



Double Helical

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**DR AMITAV
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>>
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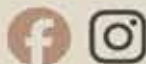
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Editor & Publisher

Amresh K Tiwary

Consulting Editor
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Roving Editor
Dr. Manisha Yadav

Editorial Team
Abhigyan, Abhinav,
Dr. Manisha Yadav

Advertisements & Marketing
Abhinav Kumar, Vikas
Email: sales@doublehelical.com

Designer
Aparna Thomas

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Tel: 0120-4165606 / 9953604965.

Contact us :

contact@doublehelical.com
doublehelicaldesign@gmail.com,
editorial@doublehelical.com
Website: www.doublehelical.com,
www.doublehelical.in

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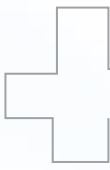
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Peace-Deal Eases Healthcare Pressures

Dear Readers,

The United States–Iran war is finally over following the signing of a peace agreement between the two countries. This comes as a major relief for economies and industries across the globe, including the healthcare sector. The agreement is expected to have a positive impact on India's healthcare ecosystem, primarily by reducing disruptions in energy markets and improving global trade flows.

Unlike countries directly involved in the conflict, India did not suffer physical damage to hospitals or healthcare infrastructure. The principal losses stemmed from higher costs, supply-chain disruptions, drug shortages, and inflationary pressures affecting healthcare delivery. As tensions ease and trade routes reopen, many of these pressures are expected to diminish, although the full benefits may take time to materialise. The greatest loss to Indian healthcare, therefore, was not the destruction of facilities, but the increased costs and supply disruptions that affected hospitals, pharmaceutical companies, and patients alike.

For the Indian healthcare sector, the most significant likely benefits of the cessation of the West-Asia crisis include more stable medicine prices, lower cost pressures on hospitals, improved pharmaceutical supply chains, reduced inflation in healthcare services, and better availability of imported medical equipment. While these gains may not be immediate, they are likely to emerge gradually through lower energy costs and smoother global trade.

India imports the bulk of its crude oil requirements. Following the peace agreement and the reopening of the Strait of Hormuz, oil prices have declined significantly, easing pressure on India's import bill. Lower fuel costs are expected to reduce transportation, electricity, logistics, and manufacturing expenses for hospitals, pharmaceutical companies, and medical-device manufacturers. Indian pharmaceutical companies rely heavily on imported chemicals, solvents, packaging materials, and transportation networks, all of which are sensitive to fluctuations in energy prices.

The agreement also includes measures related to oil exports and broader economic normalisation. Should trade restrictions ease further, India could gain improved access to Iranian energy supplies, strengthening energy security and indirectly benefiting healthcare and pharmaceutical manufacturing costs.

In this issue of Double Helical, apart from delving into the supportive role of yoga in preventing and managing a range of diseases, including chronic kidney disease, we also highlight the urgent need to re-examine the NEET-UG examination system. Introduced to bring transparency and integrity to medical admissions, the testing framework appears to have achieved the opposite. From paper leaks and proxy candidates to zero-percentile cut-offs, a systemic malaise continues to plague the nation's premier medical entrance examination.

To ensure fairness and accountability, examination agencies such as the National Testing Agency (NTA) should be brought under the ambit of the Consumer Protection Act, 2019, and the Competition Act, 2002. Aspirants must be legally recognised as consumers of the services provided by testing agencies, given that these examinations are conducted for educational advancement rather than for recruitment to government employment, as is the case with Public Service Commissions.

Equally important is the need for speedy justice. Special courts should be established to prosecute those responsible for examination fraud. The act of abetting student suicides through organised examination leaks and related malpractices can be prosecuted under Section 108 of the Bharatiya Nyaya Sanhita, and strict enforcement is essential to restore public confidence in the system.

This issue brings together a wide spectrum of public health concerns that deserve urgent attention. One of our lead stories explores the growing burden of depression, including postpartum depression, and examines why early recognition, family support, psychotherapy, and timely treatment remain critical in combating one of the world's most misunderstood mental health disorders.

We also examine the alarming measles outbreak in Bangladesh, which has claimed hundreds of young lives, highlighting how child malnutrition can amplify the devastating impact of infectious diseases and why vaccination alone is not enough without addressing underlying nutritional vulnerabilities.

Another important report investigates the recent hantavirus outbreak linked to a cruise ship, illustrating how emerging infectious diseases can rapidly transcend national borders and necessitate coordinated international surveillance and response mechanisms.

This issue also carries a special feature on hypertension, focusing on persistent gaps in diagnosis, treatment, and blood-pressure control among adults. Finally, we investigate the growing threat of noise-induced hearing loss among young people caused by prolonged and unsafe headphone use, underscoring the need for greater awareness of safe listening practices.

As healthcare challenges become increasingly interconnected in a rapidly changing world, informed public discourse and evidence-based policymaking remain more important than ever. We hope this issue contributes meaningfully to that conversation.

Happy reading!

**Thanks and regards,
Amresh K Tiwari
Editor-in-Chief**



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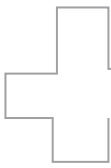
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Pushpanjali Medical Education and Research Centre Hosts 32nd Edition of Pushpanjali Study Circle

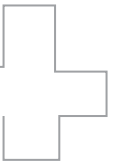
In an era of constant connectivity yet deep emotional isolation, loneliness and depression are rapidly emerging as some of the most serious mental health challenges of our time.

Reinforcing its commitment to continuous medical education and knowledge-sharing among healthcare professionals, Pushpanjali Medical Education and Research Centre (PMERC) successfully organised the 32nd edition of the Pushpanjali Study Circle, an interactive clinical awareness and academic session. The monthly clinical meet brought together leading clinicians, specialists, and healthcare practitioners to discuss emerging trends, complex medical cases, and advancements in patient care.

The event was held under the patronage of Dr Vinay Aggarwal, Chairman & Managing Director, Pushpanjali Medical Centre, and Dr Parkash Gera, Senior Consultant – Internal Medicine, with coordination by Dr Maneesh Singh, Medical Director, and Dr Ajay Lekhi, Past President, Delhi Medical Association (DMA).

The academic session featured three insightful presentations addressing important and evolving areas of clinical practice. The first session, titled “Management of Diabetes in Pregnancy,” was delivered by Dr Sumer Sharma, Consultant – Internal Medicine, Pushpanjali Medical Centre. The second presentation on “Cosmetic Gynaecology in Modern Clinical Practice” was delivered by Dr Anita Aggarwal, Senior Consultant – Obstetrics and Gynaecology, Pushpanjali Medical Centre and Femme





Nest Hospital. The final session featured “An Interesting Case of Spine Surgery” by Dr Naveen Pandita, Senior Consultant – Spine Surgery & Spinal Deformity.

Speaking during the session, Dr Sumer Sharma, Consultant – Internal Medicine, Pushpanjali Medical Centre, said, “Diabetes during pregnancy is becoming increasingly common and can significantly impact both mother and baby if left unmanaged. Timely screening, lifestyle modifications, regular monitoring, and coordinated care between physicians, obstetricians, and nutrition experts are critical. Increased awareness among both healthcare professionals and patients can help ensure healthier pregnancies and reduce long-term metabolic risks for mothers and their children.”

Dr Anita Aggarwal, Senior Consultant – Obstetrics and Gynaecology, Pushpanjali Medical Centre and Femme Nest Hospital, said, “Cosmetic gynaecology has evolved beyond aesthetics and now addresses several functional and quality-of-life concerns faced by women. Modern techniques can help improve comfort, confidence, and overall well-being when performed appropriately. However, patient education, realistic expectations, ethical practices, and individualised treatment planning remain essential to achieving safe and satisfactory outcomes.”

Dr Naveen Pandita, Senior Consultant – Spine Surgery & Spinal Deformity, said, “Every spine case presents unique challenges that require a comprehensive evaluation and a tailored treatment approach. Advances in imaging, surgical techniques, and rehabilitation have transformed outcomes for patients with complex spinal conditions. Sharing real-life clinical experiences enables healthcare professionals to learn from challenging cases and ultimately deliver better, evidence-based patient care.”


Addressing the gathering, Dr Parkash Gera, Senior Consultant – Internal Medicine, and Patron, Pushpanjali Study Circle, said, “The Pushpanjali Study



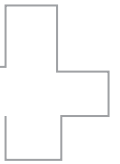


Circle has emerged as an important academic platform that promotes continuous learning and meaningful exchange of clinical experiences among medical professionals. In today’s rapidly evolving healthcare landscape, staying updated with the latest evidence, technologies, and treatment protocols is essential. Sessions such as these encourage interdisciplinary collaboration, strengthen clinical decision-making, and ultimately contribute to improved patient outcomes. We remain committed to fostering a culture of medical excellence and lifelong learning within the healthcare community.”

The session concluded with an engaging question-and-answer interaction, enabling participants to exchange perspectives, discuss practical challenges, and gain deeper clinical insights.

The 32nd edition of the Pushpanjali Study Circle once again highlighted Pushpanjali Medical Education and Research Centre’s dedication to advancing medical knowledge, encouraging collaborative learning, and strengthening the quality of healthcare delivery through continuous professional education. 





WHO Calls for Collective Action on World Blood Donor Day

Blood transfusion is a cornerstone of effective healthcare and emergency response. While more than 120 million blood donations are collected worldwide each year, most low-income and lower-middle-income countries fall short of the 1 per cent to 2 per cent population donation rate required for national needs. Blood cannot be manufactured or stored indefinitely, making a stable base of regular voluntary donors essential to ensuring a reliable supply and timely access — often the difference between life and death.

This year, World Blood Donor Day’s theme — “One Drop of Humanity. Give Blood. Save Lives.” — places solidarity at the heart of every donation. It reminds us that blood donation is more than a medical act. It is a visible expression of the collective care, responsibility and compassion that underpins our shared humanity.

To mark the day, WHO’s interactive “Drop Your Drop” initiative invites people everywhere to pledge to give blood, symbolically “adding their drop” to a growing global movement. Participants are encouraged to turn their promise into action by joining others to form a collective “drop” – a powerful symbol of unity, solidarity and life-saving impact.

The WHO South-East Asia Region has made important progress. All Member States have national blood policies, national guidelines, and nationally coordinated mechanisms to strengthen blood safety and availability. According to Dr Catharina Boehme, Officer-in-Charge, WHO South-East Asia, more than 80 per cent of blood collected in




the Region now comes from voluntary non-remunerated donors — an increase of 127 per cent between 2008 and 2018 — the highest rate of increase recorded across all WHO regions. All donated blood is screened for transfusion-transmissible infections, and quality assurance systems — including licensing, external quality assessment and haemovigilance — continue to be strengthened. These achievements reflect the sustained commitment of governments, blood services professionals, communities and voluntary donors.

Yet challenges remain. Demand for safe blood, and blood products such as life-saving plasma-derived medicinal products, continues to exceed supply in several countries. Plasma not required for transfusion can be processed through fractionation into therapies such as immunoglobulins, albumin and clotting factors, which are essential for treating haemophilia, immune deficiencies, severe infections and other chronic conditions. A limited number of Member States have some capacity to

produce plasma-derived medicinal products, although not sufficient to meet domestic demand. Regional consultations have highlighted the need to reduce plasma wastage, strengthen plasma recovery and enhance regional cooperation to improve equitable access to these therapies.

WHO calls on governments, health authorities, development partners, and communities to sustain and expand investment in safe, quality-assured and sustainable blood systems — to save lives, advance universal health coverage, and strengthen health systems. It urges young people to become the next generation of regular voluntary donors, to ensure that both routine health demands and the surge requirements of blood and blood products during emergencies and disasters can be met.

“On World Blood Donor Day, we honour the contributions of voluntary donors, whose simple yet powerful act of generosity helps form a shared lifeline of solidarity, compassion and care that saves lives every day,” says Boehme. 



KEEPING TRACK - HANTAVIRUS





KEEPING TRACK - HANTAVIRUS



DISEASE WITHOUT BORDERS

www.doublehelical.com
JUNE-JULY 2026





A rare outbreak of Andes virus-linked hantavirus infection aboard a cruise ship has triggered a multi-country public health response.

BY DR SUNEELA GARG / DR MADAN GOPAL / DR ARVIND GARG

On 2 May 2026, a cluster of passengers with severe respiratory illness aboard a cruise ship was reported to the World Health Organization (WHO). At that time, according to the ship operator, 147 passengers and crew were onboard, while 34 passengers and crew members had previously disembarked.

Through the International Health Regulations (2005) [IHR] mechanism, National IHR Focal Points (NFPs) have been informed and are supporting international contact tracing.

WHO currently assesses the risk posed by this event to the global population as low and will continue to monitor the epidemiological situation and update its risk assessment accordingly. The risk to passengers and crew onboard the ship is

considered moderate.

DESCRIPTION OF THE SITUATION

On 2 May 2026, WHO received notification from the National IHR Focal Point of the United Kingdom of Great Britain and Northern Ireland (hereafter referred to as the United Kingdom) regarding a cluster of severe acute respiratory illness, including two deaths and one critically ill passenger, aboard a Dutch-flagged cruise ship.

Since the last Disease Outbreak News was published on 4 May, three suspected cases have been confirmed and one additional confirmed case has

been reported. As of 8 May, a total of eight cases (six confirmed and two probable cases), including three deaths (two confirmed and one probable), have been reported, representing a case fatality ratio of 38 per cent. All six laboratory-confirmed cases were identified as Andes virus through virus-specific polymerase chain reaction (PCR) testing or sequencing.

Two medical evacuation flights from Cabo Verde, carrying two symptomatic confirmed patients and one previously suspected case, landed in the Netherlands on 6 and 7 May. As of 8

What began as an isolated illness in a passenger with an extensive travel history in South America evolved into a cluster of infections spanning several countries. Investigators believe the index case may have acquired the virus through environmental exposure before boarding the vessel.



May, four patients remained hospitalised: one in intensive care in Johannesburg, South Africa; two in separate hospitals in the Netherlands; and one in Zurich, Switzerland. The previously suspected case was transferred directly to Germany, where she underwent testing. Both PCR and serology tests were negative for Andes virus; therefore, she is no longer considered a case.

Contact tracing of passengers who disembarked in St Helena is ongoing. Passengers have been contacted and advised to self-monitor for symptoms. In addition, passengers who travelled on the same flight from St Helena to



Eight cases, including three deaths, have been linked to the outbreak, with six infections confirmed as Andes virus. The timing of symptom onset and epidemiological links among passengers have raised concerns about possible human-to-human transmission onboard.

South Africa as a subsequently confirmed case have also been contacted.

On 6 May, the ship left Cabo Verde and headed for the Canary Islands, Spain, where disembarkation was scheduled to take place.

Further investigations into the potential exposure of the index case and the source of the outbreak are ongoing in collaboration with authorities in Argentina and Chile. The outbreak is being managed through a coordinated international response that includes in-depth epidemiological investigations, case isolation and clinical management, medical evacuations, laboratory testing, and



HANTAVIRUS
Family: Hantaviridae
Genus: Orthohantavirus



RESERVOIR
Rodents



TRANSMISSION
Aerosolized particles
(excreta, urine, saliva)



CLINICAL
HFRS / HPS
Febrile illness,
pulmonary
involvement

**OUTBREAK
INVESTIGATION
AT SEA**



international contact tracing and monitoring.

CASE 1

An adult male boarded the ship on 1 April after spending more than three months travelling in Argentina, Chile and Uruguay. He developed symptoms on 6 April and died onboard on 11 April. No microbiological testing was performed. He is considered a probable case.

CASE 2

An adult female who was a close contact of Case 1 travelled with him and boarded the ship at the same time. She went ashore at Saint Helena on 24 April with gastrointestinal symptoms. Her condition subsequently deteriorated during a flight to Johannesburg, South Africa, on 25 April. She died on 26 April at a clinic in Johannesburg. On 4 May, she was confirmed to have a hantavirus infection through PCR testing.

CASE 3

An adult male developed symptoms on 24 April. He was disembarked and medically evacuated from Ascension Island on 27 April and is currently hospitalised in an Intensive Care Unit (ICU) in Johannesburg, South Africa.



Medical evacuations, laboratory investigations and international contact tracing operations have been launched across multiple continents. Health authorities are racing to identify transmission pathways and prevent further spread among passengers and contacts.

PCR testing confirmed hantavirus infection on 2 May, while sequencing subsequently confirmed Andes virus infection.

CASE 4

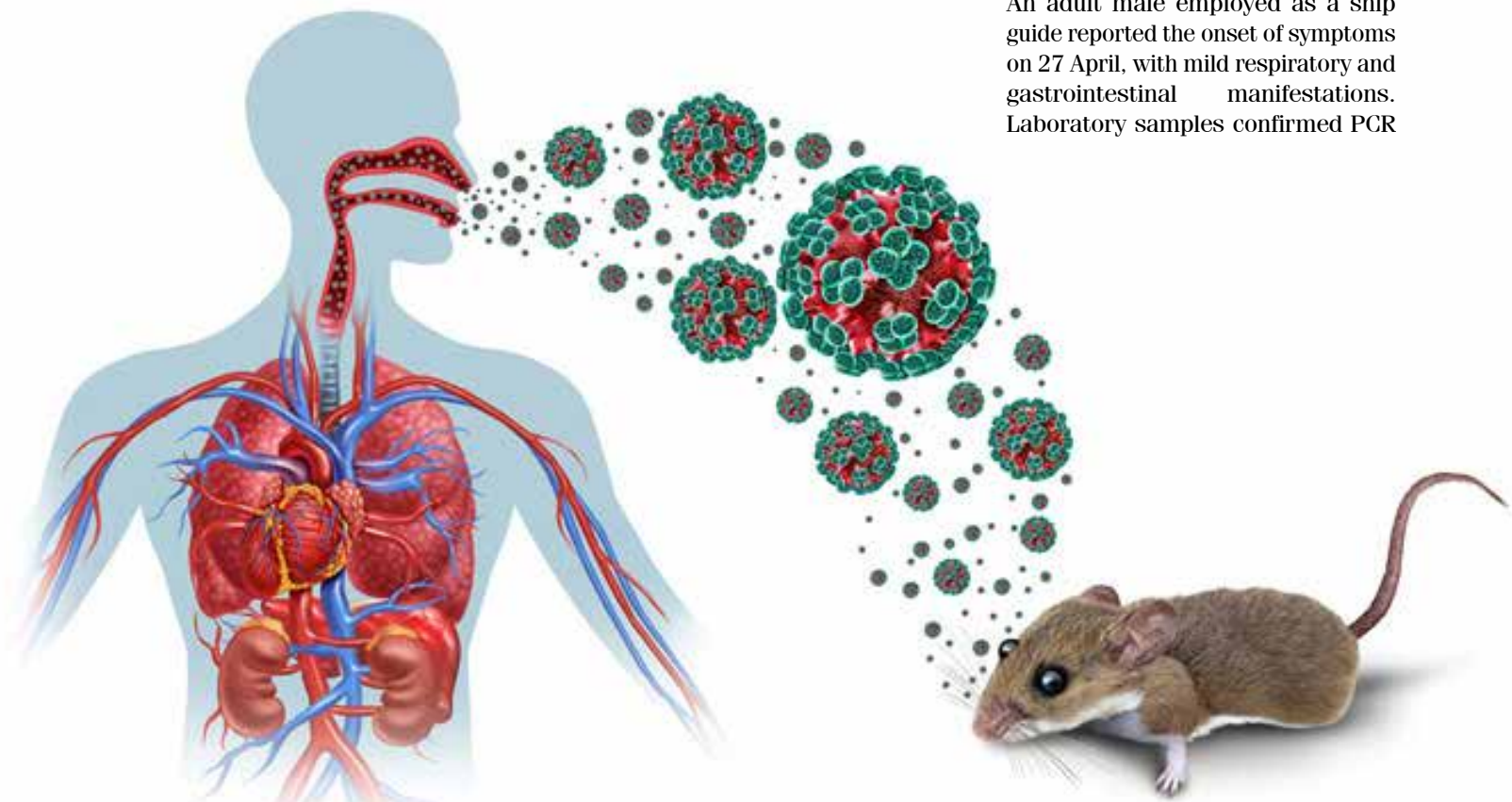
An adult female developed symptoms, including fever and general malaise, on 28 April and later presented with pneumonia. She died on 2 May. A post-mortem sample was collected and transported to the Netherlands with the evacuated patients, where Andes virus infection was confirmed.

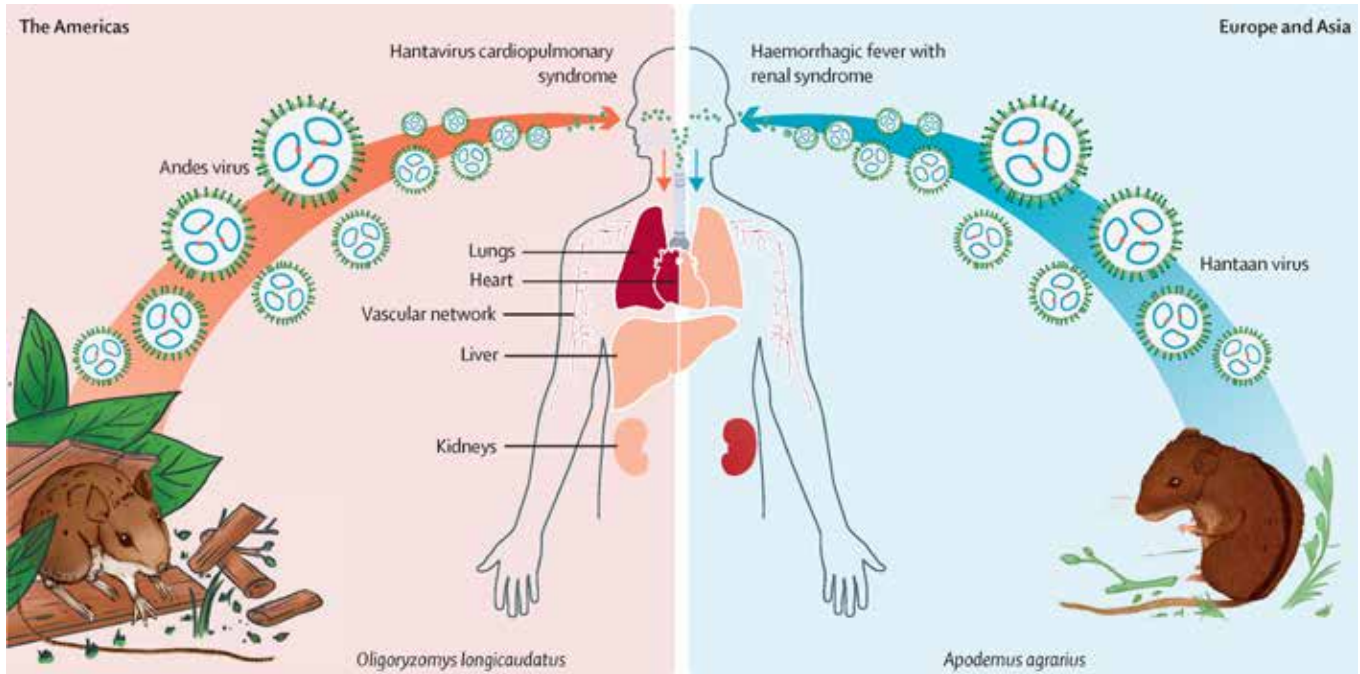
CASE 5

An adult male serving as the ship's doctor reported the onset of symptoms on 30 April, including fever, fatigue, myalgia and mild respiratory symptoms. His samples tested positive for Andes virus by PCR on 6 May. The patient was medically evacuated to the Netherlands on 6 May and remains stable in isolation.

CASE 6

An adult male employed as a ship guide reported the onset of symptoms on 27 April, with mild respiratory and gastrointestinal manifestations. Laboratory samples confirmed PCR





positivity for Andes virus on 6 May. He was medically evacuated to the Netherlands on 7 May and remains stable in isolation.

CASE 7

An adult male disembarked in St Helena on 22 April and returned to Switzerland on 27–28 April via South Africa and Qatar. He developed symptoms on 1 May after arriving in Switzerland, where he immediately self-isolated and notified local public health authorities. He is currently hospitalised and remains in isolation. His samples tested positive for Andes virus by PCR on 5 May.

CASE 8

An adult male disembarked in Tristan da Cunha on 14 April. He developed diarrhoea on 28 April, followed by fever two days later. He remains stable and in isolation. Pending laboratory confirmation, he continues to be classified as a probable case.

One individual previously reported as a suspected case has now been reclassified as a non-case after testing

negative for Andes virus by both PCR and serology. Nevertheless, monitoring will continue until the end of the incubation period following the individual's last known exposure.

OPERATIONAL OUTBREAK CASE DEFINITIONS

SUSPECTED CASE

Anyone who shared or visited a conveyance where there has been a confirmed or probable ANDV case and who presents with acute symptoms, or a history of symptoms, compatible with ANDV infection, including fever (38°C or above), myalgia, chills, acute gastrointestinal symptoms (such as nausea, vomiting, diarrhoea or abdominal pain), or acute respiratory symptoms (including cough, shortness of breath, chest pain or difficulty breathing).

PROBABLE CASE

A person with signs and symptoms consistent with those of a suspected case, who has been evaluated by a healthcare professional, has a known

epidemiological link with a confirmed or probable ANDV case, and for whom laboratory testing has not been conducted.

CONFIRMED CASE

A person with laboratory confirmation of ANDV infection through RT-PCR or serological testing.

NON-CASE

A suspected or probable case who tests negative for ANDV by RT-PCR or serology.

Individuals classified as non-cases who subsequently develop symptoms consistent with the suspected case definition within the maximum incubation period following their last exposure to a probable or confirmed case should be retested and reclassified, as appropriate.

Based on currently available information, the working hypothesis is that Case 1 most likely acquired the infection prior to boarding the ship through environmental exposure during activities undertaken in Argentina. Investigations are ongoing



to reconstruct the full itinerary of his travels and identify potential exposure factors.

Current evidence suggests subsequent human-to-human transmission onboard the vessel, based on documented epidemiological links between several subsequent cases and Case 1 during his illness, as well as the timing of symptom onset, which is consistent with previously documented incubation periods for ANDV. However, ongoing epidemiological investigations and genomic sequencing studies are expected to provide a clearer understanding of transmission pathways and exposure sources.

EPIDEMIOLOGY

Hantavirus cardiopulmonary syndrome (HCPS), also known as



Although WHO assesses the global risk as low, the outbreak highlights the vulnerability of cruise ships to infectious disease events. The incident also offers valuable lessons in outbreak preparedness, surveillance and cross-border public health cooperation.

hantavirus pulmonary syndrome (HPS), is a zoonotic viral respiratory disease caused by hantaviruses

belonging to the genus Orthohantavirus, family Hantaviridae, and order Bunyvirales.

More than 20 viral species have been identified within this genus. In the Americas, Sin Nombre virus is the predominant cause of HPS in North America, while Orthohantavirus andesense is responsible for most cases in South America.

Hantaviruses circulating in Europe and Asia are primarily associated with haemorrhagic fever with renal syndrome (HFRS), a disease that mainly affects the kidneys and blood vessels. Human-to-human transmission has not been documented for these strains.

Human hantavirus infection is primarily acquired through contact with the urine, faeces or saliva of infected rodents, or through exposure



to contaminated surfaces. Infection commonly occurs during activities such as cleaning rodent-infested buildings, although routine activities in heavily infested environments may also result in exposure.

Human cases are most frequently reported in rural environments, including forests, agricultural fields and farms, where rodent populations are abundant and opportunities for exposure are greater.

HPS is characterised by headache, dizziness, chills, fever, myalgia, and gastrointestinal symptoms such as nausea, vomiting, diarrhoea and abdominal pain, followed by the sudden onset of respiratory distress and hypotension.

Symptoms typically develop one to six weeks after exposure to the virus. However, they may appear as early as one week or as late as eight weeks following infection.

Hantavirus infections remain relatively uncommon worldwide. In 2025, eight countries in the Region of the Americas reported 229 cases and 59 deaths, representing a case fatality rate (CFR) of 25.7 per cent. In the European Region, 1,885 hantavirus infections were reported in 2023 (0.4 cases per 100,000 population), marking the lowest rate recorded between 2019 and 2023.

In East Asia, particularly China and the Republic of Korea, hantavirus-associated haemorrhagic fever with renal syndrome continues to account for many thousands of cases annually, although incidence has declined substantially in recent decades.

Hantavirus infections are associated with case fatality rates ranging from less than 1 per cent to 15 per cent in Asia and Europe, and up to 50 per cent in the Americas.

While there are currently no licensed treatments or vaccines for hantavirus infections, early supportive care and prompt referral to a healthcare facility with intensive care capabilities can significantly improve patient outcomes. Environmental and ecological factors that influence rodent populations may affect disease transmission patterns. Because hantavirus reservoirs are wild rodents, infection may occur whenever individuals come into contact with rodent habitats.

Although uncommon, limited human-to-human transmission of HPS caused by Andes virus has been documented, particularly among individuals with close and prolonged exposure to infected patients. Secondary infections among healthcare workers have also been reported, although such occurrences

remain rare.

Available evidence suggests that secondary transmission is most likely during the early phase of illness, when viral shedding may be greatest. However, knowledge remains limited because outbreaks involving confirmed human-to-human transmission of hantavirus infection are exceedingly uncommon.

PUBLIC HEALTH RESPONSE

Authorities from States Parties involved in managing the event to date—Argentina, Cabo Verde, Chile, Germany, the Netherlands, South Africa, Spain, Switzerland and the United Kingdom—together with WHO and partner organisations, have initiated a coordinated response comprising the following measures:

- WHO has maintained continuous engagement with the National IHR Focal Points of Argentina, Cabo Verde, Chile, Germany, the Netherlands, South Africa, Spain, Switzerland and the United Kingdom to facilitate timely information-sharing and coordination of response activities. International contact tracing involving multiple partners remains ongoing. Passengers onboard the vessel have been advised to practise physical distancing and remain in their cabins whenever possible.
- One expert from WHO and one from the European Centre for Disease Prevention and Control (ECDC) have been deployed onboard the ship to provide public health guidance and technical support to passengers and crew during the voyage.
- Epidemiological investigations are continuing to identify the source of exposure and clarify transmission pathways.
- WHO has shared information regarding the event, including technical guidance on hantavirus management onboard ships, a technical note covering disembarkation procedures and the onward



management of passengers and crew, guidance on the management of contacts of Andes virus cases, its rapid risk assessment, case investigation forms, and details regarding primers and probes for Andes virus detection. These materials have been disseminated through WHO's secure Event Information Site for National IHR Focal Points to support national response efforts.

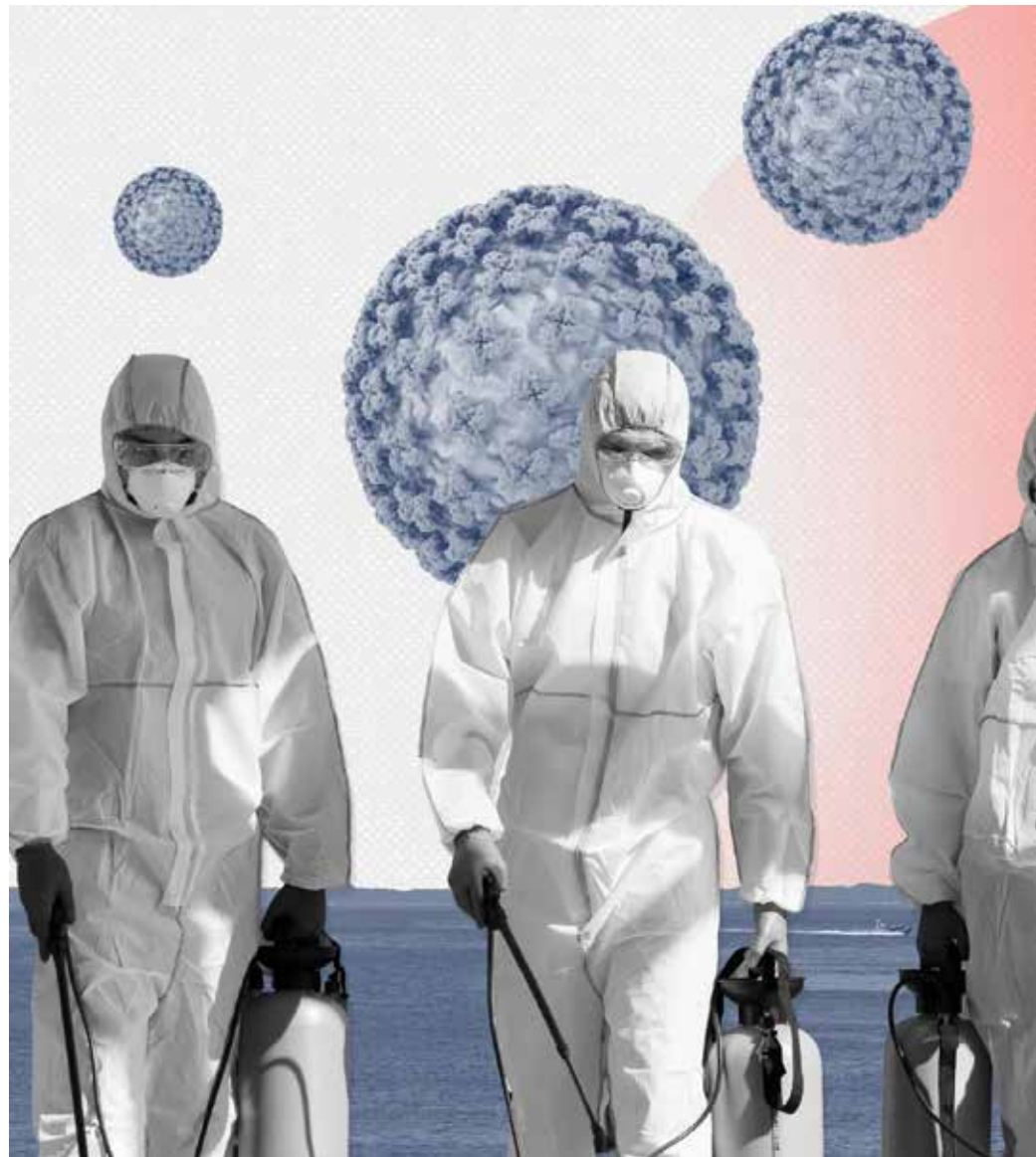
- The National IHR Focal Points of affected countries have exchanged passenger and crew manifests with their counterparts in the respective countries of nationality. International contact-tracing activities coordinated through the IHR mechanism remain ongoing.

- The National IHR Focal Point of Argentina requested and received information relating to the first two cases in order to reconstruct their travel itinerary within the Southern Cone region of the Americas and assess potential exposure to hantavirus. Argentina also shared its National Hantavirus Epidemiological Circular outlining updated surveillance and management standards for hantavirus infection.

- In accordance with the Working Arrangement between the WHO Emergency Medical Team (EMT) Secretariat and the European Union Emergency Response Coordination Centre (ERCC), formal discussions have been initiated to support both the clinical management and medical evacuation of symptomatic passengers. The EU Health Task Force (EUHTF) has also been activated to provide assistance.

- WHO has facilitated logistical support, including the provision of sample collection materials and assistance with the shipment of specimens to the Institut Pasteur de Dakar, Senegal.

- Laboratory confirmation of hantavirus infection has been undertaken by the National Institute



for Communicable Diseases (NICD) in South Africa. Identification of Andes virus was subsequently confirmed through genomic sequencing at NICD and virus-specific PCR testing at Geneva University Hospitals, Switzerland.

- WHO has further supported collaboration among laboratories in Senegal, the United Kingdom, the Netherlands and Argentina to facilitate timely testing. Additional investigations, including serology,

sequencing and metagenomic analyses, are currently underway.

- WHO has developed a range of technical guidance documents to assist affected countries, covering outbreak management onboard the vessel, case investigation procedures, disembarkation protocols, and the management of returning passengers and crew.

- Risk communication activities are being coordinated to ensure the dissemination of regular, timely and evidence-based information. WHO has



activated three-level organisational coordination and continues to support national authorities in implementing risk-based and evidence-informed public health measures in accordance with the provisions of the IHR and relevant WHO technical guidance.

WHO Risk Assessment


WHO currently assesses the public health risk associated with this event as moderate for passengers and crew linked to the cruise ship and low at the global level for the following reasons:

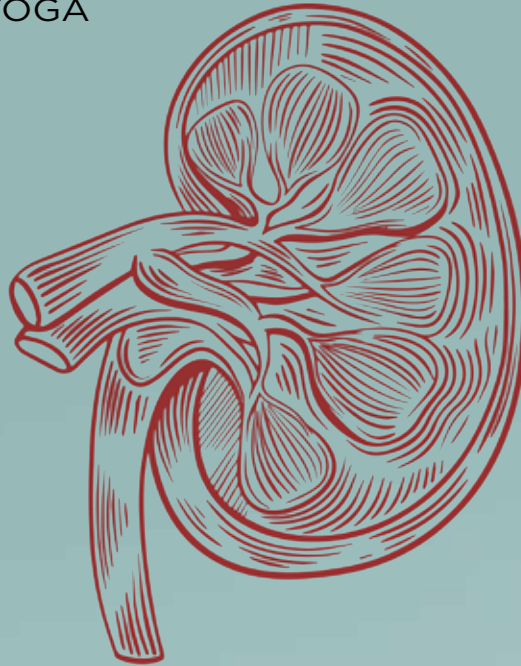
- The disease may be associated with a high case fatality ratio, reaching 40–50 per cent, particularly among older adults and individuals with underlying medical conditions. The average age of passengers onboard the vessel is approximately 65 years.
- Andes virus has demonstrated limited human-to-human transmission in previous outbreaks. Such transmission has generally occurred among close contacts, particularly within household settings, and usually

requires prolonged exposure. Transmission can often be interrupted through early detection, isolation of cases, clinical management and comprehensive contact tracing. However, the cruise ship environment presents unique challenges because of shared accommodation, enclosed indoor settings, prolonged exposure periods and frequent interpersonal interaction, all of which may increase opportunities for transmission.

- Investigations into the travel history and possible exposures of the index case within the Southern Cone region of the Americas remain ongoing. Preliminary findings suggest potential exposure to infected rodents during bird-watching activities. Genomic sequencing studies are also underway to compare the outbreak strain with Andes virus strains circulating in Argentina, Chile and Uruguay, where the disease is endemic.
- Additional cases may still occur among individuals who were exposed before containment measures were implemented. Nevertheless, current response activities—including rapid identification and isolation of suspected cases, comprehensive contact tracing, and active monitoring of contacts—are expected to reduce the likelihood of further spread.

- Because there is currently no specific antiviral therapy for HPS, suspected cases require prompt transfer to appropriately equipped healthcare facilities, including intensive care units where available, for close monitoring and supportive management. Such measures are critical to improving survival outcomes. Under the circumstances of this outbreak, rapid transfer to mainland healthcare facilities may present operational challenges.

More detailed epidemiological, clinical and laboratory investigations are required to refine the current risk assessment and guide subsequent response measures. 

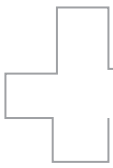


A LIFELINE FOR KIDNEYS

Yoga offers a holistic path to healthier living and ageing. Though not a substitute for medications and prescribed treatments, it can play a valuable supportive role in preventing and managing a range of diseases, including chronic kidney disease.

BY DR SANJEEV GULATI





Yoga is one of the world's oldest and most enduring systems for promoting health and well-being.

Originating in India more than 5,000 years ago, it is far more than a form of physical exercise. Yoga is a holistic discipline that integrates physical postures, breathing techniques, mindfulness, and meditation to support physical, mental, and emotional health. In recent years, modern medicine has increasingly recognised yoga's potential role in preventing and managing a range of chronic diseases, including diabetes, hypertension, cardiovascular disorders, and chronic kidney disease (CKD).

The significance of yoga has gained global recognition through the annual observance of the International Day of Yoga on June 21. Proposed by India and adopted by the United Nations General Assembly in 2014 with the support of a record 175 member states, the day seeks to raise awareness about yoga as a comprehensive approach to health and wellness. The date, which coincides with the summer solstice, symbolises balance, vitality, and longevity.

The theme for International Day of Yoga 2026, "Yoga for Healthy Ageing," highlights the fact that yoga is not confined to any particular stage of life. Rather, it is a lifelong practice that can be adapted to changing needs and abilities, helping individuals maintain vitality, independence, and dignity as they age.

YOGA AND HEALTHY AGEING

The world is witnessing a rapid increase in the elderly population, particularly in developing regions. This demographic shift has intensified the need for interventions that are affordable, scalable, and culturally acceptable. Yoga fulfils all these



criteria.

By improving flexibility, balance, strength, and mental resilience, yoga addresses several key pillars of healthy ageing. Regular practice helps maintain mobility, protects cognitive health, reduces social isolation, and enhances overall quality of life. It reminds us that healthy ageing is not merely about adding years to life but about adding life to those years.

The World Health Organization (WHO) has acknowledged the value of structured physical activity in maintaining health across the lifespan. The WHO Global Action Plan on

Physical Activity 2018–2030 and the WHO Global Traditional Medicine Strategy 2025–2034 both support the safe integration of evidence-based traditional practices such as yoga into healthcare systems.

According to Dr Catharina Boehme, Officer-in-Charge of the WHO South-East Asia Region, healthy ageing is shaped not only by healthcare systems but also by the daily choices people make. Yoga, when practised regularly and appropriately, represents one such choice that can significantly contribute to lifelong health and vitality.



Yoga is much more than a fitness routine. Regular practice helps control blood pressure, improve blood sugar levels, reduce stress, and enhance cardiovascular health—all critical factors in protecting kidney function.

necessarily mean evidence of absence. The indirect benefits of yoga may be particularly relevant for individuals living with kidney disease.

THE SCIENTIFIC BASIS OF YOGA'S BENEFITS

For centuries, yoga's health benefits were understood largely through traditional knowledge. Today, modern scientific research is beginning to explain the physiological mechanisms behind these effects.

One of the most consistently demonstrated benefits of yoga is its ability to lower blood pressure. Research has shown that relaxation techniques and specific yogic practices can significantly reduce both systolic and diastolic blood pressure levels. Since uncontrolled hypertension is a major contributor to kidney damage, improved blood pressure control can help slow the progression of CKD.

Yoga also influences heart rate and cardiovascular function. A slower resting heart rate reduces strain on the heart and blood vessels, which may benefit individuals with cardiovascular disease, stroke risk, or hypertension.

Another important benefit relates to diabetes management. Several studies have shown that yoga can improve

UNDERSTANDING CHRONIC KIDNEY DISEASE

Chronic Kidney Disease (CKD) is a progressive condition in which the kidneys gradually lose their ability to filter waste products and excess fluids from the body. Diabetes and hypertension are the two leading causes of CKD worldwide. As kidney function declines, patients may experience fatigue, swelling, high blood pressure, sleep disturbances, muscle weakness, and a variety of other complications.

In advanced stages, many patients require dialysis or kidney

transplantation to sustain life. While medical treatment remains the cornerstone of CKD management, increasing attention is being paid to lifestyle interventions that can complement conventional therapy. Among these, yoga has emerged as a promising supportive practice.

Although direct scientific evidence linking yoga to improved kidney function remains limited, a growing body of research suggests that yoga positively influences many of the factors that contribute to kidney disease progression. In medicine, absence of evidence does not



blood sugar control by reducing stress hormones such as cortisol and adrenaline, promoting weight management, and enhancing insulin sensitivity. Since diabetes remains the leading cause of kidney failure globally, better glucose control indirectly contributes to kidney protection.

Research has also linked yoga with healthier body weight and lower body mass index (BMI). Individuals who practise yoga regularly often demonstrate better eating habits, greater mindfulness, and improved self-awareness. These behavioural changes can lead to sustained weight control and reduced risk of metabolic disorders.

YOGA AS A STRESS MANAGEMENT TOOL

Perhaps one of yoga’s most profound contributions lies in its ability to manage stress.

Living with chronic kidney disease can be physically and emotionally challenging. Frequent hospital visits, dietary restrictions, medication schedules, uncertainty about the future, and financial pressures can all contribute to anxiety and depression.

Yoga helps calm the nervous system

by reducing the mental fluctuations associated with fear, frustration, anger, and worry. Breathing exercises, meditation, and mindful movement encourage relaxation and emotional balance. Reduced stress levels may also lower inflammation, improve sleep quality, and enhance overall quality of life.

Stress has been implicated in numerous health problems, including hypertension, heart disease, insomnia, migraines, and immune dysfunction. By helping patients achieve a calmer

state of mind, yoga may contribute to better long-term health outcomes.

YOGA AND DIALYSIS PATIENTS

Dialysis is a life-saving treatment for patients with end-stage kidney disease. Most individuals undergoing haemodialysis require treatment two to three times each week, spending between eight and twelve hours in dialysis units.

Unfortunately, many dialysis patients become physically inactive over time. Fatigue, muscle weakness, and fear of injury often lead to sedentary lifestyles, which can further worsen health outcomes.

Over the past decade, increasing evidence has shown that regular physical activity improves physical function, cardiovascular health, and quality of life among dialysis patients. Consequently, many dialysis centres around the world have begun incorporating exercise programmes into dialysis sessions.

Yoga offers a particularly attractive option because it combines gentle movement with breathing and relaxation techniques. Patients can practise selected yoga exercises even while receiving dialysis treatment,



Patients undergoing dialysis often struggle with fatigue and inactivity. Simple breathing exercises and relaxation techniques can be safely incorporated into dialysis sessions, helping improve physical and emotional well-being.





making productive use of the hours spent in the dialysis chair.

At our dialysis unit, we have celebrated International Yoga Day for several years and have encouraged patients to adopt regular yoga practice. The response has been encouraging, with many participants reporting improved well-being, better relaxation, and enhanced confidence in managing their condition.

CAN YOGA IMPROVE KIDNEY FUNCTION?

The question most kidney patients ask is whether yoga can directly improve kidney function.

The honest answer is that definitive scientific evidence remains limited. However, there is considerable indirect evidence supporting yoga’s role as an adjunct therapy.

Studies have demonstrated improvements in blood pressure control, blood sugar regulation, stress reduction, sleep quality, and overall quality of life among individuals who practise yoga regularly. All of these factors are known to influence kidney health.

Some studies have suggested that structured yoga programmes may

improve renal function parameters and quality of life when used alongside conventional treatment. While larger clinical trials are still needed, the available evidence is encouraging.

For kidney transplant recipients, maintaining excellent blood pressure control is essential for preserving the longevity of the transplanted kidney. Since yoga contributes to cardiovascular health and stress management, it may offer additional benefits even after transplantation.

ADDITIONAL BENEFITS FOR KIDNEY PATIENTS



The International Day of Yoga 2026 theme, Yoga for Healthy Ageing, highlights yoga’s role in maintaining mobility, independence, mental resilience, and quality of life throughout the ageing process.

Regular yoga practice may offer several advantages for people living with kidney disease:

- Improved blood circulation
- Enhanced flexibility and muscle strength
- Better metabolic function
- Reduced stress and anxiety
- Improved sleep quality
- Better emotional well-being
- Enhanced immunity
- Reduced perception of chronic pain
- Improved management of fluid retention
- Greater overall quality of life

A well-rested and relaxed body is better equipped to regulate essential physiological functions, including fluid balance and cardiovascular stability.

IMPORTANT PRECAUTIONS

Although yoga is generally safe, not every posture is suitable for every patient.

Individuals with polycystic kidney disease should avoid positions that place excessive pressure on the abdomen or lower back. Patients with uncontrolled hypertension, severe back problems, or certain cardiovascular conditions may require modifications.

For dialysis patients, additional precautions are necessary. Individuals with an arteriovenous (AV) fistula should avoid vigorous movements involving the arm used for vascular access during dialysis sessions. Patients with a dialysis catheter may have fewer restrictions but should still seek professional guidance.

It is always advisable to consult both a nephrologist and a qualified yoga instructor before beginning a new yoga programme.

YOGA PRACTICES SUITABLE DURING DIALYSIS

Several gentle breathing and relaxation techniques can be safely practised during dialysis sessions.





ANULOM VILOM (ALTERNATE NOSTRIL BREATHING)

This involves inhaling through one nostril while closing the other, then exhaling through the opposite nostril. The sequence is then reversed. This simple practice promotes relaxation and may improve circulation and respiratory efficiency.

KAPALABHATI

Kapalabhati involves a series of forceful exhalations followed by passive inhalations. It should be practised gently and according to individual comfort levels.

BHASTRIKA

This breathing technique combines deep inhalation with controlled, forceful exhalation. It can help improve lung function and increase energy

levels when performed correctly.

SHAVASANA (CORPSE POSE)

One of the simplest yet most powerful yogic practices, Shavasana involves lying comfortably and allowing the body and mind to relax completely. It helps reduce stress and promotes deep relaxation.

These practices are ideally performed before meals or refreshments during dialysis sessions.

YOGA POSTURES FOR NON-DIALYSIS DAYS

On days when dialysis is not scheduled, patients who are medically stable may consider practising additional postures under professional supervision.

VRIKSHASANA (TREE POSE)

This balancing posture improves concentration, coordination, and lower-body strength while promoting mental focus.

TADASANA (MOUNTAIN POSE)

A simple standing posture that encourages correct alignment, improves posture, and enhances balance.

BHUJANGASANA (COBRA POSE)

This pose gently stretches the spine and opens the chest. It may help improve flexibility and circulation.

USTRASANA (CAMEL POSE)

Camel Pose stretches the front of the body, opens the chest, and may support improved circulation.


PASCHIMOTTANASANA (SEATED)



While yoga cannot replace medical treatment, it can be a powerful adjunct therapy for kidney patients. Practised under expert guidance, it supports better health outcomes, reduces stress, and promotes a more active, fulfilling life.

breath control, mindfulness, and relaxation, yoga supports cardiovascular health, improves metabolic function, reduces stress, and enhances overall quality of life.

For individuals living with chronic kidney disease, dialysis dependence, or kidney transplantation, yoga offers a practical and accessible pathway towards better health. While more scientific research is needed to define its direct effects on kidney function, the existing evidence strongly suggests that yoga can play an important supportive role in comprehensive kidney care.

As the world embraces the message of “Yoga for Healthy Ageing,” patients with kidney disease can also draw inspiration from this ancient practice. Performed safely, regularly, and under proper guidance, yoga can help strengthen the body, calm the mind, and improve the quality of life—one breath, one posture, and one day at a time. 

(The author is Chairman, Nephrology and Kidney Transplantation, Fortis Group of Hospitals, NCR; Adjunct Professor of Nephrology at Manipal University; and a member of the Governing Body of the Indian Society of Organ Transplantation.)

FORWARD BEND)

This forward-bending posture stretches the back muscles and promotes relaxation.

SURYA NAMASKAR (SUN SALUTATION)

One of the most comprehensive yoga sequences, Surya Namaskar combines multiple postures into a flowing routine that improves flexibility, strength, circulation, and stamina.

KATI CHAKRASANA (STANDING SPINAL TWIST)

This twisting posture helps improve flexibility and may enhance blood circulation throughout the body.

Integrating Yoga into Kidney Care

The future of kidney care lies not only in advanced medical treatments

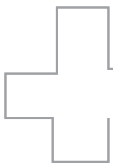
but also in holistic approaches that empower patients to participate actively in their own health.

Yoga should never be viewed as a substitute for dialysis, medications, or other prescribed treatments. Instead, it should be regarded as a complementary practice that enhances physical and emotional well-being.

For healthcare providers, introducing simple yoga-based interventions may represent a cost-effective way to improve patient engagement and quality of life. For patients, yoga offers an opportunity to regain a sense of control, confidence, and hope while living with a chronic illness.

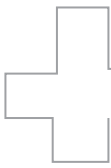
Takeaways

Yoga’s enduring relevance lies in its remarkable ability to address the interconnected dimensions of human health. By combining physical activity,



THE DEATH OF MERIT





The testing infrastructure of NEET-UG was introduced to clean up medical admissions, but it has achieved the exact opposite. From paper leaks and proxy candidates to zero-percentile cut-offs, systemic rot plagues the nation's premier medical entrance process.
BY DR PRAMOD KUMAR GUPTA



The admission process to the MBBS course was started through NEET since 2013 on the demand of Hindi-speaking states. At that time, the private medical education business lobby was just emerging, and there were only a few private medical colleges in the Hindi states. However, the exponential growth of private medical colleges and government medical colleges in North India has obliterated the need for the continuation of NEET. Under

the current system, the marks secured in NEET are the sole basis for admissions. Consequently, many meritorious students with a good score opt out due to the severe monetary constraints imposed by the private medical education system. Vacant seats are then put up for sale in the terminal round of counselling. Affluent students with low marks deliberately wait for the mop-up round, where admission with extremely low scores is officially allowed. The government's justification for this institutional

immorality is to fake the argument of a "deficiency of doctors". It is this government-politician-education industrialist handshake which gives deep-pocketed aspirants' families the confidence to supersede merit entirely. Smart, low-scoring candidates pre-pay capitation fees directly to the college of their choice. Thus, admission is virtually ensured to the highest-paying bidder in private colleges. The percentile requirement in the last round is lowered to the maximum possible extent---dropping down to zero in 2023---to facilitate





this institutionalised loot, which is actively assisted and shared by the authorities. Uneducable pupils enter the MBBS degree market while National Medical Commission (NMC) policies successfully exclude talented poor students selectively from private education. Thus, the necessity of securing a good score is completely vanquished.

Furthermore, systemic vulnerabilities are so severe that instances have emerged where someone else impersonates the candidate and undertakes NEET, allowing the rich to obtain the final admission, as observed recently in Madhya Pradesh (MP). Paid cheating



Many meritorious students are forced to opt out due to severe monetary constraints imposed by the private medical education system, while vacant seats are set up for sale to affluent, low-scoring bidders in terminal rounds.

inside examination centres occurs with absolute impunity. “Pay and get a degree without attending the MBBS course” was available to unqualified practitioners in the pre-NEET era as well, proving that the centralised exam has failed to clean up the system.

As a stark reflection of this ongoing rot, the Central Bureau of Investigation (CBI) arrested two persons in connection with the NEET-UG 2025 scam for allegedly deceiving aspirants and their parents by falsely promising to manipulate exam scores in exchange for ₹87.5 lakh per candidate (as reported by Harsh Kumar, New Delhi, Updated: Jun 14, 2025 | 3:48 PM, Business





Standard).

Tragically, the NEET paper leak story of 2024 was repeated in May 2026, when the rich purchased leaked papers for ₹10 lakh per question paper three days before the examination date. A historical parallel can be drawn from a judicial update: “12 Convicted In Vyapam Pre-Medical Test, 2011 Impersonation Case, were meritorious poor students who tried to finance their medical studies through unfair means” (Free Press Journal, Updated: Saturday, December 27, 2025, 10:59 PM). Yet, the true mastermind crime organiser syndicates remain unknown and are never caught, leaving them free to repeat the same crime over the years.

The catastrophic NEET-UG May 2026 paper leak affected 21 lakh aspirants, most of whom had prepared 8–10 hours a day for two years and spent a minimum of ₹2 lakh a year on coaching. About 80 lakh parents supported the studies of their children in the hope of a better future for them. Following the debacle, half a dozen despondent students committed suicide in frustration and dejection.

Buying a leaked question paper gives a final push to an aspirant to enter subsidised public medical education. The financial gain of a government fee subsidy justifies parental investment in criminal acts to subvert the system for their children’s benefit. This social normalisation of repeated failures by government testing agencies has generated a mutated public response to this huge talent suppression in India. Under the unrelenting sun at 44°C, the aspirants are left on the road to bear the brutality of the police when they dare to express their frustration. This widespread hopelessness for the future resulted in the unprecedented aggregation of 20 million subscriptions to the “Cockroach Janata Party” digital platform within barely 12 hours of its launch by Gen Zee.

The next date for the Re-NEET-UG-2026 has been announced for 21 June 2026, supposedly involving the armed forces for the conduct of the examination and logistics. Yet, no senior official from the ministry or the executive has accepted responsibility for the original failure.



Escaping their constitutional responsibilities, the rulers thought of riding on the chests of the Indian armed forces, who are now compelled to conduct the NEET examination. While the defence forces are known for their high



The remedy lies in grading the national NEET-UG strictly as a preliminary screening test, decentralising the process, and holding a decisive State NEET Mains after one year of foundational study to eliminate money power entirely.





professionalism, credibility, and honesty, the executive and legislature are drumming this as a success of conducting an honest examination, thereby risking the distortion of public faith in our armed forces.

Compounding this crisis, a CBSE 12 qualification with the required 50 per cent marks is a must for appearing in NEET. However, the 17 lakh CBSE Class 12 examination records for 2026 have been affected by technical glitches. This mirrors a past disaster: In 2019, 3.5 lakh students appearing in the Class 12 exams in Telangana faced jeopardised results, causing two dozen student suicides. It is believed that the underlying testing agency for both these exams is the exact same entity operating under different names.

The overall apathy to talent search, the systemic subversion of law and investigations, and government forces and media turning against students have become the ultimate

Table 1: NEET Rank vs. Marks Disparity Matrix (2024 vs. 2025)

(Source Data: Muskan Mohammadi, 14 June 2025, Hello Mentor)

All India Rank (AIR)	Required Marks (2024)	Required Marks (2025)
50,000	625	502
100,000	580	464
150,000	540	433
200,000	503	405
250,000	470	380
300,000	440	357
350,000	412	336
400,000	387	316
450,000	363	298
500,000	343	281

Table 2:

Historical Trajectory of Qualifying Percentile Cut-Offs (2020–2025)

Year	Unreserved / EWS Cut-Off Marks	OBC / SC / ST Cut-Off Marks
2020	147	113
2021	138	108
2022	117	93
2023	137	107
2024	162	127
2025	144	113

bane of the Indian education system. An unconcerned society merely blinks at this tormenting system.

Are we a nation that is working hard to suppress its talents? Have

Indians adopted a “coolie” mentality even seven decades after independence? Are we destined to endure a second-rate education system? Could we ever collectively



voice our demands for good education? Do our society and rulers agree with crime-assisted recruitment of semi-competent physicians managing our health and causing death and disease to citizens as the new norm?

BILATERAL COMPARATIVE DATA ANALYSIS

The following statistical profiles demonstrate how highly volatile and unpredictable raw score requirements have become, causing massive rank inflation that ultimately works against consistent student performance and highlights how the centralised system favours non-performing parameters over structural stability:

These tables compare marks secured, positions obtained, and cut-offs for admission. They show that

for securing admissions, raw ranking and absolute marks in NEET do not matter. Instead, the current system favours non-performing or low-performing students via commercial channels.

THE REMEDY: RESTRUCTURING & STRUCTURAL REFORMS

The definitive remedy lies in discouraging uninterested students, reducing the commercial scope for coaching, providing a fair chance for meritorious poor and underprivileged students to enter higher medical studies, reducing the overall cost of medical education, and thoroughly restructuring the medical education system to be merit-friendly.

To achieve this, the NEET-UG national exam should be graded solely as a Preliminary Screening Test (Prelims). Based on the merit





secured, the student may be allotted a foundational seat across recognised State Medical Universities spanning MBBS, BDS, Nursing, Physio/Occupational Therapy, Speech Therapy, and Dietician courses. Crucially, after the completion of the first year, all students from these combined medical courses would appear for the State NEET Mains, which would dynamically decide the final list of students permitted for further MBBS continuation. This two-step induction would allow deprived students a second chance to enter MBBS, while uneducable, uninterested, or wealthy students who gained admission through unfair means and money power would be effectively weeded out and eliminated. The toxic influence of direct capital and coaching empires would reduce, giving a long-overdue break to the mad rush and parental aspirations for achieving an MBBS degree at any cost. Parental betting on the wrong horse would thus be minimised.

Furthermore, competitive examination agencies must be brought under the Consumer Protection Act 2019 and the Competition Commission of India Act 2002. An aspirant must be treated legally as a consumer of the service provided by the testing agencies, given that the conduct of an educational test is for education enhancement—unlike a Public Service Commission where a candidate is aspiring for a government job. Consequently, a complete refund of the examination fee and the mandatory award of travelling allowance may be considered in case of cancellations or leaks.

Finally, the prosecution of culprits by special courts must be established for speedy trials. The act of abetting student suicide by the perpetrators of unfair examination leaks could be charged even now under Section 108 of the Bharatiya Nyaya Sanhita

(BNS).


EXPERT PANEL ENDORSEMENTS

The core proposal outlined in this article aligns heavily with external expert evaluations initiated to revamp national test infrastructures:

- **THE HIGH-LEVEL MANDATE:** A seven-member expert panel, led by former Indian Space Research Organisation (ISRO) chairman K. Radhakrishnan, was tasked with suggesting comprehensive improvements to the examination process following structural leak fiascos.

- **THE MULTILEVEL RECOMMENDATION:** The panel proposed implementing a multiple-stage NEET-UG examination system, closely mirroring the multi-tiered architecture of the Joint Entrance Examination (JEE Advanced) system utilised for engineering admissions.

- **THE HYBRID LOGISTICS PROTOCOL:** The panel strongly recommends a multi-level NEET-UG alongside transitioning all entrance tests to an online format. It also recommends a specialised “hybrid mode” of testing in remote or rural areas where the conduct of fully computer-based entrance exams is logistically or digitally impossible.

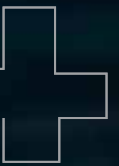
The government committee has formally recommended a two-stage examination process. This article builds precisely on that framework, recommending a nationwide preliminary screening to filter the initial pool, while the definitive NEET Mains are held directly under the strict supervision of respective state governments following one year of preliminary, foundational medical studies. 

(The author is a renowned Radiologist)

THE STRUGGLE WITHIN

Depression is one of the most common yet misunderstood mental health disorders affecting millions worldwide. Double Helical delves into the strategies— early recognition, timely intervention, medication, psychotherapy, better sleep, exercise, stress management, lifestyle changes, and strong social support—that can help patients fight the blues.

BY ABHIGYAN





Indian television actress, reality-show personality, and winner of Bigg Boss 14, Rubina Dilaik's recent disclosure about experiencing postpartum depression after the birth of her twin daughters has opened up an important conversation around maternal mental health. But beyond the celebrity revelation lies a deeper clinical reality that mental health experts believe deserves far greater public attention.

What makes her account particularly significant is that many of the symptoms she described—emotional eating, persistent exhaustion, loss of motivation, emotional withdrawal, and feelings of isolation—are frequently dismissed in Indian households as a normal part of adjusting to motherhood. In reality, these can sometimes be important indicators of postpartum depression that often go unrecognised for months.

BEYOND THE BABY BLUES

According to **Neha Cadabam, Senior Psychologist and Executive Director at Cadabams Hospitals**, one of the biggest challenges in identifying postpartum depression is that it often hides behind what clinicians refer to as a “somatic mask”. Changes in appetite, disrupted sleep, unexplained fatigue, emotional numbness, or withdrawal are frequently attributed to the physical demands of motherhood, delaying timely psychological intervention.

Moving the conversation beyond awareness and into the clinical realities of postpartum mental health in Indian households, she provides expert insights on:

- How families can distinguish between transient “baby blues” and clinically significant postpartum depression.
- Why emotional eating, withdrawal, irritability, and persistent exhaustion can sometimes signal deeper psychological distress after childbirth.



Postpartum depression often hides behind symptoms such as exhaustion, emotional withdrawal, disturbed sleep, and loss of motivation, making it easy to mistake for the normal demands of motherhood.

- The role of family systems, partners, and caregivers in identifying and responding to early signs of postpartum depression.

Her views become even more relevant in the context of twin pregnancies and multifoetal caregiving, where hormonal fluctuations, physical recovery demands, sleep deprivation, and caregiving responsibilities can

significantly heighten psychological vulnerability.

Mental health experts also point to a powerful cultural dimension. Many women continue to struggle silently because motherhood is still associated with expectations of gratitude, joy, resilience, and self-sacrifice. Admitting emotional distress during what is widely considered a happy life stage often



carries feelings of guilt, shame, or fear of judgment.

**GRIEF AND DEPRESSION:
UNDERSTANDING THE
DIFFERENCE**

Sometimes, it can be difficult to distinguish grief from major depression. Grief following the loss of a loved one is a normal reaction and generally does not require professional mental health treatment. However, grief that is prolonged, complicated, and significantly impairs daily functioning may require treatment. Researchers continue to study the relationship between complicated grief and major depression.



Depression affects thoughts, behaviour, physical health, relationships, and work life, often manifesting through a combination of emotional, cognitive, and physical symptoms.



According to **Meena Chandra, HOD, Ram Manohar Lohia Hospital, New Delhi**, most people experience one or more symptoms associated with depression from time to time. However, the occurrence of a single symptom in isolation does not constitute depression.

When healthcare professionals suspect depression, they generally look for clusters of symptoms that occur consistently for two weeks or longer and significantly affect various aspects of a person's functioning and quality of life.

In medical terms, depression is a genuine illness that affects the brain. Anyone who has experienced depression will tell you that it is not imaginary or merely "all in your head". Depression is far more than simply feeling sad or low. It is a serious medical condition associated with changes in brain

chemistry.

Research suggests that several factors contribute to the onset of depression, including genetics, hormonal changes, certain medical conditions, stress, grief, and difficult life circumstances. Any of these factors, either individually or in combination, may trigger biological changes that contribute to depressive symptoms.

UNDERSTANDING THE SYMPTOMS AND CAUSES OF DEPRESSION

Most people who experience depression need treatment to get better. Sadness, hopelessness, guilt, moodiness, angry outbursts, and loss of interest in friends, family, and favourite activities (including sex) may indicate depression. It can affect your thoughts, behaviour, and overall physical health.

The most common behavioural manifestations include withdrawing from people, substance abuse, missing work, school, or other commitments, and attempts to harm oneself. People experiencing depression may also have physical symptoms such as tiredness or lack of energy, unexplained aches and pains, changes in appetite, weight loss or gain, changes in sleep patterns (sleeping too little or too much), and sexual problems.

Alcohol and other forms of substance abuse or dependence may also co-exist with depression. Research shows that mood disorders and substance abuse commonly occur together. Depression may also occur alongside other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, and Parkinson's disease. People who have depression along with another medical illness tend to have more severe symptoms of both conditions, greater difficulty adapting to their medical condition, and higher medical costs than those who do not have co-existing depression. Treating depression can also help improve the outcome of the



co-occurring illness.

Depression is most likely caused by a combination of genetic, biological, environmental, and psychological factors. Depressive illnesses are disorders of the brain. Long-standing theories about depression suggest that important neurotransmitters—chemicals that brain cells use to communicate—may be out of balance in people with depression. However, proving this conclusively has been challenging.

BRAIN CHEMISTRY AND DEPRESSION

Brain-imaging technologies, such as magnetic resonance imaging (MRI), have shown that the brains of people with depression may appear different from those of people without depression. The parts of the brain involved in mood, thinking, sleep, appetite, and behaviour may function differently. However, these images do not reveal why depression has occurred,

nor can they be used to diagnose depression.

Some types of depression tend to run in families. However, depression can also occur in people with no family history of the disorder. Scientists are studying certain genes that may make some individuals more prone to depression. Research indicates that the risk of depression results from the influence of several genes acting together with environmental and other factors.

In addition, trauma, the loss of a loved one, a difficult relationship, or any stressful situation may trigger a depressive episode. Other depressive episodes may occur with or without an obvious trigger.

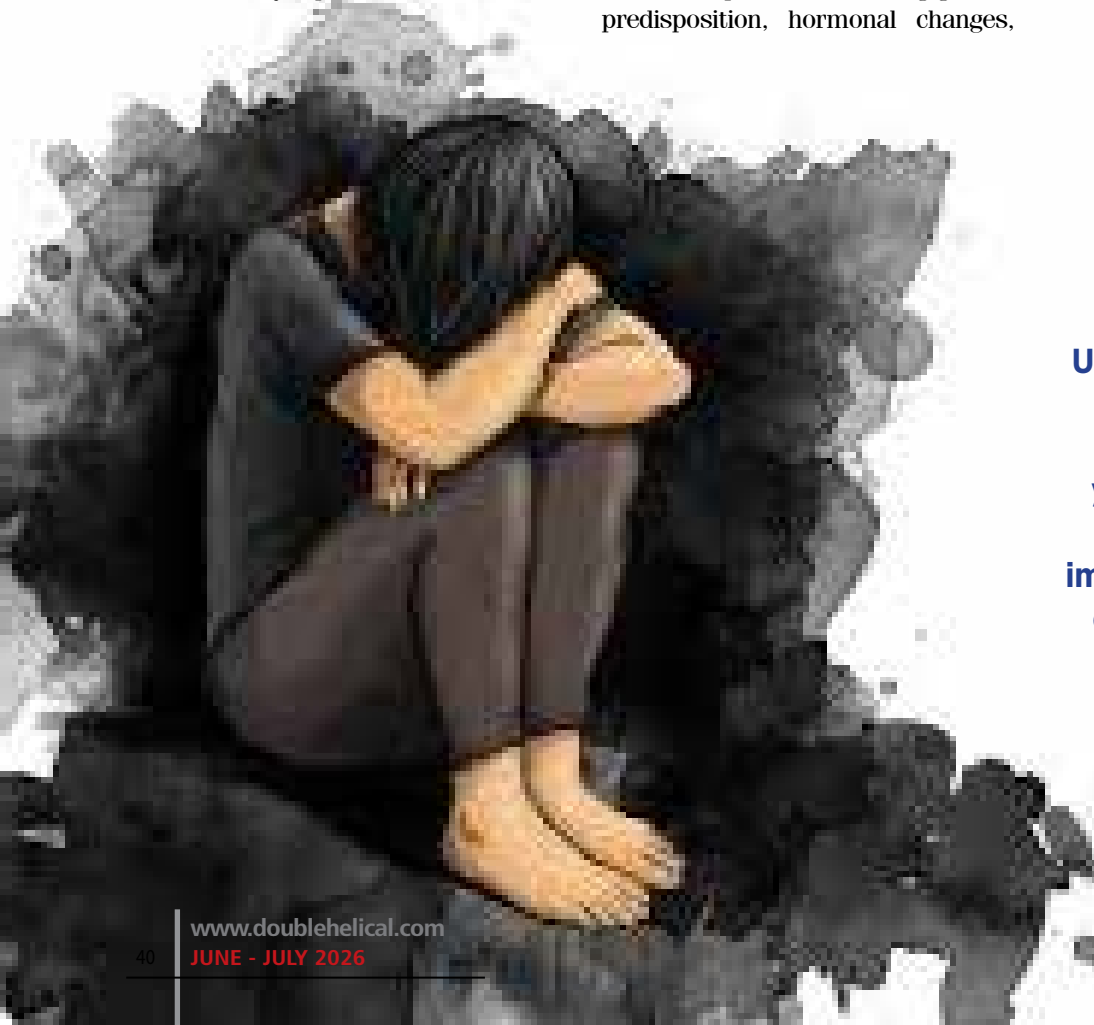
Elaborates Dr Arvind Garg, Senior Child Specialist, Apollo Hospital, Noida: “Although scientists agree that depression is a brain disorder, debate continues regarding its exact causes. Many factors may contribute to the onset of depression, including genetic predisposition, hormonal changes,

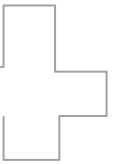


certain medical illnesses, stress, grief, and substance abuse. Any of these factors, either alone or in combination, may bring about changes in brain chemistry that contribute to the symptoms of depression, bipolar disorder, and related conditions.”



Uncertainty about careers, finances, and personal choices is driving many young adults into cycles of overthinking and impulsive decision-making, contributing to growing psychological distress.





DEPRESSION AND WOMEN'S MENTAL HEALTH

Depression is more commonly diagnosed among women than men. Biological, life-cycle, hormonal, and psychosocial factors experienced by women may contribute to this higher prevalence.

Researchers have shown that hormones directly affect brain chemistry, which in turn influences emotions and mood. For example, women are especially vulnerable to developing postpartum depression after giving birth, when hormonal and physical changes, combined with the responsibility of caring for a new-born, can become overwhelming.

Some women may also experience a severe form of premenstrual syndrome (PMS) known as premenstrual dysphoric disorder (PMDD). PMDD is associated with hormonal changes that typically occur around ovulation and before menstruation begins.

During the transition into menopause, some women experience an increased risk of depression. In addition, osteoporosis—bone thinning or bone loss—has been associated with depression. Scientists continue to explore these potential connections and how cyclical fluctuations in oestrogen and other hormones may affect a woman's brain chemistry.

Finally, many women face additional stresses arising from work and home responsibilities, caring for children and ageing parents, abuse, poverty, and relationship strains. It is still unclear, however, why some women who face enormous challenges develop depression, while others facing similar challenges do not.

HOW DEPRESSION DIFFERS IN MEN

Men often experience depression differently from women. While women with depression are more likely to experience feelings of sadness, worthlessness, and excessive guilt, men

are more likely to experience fatigue, irritability, loss of interest in previously enjoyable activities, and difficulty sleeping.

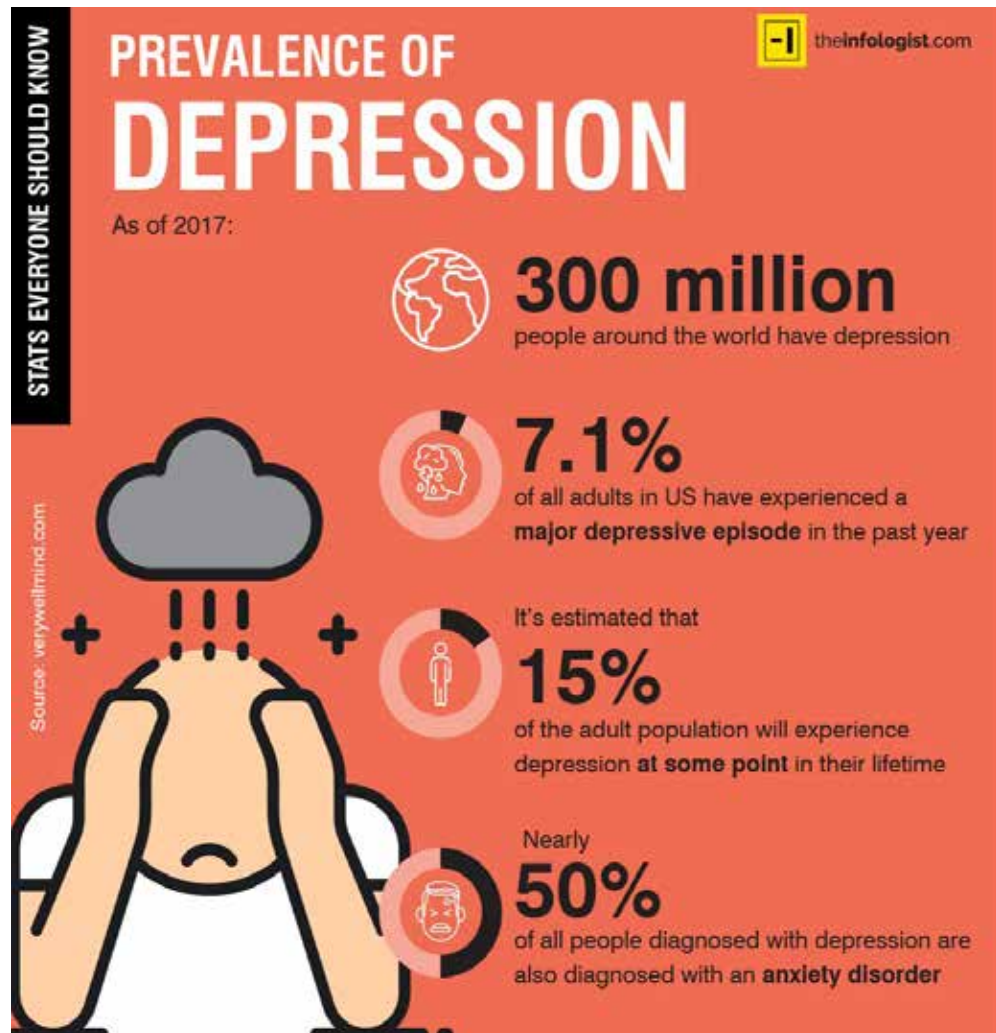
Men may also be more likely than women to turn to alcohol or drugs when they are depressed. They may become frustrated, discouraged, irritable, angry, and sometimes abusive. Some men immerse themselves in work to avoid discussing their depression with family or friends, while others may behave recklessly.

DEPRESSION IN OLDER ADULTS

Depression is not a normal part of ageing. Studies show that most older adults feel satisfied with their lives despite having more illnesses or

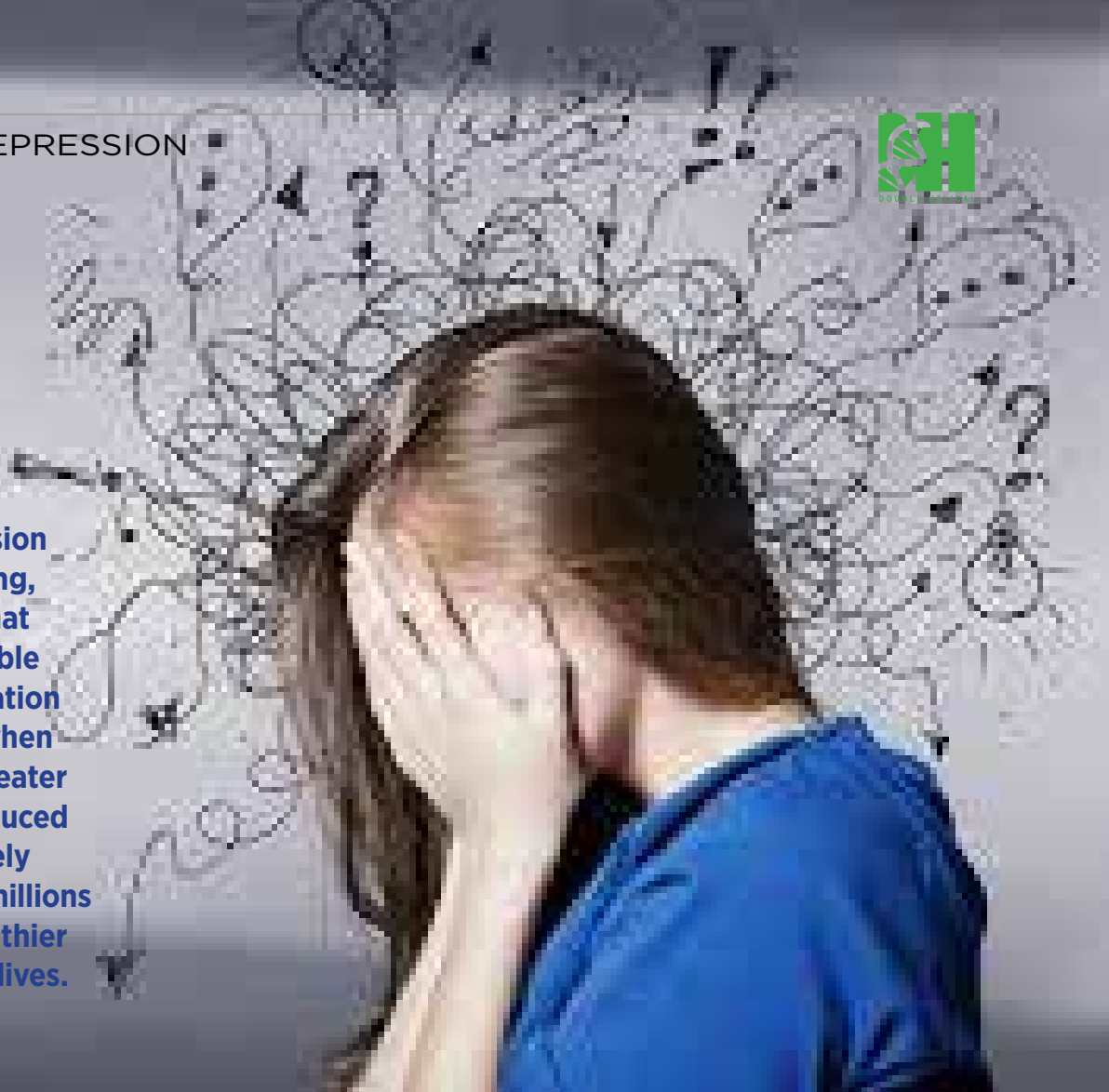
physical limitations. However, when older adults do experience depression, it may be overlooked because they often display different, less obvious symptoms. They may be less likely to experience or admit to feelings of sadness or grief.

Older adults with depression often improve when they receive treatment through antidepressant medication, psychotherapy, or a combination of both. Research has shown that medication alone and combination treatment can both be effective in reducing depression in older adults. Psychotherapy alone can also be effective in helping older adults remain free of depression, particularly those with milder forms of the condition. It is





Although depression can be debilitating, experts stress that it is highly treatable through a combination of interventions when identified early. Greater understanding, reduced stigma, and timely treatment can help millions of people lead healthier and more fulfilling lives.



especially useful for individuals who are unable or unwilling to take antidepressant medication.

THE MENTAL HEALTH CHALLENGE FACING YOUNG ADULTS

Constant uncertainty is no longer an occasional experience for young adults. It has become part of everyday life. Career paths feel less predictable, financial stability is harder to achieve, and even personal decisions are being made against a backdrop of shifting timelines. As they struggle to navigate this uncertainty, many young people find themselves oscillating between overthinking and impulsive decision-making.

Mental health experts believe this pattern is becoming increasingly prevalent among younger populations.

In some situations, individuals remain trapped in repetitive thought cycles, revisiting the same possibilities without arriving at a decision. In others, decisions are made quickly, often without being fully thought through.

Dr Neha Cadabam says: “When uncertainty becomes a constant, the mind looks for ways to manage the discomfort it creates. One response is to keep engaging with a thought in an attempt to find clarity. The other is to make decisions quickly to avoid remaining in that uncertain space. Both responses are ways of coping, but neither consistently leads to resolution. Thoughts that are repeatedly revisited continue to occupy mental space, while decisions that are rushed often return for reconsideration. Over time, this can affect confidence in one’s own judgment and contribute to a persistent sense of

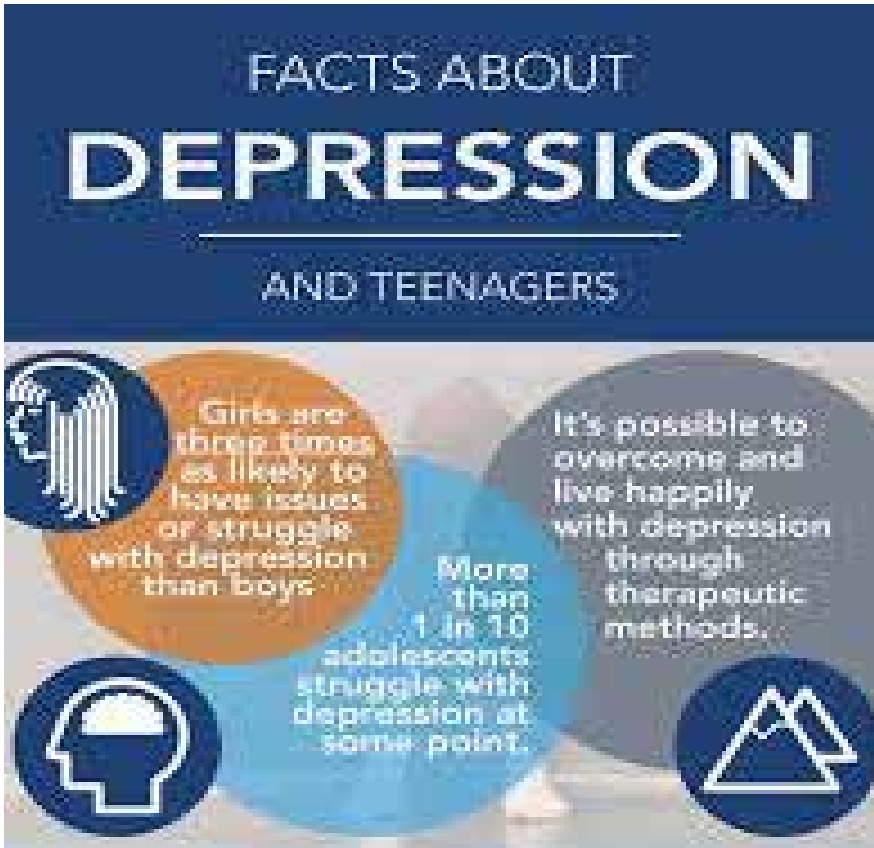
mental strain.”

DEPRESSION IN CHILDREN AND ADOLESCENTS

Children who develop depression often continue to experience depressive episodes into adulthood. They are also more likely to develop other serious illnesses later in life.

According to Dr Anup Mohta, Director Professor, Department of Paediatric Surgery, Lady Hardinge Medical College, New Delhi, childhood depression often persists, recurs, and continues into adulthood, particularly if left untreated.

A child with depression may pretend to be ill, refuse to attend school, cling excessively to a parent, or worry that a parent may die. Older children may sulk, get into trouble at school, become negative and irritable, and feel



misunderstood.

Because these signs can easily be mistaken for normal mood swings associated with developmental stages, accurately diagnosing depression in children and adolescents can be

challenging.

THE ADOLESCENT YEARS

Before puberty, boys and girls are equally likely to develop depression. By the age of 15, however, girls are

approximately twice as likely as boys to have experienced a major depressive episode.

According to Dr A K Aggarwal, Professor of Excellence and Medical Advisor, Apollo Group of Hospitals, New Delhi, depression during the teenage years occurs at a time of significant personal change, when young people are forming identities independent of their parents, grappling with gender-related issues and emerging sexuality, and making independent decisions for the first time.

Depression in adolescence frequently co-occurs with other disorders such as anxiety, eating disorders, and substance abuse. It may also increase the risk of suicide.

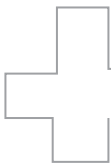
THE WIDER IMPACT OF DEPRESSION

Men and women of every age, educational level, and socioeconomic background can experience depression. There is no area of life that remains unaffected when depression is present. Marriage, parenting, friendships, careers, finances, and day-to-day functioning can all be significantly affected by the illness.

Once a depressive episode occurs, there is an increased likelihood of recurrence. The impact of depression can become even more severe when it occurs alongside other medical illnesses such as diabetes, stroke, or cardiovascular disease, or alongside related conditions such as anxiety disorders and substance abuse.

SEEKING PROFESSIONAL HELP

Once diagnosed, depression can be treated in several ways. The most common approaches include medication and psychotherapy. The earlier treatment begins, the more effective it is likely to be. Says Dr A K Aggarwal: "The first step towards obtaining appropriate treatment is to visit a doctor or mental health specialist. Certain medications and some medical



conditions, such as viral infections or thyroid disorders, can produce symptoms similar to those of depression. A doctor can rule out these possibilities through a physical examination, clinical interview, and laboratory tests. If no underlying medical condition is identified, the next step is a psychological evaluation.”

Diagnosis is the key. Explains **Manisha Yadav, Medical Practitioner, New Delhi**, “The doctor may refer you to a mental health professional, who will discuss any family history of depression or other mental disorders and obtain a complete history of your symptoms. You should discuss when your symptoms began, how long they have lasted, how severe they are, and whether they have occurred before and, if so, how they were treated. The mental health professional may also ask whether you use alcohol or drugs and whether you have thoughts about death or suicide.”

EARLY DETECTION MAKES A DIFFERENCE

The burden created by depression is compounded by the fact that many people remain undiagnosed and untreated. The encouraging news is that when depression is identified and treated promptly, its symptoms can be effectively managed. A wide range of



evidence-based treatments and coping strategies can help individuals lead productive and fulfilling lives.

Depression and bipolar disorder are generally most responsive to treatment when recognised and managed in their early stages, before symptoms become severe.

DEPRESSION AND BIPOLAR DISORDER: UNDERSTANDING THE DIFFERENCE

Together with a healthcare provider, individuals can determine whether they are experiencing depression or bipolar disorder and develop a plan for improved functioning and well-being.

That conversation can begin with a primary care physician, nurse practitioner, psychiatrist, psychologist, or another qualified mental health professional. Prior to consulting a doctor or healthcare provider, many individuals find it helpful to learn more about how depression and bipolar disorder are diagnosed. Mental health professionals commonly use structured screening tools and clinical assessments to identify symptoms of depression and distinguish them from other psychiatric conditions.

TREATMENT APPROACHES

Depression, even in its most severe forms, can be effectively treated. There are several effective strategies for treating depression. Depending on an individual’s symptoms, severity of illness, and personal circumstances, healthcare professionals may recommend one or more forms of psychotherapy involving structured sessions with a trained mental health professional.

In addition, clinicians may prescribe antidepressant medications where appropriate. Lifestyle modifications—including improved sleep hygiene, healthy dietary habits, regular physical activity, and stress-management techniques—have also been shown to play an important role in symptom management and recovery.

CONCLUSION

Depression is far more than a temporary feeling of sadness. It is a complex medical condition influenced by biological, psychological, social, and environmental factors. Left untreated, it can significantly impair quality of life, relationships, productivity, and physical health.

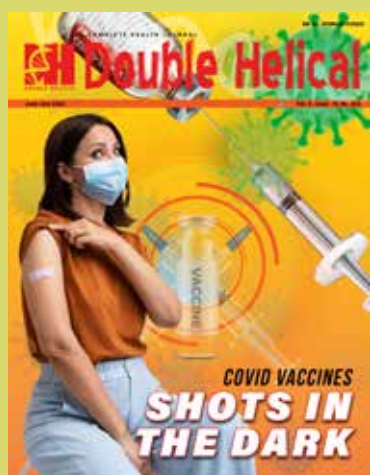
The World Health Organization identifies depression as one of the leading causes of disability worldwide. Depression affects millions of people across all age groups, cultures, and socioeconomic backgrounds.

The encouraging reality, however, is that depression is highly treatable. Early recognition, timely intervention, professional support, and a compassionate social environment can substantially improve outcomes.

As conversations around mental health become more open—from postpartum depression to adolescent stress, workplace pressures, and the challenges of ageing—it is essential that awareness is accompanied by access to evidence-based care. Greater understanding, reduced stigma, and timely treatment can help millions of people lead healthier and more fulfilling lives.



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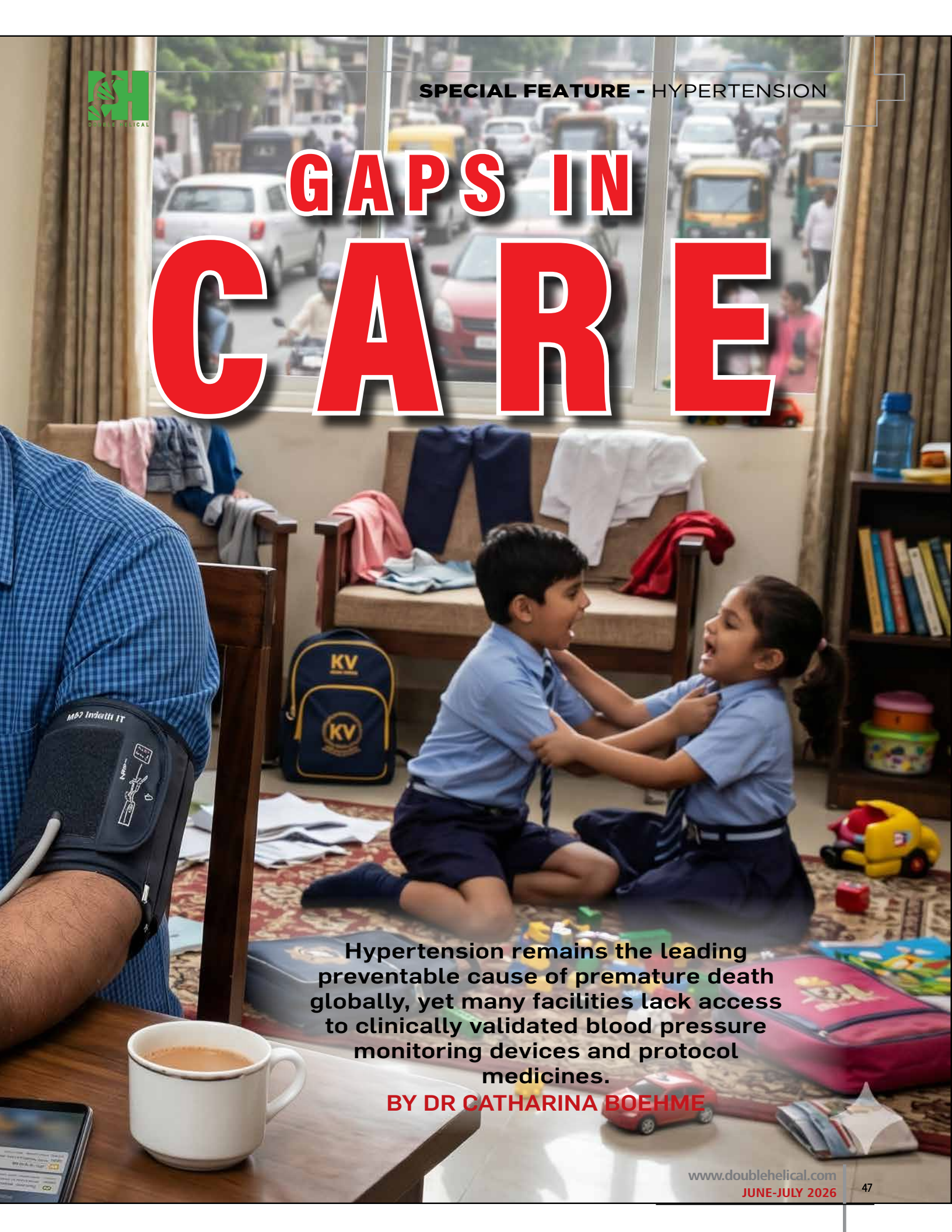
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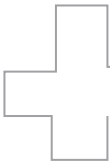


GAPS IN CARE



Hypertension remains the leading preventable cause of premature death globally, yet many facilities lack access to clinically validated blood pressure monitoring devices and protocol medicines.

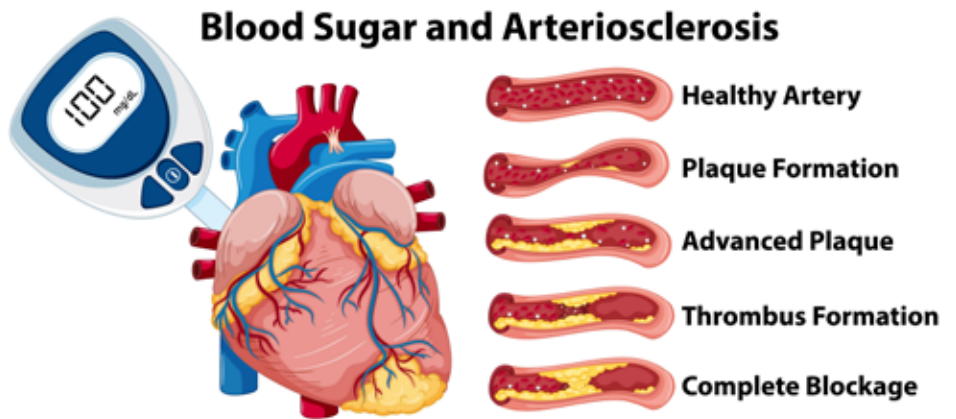
BY DR CATHARINA BOEHME



Hypertension significantly raises the risk of heart attack, stroke, and kidney disease, and remains the leading preventable cause of premature death worldwide. It afflicts an estimated 1.4 billion people globally, including more than 273 million people in the WHO South-East Asia Region—over 159 million of whom remain entirely unaware of their condition. Almost eight in 10 people with hypertension in the Region do not have their blood pressure under control, placing a significant burden on individuals, families, and health systems, while drastically increasing the risk of severe complications.

The theme for World Hypertension Day this year, “Controlling Hypertension Together: Check Your Blood Pressure Regularly, Defeat the Silent Killer,” is both a rallying call and a practical reminder urging individuals to know their numbers, while reinforcing coordinated action across communities, health systems, and policymakers. Hypertension is both preventable and manageable, starting with the simple first step of regular blood pressure measurement, followed by timely action through lifestyle changes or medical treatment. Healthy diets, avoiding tobacco, reducing alcohol intake, and regular physical activity can significantly reduce overall health risks. Where lifestyle changes alone are insufficient, affordable and effective treatments are widely available and can prevent serious complications when taken consistently.

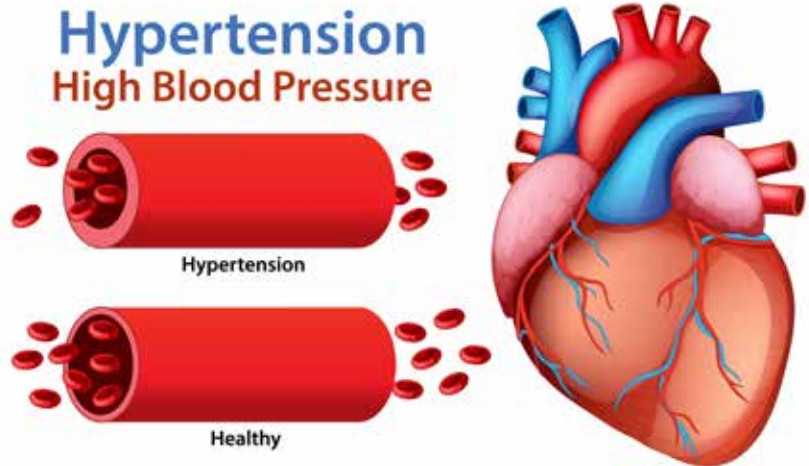
Much progress has been made across the Region. Through the WHO SEAHEARTS initiative, over 68.5 million people with hypertension were placed on protocol-based management as of December 2025,



While public health targets for salt reduction and trans-fat elimination have protected over two billion lives across the region, critical facility-level gaps in validated monitors and single-pill combinations remain unaddressed.

and most public healthcare facilities now follow standardised treatment protocols. The Region also

successfully achieved the target to reduce salt exposure, with 2.08 billion people being covered by at least one



Almost eight in 10 people living with hypertension in the South-East Asia Region do not have their blood pressure under control, placing an immense, silent strain on primary health systems and families alike.

WHO SHAKE technical package measure. In parallel, 2.03 billion people gained protection from industrial trans fats through best-practice frameworks, thereby exceeding the original 2 billion target.

Looking ahead, the Region has committed to extend SEAHEARTS milestones for 2030: 100 million people with hypertension to be placed on protocol-based management, with 60 million having controlled blood pressure by 2030. This ambitious roadmap is aligned with the global target set out in the political declaration from the Fourth UN High-Level Meeting on Noncommunicable Diseases in 2025.

Yet, critical gaps remain. Of those currently on protocol-based management, only 15.3 million have their blood pressure under control at


the facility level. Many facilities still lack access to clinically validated blood pressure monitoring devices. Stockouts or limited dispensing of protocol medicines persist, and the inclusion of single-pill combination medicines in national essential medicines lists and primary care supply chains remains insufficient. Furthermore, only six countries in the Region currently report blood pressure control data at the primary healthcare level.

WHO CALLS ON ALL PARTNERS TO ACT

- Governments must implement policies that reduce risk factors, including promoting healthier food environments, physical activity, and stronger tobacco and alcohol control. They must ensure equity by strengthening primary healthcare; ensuring access to diagnosis and treatment is absolutely critical to reducing regional disparities.
- Regulatory authorities should work closely with manufacturers

to expand access to affordable, validated blood pressure monitors for both home and facility use.

- Healthcare providers must prioritise early detection, patient education, and continuous, uninterrupted care.
- Communities and civil society have a crucial role in raising awareness, reducing stigma, and supporting healthier choices at the household level.
- Individuals must check their blood pressure regularly, as this is the simplest—yet most crucial—first step toward long-term health.

On World Hypertension Day, let us renew our commitment to act with urgency and unity to promote regular blood pressure checks, improve access to quality care, and support healthier choices for all. Together, we can control hypertension and defeat this silent killer. 

(The author is Officer-in-Charge, WHO South-East Asia)

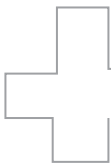


THE LOUD TRUTH

As headphone use soars among young people, experts warn that unsafe listening habits are setting the stage for noise-induced hearing loss.

BY ABHIGYAN





A comprehensive new study published in *Otolaryngology--Head and Neck Surgery*, the peer-reviewed journal of the American Academy of Otolaryngology--Head and Neck Surgery Foundation, reveals alarming rates of hearing loss among adolescents. The research, part of the Generation R Study—one of the world’s largest birth cohorts—followed 3,347 Dutch adolescents through standardised hearing assessments at ages 13 and 18. It found that by age 18, 6.2 per cent had sensorineural hearing loss and 12.9 per cent showed signs of probable noise-induced hearing damage.

While overall prevalence rates remained relatively stable during this five-year period, the study uncovered concerning trends: bilateral hearing notches became more common, and among those already showing high-frequency hearing loss at age 13, their hearing deteriorated significantly by age 18. These findings underscore the urgent need for prevention, early monitoring, and public education.

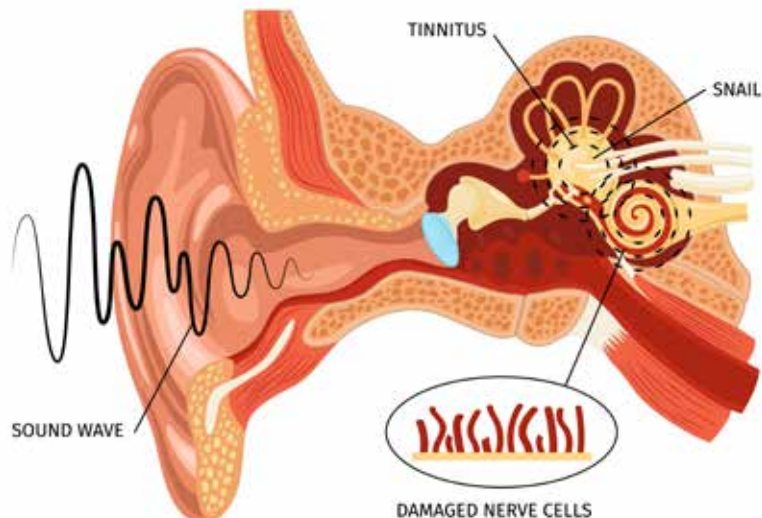
According to the WHO (World Health Organization), hearing loss has potentially devastating consequences for physical and mental health, education, and employment.

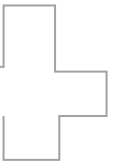
The WHO recommends that young people limit the use of personal audio devices to one hour a day in an effort to limit exposure to noise. A report recommends a safe headphone listening volume of 85dB. Although headphones are not sold with SPL meters, they can be purchased separately. One could take note of the volume control setting that pumps out 85dB; any music recorded at a higher level would still play back at dangerous levels. The headphones would have to be recalibrated whenever the music changed. While in-the-ear earphones can produce higher sound levels than over-the-ear earphones, they are not necessarily used at higher levels. According to **Dr A K Agarwal**,



A study finds that by age 18, one in eight adolescents shows signs of probable noise-induced hearing damage and over 6 per cent have sensorineural hearing loss.

HEARING IMPAIRMENT





Renowned ENT Surgeon, Professor of Excellence, and Medical Advisor (Innovation and Clinical Research), Apollo Group of Hospitals, New Delhi, the harmful effects of listening through any type of headphone, including mobile phone, will depend upon two factors: first, total duration, and second, intensity of sound. Using headphones for more than three hours a day over a prolonged period has been found to bring auditory and non-auditory harmful impact on the body.

Says Dr A K Agarwal, "Hearing damage from headphones is probably more common than from loudspeakers, even at comparable volumes, due to the close coupling of the transducers to the ears.



SPECIAL STORY - EAR CARE

There are many symptoms of hearing damage, like ringing or buzzing in the ears, difficulty in understanding speech, slight muffling of sounds, and difficulty understanding speech in noisy places or places with poor acoustics. The distance from the source of the sound and the period of time are also important factors in protecting your hearing. Unsafe levels of sounds can be, for example, exposure to in excess of 85 decibels (dB) for eight hours or 100dB for 15 minutes.”

Dr Ravi Meher, HOD, Department of ENT, Maulana Azad Medical College, New Delhi, says that teenagers and young people can better protect their hearing by keeping the volume down on personal audio devices, wearing earplugs when visiting noisy venues, and using carefully fitted, and, if possible, noise-cancelling earphones/headphones. They can also limit the time spent engaged in noisy activities by taking short listening breaks and restricting the daily use of personal audio devices to less than one hour. With the help of smartphone apps, they can monitor safe listening levels. Sound pressure is measured in decibels, and exposures to 75dB (even after long exposure) are usually safe. However, long or repeated exposures to sounds at above 85dB can cause hearing



When the exposure is particularly loud, regular, or prolonged, it can lead to permanent damage of the ear’s sensory cells, resulting in irreversible hearing loss.





Make Listening Safe

in the ear without specific causes such as infection. This may be due to increased stress on the delicate structures of the internal ear or eardrum by the radiation. Using headphones at a sufficiently high-volume level may cause many hearing problems including damage to the cochlear structure in the inner ear, which gives rise to temporary or permanent hearing impairment or deafness.”

“The risk is higher especially in loud places, as volume often needs to compete with the background noise. For example, the average sound level on a busy street is about 80dB. In the Aero study, when the outdoor noise was a mere 65dB, listeners raised headphone volume levels to over 80dB in 1997. This figure shows the average chosen listening levels for our subjects across the different background noise levels in 2006. When we experience sound in our environment (TV, radio, traffic), normally these sounds are at safe levels. However, long periods of exposure to high sound pressure levels at high volume can be damaging to sensitive structures in the inner ear and cause NIHL,” Dr Agarwal adds.

Experts believe that very loud noise can cause permanent hearing loss. Listening to loud noise for long periods of time can damage the hair cells in the inner ear. NIHL usually develops gradually and painlessly. A single exposure to an extremely loud sound such as an explosion can cause a sudden loss of hearing. This is called acoustic trauma.


Safe listening depends on the intensity

or loudness of sound, and the duration and frequency of listening. Exposure to loud sounds can result in temporary hearing loss or tinnitus, which is a ringing sensation in the ear. When the exposure is particularly loud, regular, or prolonged, it can lead to permanent damage of the ear’s sensory cells, resulting in irreversible hearing loss.

Governments also have a role to play by developing and enforcing strict legislation on recreational noise, and by raising awareness of the risks of hearing loss through public information campaigns. Parents, teachers, and physicians can educate young people about safe listening, while managers of entertainment venues can respect the safe noise levels set by their respective venues, use sound limiters, and offer earplugs and ‘chill-out’ rooms to patrons. Manufacturers can design personal audio devices with safety features and display information about safe listening on products and packaging.

“MAKE LISTENING SAFE” INITIATIVE

To mark International Ear Care Day, celebrated each year on March 3rd, WHO launched the “Make Listening Safe” initiative to draw attention to the dangers of unsafe listening and promote safer practices. In collaboration with partners worldwide, WHO aims to alert young people and their families about the risks of NIHL and advocate for greater government attention to this issue as part of their broader efforts to prevent hearing loss generally.

Worldwide, 360 million people today have moderate to profound hearing loss due to various causes, such as noise, genetic conditions, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, and ageing. It is estimated that half of all cases of hearing loss are avoidable. To address this issue, WHO collates data and information on hearing loss to demonstrate its prevalence, causes, and impact as well as opportunities for prevention and management; assists countries to develop and implement programmes for hearing care that are integrated into the primary health-care system; and provides technical resources for training health workers. 



loss. The louder the sound, the less time it takes for noise-induced hearing loss (NIHL) to happen.

Dr A K Agarwal observes, “Mobile phone is an excellent communication device. Mobile radiation effects occur only if the device is used for a prolonged time. Try to consider the mobile phone as a communication device, not an entertainment device. The human ear has a peak sensitivity of 3000 Hz, which causes a sense of unease. A sound of this frequency is very penetrating and causes a phantom pain

BEYOND THE VACCINE

While vaccination is a vital tool to eliminate the virus, improving baseline nutritional status is an essential factor in reducing child mortality. **BY DR AMITAV BANERJEE**

Bangladesh is in the midst of one of the worst measles outbreaks in recent public health history. Cases started occurring in March 2026, and like wildfire, the infection ran through the country. As of the end of May 2026, Bangladesh had recorded over 68,000 suspected cases of measles and more than 8,900 laboratory-confirmed cases.

The virus has tragically claimed over 500 lives (including more than 90 laboratory-confirmed fatalities), predominantly among unvaccinated children under the age of five. According to experts, this outbreak, attributed to a fall in measles vaccination, was preventable.

WHY THE COOKIE CRUMBLER?

For decades, the country depended on its strong childhood immunisation programs, including the measles vaccine, to keep killer childhood infections like measles at bay. The

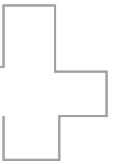
country with over 80 per cent coverage was a global leader for its Expanded Program of Immunisation (EPI). After the introduction of the measles-rubella vaccine in 2012, the coverage increased to almost 95 per cent until 2015, but experienced a slowdown during the COVID-19 pandemic.

This line of defence collapsed during the political instability of the last couple of years. Mass protests, strikes, and turmoil disrupted the vaccination programs, leaving in their wake a large number of vulnerable, malnourished children.

HISTORICAL CONTEXT AND LEGACY

Decades ago, Dr David Morley, from field observations in African children, had famously observed that an unvaccinated, severely malnourished child faces a mortality risk up to 400 times higher than an unvaccinated, well-nourished peer contracting the exact same virus.

Morley's field observations demonstrated that the severity and high mortality of measles were vastly driven by host



factors—specifically malnutrition and the vicious cycle of infection.

This observation laid the groundwork for modern primary healthcare strategies in resource-limited settings. It emphasised that while vaccination is a vital, irreplaceable tool to eliminate the virus, improving baseline nutritional status and administering vitamin A are equally critical pillars in reducing child mortality.

Morley’s advocacy eventually contributed to the development of the “Road to Health” chart (growth monitoring cards), recognising that tracking a child’s weight could predict their resilience against killer diseases like measles.

It is a classic example of how astute field epidemiology can challenge laboratory assumptions and reshape global public health priorities. David Morley explicitly highlighted this massive disparity in his landmark epidemiological work examining childhood infections in resource-limited settings.

When analysing field data from the late 1950s and 1960s (particularly his ground-breaking work in Imesi-Ile, Nigeria), Morley demonstrated that measles was not inherently a more virulent virus in tropical areas, but rather that its severity was heavily dictated by the host’s baseline health.

ROOT CAUSE OF MEASLES DEATHS – CHILD MALNUTRITION

Based on the definitive data from the most recent Bangladesh Demographic and Health Survey (BDHS) and supplementary global health assessments by UNICEF and the Integrated Food Security Phase Classification (IPC), Bangladesh has made remarkable strides over the last two

decades. However, it continues to bear a substantial absolute burden of child undernutrition.

The primary anthropometric measurements for under-five children (0–59 months) reveal the following national prevalence rates:

CRITICAL TRENDS AND CHALLENGES

While the long-term trend lines show a steady decline in chronic malnutrition (stunting), specific underlying dynamics present acute public health challenges:

- **Severe Acute Malnutrition (SAM):** Projections indicate that roughly 1.6 million children under five experience acute malnutrition annually, with over 140,000 children requiring critical therapeutic intervention for Severe Acute Malnutrition.
- **Child Food Poverty:** UNICEF reports point out that nearly 2 in 3 children under the age of five in Bangladesh live in child food poverty, consuming fewer than the minimum five recommended food groups. One in five lives in severe food poverty, surviving on just one or two food groups daily, which increases their susceptibility to wasting by up to 50 per cent.
- **The Vulnerability Window:** Longitudinal tracking demonstrates that children aged 6–23 months—the critical period for transitioning from exclusive breastfeeding to complementary feeding—exhibit the highest frequencies of growth faltering and nutritional deficits, often due to sub-optimal timing and low dietary diversity in complementary foods.

Epidemiological Insight: The data reveals that while malnutrition tracks closely with poverty (affecting the lowest wealth quintiles most severely), one in four children in the highest wealth quintile still experiences stunting. This highlights that child under-nutrition in the region is driven not solely by food availability, but by a complex interplay of dietary diversity, maternal literacy, and recurrent childhood infections like endemic diarrhoea.

SOLID NUTRITIONAL FOUNDATION CAN ACT AS A SECOND LINE OF DEFENCE

The root cause of so many measles deaths is persistent child malnutrition in Bangladesh, a situation prevailing in many countries of Asia and Africa. Almost one in four children in these countries is suffering from chronic malnutrition while one in ten has acute malnutrition. With falling immunisation cover, one can foresee how deadly measles can be in such populations.

A measles outbreak in early 2025 in parts of Texas, USA, where under-five malnutrition is almost non-existent proves the point. Over a six-month period of the outbreak there were only 2 deaths due to secondary bacterial infection which perhaps could have been averted by early and appropriate antibiotics.



CORE NUTRITIONAL INDICATORS (CHILDREN UNDER 5)

Indicator	Definition / Type	National Prevalence	Context & Current Estimates
Stunting	Height-for-age (Chronic malnutrition)	24 per cent	Down significantly from over 60 per cent in 1996 and 36 per cent in 2014, reflecting long-term improvements in health infrastructure and maternal education.
Underweight	Weight-for-age (Composite indicator)	22 per cent	Tracks steady declines historically, though heavily linked to birth order, maternal BMI, and socio-economic quintiles.
Wasting	Weight-for-height (Acute malnutrition)	11 per cent	Remains the most stubborn metric, fluctuating around 8 per cent to 11 per cent. It signals severe, recent nutritional deficits or illness.

The ongoing measles epidemic in Bangladesh is heavily intersecting with child malnutrition, which global health agencies identify as a primary risk factor driving the high rates of severe complications and mortality.

According to reports from the World Health Organization (WHO), UNICEF and the Directorate General of Health Services (DGHS) tracking the outbreak, the situation presents a classic textbook example of nutritional synergy during a major vaccine-preventable disease crisis.

THE WAY FORWARD

While vaccination coverage for childhood paediatric priorities like measles is important, a solid foundation by good nutrition in the first five years of life, including the antenatal period, can provide a reliable second line of defence during periods of disruption in immunisation programs. As David Morley stated eliminating under-five malnutrition can reduce measles mortality by up to 400-fold even without vaccination.

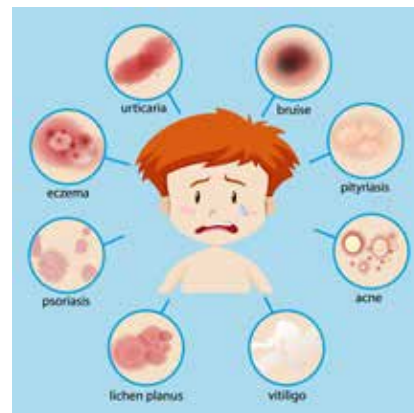
So, depending solely on measles vaccination is akin to giving a coat of plaster and paint to a building with a poor foundation which can come down during a heavy monsoon.

Besides vulnerability to infections like measles, early-life malnutrition also pre-disposes individuals to non-communicable diseases in adulthood. Non-communicable diseases like diabetes and high blood pressure are not solely the result of adult lifestyle choices. For an individual who suffered early-life malnutrition, their biological threshold for handling a standard or

high-calorie diet is significantly lower because their organs get structurally and epigenetically optimised for an entirely different, scarcer world. This is known as the Barker Hypothesis (Foetal and Infant Origins of Adult Disease).

A strong nutritional foundation during the first five years of life is like a strong foundation of a building. This structure can withstand not only heavy monsoons but also other vagaries of nature such as cyclones or mild to moderate earthquakes. Similarly, the abolition of malnutrition among under-fives will not only prevent mortality from severe infections like measles but also shield the individual from many health risks throughout life.

The abolition of malnutrition among under-fives will not only prevent mortality from infections but also shield the individual from many health risks throughout life.



(The Author is a renowned epidemiologist, and Professor Emeritus at D Y Patil Medical College, Pune. Having served as an epidemiologist in the armed forces for over two decades, he ranked in Stanford University’s list of the world’s top 2 per cent scientists for three consecutive years (2023-25). Currently, he is the Chairperson of the Universal Health Organization (uho.org.in), a public health watchdog)

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