No arguing."

Outcomes:

- Obedient children, but may have lower self-esteem, less independence, more fear/anxiety.

3. **Permissive Parenting (Lenient & Indulgent)**

- High responsiveness, low demandingness
- Very warm and accepting but provide few rules or structure.
- Discipline is rare or inconsistent.

Examples:

"You can stay up late if you want. I don't want to upset you."

Outcomes:

- May struggle with self-discipline and authority, prone to behavioral issues.

4. **Neglectful/Uninvolved Parenting (Disengaged)**

- Low responsiveness, low demandingness
- Little involvement, guidance, or attention.
- May be due to stress, mental health, or lack of parenting knowledge.

Examples:

Child is left to figure things out on their own with minimal support or interaction.

Outcomes:

- Low self-esteem, attachment issues, poor social and academic performance.

5. **Other Influences & Modern Additions**

- Helicopter Parenting: Overinvolved, micromanaging; can lead to dependent children.
- Free-range Parenting: Encourages independence and risk-taking within safe boundaries.
- Attachment Parenting: Focuses on forming strong early emotional bonds (e.g. co-sleeping, babywearing).
- Gentle/Positive Parenting: Emphasizes empathy, respect, and non-punitive discipline.

Authoritative parenting tends to produce the healthiest outcomes overall — balancing structure with warmth. However, culture, personality, and

family dynamics play a huge role in what works best.

BAD PARENTING

Bad parenting doesn't mean making occasional mistakes — that's normal and human. It refers to consistent patterns of harmful behavior, neglect, or poor decision-making that negatively impact a child's emotional, psychological, or physical development.[4]

Signs of Bad Parenting

These may not always be intentional, but they can be damaging over time:

Emotional Neglect

- Ignoring a child's emotional needs (comfort, validation, attention).
- Dismissing or mocking a child's feelings.
- Lack of affection or connection.

Inconsistent Discipline

- Rules constantly change or aren't enforced.
- Using threats or bribery instead of guidance.
- Overly harsh or unpredictable punishment.

Overcontrol or Lack of Boundaries

- Micromanaging every aspect of a child's life (helicopter parenting).
- Not allowing age-appropriate independence.
- Failing to set clear boundaries or limits.

Abuse (Emotional, Physical, Verbal)

- Yelling, name-calling, or humiliating the child.
- Using physical punishment that causes harm.
- Manipulation, guilt-tripping, or gaslighting.

Favoritism or Comparison

- Constantly comparing siblings or the child to others.
- Showing clear preference toward one child.

Lack of Involvement

- Not engaging with school, health, or daily life.
- Being too absorbed in work, phones, or personal problems.

Consequences of Bad Parenting

Long-term effects can include:

- Low self-esteem or self-worth
- Anxiety, depression, or anger issues
- Difficulty forming healthy relationships
- Academic struggles
- Rebellious or risk-taking behavior

Can Bad Parenting Be Fixed?

Yes — most parenting problems come from stress, lack of awareness, or poor role models. Improvement is possible through:

- Self-reflection and willingness to change
- Therapy (individual or family)
- Parenting classes or support groups
- Apologizing and rebuilding trust with the child

No parent is perfect. The key is being open to growth, listening to your child, and making consistent efforts to improve.[5]

Parenting is a beautiful, complex journey—and while there's no perfect manual, there are some widely agreed-upon do's and don'ts of parenting as mentioned below,

Parenting Do's

1. Show Unconditional Love

Express love consistently, regardless of your child's behavior or achievements.

2. Set Clear Boundaries

Children thrive with structure. Be consistent and age-appropriate with rules.

3. Encourage Independence

Let kids make choices and learn from mistakes. It builds confidence and responsibility.

4. Model Positive Behavior

Children learn more from what you do than what you say. Be the example.

5. Practice Active Listening

Give full attention, validate their feelings, and avoid interrupting.

6. Teach Emotional Intelligence

Help them name, express, and manage emotions. Encourage empathy.

7. Praise Effort, Not Just Results

Focus on perseverance and growth, not just winning or being the best.

8. Spend Quality Time

Even a few minutes of undivided attention daily can strengthen your bond.

9. Promote Healthy Habits

Encourage good sleep, nutrition, physical activity, and screen-time balance.

10. Stay Involved in Their Education

Attend school events, help with homework, and show interest in their learning.

Parenting Don'ts

1. Don't Overprotect

Shielding kids from all challenges can stunt resilience and problem-solving.

2. Don't Compare

Every child is unique. Comparisons can damage self-esteem and breed resentment.

3. Don't Use Harsh Discipline

Yelling, shaming, or physical punishment can harm emotional development.

4. Don't Micromanage

Let them make age-appropriate decisions. Overcontrol leads to rebellion or dependence.

5. Don't Dismiss Their Emotions

Saying “don't cry” or “you're fine” invalidates their feelings. Acknowledge and guide.

6. Don't Be Inconsistent

Mixed messages confuse children. Be steady with rules and consequences.

7. Don't Project Your Dreams

Support their passions instead of imposing your unfulfilled ambitions.

8. Don't Use Conditional Love

Love should never depend on grades, behavior, or achievements.

9. Don't Neglect Self-Care

A burnt-out parent can't give their best. Take care of your own well-being too.

10. Don't Give Up During Tough Times**

Parenting is a marathon. Seek support, stay patient, and keep learning.

"The way you help heal the world is you start with your own family." — Mother Teresa

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MALARIA – AN UPDATE

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Malaria is an important vector borne disease in tropical and subtropical countries. In this article, we shall briefly delve into few important updates on this mosquito borne parasitic disease.

CLINICAL PRESENTATION

Apart from the classical symptoms like : fever with chills and rigor, malaise, fatigue, lassitude, dizziness, headache, myalgia ,anorexia, nausea, vomiting and signs like anaemia, splenomegaly, hepatomegaly and jaundice, malaria may also present atypically. It is important on part of clinicians to have a suspicion in the "fever seasons" to look out for and rule out malaria. (Box1)

Atypical manifestations:

- Atypical pattern of fever
- Severe headache with or without fever
- Bodyache, backache, joint pain
- Dizziness, vertigo
- Abnormal behavior, acute psychosis
- Altered sensorium, convulsion, coma
- Cough, breathlessness
- Acute abdomen, Vomiting, diarrhea, Jaundice, Extreme weakness
- Puffiness of lids

DIAGNOSIS

Malaria should be suspected clinically followed by Prompt parasitological confirmation by microscopy (thick & thin PBS) or RDTs.

Table 1: Comparison between Peripheral blood smear (PBS) and Rapid diagnostic kit tests (TDT) for diagnosis of malaria

Comparison :	PBS	RDT
1.Detection threshold	5-20 parasites/ml	100-500P/ml for PF & more for non-Pf cases
2.Species differentiation	possible	not possible
3.Parasite load estimation	possible	not possible
4.Differentiation between sexual & asexual forms	possible	not possible
5.Post t/t sensitivity	nil	may be up to 4 weeks
6.False positive	nil	possible due to cross reactivity with auto-antibody
7.False negative	possible, hence at least 200 fields or 4 samples should be examined	possible in Pf with low visible parasitaemia & in Pv on chemo-prophylaxis
8.Status	gold standard test	not yet gold standard

CDC recommends that blood smears in nonimmune individuals be repeated every 12 to 24 h for a total of 3 evaluations before ruling out malaria

RDT

- Tests detect either histidine-rich protein 2 (HRP2), which is a P. falciparum-specific antigen, or the pan-species antigen Plasmodium Lactate Dehydrogenase and have a similar sensitivity to good microscopy.
- HRP2 tests can remain positive several weeks after treatment so are not useful for follow-up.

Pitfalls with RDT

- Parasites with HRP2 deletions have been detected(mainly Amazonian basin in Peru),allowing them to evade detection by RDT.
- RDT sensitivity for detecting malaria in pregnant women may be decreased, possibly due to sequestration of antigens in the placental circulation .

Nucleic acid detection

- The 18S small subunit rRNA gene is the most commonly used target for amplification and detection
- Generally provide ***superior sensitivity*** over other methods, with reported detection thresholds of <10 parasites/µl.

TREATMENT

The main objective is to prevent death. Secondary objectives are : prevention of recrudescence/relapse, prevention of transmission and prevention of morbidity/disability.

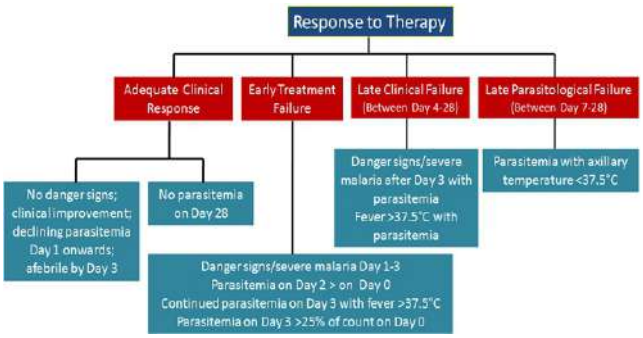
General recommendations for the management of uncomplicated malaria

- Avoid starting treatment in empty stomach.
- First dose should be given supervised.
- Dose repeated if vomiting within 30 minutes
- Patient to report back, if no improvement after 48 hours/situation deteriorates.
- Patient examined and investigated for concomitant illnesses.

Treatment of malaria –

All cases of severe malaria to be treated with Injectable Artesunate as per body weight. Treatment was done with antimalarials according to the national and state guidelines. Supportive therapy is to be given as per necessity.

Confirmed P. vivax cases are to be treated with chloroquine in full therapeutic dose of 25 mg/kg divided over three days. For prevention of relapse from hypnozoites in liver primaquine is given at a dose of 0.25 mg/kg body weight daily for 14 days under supervision. Monitoring must be done for symptoms like dark coloured urine, yellow conjunctiva, bluish discolouration of lips, abdominal pain, nausea, vomiting.



Artemisinin Combination Therapy (ACT) is given to all confirmed P. falciparum cases found positive by microscopy or RDT. This is accompanied by single dose primaquine (0.75 mg/kg body weight) on Day 2.The ACT given is as recommended in the National Programme of India - artesunate (4 mg/kg body weight) daily for 3 days and sulfadoxine (25 mg/kg body weight)- pyrimethamine (1.25 mg/kg body weight) on Day 0.

Severe malaria patients are given IV Artesunate: 2.4 mg/kg body weight given on admission (time=0), then at 12 hours and 24 hours, then once a day (Care should be taken to dilute artesunate powder in 5% Sodium bi-carbonate provided in the pack).Once the patient could take oral therapy, further follow-up treatment is by full course of oral ACT.

WHO Definitions of Treatment Failure

DRUG RESISTANCE

The Pfcrt gene is located on a 36 kb segment of chromosome 7 and associated with Chloroquine (CQ) resistance.P. falciparum multidrug resistance 1 (Pfmdr1) located on chromosome 5 encoding P glycoprotein homologue 1 has also been linked to the CQ resistance, but its association with the resistance could not be substantiated. In North East, Two P falciparum field isolates from Chirang district, Assam had shown up to 7 mutations: 1 in Pfcrt, 3 in Pfdhfr and 3 in Pfdhps genes.Two cases in Miao (Changlang, Arunachal) had 8 mutations-1 in Pfcrt gene, 3 in Pfdhfr gene,3in Pfdhps gene and 1 in PfATPase6gene. One case in Miao had mutations in Pfcrt (1), Pfdhfr (4) and Pfdhps (3) gene. Studies from Chhattisgarh showed 78% of the samples found to have a pfcrt mutation (53% double, 24% triple and 1% single), and 59% of pfmdr1 genes found to have an N86Y mutation. Double mutations recorded in pfdhfr gene in 76% 6% of the samples -mutant genotypes in pfdhps. Only one sample showed a mutant genotype for PfATPase6 gene.

Kolkata Scenario :

59 linical isolates from urban Kolkata and sequenced propeller region of K13 gene in 51 isolates successfully did not find any mutation in any isolate. All patients responded to Artesunate +SDP . The drug regimen is

still effective . No sign of emergence of resistance against artemisinin as evidenced by wild genotype of K13 gene in all isolates studied.

P. knowlesi

It is a Zoonosis, which usually infects long tailed macaques. It is being increasingly recognised as an important cause of human malaria in parts of SE Asia, especially Malaysia -> 70% of malaria cases->10% severe.

While microscopy is sensitive for the diagnosis of P. knowlesi in clinical disease, the mature trophozoites and schizonts of P. knowlesi **resemble those of P. malaria**, and the two species cannot be reliably differentiated Molecular methods such as **PCR** are required to confirm the diagnosis of knowlesi malaria

Treatment

- IV artesunate -in severe knowlesi malaria and in those with moderately high parasitaemia but otherwise uncomplicated disease
- Both chloroquine and ACT -for uncomplicated knowlesi malaria-faster parasite clearance times and lower anaemia rate with ACT.

Relapse in P. vivax

- Usually parasite strains in temperate and subtropical regions exhibit longer dormant period between the primary infection and relapse (8–10 months or longer) .Those in tropical regions generally exhibit shorter relapse intervals (around 3–6 weeks)
- In four countries (Afghanistan, Ethiopia, Indonesia, and Vietnam- 7-day course of primaquine at a higher dose (1·0 mg/kg per day) proved non inferior to 14-day course of primaquine (0·5 mg/kg per day)
- Another option is Single dose Tafenaquine (G6PD deficiency is a contraindication).

Drug resistant P. vivax

Resistance to CQ and failure of primaquine as anti-relapse drug for P. vivax malaria have also been reported in some parts of Southwestern and Northeastern regions of India. The P. vivax multidrug resistance (Pvmdr) and putative transporter protein (Pvcrt-o), have been identified as chloroquine resistance markers in P. vivax. There are reports suggesting that genotypic variations in P. vivax dihydrofolate reductase gene (Pvdhfr) and dihyropteroate synthetase (Pvdhps) have also been associated with drug resistance.

Severe P. vivax

Recently, there has been increase in number of complicated malaria cases due to Vivax which was traditionally considered to cause benign malaria.

MALARIA VACCINES

CONCLUSION : There are emerging challenges like a fifth species of malaria, atypical presentation , issues like drug resistance leading to treatment failures and many more which complicate our path towards malaria elimination. Clinicians should be vigilant to diagnose and manage malaria so as to prevent mortality associated with this vector borne disease.

	RTS,S/AS01	R21/Matrix-M
Type of vaccine	Recombinant protein-based vaccine that targets circumsporozoite of Plasmodium fa expressed by the parasite at the erythrocy stage	Preerythrocytic malaria that is a subunit vs made up of the components: • Protein parts fr sporozoite. The f form of the parasite to ent human body • A part of the hep virus • Novavax's -M adjuvant: pater adjuvant that en the immune resp
Age group for advocated to use	Children aged 5 mo old in areas with mod high transmission of Pla falciparum malaria	First dose given to between five and 3 of age
Site of administration	Preferably to the delto	Deltoid muscle
Route of administrat	Intramuscular	Intramuscular
Dose	0.5 ml	0.5 ml
Schedule	Four doses, with the given at or around 5 r age, and the fourth d 15–18 months after t dose. In areas with a sig risk of malaria remaining the fourth dose, a fifth be considered one yea fourth dose.	4 doses, a 3 dose prim with the first dose children between five months of age, follo 4th dose 12 months afte
Contraindications	Absolute : • Severe allergic r (anaphylaxis) t component of vaccine, including antigen or adjuvant. • 2. Previous vacc with RTS,S/AS0 resulted in a adverse reaction. Relative Contraindicati • Immunodeficienc disorders HIV/AIDS, cancer	Absolute : • Acute severe illness, • Preterm infants • Severe allergic r (anaphylaxis) t component of vaccine Relative Contraindicati • Immunodeficienc disorders HIV/AIDS, cancer • Immunocomprom treatments chemotherapy, radiation therapy

Decoding Pathological Tests in Cancer

Cancer is a major burden of disease worldwide with its incidence increasing daily.

World Health Organization (WHO) data states that20 million new cancer cases and 9.7 million deaths were reported in 2022 only. About 1 in 5 people develop cancer in their lifetime and approximately 1 in 9 men& 1 in 12 women die from the disease. But in today's time "Cancer"is still a diagnosis that scares everyone but it is definitely not a death sentence. With correct diagnosis and treatment cancer free survival is possible.

Pathologists play a crucial role in decoding the suspicious 'lumps&bumps' in the human body.

What's in a Pathology Report?

Pathology reports can vary depending on the type of cancer and the specimen received and examined under the microscope.

The various samples received daily in a Pathology laboratory range from small punch biopsy of skin to completely excised tissue such as the entire one-sided breast with axillary lymph node dissection to blood /bone marrow to various fluids such as pleural/ascitic fluid. The list goes on to include material aspirated from a swelling via FNAC or cervical scrapings obtained forPAP smear test etc.

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To decode the mystery of what your lump actually is we must understand some basic pillars in Pathology:

NAME	WHAT IS IT	FEW POINTS
HISTOLOGY	• It is basically the "biopsy" report. • It deals with solid organs and tissues. • Sample size can vary from small endoscopic biopsies/ trucut biopsies to big sized tissue such as the abdominoperineal resection/modified radical mastectomy etc.	• Identification of malignant cell if any possible and can determine how 'bad' they are morphologically. (Grading) • Architecture of the tissue is present. So the degree of involvement (Staging) and other parameters of prognostic significance like Lymphovascular space invasion (LVSI) can be determined. • Provides material for Immunohistochemistry (IHC).
CYTOLOGY	• Study of cells in liquid medium. • Sample may be normally present fluids like CSF/urine, abnormally accumulated fluids like pleural/ascitic or induced fluids like BAL fluid, Material aspirated by FNACetc	• Can determine if cells are suspicious/ overtly malignant. • However as architecture of the parent tissue is not there opinion regarding the extent of spread is not possible. • IHC cannot be performed.

CELL BLOCK	• Preparations in which cytological material is collected and processed as a paraffin embedded block in a manner that is comparable to formalin-fixed paraffin-embedded tissue in surgical pathology.	• Allows cytology samples to be sectioned and examined with histology stains and techniques like immunohistochemistry. • Increases the diagnostic accuracy by preserving architecture and cellular details.
IMMUNO HISTO CHEMISTRY (IHC)	• Uses antibodies to detect antigens in a tissue sample. • Used to diagnose and categorize cancer, predict treatment response and determine likely outcomes (prognosis) of the disease	• Usually a panel of markers is essential. • Clinical and radiological correlation with cytomorphology is vital to tailor an appropriate immunostain panel. • Useful to select drug therapy.
FLOW CYTOMETRY	• A technology that provides rapid multi-parametric analysis of single cells in solution.	• Allows for the simultaneous characterization of mixed populations of cells from blood and bone marrow as well as solid tissues that can be dissociated into single cells such as lymph nodes, spleen, mucosal tissues, solid tumors. • Effective for the study of the immune system and its response to infectious diseases, cancer. • Immunophenotyping is the most used application in flow cytometry. • Used to support diagnosis of blood cancers, including leukemia and lymphomas.
CYTOGENETICS	• Identifies chromosomes that are broken, rearranged or missing. • Karyotyping and FISH techniques.	• Analyze chromosomes of individual cancer cells in a specimen and to identify chromosomal abnormalities that are specific to certain cancer type or stage, assisting in cancer diagnosis, classification, and prognosis. • Particularly useful in leukemias and some lymphomas • Cytogenetic testing is recommended for individuals with a family history of genetic disorders or those at high risk of genetic problems due to advanced maternal age or exposure to certain environmental toxins.
BONE MARROW EXAMINATION	• Includes bone marrow aspiration and a bone marrow biopsy. Additionally cytogenetic studies and flow cytometry test can be performed on the sample.	• Confirm a blood cancer diagnosis or a bone marrow disorder, Detect abnormal chromosomes to determine risk and to plan treatment, Evaluate response to therapy and track progress during treatment. Metastatic deposit of cancer may also be noted/ruled out.
BLOOD TESTS	• Include examination of peripheral blood smear (PBS) and assessment of tumor markers.	• PBS can help detect blood cancer such as acute leukemia, CML/CLL etc and also help to evaluate response to treatment and diagnose relapse/recurrence. • Tumor markers : substance present in or produced by cancer cells or other cells of the body in response to cancer that provides information about a cancer, such as how aggressive it is, what kind of treatment it may respond to, or whether it is responding to treatment.
NEXT-GENERATION SEQUENCING (NGS)	• allows for rapid and cost-effective sequencing of DNA or RNA	• Can be used to detect mutations in cancer cells, cancer subtyping, guide treatment decisions, and monitor disease progression.

Conclusion: Pathologists are at the heart of cancer prevention, diagnosis, monitoring and treatment. With advancement of science it is very much possible to pinpoint the nature of "cancer" and, if malignant, provide information to the clinician on the type of cancer, its grade (aggressiveness) and stage (how advanced it is). Based on this suitable tailored treatment plan may be formulated. Moreover, with proper follow-up, Pathologists can predict the responsiveness of the cancer to treatments already provided and the likely profile of responsiveness to certain treatments.

Therefore, what is essential to win the battle against cancer and prolong survival is to consult a doctor as soon as any symptom arises and undergoing diagnostic evaluation because at the heart of correct treatment lies the correct pathological diagnosis.

Obsessive – Compulsive Disorder (OCD)

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1. Introduction

Obsessive-Compulsive Disorder (OCD) is a chronic psychiatric disorder characterized by the presence of obsessions (recurrent, intrusive thoughts or urges) and/or compulsions (repetitive behaviors or mental acts performed to reduce anxiety). It can significantly impair social, occupational, and personal functioning.

2. DSM-5 Diagnostic Criteria for OCD

According to the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, 5th Edition):

A. Presence of obsessions, compulsions, or both:

Obsessions are defined by:

1. Recurrent and persistent thoughts, urges, or images that are experienced as intrusive and unwanted.
2. The individual attempts to ignore or suppress such thoughts or to neutralize them with another thought or action (i.e., by performing a compulsion).

Compulsions are defined by:

1. Repetitive behaviors (e.g., handwashing, checking) or mental acts (e.g., praying, counting) that the individual feels driven to perform in response to an obsession or according to rigid rules.
2. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these acts are not connected in a realistic way with what they are designed to neutralize.

B. The obsessions or compulsions are time-consuming (e.g., take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other areas of functioning.

C. The symptoms are not attributable to the physiological effects of a substance or another medical condition.

D. The disturbance is not better explained by the symptoms of another mental disorder (e.g., GAD, body dysmorphic disorder, hoarding disorder).

Specifiers:

With good or fair insight
With poor insight
With absent insight/delusional beliefs

3. Clinical Features

Obsessions: Common themes include contamination, doubts, need for symmetry, aggressive or sexual thoughts.

Compulsions: Common behaviors include cleaning, checking, counting, repeating actions, arranging.
Patients often recognize the irrationality of their behaviors (except in poor insight cases).
High levels of anxiety or distress when prevented from performing compulsions.
Can lead to severe functional impairment and avoidance behaviors.

4. Course and Prognosis

Onset typically occurs in adolescence or early adulthood.
The course may be chronic and fluctuating, with exacerbations during stress.
Prognosis depends on:
Early diagnosis and treatment
Severity at onset
Insight (better prognosis with good insight)
Comorbidities (e.g., depression, tics, anxiety disorders)

5. Management

A. Psychological Treatments:

Cognitive Behavioral Therapy (CBT) – especially Exposure and Response Prevention (ERP) – is the first-line treatment.
Insight-oriented therapy may be helpful in selected cases.

B. Pharmacological Treatment:

SSRIs (Selective Serotonin Reuptake Inhibitors):
Fluoxetine, Fluvoxamine, Sertraline, Paroxetine
Higher doses and longer treatment duration (10–12 weeks) often needed.
Clomipramine – a tricyclic antidepressant (more effective but with more side effects).

Augmentation strategies:
Antipsychotics like Risperidone or Aripiprazole may be used for SSRI-resistant OCD.

C. Other Options:

Deep Brain Stimulation (DBS) – in treatment-resistant cases.
Transcranial Magnetic Stimulation (TMS) – approved in some cases.
Psychoeducation and family involvement – essential in management.

Dengue

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WHAT IS DENGUE

Dengue is a fast emerging, outbreak-prone, and mosquito-borne viral fever. The incidence of Dengue is increasing in recent years with repeated outbreaks from many States and newer areas. At present, except Ladakh all the States and Union Territories are reporting Dengue cases

- Dengue is a viral disease
- It is transmitted by the infective bite of Aedes Aegypti mosquito

- Man develops disease after 5-6 days of being bitten by an infective mosquito
- Dengue Fever is a severe, flu-like illness
- Person suspected of having symptoms of dengue fever must see a doctor at once

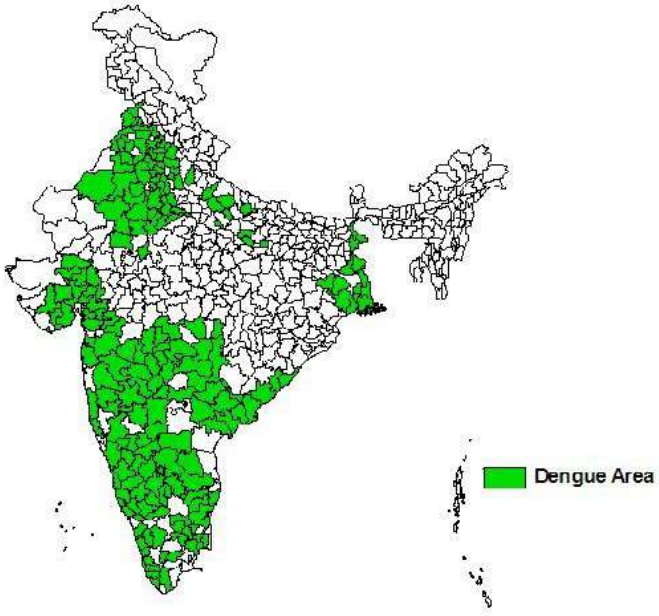
SIGNS & SYMPTOMS OF DENGUE FEVER

- Abrupt onset of high fever
- Severe frontal headache
- Pain behind the eyes which worsens with eye movement
- Muscle and joint pains
- Loss of sense of taste and appetite
- Measles-like rash over chest and upper limbs
- Nausea and vomiting

Severe Dengue Symptoms of may be like

- Frequent vomiting with or without blood
- Bleeding from nose, mouth & gums and skin rashes
- Sleepiness and restlessness
- Patient feels thirsty and mouth becomes dry
- Rapid weak pulse
- Difficulty in breathing

TRANSMISSION CYCLE OF DENGUE DISTRIBUTION OF DENGUE IN INDIA



PERIOD OF COMMUNICABILITY

The female **Ae. aegypti** usually becomes infected with the dengue virus when it takes a blood meal from a person during the acute febrile (viremia) phase of dengue illness.

After an extrinsic incubation period of 8 to 10 days, the mosquito becomes infected. The virus is transmitted when the infected female mosquito bites and injects its saliva into the wound of the person bitten. The cycle of dengue continues by this process. Dengue begins abruptly after an intrinsic incubation period of 4 to 7 days (range 3—14 days). There is also evidence of vertical transmission of dengue virus from infected female mosquitoes to the next generation.

AGE & SEX GROUP AFFECTED

All age and sex groups bitten by an infected mosquito can get Dengue.

VECTOR OF DENGUE FEVER

VECTOR OF DENGUE

- Aedes mosquitoes are a vector of dengue fever.
- It is a small mosquito, black with white stripes and is approximately 3-5 mm in size.
- It takes about 7 to 8 days to develop the virus in its body and transmit the disease

Feeding Habit

- Day biter
- Mainly feeds on human beings in domestic and peri domestic situations.
- Bites repeatedly and multi person feeder per blood meal.

Resting Habit

- Rests in the domestic and peridomestic situations
- Rests in the dark corners of the houses, on hanging objects like clothes, umbrella, etc. or under the furniture

Breeding Habits and places

- Aedes mosquito breeds in any type of man-made containers or storage containers having even a small quantity of water.
- Eggs of Aedes can live without water for more than one year.

Favourite Breeding Places

- Desert coolers, Drums, Jars, Pots, Buckets, Flower vases, Plant saucers, Tanks, Cisterns, Bottles, Tins, Tyres, Roof gutters, Refrigerator drip pans, Cement blocks, Cemetery urns, Bamboo stumps, Coconut shells, Tree holes and many more places where rainwater collects or is stored.

VECTOR CONTROL MEASURES

1. PERSONAL PROPHALATIC MEASURES

- Use of mosquito repellent creams, liquids, coils, mats etc.
- Wearing of full sleeve shirts and full pants with socks
- Use of bednets for sleeping infants and young children during day time to prevent mosquito bite

2. BIOLOGICAL CONTROL

- Use of larvivorous fishes in ornamental tanks, fountains, etc.
- Use of biocides

3. CHEMICAL CONTROL

- Use of chemical larvicides like abate in big breeding containers
- Aerosol space spray during day time

4. ENVIRONMENTAL MANAGEMENT & SOURCE REDUCTION METHODS

- Detection & elimination of mosquito breeding sources
- Management of roof tops, porticos and sunshades
- Proper covering of stored water
- Reliable water supply
- Observation of weekly dry day

5. HEALTH EDUCATION

- Impart knowledge to common people regarding the disease and vector through various media sources like T.v., Radio, Cinema slides, etc.

6. COMMUNITY PARTICIPATION

- Sensitilizing and involving the community for detection of Aedes breeding places and their elimination

MANAGEMENT OF DENGUE CASE

- Early reporting and diagnosis of the suspected dengue fever by
- **DENGUE NS1 ANTIGEN TEST**: It is recommended to determine dengue infections during the first 7 days of

illness.

- A positive NS1 test result confirms dengue virus infection without providing serotype information.
- **DENGUE IgG TEST:** Dengue IgG Test or Immunoglobulin G test is used for the detection of Dengue virus IgG antibodies. This test is usually used as a screening test and provides a preliminary test result to diagnose any previous or present infection with dengue viruses. Secondary dengue infections are characterised by high counts of IgG dengue virus antibodies. The levels rise around 7 days with a peak during the 2nd week. It remains in the blood for 90 days. But in some people, it may remain for the rest of their life. If IgG is positive and IgM is negative, this means that the person was infected with dengue in the past.
- **DENGUE IgM TEST:** As the immune system fights the infection, IgM antibodies against dengue virus are detectable starting 4–5 days after onset of symptoms and are reliably detectable for approximately 12 week
- **Positive IgM:** Patients with a positive IgM test result in a single sample are classified as presumptive, recent dengue virus infections.
- **Negative IgM:**
- Patients with a negative IgM result between days 0–7 of illness, and absent or negative NAAT or NS1 results, are considered unconfirmed cases. For these cases, a second sample should be obtained after day 7 of symptoms for additional serologic testing.
- Management of dengue fever is symptomatic & supportive
- In severe dengue cases, the following treatment is recommended
- Replacement of plasma losses
- Correction of electrolyte and metabolic disturbances
- Blood transfusion

DO'S AND DON'TS

- Remove water from coolers and other small containers at least once in a week
- Use aerosol during day time to prevent the bites of mosquitoes
- Do not wear clothes that expose arms and legs
- Children should not be allowed to play in shorts and half sleeved clothes
- Use mosquito nets or mosquito repellents while sleeping during day time
- Stagnant water in drains, garbage and coolers more than a week is alarm for dengue

Source: **National Vector Borne Disease Control Programme**, Ministry of Health and Family Welfare, Government Of India

Centers of Disease Control and Prevention (CDC)

YOUR HEALTH

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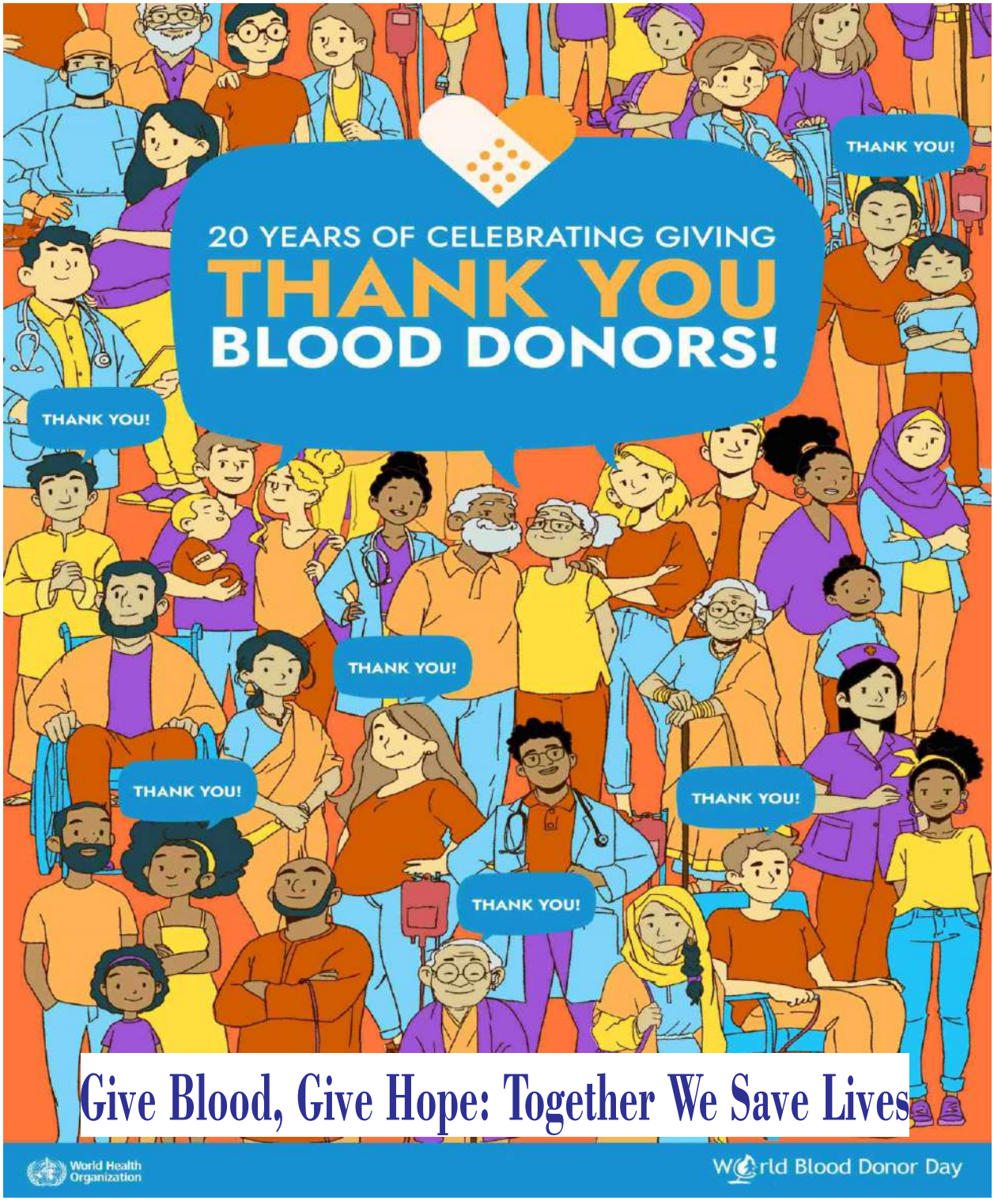

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