



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Thursday

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framework, particularly with the introduction of four-year undergraduate pro-

Students exiting an undergraduate

as per the prevailing fee structure.

Decade after child suffered brain damage during treatment, HC orders fresh probe

Anuja Jaiswal@timesofindia.com

New Delhi: Nearly a decade after a child allegedly suffered severe and irreversible brain damage during treatment at Fortis Hospital, Shalimar Bagh, Delhi High Court has ordered a fresh inquiry into the qualifications of two doctors after the child's family moved a contempt petition alleging non-compliance with earlier court directions by officials of the National Medical Commission (NMC).

Appearing for the family, senior advocate Dayan Krishnan argued that despite previous court orders, authorities failed to give a clear determination on whether the qualifications claimed by the two doctors entitled them to practise as specialists in neonatal care in India.

Taking note of the plea, the HC direc-

ted the secretary of the NMC and the Directorate General of Health Services (DGHS) to conduct a joint inquiry into the qualifications of the doctors and submit a report within eight weeks.

The case relates to allegations that medical negligence during treatment in the neonatal intensive care unit at Fortis Hospital, Shalimar Bagh, in 2017 left Devarsh Jain with catastrophic brain injury. While the dispute initially centred on the treatment provided, it later expanded into a larger controversy over the credentials of the doctors involved.

The family has alleged that despite earlier court directions, the NMC failed to provide a clear determination on the status of the qualifications relied upon by the doctors. The contempt petition contends that the issue has remained

unresolved despite years of proceedings before medical regulators and the court.

In March 2025, the HC directed authorities to clearly state whether the qualifications claimed by the doctors permitted them to undertake specialised practice in India.

The matter gained significance after the then Delhi Medical Council informed the court that, pending further inquiry, the two doctors should refrain from describing themselves as neonatologists or super-specialists. However, the question of whether their qualifications entitled them to practise as specialists remained unresolved.

The latest order seeks to bring clarity to a dispute that has persisted for nearly a decade. The matter is scheduled to be heard again after the inquiry report is filed.

missed the wire's appeal.

welfare of Indian nationals," the

native airports after the attacks.

has also been reported missing.

HC allows embryo transfer beyond legal age limit

Shruti Kakkar

letters@hindustantimes.com

NEW DELHI: The Delhi High Court has allowed frozen embryo transfer of cryopreserved embryos to a woman, despite her having exceeded the upper age limit prescribed for the procedure under the law, observing that reproductive rights and access to parenthood cannot be defeated by purely technical or pedantic reading of the law.

A bench of Justice Purushendra Kumar Kaurav, in his verdict released on May 30, observed that the objective of the Assisted Reproductive Technology (Regulation) Act, 2021 (ART Act) is to ensure ethical and safe practices, not to create insurmountable barriers that defeat the legiti-

THE COURT SAID REPRODUCTIVE RIGHTS CANNOT BE DEFEATED BY PURELY TECHNICAL OR PEDANTIC READING OF LAW

mate continuation of lawfully initiated treatment processes.

"This Court is conscious of the fact that reproductive rights and access to parenthood in the contemporary constitutional jurisprudence cannot be reduced to purely technical or pedantic application of statutory conditions divorced from the factual context in which such rights are asserted. The ART Act is fundamentally regulatory in character. The object of the enactment is to

ensure ethical and safe ART practices and not to create insurmountable barriers defeating legitimate continuation of treatment processes already lawfully undertaken," the court said in its May 25 order.

The court passed the order in a petition filed by a couple seeking permission for the woman to undergo frozen embryo transfer of their remaining five cryopreserved embryos at a hospital under the ART Act provisions.

Following the death of their son in May 2025, the couple approached the hospital for IVF. After undergoing medical evaluation, counselling, and necessary investigations, they were declared medically fit and executed consent forms for embryo freezing, frozen embryo transfer, and related procedures on

March 7. However, the embryo transfer was unsuccessful. Subsequently, the couple approached the HC after the hospital, and the treating doctor declined to continue the IVF procedure because the woman had crossed the upper age limit of 50 years mentioned in the law.

The couple contended that they were within the permissible age limit when they commenced IVF treatment and crossed the threshold prescribed under the ART Act only during the course of treatment. The court observed that the Centre had failed to place on record any medical opinion demonstrating that the use of the existing cryopreserved embryos would pose any immediate or exceptional medical risk beyond the general concerns underlying the legislation.

Indian Express

WHO says Ebola response catching up as confirmed Congo cases hit 344

Reuters
Geneva, June 3

THE WORLD Health Organization said on Wednesday that the world is "catching up" with the Ebola outbreak in Democratic Republic of Congo, where there have been 344 confirmed cases of the disease and 60 confirmed deaths, although challenges remain.

"The outbreak had a big head start, and we're still behind, but under the leadership of the government of DRC, we're catching up," WHO Direc-

tor-General Tedros Adhanom Ghebreyesus said during a press briefing.

The outbreak, linked to the Bundibugyo strain of the virus, has spread to neighbouring Uganda where 15 cases have been confirmed, including one death, the agency said.

Access to testing has also improved, which is why hundreds of cases that were initially suspected as Ebola have now been ruled out, the WHO said. The most common tests used for Ebola do not detect the Bundibugyo strain causing this out-

"The outbreak had a big head start, and we're still behind, but under the leadership of the government of DRC, we're catching up"

GENERAL TEDROS ADHANOM GEBREYESUS

WHO DIRECTOR-GENERAL

break, which caused a backlog. "What the field team is

doing, is looking to clear the backlog. So the lab so far has done 1,445 tests that cleared almost all the backlog we had, and every day as the surveillance improves, there are new suspect cases," said Abdirahman Mahamud, WHO director of health emergency alert and response operations.

There are 116 suspected cases awaiting testing, he said.

He said a team is also working through the 220 suspected deaths to ascertain the likelihood of the deaths being caused by Ebola.

Six people have recovered in the DRC and two in Uganda, showing Ebola patients can survive if they have access to care and seek treatment as soon as possible, the agency said.

The outbreak response continues to face challenges in scaling up testing capacity and tracing contacts, while blanket travel restrictions imposed by some countries are disrupting supply chains and hampering efforts, the agency said.

Only about 45% of contacts have been followed up, and to stay ahead of the outbreak,

that figure needs to rise above 90%, Tedros said.

Tedros also said the outbreak may have started as early as January, and teams were still investigating that, but stressed that the focus now should be on trying to contain it.

That will cost WHO at least \$115 million over the next three months, of which around 35% is currently raised, the agency's emergencies head Chikwe Ihekweazu said, adding that a lot more would be required in funding for the duration of the response.



MRINAL PANDE

A feminist future cannot rely on past language

IT WAS the dismal October of 1987, the year of the stock-market meltdown in the US, when a French fashion designer, Christian Lacroix, launched a "luxe" collection at a society gala on Wall Street. It was not an accident. The fashion industry had already dubbed this genius the "messiah". So, while the ardour for fashion was plunging along with the stocks, he rescued the fashion and beauty industry in that best of years, the worst of years.

Fast-track to the recent Cannes red carpet extravaganza, held against an even bigger global economic and political breakdown. As the world saw images of the starving and severely wounded from Asia and Africa, India's mainstream as well as social media and the beauty industry saw nothing wrong in joining the gala event in France, streaming images of models and Hollywood/Bollywood beauties of yesteryear.

Feminism had long warned women against the beauty industry sneaking its agenda into their worldview. In the 20th century, when global beauty contests began to seem passé, the industry mined feminist phraseology to push products for the "liberated woman". The advertising world used all sorts of clichés to push back against old-school feminists who had been berating expensive galas and holding up real-time data about working-class women.

In 2026, threatened by recession and job losses, promoters of fashion and beauty products were forced to look for a "messiah" to lift up their sagging bottom lines. An erstwhile beauty queen, a model-turned-actor from Bollywood, rose as a natural symbol for promoting the idea of "ageless beauty". A media blitzkrieg followed the 24th consecutive appearance of the Chosen One at Cannes as proof of how a real beauty ages naturally.

Like Psyche, the mythical Greek figure forever navigating doubt and questioning appearances, this old-school feminist commented on the phenomenon of agelessness being possibly based on cosmetic enhancement. All hell broke loose. The first reaction ascribed the comment to "envy"; clichés like "a woman is a woman's worst enemy" were then brandished.

No ideology can claim to give you terminologies for a lifetime. Feminism is no exception. At 80, I can see more and more younger women rushing to claim a so-called feminist future. But theirs is built on phrases emanating from past activism and gender politics, co-opted by both politicians and the fashion industry. The daily reports of dowry deaths and simultaneous calls for "Beti Bachao Beti Padhao" make for uneasy partners, as do the linking of beauty-enhancement creams with "self-esteem". This has produced massive misunderstandings over older feminist concepts. Cosmetic surgery,

injecting botox or silicone gel to lift sagging skin, is now labelled professional beauty enhancement. If it fails to hide what was to be hidden, it is described as beauty's defiance of patriarchy. All this is creating what two octogenarian feminists had foretold: "Tyrannies of social expectation" (Gloria Steinem) and "the chrysalis of conditioning" (Germaine Greer).

The term "ageism" was originally coined to mark the social value denied to women past their prime. It surfaces frequently at these global galas. But truth be told, how many women past 60 figure in media-led feminist discourses on fashion and beauty? How much do we get to hear of their fear of disease and dependency after crossing 70?

The next real wave of liberation will have to be rooted in a collective idea of self-esteem among women of all ages, classes, castes, and communities. It's time branded concepts of *shakti*, ageism, and *sauz/bahu* attitudes were replaced with new phrases created out of fresh insights. When beauty contestants and all women past their prime feel free to talk collectively about ageing, the fears of not retaining their looks eternally, and how much it has cost them throughout their lives, a truly new power base will be created. Who knows, it may go on to spur a new socio-political movement towards equality. Some may lose their present power and constant media attention, but all of us stand to gain.

The writer is former chairperson, Prasar Bharati

The next real wave of liberation will have to be rooted in a collective idea of self-esteem among women of all ages, classes, castes, and communities

Missing in India's heat action plans: What to wear



NIRBHAY RANA

AS NORTH India braces for another stretch of 45-degrees-plus temperatures, the country's heatwave response remains familiar. Alerts are issued, school timings adjusted, outdoor work restricted. Citizens are advised to hydrate and stay indoors. Within this framework, one system remains almost entirely unexamined: Clothing. This is not a question of fashion, but of physiology.

The human body cools itself primarily through the evaporation of sweat. For this to work, heat and moisture must escape efficiently from the skin. Clothing governs this exchange. It can enable cooling — or trap heat, restrict airflow, and increase thermal

stress. In extreme conditions, this is not about discomfort. It is about bodily strain.

India's heatwaves are becoming longer and more intense, and temperatures remain elevated after sunset. This matters because the body depends on cooler nights to recover from daytime heat exposure. When that recovery window disappears, heat stress accumulates. Under such conditions, what people wear shapes how much strain the body absorbs. Yet clothing is almost entirely absent from India's heat action plans.

This gap is especially visible in institutional settings. Schoolchildren wear uniforms. Factory workers follow dress codes. Delivery personnel, security guards, and construction labourers operate in standardised clothing systems shaped by cost, durability, and visibility. In these contexts, fabric

and design are rarely chosen for thermal performance. They can intensify exposure.

Over the past two decades, mass clothing systems in India have become increasingly dependent on synthetic fibres, particularly polyester blends. They are cheap, durable, and easy to maintain. But these materials are often less breathable than natural fibres and can trap heat and moisture, especially in humid conditions where evaporative cooling is already compromised.

India is one of the world's largest textile producers. Yet in the sectors where heat ex-

posure is most acute — schools, informal labour, public-facing work — clothing systems remain disconnected from climatic realities.

This is a policy gap. Policy frameworks rarely engage with clothing as a factor in heat exposure. There are no widely enforced guidelines for summer-appropriate school uniforms. Occupational safety protocols emphasise hydration and rest breaks but seldom incorporate fabric performance. Public procurement prioritises cost and durability, with little regard for breathability.

This omission is increasingly untenable. Heat stress already reduces labour productivity. As temperatures rise, these losses will deepen. There is also an energy cost. As clothing fails to support natural cooling, reliance on air conditioning increases, placing additional strain on power systems.

A more responsive approach would begin by recognising clothing as part of climate adaptation infrastructure. School uniform policies can incorporate breathable fabrics and climate-responsive design. Occupational standards can include textile performance in heat exposure guidelines. Public procurement can factor in thermal comfort alongside durability and cost. Textile innovation can be directed towards heat-resilient garments for mass use.

The question now is no longer only how we cool our cities, but how we enable the human body to endure. In that equation, the first layer of adaptation is not air conditioning. It is the fabric on the skin.

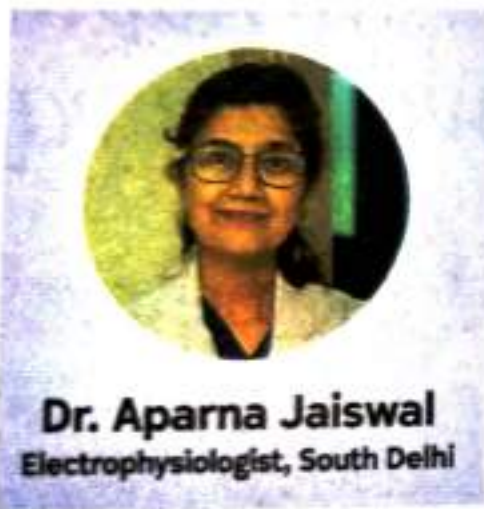
The writer is associate professor and programme coordinator for fashion design at ILM University, Gurugram

The question now is no longer only how we cool our cities, but how we enable the human body to endure



Indian Express

CHA₂DS₂-VASc Score: Strengths & Limitations



congestive heart failure, hypertension, age, diabetes, stroke history, vascular disease, and sex—it provides a practical bedside tool.

Importantly, it identifies truly low-risk patients (score 0 in men, 1 in women), where anticoagulation may be deferred. It also improves upon the older CHADS₂ score by better discriminating intermediate-risk individuals.

However, limitations exist. The score treats risk factors as binary, ignoring severity and control (e.g., well-controlled vs uncontrolled hypertension). It also lacks incorporation of dynamic variables such as AF burden, biomarkers, or imaging findings like atrial fibrosis.

Another challenge is modest predictive accuracy at the individual level. Patients with identical scores may have differing stroke risks. Additionally, the role of female sex as an independent risk modifier remains debated, particularly in younger women without other risk factors.

Despite these limitations, CHA₂DS₂-VASc remains central to decision-making. Future directions include integrating it with biomarkers and digital monitoring data to enhance precision. Until then, clinical judgment must complement scoring systems, especially in borderline cases.



CHA₂DS₂-VASc Score Calculator

Score	Risk Group
0 points (female)	Low risk
1 point (male)	Moderate risk
≥2 points (any sex)	High risk

Clinical Risk Factor	Points
Current heart failure	+1
Previous heart failure or stroke or TIA or systemic embolism or peripheral vascular disease	+1
Age ≥75 years or older	+2
Diabetes mellitus	+1
Current or previous atrial fibrillation, atrial flutter, or atrial tachycardia with rapid ventricular response	+2
Stroke, TIA, transient ischaemic attack, or peripheral vascular disease	+1
Age 65-74 years	+1
Sex category (female)	+1

Indian Express

The CHA₂DS₂-VASc score remains the cornerstone for stroke risk stratification in NVAf, guiding anticoagulation decisions globally. Its strength lies in simplicity and strong validation across diverse populations. By incorporating clinical variables —

Recurrent Stroke Prevention in NVAF

Secondary prevention of stroke in NVAF is a clinical priority, given the high risk of recurrence and associated morbidity. Anticoagulation remains the cornerstone of therapy.

DOACs have become the preferred option due to their favorable safety profile and reduced risk of intracranial hemorrhage compared to warfarin. Ensuring adherence is critical, as interruptions significantly increase stroke risk.

In selected patients with contraindi-



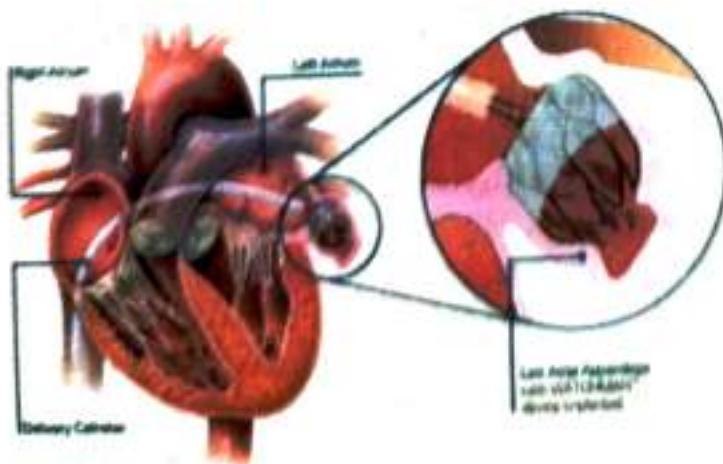
Dr. Nityanand Tripathi
Electrophysiologist, North Delhi

cations to long-term anticoagulation, left atrial appendage closure offers an alternative strategy.

Risk factor management is equally important. Control of hypertension, diabetes, and lifestyle factors reduces overall cardiovascular risk.

Post-stroke patients require careful evaluation for AF, including prolonged monitoring to detect paroxysmal episodes.

A multidisciplinary approach involving neurologists and cardiologists is essential for optimal outcomes.



validation across diverse populations. By incorporating clinical variables —

atrial fibrillation.

1 point (male)	0
1.5 points (any sex)	0

Indian Express

Gender Differences in Stroke Risk

Gender differences in atrial fibrillation and stroke risk have important clinical implications. Women with AF are generally at higher risk of stroke compared to men, particularly in older age groups.

The inclusion of female sex in the CHA₂DS₂-VASc score reflects this observation, though its role as an independent risk factor remains debated. Evidence suggests that female sex acts more as a risk modifier, amplifying risk in the presence of other comorbidities. Biological factors may contribute



Dr. Gaurav Minocha
Cardiologist, East Delhi

to this disparity. Hormonal influences, differences in vascular biology, and a higher prevalence of certain comorbidities (e.g.,

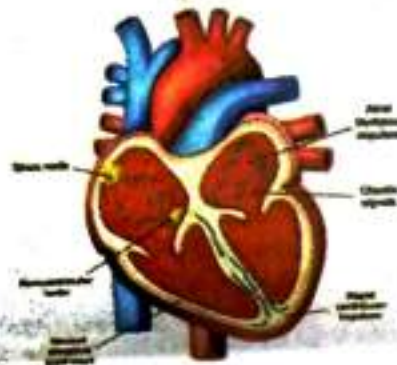
hypertension) may play roles. Additionally, women often present later in the disease course and may receive less aggressive treatment.

There is also evidence of undertreatment, with women less likely to receive anticoagulation or rhythm control interventions compared to men.

Understanding these differences is critical for equitable care. Clinicians should ensure appropriate risk assessment and avoid underestimating stroke risk in female patients.



Normal heart



Atrial Fibrillation



Indian Express

Gender Differences in Stroke Risk

Indian Express

Lifestyle Risk Factors (Obesity, Alcohol, Sleep Apnea)



Dr. Ashwani Mehta
Cardiologist, Central Delhi

Lifestyle factors play a critical and modifiable role in the development and progression of NVA. Among these, obesity, alcohol consumption, and obstructive sleep apnea (OSA) are particularly significant.

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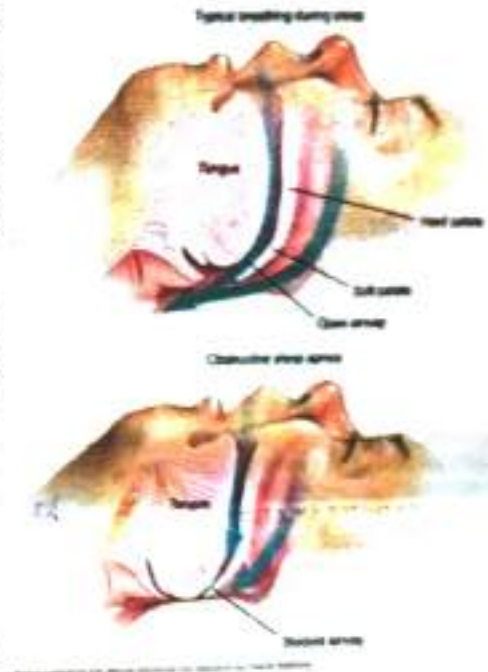
Obesity contributes to AF through multiple mechanisms, including increased atrial size, inflammation, and autonomic dysfunction. Epicardial fat secretes pro-inflammatory cytokines, promoting atrial remodeling. Weight reduction has been shown to significantly decrease AF burden and improve outcomes post-ablation.

Alcohol intake, especially in excess, is a well-known trigger for AF - often referred to as "holiday heart syndrome." Chronic alcohol use leads to direct myocardial toxicity, oxidative stress, and electrical instability. Even moderate consumption may increase AF risk in susceptible individuals.

OSA is highly prevalent in AF patients and is often underdiagnosed. Repeated episodes of hypoxia and negative intrathoracic pressure lead to atrial stretch, inflammation, and autonomic imbalance. Continuous positive airway pressure (CPAP) therapy has been shown to reduce AF recurrence.

These lifestyle factors often coexist, compounding their effects. Importantly, they represent actionable targets for intervention.

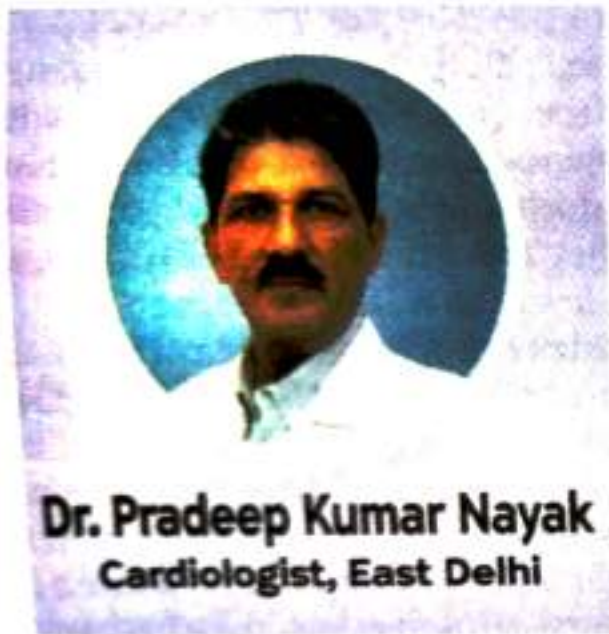
Comprehensive AF management should include structured lifestyle modification programs. Addressing these factors not only reduces AF incidence but also enhances the efficacy of pharmacological and interventional therapies.



Indian Express

...to NVA

Stroke Risk in Low-Score Patients



Dr. Pradeep Kumar Nayak
Cardiologist, East Delhi

Patients with low CHA₂DS₂-VASc scores are traditionally considered at minimal risk for stroke, yet emerging evidence suggests that risk is not negligible. Even individuals with scores of 0–1 may experience thromboembolic events, particularly in the presence of additional non-included risk factors.

Subclinical factors such as atrial fibrosis, left atrial enlargement, and high AF burden may contribute to stroke risk

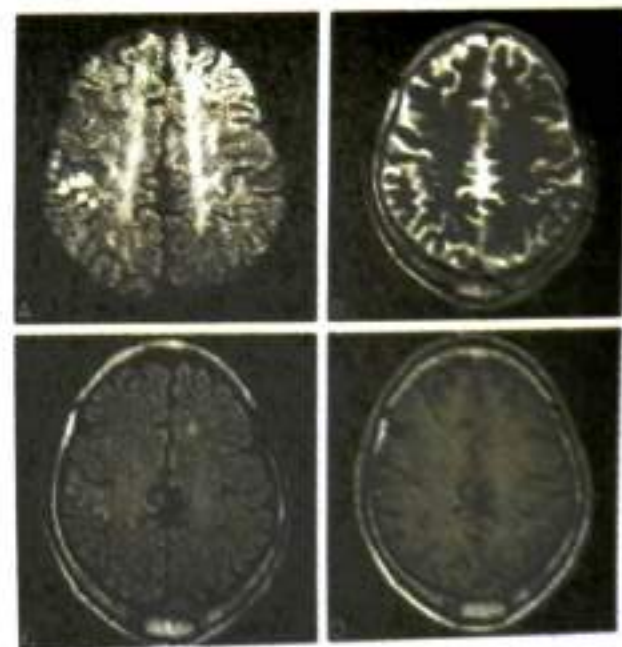
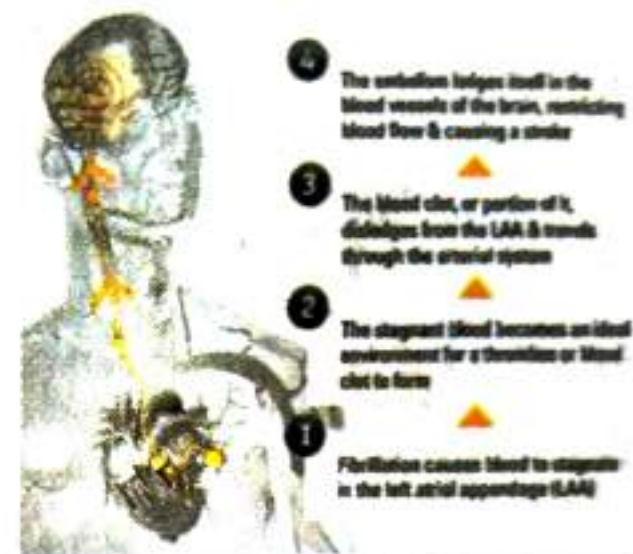
independent of traditional scoring systems. Imaging modalities like cardiac MRI and advanced echocardiography can identify these high-risk features.

Additionally, lifestyle and metabolic factors—such as obesity, sleep apnea, and systemic inflammation—may elevate risk but are not captured in standard scores.

Device-detected AF has further complicated risk assessment. Short, asymptomatic episodes may still carry thromboembolic potential, challenging the notion of “low-risk” patients.

Clinical decision-making in this group requires careful individualization. While routine anticoagulation is not recommended, close monitoring and periodic reassessment are essential.

Future strategies may incorporate imaging and biomarker data to better identify truly low-risk individuals versus those who may benefit from early intervention.



y sign-

interventions therapies.
Indian Express

Natural History of Untreated NVAF



Dr. Dheeraj Kumar Gandotra
Electrophysiologist, Central Delhi

The natural history of untreated NVAF is characterized by progressive atrial remodeling, increasing symptom burden, and a rising risk of complications.

AF often begins as paroxysmal episodes that are self-terminating. Over time, these episodes become more frequent and prolonged, eventually progressing to persistent and permanent AF. This progression is driven by ongoing

electrical and structural remodeling. One of the most serious consequences of untreated AF is stroke. The risk increases significantly over time, particularly in patients with additional risk factors. Without anticoagulation, stroke risk can be substantial and often results in severe disability or death.

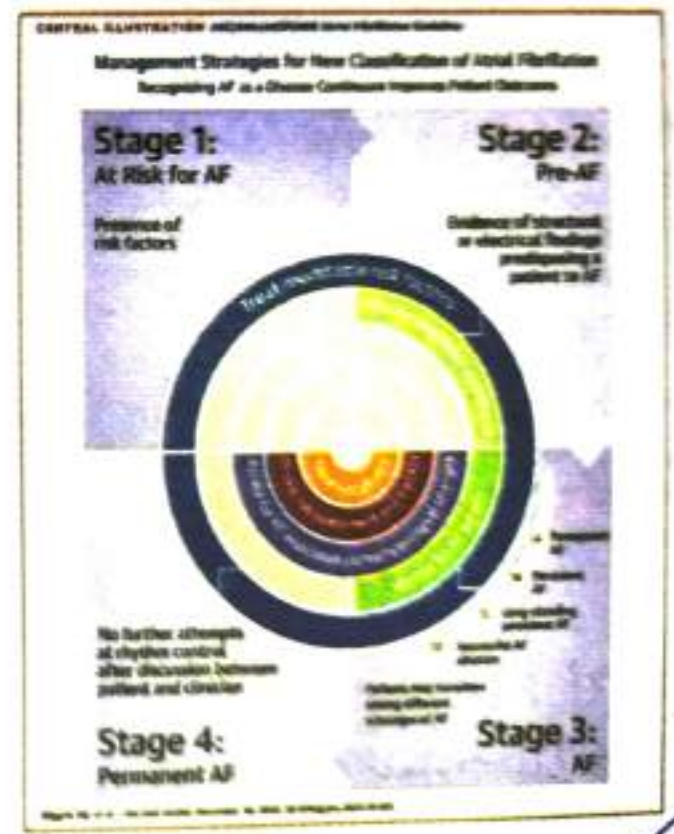
AF is also associated with heart failure, either as a cause or consequence. Rapid ventricular rates can lead to tachycardia-induced cardiomyopathy, while loss of atrial contraction impairs cardiac output.

Quality of life deteriorates due to symptoms such as palpitations, fatigue, and reduced exercise tolerance. Additionally, AF is associated with increased mortality.

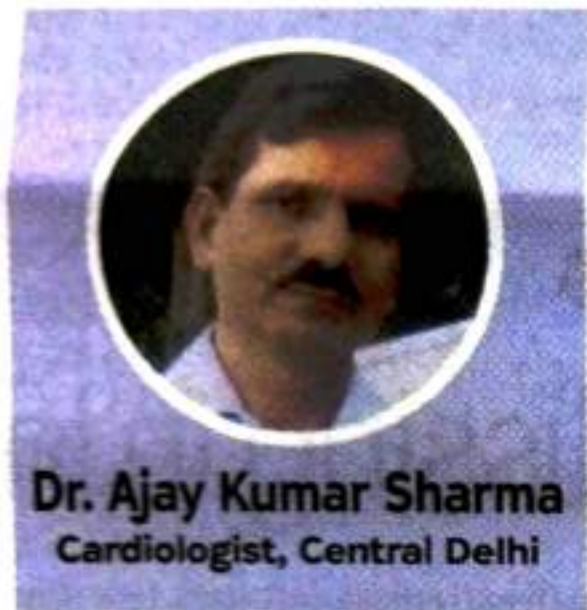
Early diagnosis and intervention are crucial to altering this trajectory. Anticoagulation, rate or rhythm control,

and risk factor modification can significantly improve outcomes.

Understanding the natural history emphasizes the importance of timely and comprehensive management in NVAF patients.



Genetic Predisposition in Atrial Fibrillation



Genetic factors play a significant role in the development of atrial fibrillation, particularly in patients with early-onset or "lone" AF. Advances in genomics have identified multiple susceptibility loci associated with AF risk. Genome-wide association studies (GWAS) have consistently identified variants near the PITX2 gene on chromosome 4q25 as major contributors. PITX2 is critical for cardiac development & pulmonary vein formation, highlighting

its relevance in AF pathogenesis.

Other genes implicated include those encoding ion channels (e.g., KCNQ1, SCN5A), gap junction proteins, and structural components of the myocardium. Mutations in these genes can alter atrial conduction and refractoriness, predisposing to arrhythmia.

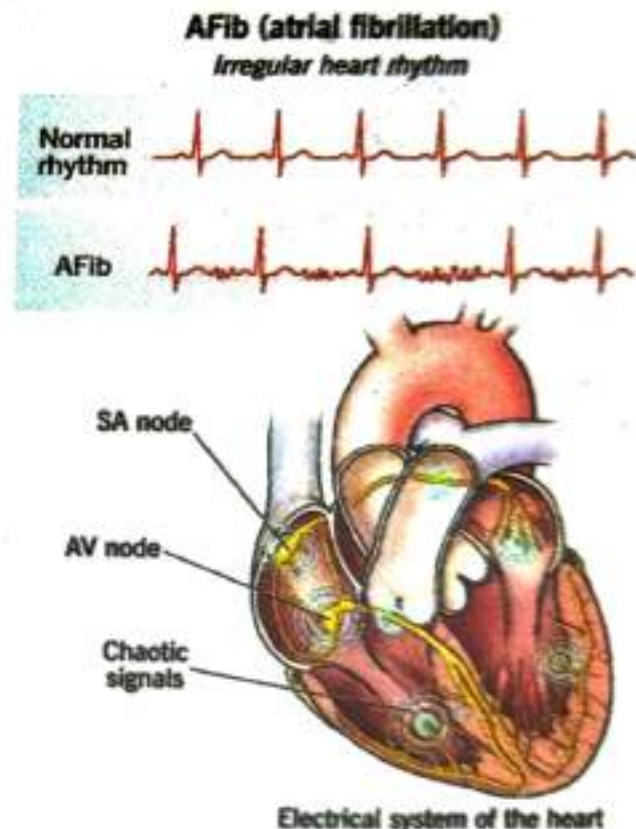
Familial AF, though relatively rare, underscores the importance of inherited risk. First-degree relatives of AF patients have a significantly increased likelihood of developing the condition.

Beyond monogenic mutations, polygenic risk scores are emerging as tools to identify individuals at higher risk. These may eventually guide screening and preventive strategies.

Gene-environment interactions are also crucial. Genetic susceptibility often manifests in the presence of modifiable risk factors such as hypertension or obesity.

While genetic testing is not yet routine in

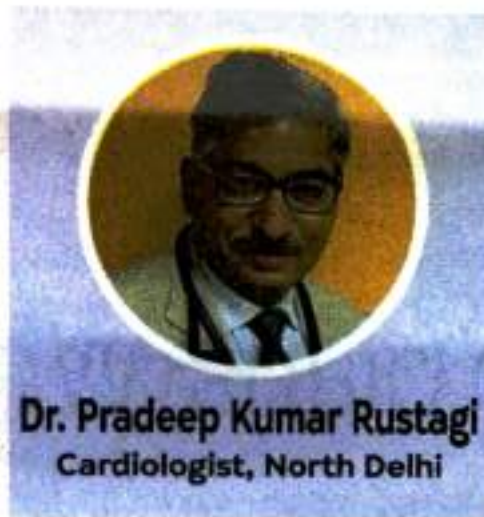
clinical practice, it holds promise for personalized medicine. Future applications may include risk stratification, targeted therapies, and improved prediction of treatment response, particularly in electrophysiological interventions.



Left Atrial Appendage Morphology & Risk

The left atrial appendage (LAA) is the primary site of thrombus formation in NVAF, and its morphology significantly influences stroke risk.

Imaging studies have identified distinct LAA shapes—such as chicken wing, cactus, windsock, and cauliflower—each associated with varying thromboembolic risk. Non-chicken wing morphologies are generally linked to higher risk.



Dr. Pradeep Kumar Rustagi
Cardiologist, North Delhi

Complex anatomy, reduced flow velocities, and trabeculations contribute to blood stasis and thrombus formation.

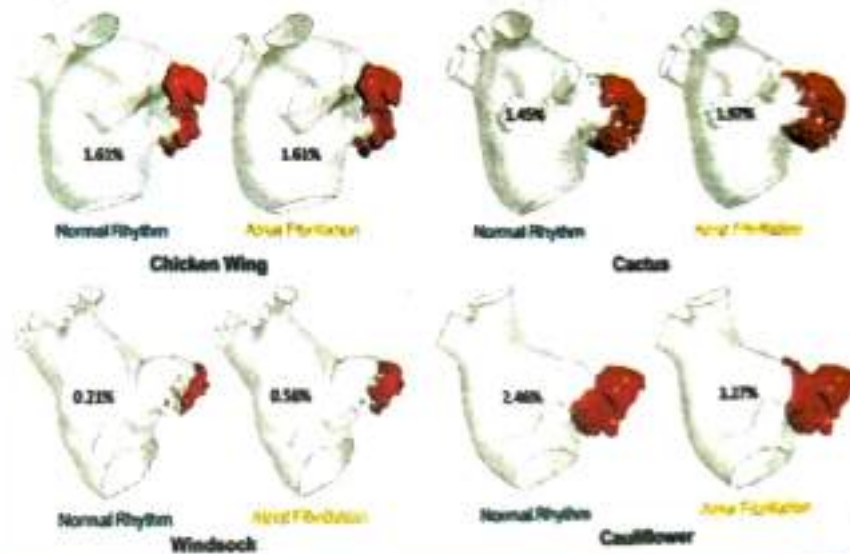
Transesophageal echocardiography (TEE) remains the gold standard for LAA assessment, while cardiac CT provides detailed anatomical visualization.

Understanding LAA morphology may aid in risk stratification and guide decisions regarding anticoagulation or device closure.

4 MORPHOLOGICAL TYPES



BROCCOLI



"This is a patient awareness initiative by MSN labs. The views and opinions expressed here are based on the expertise of the doctors and



Imaging-Based Stroke Risk Assessment

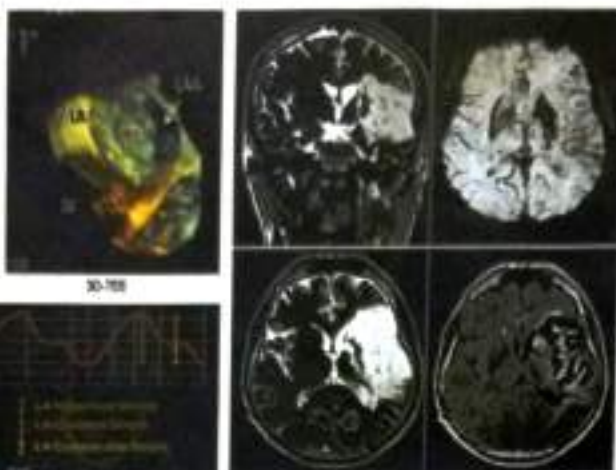


Dr. Sameena Khalil
Cardiologist, South Delhi

using late gadolinium enhancement, which correlates with AF burden and stroke risk. Echocardiography assesses left atrial size, function, and strain, offering additional prognostic information.

TEE is essential for detecting LAA thrombus and assessing flow velocities.

These tools may help identify high-risk patients who would benefit from more aggressive intervention, even if traditional scores suggest lower risk.



Advanced imaging techniques are increasingly used to refine stroke risk assessment in NVAF. These modalities provide structural and functional insights beyond clinical scores.

Cardiac MRI can quantify atrial fibrosis.

Stroke Risk Post-Ablation

Catheter ablation is an effective rhythm control strategy, but it does not eliminate stroke risk entirely. Even in patients with successful ablation and apparent sinus rhythm maintenance, thromboembolic risk persists.

Current guidelines recommend continuing



Dr. Arvind Dambalkar
Cardiologist, Faridabad

anticoagulation based on CHA₂DS₂-VASc score rather than procedural success alone. This is due to the possibility of asymptomatic AF recurrence & persistent atrial dysfunction.

Careful follow-up with rhythm monitoring is essential to detect recurrence.



Subclinical AF and Cryptogenic Stroke

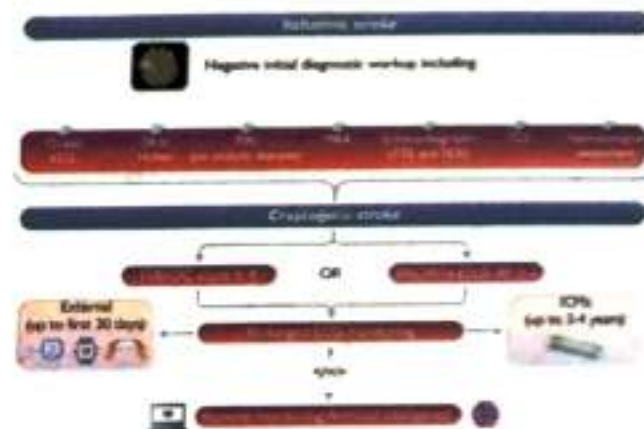
Subclinical AF is increasingly recognized as a major contributor to cryptogenic stroke. Prolonged rhythm monitoring has revealed that many patients previously labeled as having "unknown cause" strokes actually have undetected AF. Implantable loop recorders have significantly improved detection rates, identifying AF episodes months after the



Dr. Niti Chadha Negi
Electrophysiologist, Faridabad

initial stroke. These findings have important therapeutic implications, as detection of AF warrants anticoagulation for secondary prevention.

The challenge lies in determining the threshold of AF burden that justifies treatment. Ongoing research aims to clarify this relationship.



Role of Biomarkers in Stroke Prediction

inflammation, and endothelial dysfunction.

Cardiac biomarkers like NT-proBNP are particularly informative, indicating atrial stretch and hemodynamic stress. Elevated levels correlate strongly with stroke risk and AF burden. Similarly, troponin levels, even when mildly elevated, may indicate subclinical myocardial injury and increased thromboembolic risk.

Inflammatory markers such as CRP and IL-6 provide insight into systemic inflammation, which contributes to atrial remodeling & thrombogenesis. Elevated levels have been associated with higher AF recurrence and stroke risk.

Coagulation markers, including D-dimer, reflect ongoing thrombotic activity and may identify patients at higher risk despite low CHA₂DS₂-VASc scores.

Integration of biomarkers into risk models (e.g., ABC stroke score-Age, Biomarkers, Clinical history) has shown improved predictive accuracy compared to traditional scoring systems.

However, challenges remain, including variability in assay availability, cost, and lack of standardized thresholds. Biomarkers are not yet routine in clinical practice but represent a promising step toward personalized risk stratification.



NON PATIENT FACTORS

- Age
- Gender
- Genetics

CATHETER ABLATION TECHNIQUE

- Early Catheter ablation
- Ablation strategy: PVI vs PVI plus
- Ablation lesion size
- Thermal energy (TIA & Laser balloon)
- Ablation risk
- Structural & prediction models (AI)

MEASURABLE PATIENT RISK FACTORS

- Type 2 diabetes mellitus
- Obesity
- Obstructive sleep apnea
- Physical activity level
- Alcohol consumption
- Chronic kidney disease
- Atrial fibrillation
- COPD

HAEMATIC & BIOMARKERS

- Cardiac Biomarkers
- Serum electrographic parameters
- Type and duration of atrial fibrillation
- Cardiac MRI
- Atrial fibrillation type
- Other pharmacological



Dr. Dheeraj Garg
Cardiologist, East Delhi

Biomarkers are emerging as valuable adjuncts in refining stroke risk prediction in NVAF beyond traditional clinical scores. They reflect underlying pathophysiological processes such as myocardial stress,

AF Burden and Stroke Correlation

AF burden refers to the duration and frequency of atrial fibrillation episodes and is increasingly recognized as an important factor in stroke risk assessment.

Traditionally, AF has been treated as a binary condition—present or absent. However, emerging evidence suggests that stroke risk correlates with AF burden, particularly in patients with subclinical or device-detected AF.

Studies using implantable devices have shown that even brief episodes of AF can increase thromboembolic risk, although the threshold duration remains uncertain.

Longer and more frequent episodes are generally associated with higher risk.

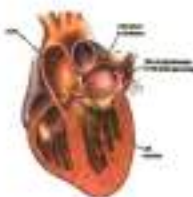


Dr. Yogendra Singh Rajput
Cardiologist, Gurugram

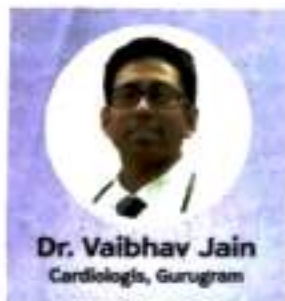
The underlying mechanism involves atrial stasis and thrombus formation, particularly in the left atrial appendage. Increased AF burden leads to more sustained periods of impaired atrial contraction, promoting clot formation.

Despite these insights, current guidelines still base anticoagulation decisions primarily on clinical risk scores rather than AF burden alone.

Future strategies may incorporate continuous monitoring data to refine risk stratification and personalize therapy. This represents a shift toward precision medicine in AF management.



Silent AF and Its Clinical Implications



Dr. Vaibhav Jain
Cardiologist, Gurugram

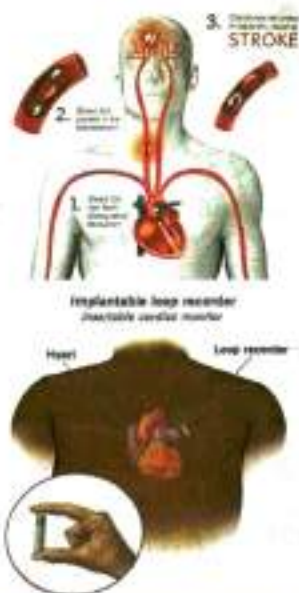
Despite the absence of symptoms, silent AF carries a similar risk of thromboembolism as symptomatic AF. This underscores the importance of early detection and appropriate anticoagulation.

Technological advancements have improved detection rates. Wearable devices and mobile health applications now enable continuous rhythm monitoring, facilitating early diagnosis.

Screening high-risk populations—such as elderly individuals or those with hypertension and diabetes—has been shown to increase AF detection and reduce stroke incidence.

Clinicians should maintain a high index of suspicion, particularly in patients with cryptogenic stroke. Extended monitoring may reveal previously undiagnosed AF, guiding secondary prevention strategies.

Silent AF highlights the need for proactive screening and a shift toward preventive cardiology.



Epidemiology of NVAF in India vs Global Trends



Dr. Virbhan Balai
Cardiologist, West Delhi

Non-valvular atrial fibrillation (NVAF) represents the most common sustained arrhythmia worldwide, with prevalence rising steadily due to aging populations and improved survival from cardiovascular diseases. Globally, AF affects approximately 2–4% of adults, with projections suggesting a doubling in prevalence by 2050. NVAF constitutes

the majority of these cases, as rheumatic valvular disease declines in developed regions.

In India, the epidemiological profile differs significantly. While overall AF prevalence appears lower (~0.5–1%), this likely reflects underdiagnosis and limited screening infrastructure. Importantly, Indian patients tend to present nearly a decade earlier than Western populations, often in their 50s and 60s. This earlier onset is driven by a high burden of hypertension, diabetes, coronary artery disease, and untreated sleep apnea.

Urbanization has further accelerated risk factor clustering, contributing to a rising NVAF burden in metropolitan areas. Meanwhile, rural populations remain underdiagnosed due to limited access to ECG monitoring and cardiology care. Another notable

distinction is the coexistence of residual rheumatic disease, complicating classification.

Stroke risk in Indian NVAF patients is substantial and often under-recognized, with lower rates of anticoagulation compared to global standards. Registries highlight a significant treatment gap, particularly in the use of DOACs.

From a public health standpoint, India is likely on the cusp of a major AF epidemic. Early screening, risk factor modification, and improved access to anticoagulation are critical to mitigating future stroke burden. Understanding these regional differences is essential for tailoring guideline implementation and therapeutic strategies.

Pathophysiology of Atrial Remodeling in NVAF



Dr. J.S Khatri
Cardiologist, West Delhi

Atrial fibrillation is fundamentally a disease of atrial remodeling, encompassing electrical, structural, and contractile changes. These processes create a substrate that sustains arrhythmia and promotes its progression from paroxysmal to persistent forms.

Electrical remodeling occurs rapidly, often within hours of AF onset. It is characterized by shortening of the

atrial effective refractory period due to altered ion channel expression, particularly reduced L-type calcium current. This facilitates re-entry circuits, allowing AF to perpetuate itself—captured in the concept "AF begets AF."

Structural remodeling evolves over weeks to months and involves atrial dilation and fibrosis. Fibroblast activation, collagen deposition, and extracellular matrix expansion disrupt normal conduction pathways, promoting conduction heterogeneity. Fibrosis is strongly associated with AF persistence and poor ablation outcomes.

Inflammation and oxidative stress play pivotal roles in driving these changes. Elevated inflammatory markers such as CRP & interleukins correlate with AF burden. Addi-

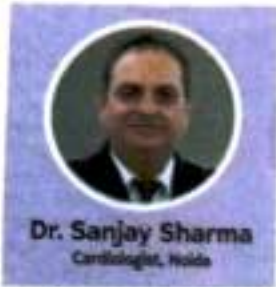
tionally, neurohormonal activation, particularly via the renin-angiotensin-aldosterone system (RAAS), contributes to fibrosis and remodeling.

Contractile dysfunction is another key component, resulting in reduced atrial transport function and stasis within the left atrial appendage, increasing thromboembolic risk.

Understanding atrial remodeling is critical for therapeutic intervention. Early rhythm control strategies may prevent irreversible structural changes, while upstream therapies targeting fibrosis and inflammation offer emerging opportunities to modify disease progression.

Indian Express

The Impact of Caffeine on Atrial Fibrillation



Dr. Sanjay Sharma
Cardiologist, Noida

For decades, patients diagnosed with Non-Valvular Atrial Fibrillation (NVAF) were routinely told to give up their morning coffee. The logic seemed sound: caffeine is a

stimulant that raises the heart rate, so it must naturally trigger an irregular rhythm. However, modern research has largely debunked this "all-or-nothing" approach, offering a more nuanced view for coffee lovers.

Large-scale population studies have surprisingly shown that moderate caffeine consumption (about 2 to 3 cups of coffee per day) does not increase the risk of developing NVAF. In some cases, caffeine may even have mild antioxidant properties that are protective for the heart. For many patients, caffeine does not act as

a direct trigger for an AFib episode.

However, "moderate" is the keyword. High doses of caffeine, such as those found in concentrated energy drinks or excessive amounts of espresso, can lead to palpitations & increased blood pressure, which may push a vulnerable heart into an irregular rhythm. Furthermore, every patient's sensitivity is different. While one person can enjoy a latte with no issues, another may find that the slightest bit of caffeine makes their heart feel "jittery" or prone

to fluttering.

The best approach for an NVAF patient is self-observation. If you notice a direct correlation between caffeine intake and the onset of symptoms, it is wise to switch to decaf or reduce your intake. It is also important to consider what you add to your caffeine; high-sugar creamers and syrups can cause blood sugar spikes that stress the heart more than the caffeine itself. In short, while you may not need to banish coffee entirely, listening to your body's specific reaction is the most reliable guide.

Yoga and Mindfulness for Arrhythmia Control

In recent years, clinical studies have highlighted yoga as a surprisingly effective complementary therapy for Non-Valvular Atrial Fibrillation (NVAF).

Unlike high-intensity workouts that might stress a sensitive heart, yoga combines gentle physical movement with controlled breathing and mindfulness, specifically targeting the balance of the autonomic nervous system.

The "Yoga MyHeart" study found that patients who practiced yoga twice a week experienced significantly fewer AFib episodes and lower levels of anxiety and depression compared to those who did not. The benefit likely comes from the focus on the breath. Slow, rhythmic breathing helps move the body from a sympathetic (stressed)

state to a parasympathetic (relaxed) state. This shift can lower the heart rate and reduce the "electrical noise" in the atria that leads to fibrillation.

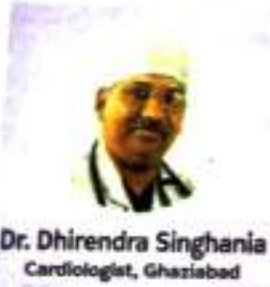


Dr. Sujeet Narain
Cardiologist, Noida

Mindfulness—the practice of staying present and observing sensations without judgment—is equally valuable. It helps patients manage the "anticipatory anxiety" of wondering when the next episode will happen. By staying grounded, patients can often navigate an AFib

episode with less panic, which may even help the heart convert back to a normal rhythm more quickly. Integrating these practices into a weekly routine offers a non-invasive, low-risk way to enhance medical treatments and improve your overall quality of life with NVAF.

Alcohol and NVAF: Understanding "Holiday Heart Syndrome"



Dr. Dharendra Singhania
Cardiologist, Ghaziabad

The relationship between alcohol & Non-Valvular Atrial Fibrillation (NVAF) is one of the most well-documented lifestyle links in cardiology. Even in individuals with no history of heart disease, excessive alcohol consumption can trigger a sudden episode of AFib, a phenomenon famously dubbed "Holiday Heart Syndrome." This term was coined because emergency rooms often see a spike in

arrhythmia cases following holidays or weekends associated with heavy drinking.

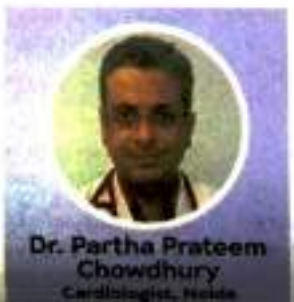
Alcohol affects the heart in several ways that promote NVAF. First, it acts as a direct toxin to the heart's muscle cells, potentially altering the electrical properties of the atria. Second, alcohol can stimulate the autonomic nervous system, which controls heart rate, leading to sudden spikes that "trip" the heart out of its normal rhythm. Furthermore, alcohol is a diuretic, which can lead to dehydration and the loss of essential electrolytes like magnesium and potassium—minerals that are vital for maintaining electrical stability in the heart. Recent studies have shown that even moderate, regular

drinking (as few as seven drinks per week) can increase the risk of AFib recurrence. For patients who have undergone procedures like catheter ablation, continuing to drink alcohol can significantly decrease the likelihood of the procedure's long-term success.

While many heart-healthy guidelines suggest a glass of red wine may be beneficial for the arteries, this does not necessarily apply to the electrical system of the heart in NVAF patients. For many, the safest "dose" of alcohol is none at all, or at the very least, strict moderation. Discussing your specific triggers with a doctor is essential, as some patients find that even a single drink can initiate a multi-hour episode of palpitations.

Research for Better Medicines
— Public Awareness Initiative —

Hydration and Electrolytes: Magnesium and Potassium



Dr. Partha Prateem Chowdhury
Cardiologist, Noida

The heart's electrical system relies on a delicate balance of minerals called electrolytes to function correctly. For patients with Non-Valvular Atrial

Fibrillation (NVAF), maintaining the right levels of magnesium and potassium is one of the most effective, yet under-discussed, ways to keep the heart in a normal rhythm.

Potassium and magnesium act as the "conductors" of the heart's electricity. Potassium helps the heart cells reset after each beat, while magnesium helps regulate the movement of other electrolytes across cell membranes. When these levels drop—even slightly—the heart becomes "irritable." This irritability makes it

much easier for a rogue electrical signal to trigger an AFib episode.

Dehydration is a common culprit for electrolyte imbalances. When you are dehydrated, your blood volume drops, and your heart has to work harder and beat faster to pump blood through the body. This extra strain, combined with the loss of minerals through sweat or diuretics (common blood pressure medications), can easily "trip" a patient into NVAF.

Many NVAF patients find that their episodes correlate with periods of poor hydration or low

mineral intake. While it is tempting to reach for supplements, it is vital to consult a doctor first, especially for potassium, as levels that are too high can be just as dangerous as levels that are too low. Instead, focus on a diet rich in these minerals: bananas, oranges, spinach, and potatoes for potassium; and nuts, seeds, dark chocolate, and leafy greens for magnesium. Staying consistently hydrated and ensuring your diet is mineral-dense provides a natural "buffer" that helps keep your heart's electrical system stable and resilient.

Indian Express

Thyroid Disorders and Heart Rhythm Outbursts



Dr. Anayush Goyal
CVL, Ghazabad

The thyroid gland acts as the body's primary thermostat, regulating metabolism and energy use. When the thyroid produces too much hormone (hyperthyroidism), it essentially puts the entire body—including the heart—into overdrive. This metabolic

surge is a classic and potent trigger for Non-Valvular Atrial Fibrillation (NVAF).

Excess thyroid hormone increases the sensitivity of the heart to adrenaline. This makes the heart beat faster and more forcefully, but it also makes the electrical cells in the atria "irritable." This irritability often manifests as paroxysmal AFib. In many cases, an unexplained first episode of AFib is the very first clue that a patient has an overactive thyroid. Conversely, an underactive thyroid (hypothyroidism) can also contribute to heart issues, though it is less commonly a direct cause of AFib

than hyperthyroidism.

Because of this strong connection, a blood test to check Thyroid Stimulating Hormone (TSH) levels is a standard part of every NVAF diagnostic workup. If a thyroid imbalance is found, treating the thyroid issue with medication, radioactive iodine, or surgery can often cause the AFib to disappear entirely. If you have been diagnosed with NVAF, it is important to have your thyroid levels checked periodically, as keeping your metabolism stable is a key component of keeping your heart rhythm steady.

Indian Express

Weight Loss: The Most Effective Lifestyle Intervention

For patients with Non-Valvular Atrial Fibrillation (NVAF) who are overweight, weight loss is not just a general health goal—it is a potent clinical treatment. Recent medical studies, such as the LEGACY trial, have demonstrated that significant, sustained weight loss can lead to a dramatic reduction in AFib symptoms and, in some cases, can even reverse the progression of the disease.

Obesity contributes to NVAF in several ways. Excess body fat, particularly around the mid-section, releases inflammatory markers that irritate the heart



Dr. Deepak Basia
Cardiologist, Modinagar
(Ghazabad)

tissue. Furthermore, carrying extra weight forces the heart to pump harder, leading to an enlarged left atrium. This stretching creates the "short circuits" necessary for AFib to thrive. Obesity is also the primary driver of obstructive sleep apnea, which is one of the strongest

triggers for an irregular heart-beat.

The data suggests that losing even 10% of your body weight can lead to a six-fold increase in the likelihood of remaining in a normal heart rhythm without the need for surgery or heavy medication. For many, weight loss improves the success rate of procedures like catheter ablation. By reducing the physical and inflammatory strain on the atria, weight loss treats the root cause of the arrhythmia rather than just masking the symptoms, offering a rare opportunity for patients to "self-treat" their condition.

Hypertension: The Number One Driver of NVAF



Dr. Manoj Kumar Sharma
Cardiologist, Noida

Hypertension, or high blood pressure, is the single most common risk factor for developing Non-Valvular Atrial Fibrillation (NVAF). While aging and genetics play their parts, chronically elevated blood pressure acts as a con-

stant mechanical stressor on the heart's anatomy. When the heart has to pump against high pressure in the arteries, the pressure inside the left atrium rises significantly.

Over several years, this internal pressure causes the thin walls of the atrium to stretch, enlarge, & eventually develop microscopic scarring. This "remodeling" disrupts the heart's electrical pathways, creating the perfect environment for the chaotic signals of AFib to take root. For patients already diagnosed with NVAF, uncontrolled hypertension makes episodes more frequent

and harder to stop.

The good news is that blood pressure is manageable. Clinical guidelines suggest that for NVAF patients, maintaining a blood pressure below 130/80 mmHg is ideal. Managing salt intake, exercising, and strictly adhering to prescribed antihypertensive medications can actually slow down the structural changes in the heart. By controlling the pressure, you reduce the physical "stretch" on your atria, which is often the most effective way to keep your heart in a normal, steady rhythm.

Smoking Cessation as an NVAF Management Tool



Dr. Sugandha Gupta
Cardiologist, Noida

Smoking is one of the most potent, yet modifiable, risk factors for Non-Valvular Atrial Fibrillation (NVAF). While most people associate smoking with lung cancer or clogged arteries, its impact on the heart's electrical system is equally devastating. For a patient already diagnosed with NVAF, continuing to smoke is akin

to pouring gasoline on a fire.

Nicotine is a powerful stimulant that immediately increases heart rate and blood pressure, creating an unstable environment for the atria. More significantly, the carbon monoxide and other toxins in cigarette smoke cause systemic inflammation and "oxidative stress." This leads to the scarring and stiffening of the heart tissue, known as fibrosis. As the atria become scarred, the electrical signals can no longer travel in a smooth, organized fashion, making NVAF episodes more frequent and harder to treat.

Research shows that smokers are twice as likely to develop AFib compared to non-smokers. For those already living with the

condition, smoking significantly increases the risk of the most feared complication: stroke. Smoking thickens the blood and damages the lining of the blood vessels, making it much easier for a clot to form and travel to the brain.

The good news is that the heart is remarkably resilient. Quitting smoking can slow the progression of atrial scarring and improve the effectiveness of rhythm-control medications and ablation procedures. Within just a few years of quitting, the excess risk of AFib begins to decline. Smoking cessation is not just a general health recommendation; it is a critical, foundational component of any successful NVAF management plan.

Blood Thinners in Older Adults: What You Should Know



Dr. Vikas Goyal
Cardiologist, Bhopal

blood thinners, as their risk of stroke is significantly higher.

Modern blood thinners are often preferred because they are safer and easier to use. Even concerns like fall risk should not automatically stop treatment—because the risk of stroke is usually greater.

The key is individualized care. Doctors consider overall health, kidney function, and lifestyle before choosing the right treatment.

Family support, regular follow-up, and proper medication use can ensure safe and effective treatment.

Older adults are at higher risk of both stroke and bleeding, which can make treatment decisions seem difficult.

However, studies clearly show that older patients benefit greatly from



When to Go to the Emergency Room with NVAF

While NVAF is often manageable, certain symptoms require immediate medical attention.

Knowing when to seek emergency care can be life-saving.

Patients should go to the emergency room if they experience severe chest pain, sudden shortness of breath, fainting, or symptoms of a stroke such as weakness on one side, difficulty speaking, or facial drooping. These may indicate serious complications like heart attack or stroke.

A very rapid heart rate (especially above 150 beats per minute) or dizziness that does not resolve should also prompt urgent evaluation. These symptoms may indicate uncontrolled AFib or other dangerous arrhythmias.

Additionally, if a patient on anticoagulants experiences unusual bleeding—such as heavy nosebleeds, blood in urine, or black stools—they should seek immediate care.

Early intervention can prevent complications & stabilize the condition. Emergency care may include medications to control heart rate or rhythm, or procedures like cardioversion.

Patients with NVAF should be educated about warning signs and have a clear action plan. Keeping emergency contact numbers and



Dr. Brijesh Srivastava
Cardiologist, Bhopal

help lines that are readily available can also help. These provisions respond quickly. Prompt recognition and action can significantly improve outcomes in acute situations.



Dr. Abhishek Rathore
Electrophysiologist, Indore

Palpitations are one of the most common symptoms of NVAF and are often described as a sensation of a racing,



The Anatomy of an Irregular Heartbeat

An irregular heartbeat in NVAF originates from abnormal electrical activity in the atria. Normally, the heart's rhythm is controlled by the sinoatrial (SA) node, which generates regular electrical impulses. In NVAF, multiple disorganized signals override this control, causing chaotic atrial activity.

Instead of coordinated contractions, the atria quiver or fibrillate. This leads to inefficient blood flow from the atria to the ventricles. The ventricles may also respond irregularly, resulting in an uneven and often rapid pulse.

This irregular rhythm can reduce cardiac efficiency, leading to symptoms such as fatigue, breathlessness, or dizziness. More importantly, stagnant blood in the atria can form clots, increasing stroke

risk. The irregularity can vary—some patients experience intermittent episodes, while others have persistent or permanent

arrhythmia. The condition is typically diagnosed using ECG, which shows absence of normal P waves and irregular R-R intervals.

Understanding the anatomy and electrical basis of NVAF helps patients appreciate why treatment is necessary. Therapies aim to control heart rate, restore

rhythm when possible, and prevent clot formation.

Advances in cardiac imaging and electrophysiology have improved our understanding of NVAF, enabling more targeted and effective treatments, including catheter ablation for selected patients.



Dr. Aniruddha Vyas
Electrophysiologist, Indore

Palpitations Explained: What NVAF Feels Like

fluttering, or irregular heartbeat. Patients may feel as though their heart is "skipping beats" or beating out of rhythm.

These sensations occur due to the irregular electrical activity in the atria, which leads to an inconsistent ventricular response. The intensity and frequency of palpitations can vary widely among individuals. Some people experience brief, occasional episodes, while

others have persistent symptoms. Palpitations may be triggered by stress, caffeine, alcohol, or physical exertion. In addition to palpitations, patients may feel fatigue, dizziness, or shortness of breath. However, some individuals may not notice any symptoms at all.

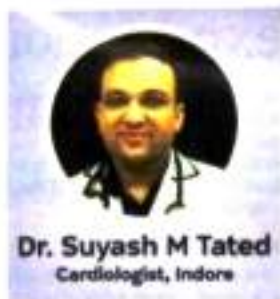
It is important not to ignore palpitations, especially if they are new, frequent, or associated with other symptoms.

Medical evaluation, including ECG monitoring, is essential to determine the cause.

Treatment focuses on controlling heart rate, restoring normal rhythm when possible, and preventing complications. Lifestyle modifications can also help reduce episodes.

Understanding what palpitations feel like helps patients recognize early signs of NVAF and seek timely care.

Understanding Non-Valvular Atrial Fibrillation (NVAF): What It Is



Dr. Suyash M Tated
Cardiologist, Indore

Non-valvular atrial fibrillation (NVAF) is a common heart rhythm disorder where the upper chambers of the heart (atria) beat irregularly and often rapidly, without involvement of significant valve disease such as rheumatic mitral stenosis or mechanical heart valves. In NVAF, electrical signals in the atria

become chaotic, leading to ineffective contractions. As a result, blood may pool in the atria, increasing the risk of clot formation and stroke.

NVAF differs from other types of atrial fibrillation because it is not primarily caused by structural valve abnormalities. Instead, it is often associated with conditions such as hypertension, diabetes, obesity, or aging. Many patients may not even realize they have NVAF, as symptoms can be mild or absent.

Common symptoms include palpitations, fatigue, breathlessness, and dizziness. However, some individuals remain asymptomatic until complications like stroke occur. Diagnosis is usually made through an electro-

cardiogram (ECG) or heart monitoring devices.

The importance of identifying NVAF lies in its complications, particularly stroke. Blood clots formed in the atria can travel to the brain, causing serious damage. Therefore, treatment often focuses on preventing clot formation using anticoagulants and controlling heart rate or rhythm.

Lifestyle changes such as managing blood pressure, reducing alcohol intake, and maintaining a healthy weight play a crucial role in managing NVAF. Early diagnosis and proper treatment significantly improve outcomes and quality of life.

From Blood Thinners of the Past to Today's Safer Options



Dr. Ankur Goel
Cardiac surgeon, Indore

Atrial fibrillation (AF) is a common heart rhythm problem that increases the risk of stroke. To reduce this risk, doctors prescribe "blood thinners," which help prevent dangerous clots from forming in the heart.

For many years, warfarin was the most commonly used blood thinner. While effective, it required frequent blood tests (INR checks), strict diet control, and careful monitoring because its effect could vary

widely.

Today, newer medicines—called DOACs or NOACs—have made treatment simpler and safer. These include drugs like apixaban and rivaroxaban. They work in a more predictable way, so most patients do not need regular blood tests. They also have fewer food restrictions and lower risk of serious brain bleeding compared to older medicines.

However, not every patient can switch to these newer drugs. Some people, especially those with artificial heart valves or certain valve diseases, may still need warfarin.

If you have AF, the most important thing is not to avoid treatment out of fear. Stroke caused by AF can be severe and life-changing—but it is largely preventable with the right medication.

Always talk to your doctor about which blood thinner is best for you. Taking it regularly, without missing doses, is key to staying protected.



Changing From One Blood Thinner to Another

Sometimes, your doctor may recommend changing your blood thinner. This could be due to side effects, convenience, cost, or better treatment options.

Switching must be done carefully to avoid gaps in protection or increased bleeding risk. Doctors follow specific steps to ensure a smooth and safe transition.



Dr. Kshitiz Mavade
Cardiologist, Bhopal

For patients, the most important thing is to follow instructions closely during the switch. Do not stop one medicine or start another without guidance.

With proper planning, switching can improve comfort and safety while maintaining protection against stroke.

Medicines That May Interfere With Blood Thinners

Even modern blood thinners can interact with other medicines.

Certain drugs—like some antibiotics, antifungals, or herbal supplements—can increase or decrease the effect of blood thinners.

This is why it is important to



Dr. Ayush Jain
Cardiologist, Bhopal

inform your doctor about all medicines you are taking, including over-the-counter drugs and herbal products.

Never start or stop a medicine without medical advice if you are on a blood thinner.

A simple rule: keep your doctor informed, and you stay protected.



smellian experts

• HEALTH

How new pancreatic cancer pill doubles survival rate

Pancreatic cancer is notoriously hard to treat. But a daily pill promises to be the beginning of a new class of drugs that can transform treatment



EXPERT EXPLAINS

ANANT RAMASWAMY

SPECIALIST IN GASTROINTESTINAL
CANCERS AND GERIATRIC ONCOLOGY,
TATA MEMORIAL CENTRE

A NEW experimental pill is offering hope for patients of pancreatic cancer, one of the deadliest and hardest-to-treat forms of the disease. Results from a large international trial presented at an American Society of Clinical Oncology meet showed that daraxonrasib, a once-daily oral drug, nearly doubled survival time in patients with advanced pancreatic cancer whose disease had progressed despite earlier treatment.

The drug works by targeting KRAS, a cancer-driving gene mutation found in the vast majority of pancreatic tumours — one that researchers have spent decades trying (ineffectively) shut down. "For years, the average (median) survival for patients with advanced pancreatic cancers has hovered around one year. It was six months in the late 1990s and just about 9-12 months three decades later. Improvements in survival have been minimally incremental despite active research over the last two decades," says Professor Anant Ramaswamy, specialist in gastrointestinal cancers and Geriatric Oncology, Tata Memorial Centre, Mumbai.

"In such a scenario, the impact of an oral pill improving or rather doubling survival in pre-treated patients with pancreatic cancer is great news. Also, this is just the beginning for this new class of drugs. Patients and oncologists can expect more improvements in the times to come," he told **Rinku Ghosh** in an interview. Excerpts:

Why has pancreatic cancer remained so difficult to treat compared with some other cancers?

There are two major reasons. First, a majority of patients (70-90%) are diagnosed at an advanced stage and that itself is a major limiting factor. Second, while a number of other cancers have had targeted agents and immunotherapy markedly improving survival, till date these have not shown signif-

The deadliest form of the disease

• WHAT IS PANCREATIC CANCER?

Pancreatic cancer is an aggressive disease that forms when malignant cells develop in the tissues of the pancreas, which produces digestive enzymes and blood sugar-regulating hormones like insulin.

• WHY IS IT DIFFICULT TO DETECT IN ITS EARLY STAGES?

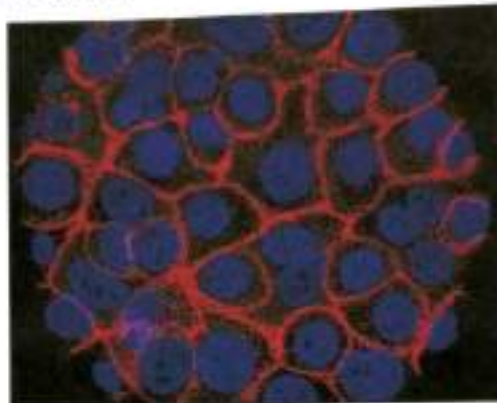
Symptoms usually do not appear until the tumour has grown large or has started to spread to surrounding organs. Common indicators include jaundice, pain, nausea, loss of appetite, unexplained weight loss & new onset diabetes.

• WHAT'S THE SURVIVAL RATE?

The overall five-year survival rate for pancreatic cancer is approximately 13%.

• HOW COMMON IS IT?

The annual incidence of pancreatic cancer in India is relatively low compared to Western countries, with approximately 23,000 new cases diagnosed each year. The crude incidence rate is about 16 per 100,000 people, affecting slightly more men than women.



A microscope image shows pancreatic cancer cells. AP/IL

It ranks 24th in overall cancer incidence but 18th in cancer mortality.

• INDIAN RISK PROFILE

Diabetes, tropical pancreatitis (such as in Kerala and Tamil Nadu), lifestyle and obesity

cant effects in pancreatic cancer. Third, and a bit technically, in pancreatic cancer, it's not just the tumour but also the surrounding tissue around it (called the stroma) that has been very resistant to available treatment approaches.

What role does the KRAS gene play in pancreatic cancer? The drug is described as 'locking onto' the mutated KRAS gene. In simple terms, how does it work?

RAS is a protein that is ubiquitously expressed in almost all cell types in the human body. It is encoded for by a gene called RAS gene. Mutations (damaging alterations in the gene which cause cancer) in the RAS gene family (of which KRAS is the most common) affect approximately 30% of all cancers. Approximately 90% of pancreatic cancers have alterations in the KRAS gene, which have made it a primary area of research in pancreatic cancers.

Basically, when the KRAS gene is mutated, it becomes continually active (or 'ON' mode) by binding to some small molecules in the cells and then ensures that there is disruption of activity in normal cells. That's how

these cells become dysregulated and cancerous. Daraxonrasib inhibits this state from inside the cell and suppresses pathways that perpetuate cancer cell growth. It is the first drug of its class that has shown such successful results, though many drugs with similar activity should emerge in a few years.

What makes daraxonrasib different from existing treatments?

Daraxonrasib is the first drug of its category that has shown to successfully inhibit RAS activity, including the various subtypes of RAS as well, irrespective of whether RAS is mutated or not. This makes it a notable triumph in the era of precision oncology.

The drug appeared to cause fewer severe side-effects than chemotherapy. What kinds of side-effects did patients experience?

Even though it was established, daraxonrasib had a significant incidence of side-effects almost on a par with chemotherapy, with which the drug was compared. The common side effects included a skin rash, loose motions, oral ulcers, vomiting and vomiting-like sensations, tiredness, and

fall in haemoglobin levels, among others. About a third of patients required reduction in dose as well. Since it is a new drug, oncologists and physicians over the world will slowly learn to use this drug so that side effects can be ameliorated to some extent.

Which patients are most likely to be eligible for this treatment?

As of now, patients with pancreatic cancer, who have previously received chemotherapy and have worsening disease, are candidates for receiving daraxonrasib. However, clinical trials and studies are already exploring these drugs in patients who are treatment-naïve (meaning an individual has never received therapy or medication for a specific medical condition or disease). I think that these will possibly be used earlier rather than later in pancreatic cancers as well as other cancers in the coming times.

Can this drug have applications beyond pancreatic cancer?

Daraxonrasib as well as other drugs similar to it, which inhibit activity of RAS, are being explored in a number of cancers since RAS mutations are noted in about 20% of all cancers. They are actively being evaluated in lung and colon cancers since these are relatively common and have a high incidence of RAS mutations.

What about accessibility?

The drug is not available in India. But with the kind of scope it has, I think this class of drugs will soon make its way to the country. Everyone is interested because of their potential to treat a number of cancers. Informally, we have heard that there is a long waiting list even to get into clinical trials evaluating RAS inhibitors. So we will have to wait and see with regard to accessibility of daraxonrasib.

What does this breakthrough tell us about the future of precision medicine in cancer treatment?

Precision medicine has already transformed the management of certain cancers like lung cancers. With more research, oncologists like me can hope for more personalised and precise treatments. At the same time, we also need to remember that the basics of cancer therapy — surgery, chemotherapy and radiotherapy — are very important and precision medicine has to work in tandem.

A ticking clock

In the late 1990s, the average survival time for patients with advanced pancreatic cancer was six months.

Three decades later, it is just about 9-12 months, despite active research.

• DIPLOMACY

Re-check ordered over 'discrepancies' in Census 2027 data

Vijaita Singh

NEW DELHI

With the ongoing Census 2027 exercise throwing up data that differ from government records, particularly on issues such as open defecation and household access to electricity or cooking gas connections, enumerators say they have been asked by senior officials to revisit households and correct the data "discrepancies".

Several enumerators, mostly government school-teachers and anganwadi workers, had taken to social media to report the directions they have received and to flag the glaring inequality on the ground. Some even complained that residents were unwilling to share information, fearing cancellation of government benefits.

On Tuesday, the Director of Census Operations (DCO), Rajasthan, wrote to all district functionaries

that "during the analysis of field data collected so far, some discrepancies have been noticed".

In the letter accessed by *The Hindu*, the charge officers were instructed to "verify the block-level data through the CMMS (census management and monitoring system) portal, in accordance with the actual field situation".

The letter stated that discrepancy in data collection was noticed largely over a few subjects. It flagged the categorisation of "open defecation" for most households; usage of fuel such as wood, dung cakes, crop residue, etc. being recorded for households having LPG connections, especially in urban areas; and in the drinking water section, the option of "tap water from treated source" not being recorded for most households.

CONTINUED ON

» PAGE 10

Centre approves scheme to cut pollution levels in Delhi-NCR

Two-year programme with financial outlay of ₹9,585 crore aims at contributing to improved air quality index in the region by encouraging vehicle owners to transition to BS-VI variants or EVs; it will benefit 1.91 lakh trucks, 16,329 buses, says govt.

The Hindu Bureau
NEW DELHI

The Union Cabinet on Wednesday approved a two-year scheme aimed at reducing air pollution in the Delhi-National Capital Region (NCR) by accelerating the transition to cleaner transport technologies.

With a total financial outlay of ₹9,585 crore, including ₹5,041 crore from the Centre and an estimated ₹1,601 crore in tax concessions from the participating States, the scheme seeks to incentivise owners of trucks and buses registered in the Delhi-NCR that comply with BS-IV or earlier emission norms to replace them with BS-VI or stricter emission-compliant vehicles, or electric vehicles (EVs).

By speeding up the transition to cleaner transport technologies, the scheme



The scheme will be funded through the National Capital Region Planning Board and implemented by the Ministry of Road Transport and Highways and Ministry of Petroleum and Natural Gas. FILE PHOTO

is expected to reduce vehicular emissions and contribute to improved air quality index (AQI) across the Delhi-NCR, read an official statement.

The scheme will be funded through the National Capital Region Planning Board under the Ministry of Housing and

Urban Affairs and implemented by the Ministry of Road Transport and Highways and Ministry of Petroleum and Natural Gas.

Govt. vehicles excluded

The move will benefit approximately 2.07 lakh (1.91 lakh trucks and 16,329 buses) owners in Delhi-NCR

(comprising Delhi, Haryana, Rajasthan, and Uttar Pradesh), it stated.

For BS-III or older vehicles, scrapping at registered vehicle scrapping facilities is mandatory. BS-IV vehicles may either be "scrapped or sold outside the NCR in non-National Clean Air Programme ci-

ties/towns". Owners must then purchase and register a BS-VI or stricter norms-compliant or an EV within the NCR. However, in Delhi, light goods vehicles purchased under the scheme must be electric while buses must be compliant with BS-VI norms, run on CNG, or be electric only. Government vehicles are excluded from the scheme.

The Centre will provide 5% interest subvention on loans for five years, monthly fuel vouchers worth up to ₹4,800 depending on vehicle category, and lump-sum benefits for EV purchases or Certificate of Deposit trading.

State governments will waive registration fees and grant up to 100% motor vehicle tax concessions for new vehicles and 50% for used vehicles for 10 years. They will also waive pending liabilities on old vehicles under the scheme.

1-11-2024

'No PUC, no fuel' rule in 8 NCR districts of U.P. from October 1

Press Trust of India

LUCKNOW

Vehicles without valid pollution under control (PUC) certificates will not be allowed to refuel in the National Capital Region (NCR) districts of Uttar Pradesh from October 1 under the 'No PUC, no fuel' rule, Chief Secretary S.P. Goyal said on Wednesday.

Eight U.P. districts - Gautam Buddha Nagar, Ghaziabad, Hapur, Bulandshahr, Meerut, Muzaffarnagar, Baghpat, and Shamli - are part of the NCR. The announcement was among several measures announced by the State government to curb foul air.

Involving citizens

Chairing a review meeting on air quality, Mr. Goyal said the government has set a target of reducing air pollution levels in the NCR by 30-35% this year.

He added that the participation of citizens should also be ensured through

The announcement was among several measures announced by the State govt. to curb foul air

awareness drives.

Automatic number plate recognition cameras will be installed at 1,041 petrol pumps in the NCR districts to identify vehicles without valid PUC certificates, read an official statement.

The government is also working to phase out old and polluting vehicles and promote BS-VI, CNG, and electric vehicles under the 'Naya Safar' scheme.

According to the statement, around 26.19 lakh end-of-life vehicles have been identified, of which 37,156 were scrapped and 460 seized between January and April. To promote clean public transport, a target has been set to operate 975 electric buses in Ghaziabad, Noida, Greater Noida, and Meerut.

TRUE NORTH TO EXIT

Global PE Firms Vie for 25% Stake in Cloudnine

Homegrown Kedaara also in race against KKR, CVC, others; initial bids likely to come in by July first week

Reghu Balakrishnan

Mumbai: Global private equity firms Warburg Pincus, KKR, TPG Capital, Advent International, CVC Capital Partners, and Permira, along with homegrown Kedaara Capital are in the race to acquire a 25% stake in Cloudnine, India's largest maternity and pediatric hospital chain, said people familiar with the matter.

The proposed deal is expected to value Cloudnine at about ₹10,000 crore (\$1 billion), the people said, adding that the initial bids are expected by July first week.

Hospital Chart

True North owns 25% in Cloudnine

Temasek, TPG Newquest own about 52%

Cloudnine to be valued at **\$1 billion**

Revenue of **₹2,000 cr.** Ebitda of **₹300 cr** in FY26

Cloudnine operates 55 centres across India

Mother & childcare market in India estimated at ₹30,000 cr



Single specialty to grow to about **\$9 billion** by 2028: Aventus



Indian Exports

Pharma Exports to US Seen Muted this Year

To be weighed down by policy, pricing fears

Teena Thacker

New Delhi: India's pharmaceutical exports to the United States are likely to remain subdued this year, weighed down by fears of adverse policy decisions, headlong price erosion in the generics space and the risk of an escalating West Asia crisis.

Experts said inventory correction, product cycle timing, and above-normal buying in March 2025 ahead of tariffs have also created a high base that current shipments struggle to match.

"Given that FY26 closed at \$9.47 billion with a 10% drop and March 2026 came in down another 10% year-on-year, pharma exports to the US in April-May 2026 are likely to show a flat-to-negative print unless the inventory correction ended faster than expected," pharma expert Dinesh Dua said.

The commerce ministry is expected to release detailed trade data on June 15.

Experts also point to a structural shift quietly underway on the American side. According to an expert, US distributors and hospital networks are increasingly managing inventories more

tightly, placing orders closer to actual consumption rather than building large buffers.

"Compounding this, the push to encourage local pharma manufacturing in the US, given fresh political momentum by the current administration, threatens to gradually erode the volume advantage that Indian generics makers have long enjoyed," said an expert on the condition of anonymity.

The policy front has added fresh anxiety. "Executive orders by the administration have dampened sentiment and slowed fresh orders in April and May."



Industry bodies have flagged that even where tariffs do not directly apply, the regulatory unpredictability itself is enough to make buyers cautious about placing large forward orders.

The US remains India's single largest pharma export destination accounting for roughly 30% of the total shipments. Indian drugmakers, particularly those heavily exposed to the American generics market, have seen margins squeezed from both ends—falling realisations on one side, and rising compliance and logistics costs on the other.

NBT

40 के करीब पहुंचा तापमान, शुक्रवार से फिर आएगी कमी

आज और कल के लिए आंधी-बारिश का येलो अलर्ट जारी किया गया है

File Photo

■ NBT रिपोर्ट, नई दिल्ली

बुधवार को तापमान एक बार फिर 40 डिग्री के करीब पहुंच गया। दिन के समय लोग पसीने वाली गर्मी से परेशान रहे। हालांकि शुक्रवार से तापमान में कमी आना शुरू हो जाएगी। यह कमी दो दिन की होगी। रविवार से तापमान फिर 40 डिग्री के करीब पहुंच जाएगा। गुरुवार और शुक्रवार को आंधी और बारिश का येलो अलर्ट भी जारी किया गया है।

बुधवार को तेज धूप रही जिसकी वजह से तापमान में इजाफा हुआ। इसके बावजूद अधिकतम तापमान सामान्य से कम बना रहा। सफदरजंग का अधिकतम तापमान 39.1 डिग्री रहा। यह सामान्य से 0.9 डिग्री से कम रहा। न्यूनतम तापमान

27.4 डिग्री रहा। यह सामान्य से 0.5 डिग्री अधिक रहा। हवा में नमी का अंश 37 से 60 प्रतिशत रहा। पालम में अधिकतम तापमान 39.6 डिग्री, लोदी रोड में 38.8, रिज में 39.3 और आया नगर में 39.6 डिग्री रहा।

पूर्वानुमान के अनुसार गुरुवार को अधिकतम तापमान 39 और न्यूनतम 28 डिग्री रह सकता है। दोपहर के समय आंधी और बारिश की संभावना है। आंधी के दौरान हवाओं की गति 40 से 50 किलोमीटर प्रति घंटे तक रह सकती है। 5 जून को अधिकतम तापमान गिरकर 37 और न्यूनतम 28 डिग्री रह सकता है। दोपहर के समय आंधी और बारिश की संभावना है। इसके बाद 6 जून से मौसम शुष्क हो जाएगा। 6 से 9 जून तक तापमान गर्म और शुष्क रहेगा। 6 जून को अधिकतम तापमान 37 और न्यूनतम 28 डिग्री रहेगा। इसके बाद 7 से 9 जून तक अधिकतम तापमान 39 से 40 डिग्री और न्यूनतम 28 से 29 डिग्री रह सकता है।



सूरज का सितम

- यह कमी दो दिन की होगी। रविवार से तापमान फिर 40 डिग्री के करीब पहुंच जाएगा। आज दोपहर के समय आंधी, बारिश की है संभावना
- बुधवार को सफदरजंग का अधिकतम तापमान 39.1 डिग्री रहा। यह सामान्य से 0.9 डिग्री से कम रहा। न्यूनतम तापमान 27.4 डिग्री रहा
- आज अधिकतम तापमान 39 और न्यूनतम 28 डिग्री रह सकता है

मां के गर्भ तक पहुंच रही 'जहरीली हवा'

■ NBT रिपोर्ट, नई दिल्ली: एम्स दिल्ली की एक नई स्टडी ने संकेत दिया है कि हवा में मौजूद प्रदूषण के कण केवल फेफड़ों तक सीमित नहीं रहते, बल्कि मां के गर्भ में पल रहे बच्चे तक पहुंचकर उसके विकास को भी प्रभावित कर सकते हैं। शोध के मुताबिक प्रदूषण का नुकसान बच्चे के जन्म से पहले ही शुरू हो जाता है और इसका प्रभाव जन्म के बाद भी लंबे समय तक दिखाई दे सकता है।



AIIMS की स्टडी में किया गया दावा

दरअसल, ICMR की फंडिंग से हुई यह स्टडी प्रतिष्ठित जर्नल EMBO Molecular Medicine में मई के अंक में प्रकाशित हुई है। शोधकर्ताओं ने पहली बार विस्तार से यह समझाया है कि शहरी वायु प्रदूषण किस तरह भ्रूण के विकास के लिए जरूरी जैविक प्रक्रियाओं को बाधित करता है। स्टडी के अनुसार PM2.5 और PM10 जैसे सूक्ष्म प्रदूषक प्लेसेंटा की सुरक्षा बाधा को पार कर सकते हैं। शोधकर्ताओं ने दिल्ली और झारखंड के देवघर की 994 महिलाओं के रिकॉर्ड का विश्लेषण किया।

■ पशु अध्ययन ने भी दिए गंभीर संकेत

छूटो पर किए गए परीक्षणों में शोधकर्ताओं ने पाया कि प्रदूषण के संपर्क से प्लेसेंटा की संरचना और उसकी कार्यक्षमता प्रभावित होती है। गर्भस्थ शिशुओं का आकार छोटा रहा, प्लेसेंटा का विकास कम हुआ और जन्म के समय बच्चों का वजन भी सामान्य से काफी कम पाया गया।

■ जन्म के बाद भी खत्म नहीं होता खतरा

स्टडी के मुताबिक, शोध में बच्चों में मोटर कोऑर्डिनेशन की कमी, बढ़ी हुई चिंता और तनाव संबंधी प्रतिक्रियाओं जैसे न्यूरोलॉजिकल प्रभावों के संकेत मिले। शोधकर्ताओं ने कहा कि आगे चलकर इसका अंतर वैदिक विकास, हृदय संबंधी रोग के रूप में सामने आ सकता है।

■ बचाव के लिए क्या सुझाव?

शोधकर्ताओं ने कहा कि गर्भवती महिलाओं के लिए मरूक का उपखेप, एटीऑक्सीडेंट युक्त भोजन कुछ हद तक सुरक्षा दे सकते हैं। प्रदूषण और वायु गुणवत्ता की निगरानी को प्रत्यक्ष रूप से स्वास्थ्य देखभाल का महत्वपूर्ण हिस्सा बनाया जाना चाहिए।

से दिखते भी बढ़ने लगी है। भाजपा के वापस संघ में भी बुला लिया था। दिखाया गया है या निवेश ढांचा जटिल है। या जा दयात क ववाहक जीवन क वरत

चिंताजनक | राष्ट्रीय परिवार कल्याण सर्वेक्षण-6 के आंकड़ों में हुआ खुलासा, पुरुष फिटनेस को लेकर होने लगे हैं कहीं ज्यादा सजग

महिलाएं हुईं मोटापे की शिकार तो पुरुषों में दुबलापन बढ़ा

नई दिल्ली, विशेष संवाददाता। देश में महिलाओं में तेजी से मोटापा बढ़ रहा है। वहीं पुरुष फिटनेस को लेकर ज्यादा सजग होने लगे हैं जिसके चलते कम वजन के पुरुषों का प्रतिशत बढ़ रहा है। राष्ट्रीय परिवार कल्याण सर्वेक्षण-6 के आंकड़ों के विश्लेषण में यह बात सामने आई है।

आंकड़ों के अनुसार, देश में 15-49 आयु वर्ग की 30.7 फीसदी महिलाएं ओवरवेट या मोटापे की जद में हैं। यानी उनका बीएमआई 25 से अधिक है। यह सर्वे 2023-24 का है। इससे पहला सर्वेक्षण एनएचएस-5, 2019-21 के दौरान हुआ था। तब यह 24% था। यानी

शहरों में 42.8% महिलाएं मोटापे से ग्रस्त



यदि इन आंकड़ों को शहर और गांव के हिसाब से देखें तो शहरों में 42.8 फीसदी महिलाएं एवं 36.3 फीसदी पुरुष मोटापे से ग्रस्त हैं। गांवों में यह आंकड़ा क्रमशः 25.5 तथा 23 फीसदी है।

तीन वर्षों के अंतराल में मोटापे की शिकार महिलाओं में 6.7% की वृद्धि हुई है। 15-49 आयु वर्ग की महिलाओं की आबादी

कम वजन वाले पुरुषों की संख्या तेजी से बढ़ी

कम वजन वाले यानी अंडरवेट पुरुषों की संख्या तेजी से बढ़ी है। ऐसे पुरुष जिनका बीएमआई 18.5 से कम है, उनका प्रतिशत 19.7 है जबकि ऐसी महिलाएं 18.7 फीसदी हैं। तीन वर्षों में अंडरवेट पुरुषों की संख्या 3.5 फीसदी बढ़ी है, जबकि ऐसी महिलाओं की संख्या में महज एक फीसदी बढ़ी।

करीब 36 करोड़ होने का अनुमान है, इस प्रकार इनमें से 11 करोड़ महिलाएं मोटापे की शिकार हैं। यह संख्या चिंताजनक है।

फिटनेस को लेकर जागरूकता



जनकारी की मने तो इसके पीछे पुरुषों में फिटनेस को लेकर जागरूकता होना बड़ा कारण हो सकता है। वे फिटनेस के लिए समय निकाल पा रहे हैं, खानपान शैली भी बदल रहे हैं। पर जरूरत से कम वजन होना भी सेहत के लिहाज से अच्छा नहीं है। फिर भी मोटापे से यह बेहतर मानी जाती है। जबकि महिलाएं व्यस्तता में फिटनेस के लिए समय नहीं दे पा रही हैं।

11 करोड़ के करीब महिलाएं मोटापे की शिकार हैं

27 फीसदी से अधिक पुरुष मोटे हैं 15 से 49 की उम्र वाले

दूसरी तरफ इस आयु वर्ग में 27.3% पुरुष मोटापे की जद में हैं। तीन साल पहले यह आंकड़ा 22.9 था। यानी पुरुषों में मोटापा

4.4% बढ़ा है। इस वर्ग में पुरुषों की आबादी करीब 37 करोड़ है जिनमें से करीब 10 करोड़ मोटापे के शिकार हैं।



हेल्थटेक में बढ़ रहे रोजगार के मौके

भारत में तेजी से हो रहे डिजिटलीकरण और 'आयुष्मान भारत डिजिटल मिशन' जैसी सरकारी पहलों के कारण हेल्थटेक में रोजगार की मांग 30 फीसदी से 40 फीसदी की दर से बढ़ रही है। खास बात यह है कि डाटा साइंस, इंजीनियरिंग, मैनेजमेंट एवं डिजाइन पृष्ठभूमि वाले छात्रों के लिए भी यहां मेडिकल डिग्री के बिना नए मौके बन रहे हैं। बता रही हैं **श्वेता राकेश**

भारत का हेल्थकेयर सेक्टर तकनीकी क्रांति के दौर में गुजर रहा है। इसमें मेडिकल सेक्टरों में हेल्थटेक को जोड़ा है। इसे डिजिटल हेल्थकेयर या हेल्थटेक के नाम से भी समझ सकते हैं। अनुमान है कि 2030 तक हेल्थटेक का क्षेत्र लगभग 20-25 लाख नए रोजगार पैदा करेगा। यही संकेत है कि एआई और हेल्थ डेटा, टेलीमेडिसिन, डायग्नोस्टिक्स, ई-फार्मसी, फिटनेस और क्लिनेस एवं हेल्थ एक्स से जुड़े अवसरों में बढ़े हुए हैं।

कार्यवाही के माध्यम से कार्यवाही के अनुसार, इस क्षेत्र में प्रमुखता: विज्ञान विषय के स्नातक अथवा प्रशिक्षण बना सकते हैं। यहाँ, नीचे के बाद कोर्समो जॉबिंग, सीपीटी (बैचलर ऑफ फिजियोथेरेपी), बीफार्मा, और बीएससी ऑटोमेटेड जैसे कोर्स इस सेक्टर में मान्यता आधार बनाते हैं। डैक्टो, टाटा एमसी, फार्मासी और क्लिन एआई जैसे हेल्थटेक कंपनियों में मेडिकल एडवाइजर और क्लिनिकल ऑपरेशंस जैसे पदों के लिए मेडिकल बैकग्राउंड वाले कैंडिडेटों की मांग है। डिजिटल हेल्थ विज्ञान व टेलीमेडिसिन जैसे सफाई प्रयास इस सेक्टर में नए करियर अवसरों को तेजी से विकसित दे रहे हैं।

कारियर रोडमैप: कंप्यूटर ज्ञान, डाटा की समझ और डिजिटल टूल्स की जानकारी, हेल्थटेक सेक्टर की बुनियादी जरूरतें हैं। छात्र डिजिटल हेल्थ, हेल्थ डाटा और हेल्थटेक से जुड़े सर्टिफिकेटेड सर्टिफिकेट कोर्स करके इस क्षेत्र में प्रवेश कर सकते हैं। एआई/आईटी और एमबीबीएस संस्थानों में डिजिटल हेल्थकेयर व एआई आधारित हेल्थ टेक से जुड़े कुछ कोर्स उपलब्ध करा रहे हैं।

छात्रों को लक्ष्य करना चाहिए?
■ अगर इंजीनियरिंग छात्र हैं: एआई आधारित हेल्थ एक्स, हेल्थ डाटा एनालिटिक्स और प्रोडक्ट डिजाइन जैसे क्षेत्रों में अवसर हैं। फार्मेशन, डाटा और एआई की बुनियादी समझ जरूरी है। प्रोडक्ट और

किन पदों की ज्यादा मांग

- **हेल्थ डाटा एनालिटिक्स:** डाटा का विश्लेषण कर बेहतर इलाज करने में मदद करते हैं।
- **एआई/एपलन इंजीनियर:** स्वास्थ्य सेवा को बेहतर, तेज और अधिक सटीक बनाने के लिए नए एप्लिकेशन और सॉल्यूशंस विकसित करते हैं।
- **इंटरफेस डिजाइन:** इलेक्ट्रॉनिक हेल्थ रिपोर्ट सिस्टम को संवर्धित और वास्तविक करते हैं।
- **प्रोडक्ट मैनेजर:** हेल्थ एक्स, डिजाइन, डिजिटल हेल्थ एप्लिकेशन को बेहतर बनाने में अपने अनुभव और निकल से मदद करते हैं।
- **यूजर एक्सपीरियंस डिजाइनर:** हेल्थ एक्स का डिजाइन और इस्तेमाल का अनुभव बेहतर बनाते हैं।
- **डिजिटल मार्केटिंग व कंटेंट प्रोफेशनल्स:** हेल्थ एप्लिकेशन को ज्यादा-से-ज्यादा लोगों तक पहुंचाने का काम देखते हैं।

इंजीनियर से अनुभव बढ़ाया जा सकता है।

- **बीबीए/बीएसबीए/एडवांस्ड प्रोफेशनल:** हेल्थकेयर इंडस्ट्री की समझ और मैनेजमेंट कौशल पर ध्यान दें। हाथियार, हेल्थटेक स्टार्टअप, हेल्थ एप कंपनियों और हेल्थ सेवा कंपनियों में इंटरनल सेक्टर ऑपरेशंस, बिजनेस डेवलपमेंट और प्रोडक्ट मैनेजमेंट क्षेत्रों में अनुभव हासिल कर सकते हैं।
- **लाइव साइंस या बायोटेक छात्र हैं:** रिमॉट मॉनिटरिंग डिवाइस के साथ डिजिटल हेल्थ की समझ बढ़ाएं। लैब या स्टार्टअप अनुभव लेकर क्लिनिकल रिसेच, डिजिटल डायग्नोस्टिक्स और हेल्थ डाटा से जुड़े क्षेत्रों में जाने बढ़ सकते हैं।

कैसे करें करियर विकास

■ भारत सरकार के 'स्वयं', कोसेरा और एडेक्स



जैसे वैजिक संघ और गुगल करियर सर्टिफिकेट्स और आईबीएम स्किल्स क्लिब पर हेल्थकेयर टेक से संबंधित निःशुल्क कोर्स मिलते हैं।
■ विभिन्न आईआईटी संस्थान इस क्षेत्र से संबंधित सॉफ्टवेयर एप्लिकेशन के कोर्स करा रहे हैं।
■ जेईई के माध्यम से सॉफ्टवेयर इनफार्मेटिक्स कोर्स विभिन्न आईआईटी, आईआईटी और कॉलेज जैसे संस्थानों में उपलब्ध हैं। एमबीए इन हेल्थकेयर एनालिटिक्स कोर्स भी कर सकते हैं, जो आईआईएफएमआर, जगपुर में है। यहाँ एमएससी इन बायोइन्फार्मेटिक्स (ऑनियरिगलिय इन्फार्मिज) में उपलब्ध है।
कुछ चुनौतियाँ भी: भारत में एआई और डाटा आधारित भूमिकाओं में 50 प्रतिशत से अधिक स्किल गैप देखा जा रहा है। अलग-अलग पृष्ठभूमि

विशेषज्ञ की राय

हेल्थटेक एक ऐसा क्षेत्र है, जहाँ हेल्थकेयर, टेक्नोलॉजी, डाटा साइंस, क्लिनेस और डिजाइन जैसे कई क्षेत्र मिलकर काम करते हैं। इसमें एआई महत्वपूर्ण भूमिका निभा रहा है, जो लोगों की पहचान, मेडिकल इमेज एनालिसिस, दवा अनुसंधान और मनसिक स्वास्थ्य जैसे क्षेत्रों में उपयोग लेकर डॉक्टरों को बेहतर निर्णय लेने में मदद करता है। फिजियोलॉजी एआई हेल्थ रिसेच, हेल्थ डाटा साइंस, मेडिकल एआई डेवलपमेंट और डिजिटल हेल्थ ऑटोमेशन जैसे नए करियर क्षेत्र तेजी से विकसित हो रहे हैं। इसलिए, हेल्थटेक सेक्टर में सबसे अधिक मांग उन पेशेवरों की होगी, जो स्वास्थ्य व तकनीक दोनों की समझ रखते हों।



श्वेता राकेश
करियर काउंसलर

से आने वाले छात्रों को हेल्थकेयर में वैजिक समझ विकसित करनी पड़ती है। एआई और डिजिटल हेल्थ जैसे क्षेत्रों में लगातार बदलाव के चलते खुद को निर्यात रूप से अपडेट रखना भी जरूरी है।
संकेत: गुगल आरिजिन 4-12 लाख रुपये वार्षिक। टेक्नोलॉजी जैसे एआई, डाटा एनालिटिक्स आदि के पदों पर 15 लाख रुपये का अधिक। करियर पदों व सफल स्टार्टअप में करोड़ रुपये तक में आम।

गुनाह कबूल कर लिया।

हिरासत में पूछताछ की आवश्यकता
पड़ सकती है। ब्यूरो

उम्र उजाती

50 वर्ष की महिला को क्रायोप्रिजर्व्ड भ्रूण इस्तेमाल करने की अनुमति

नई दिल्ली। दिल्ली हाईकोर्ट ने 50 वर्ष की महिला को अपने क्रायोप्रिजर्व्ड भ्रूणों का उपयोग करने की अनुमति दी है। अदालत ने कहा कि प्रजनन अधिकारों को केवल तकनीकी और पेडेंटिक नियमों तक सीमित नहीं किया जा सकता। न्यायमूर्ति पुरुषेंद्र कुमार कौरव की एकलपीठ ने कहा कि भ्रूण निकालने के समय महिला निर्धारित आयु सीमा के अंदर थी, इसलिए उपचार प्रक्रिया को बीच में रोकना उचित नहीं है।

महिला और उनके पति द्वारा दायर याचिका पर सुनवाई करते हुए अदालत ने कहा कि सहायता प्राप्त प्रजनन प्रौद्योगिकी (एआरटी) अधिनियम का

उद्देश्य वैध रूप से शुरू किए गए उपचार को अपराजेय बाधाओं में नहीं बदलना है। अदालत ने जोर देकर कहा कि क्रायोप्रिजर्व्ड भ्रूण याचिकाकर्ताओं के प्रजनन स्वायत्तता, निर्णयात्मक गोपनीयता और संवैधानिक रूप से संरक्षित प्रजनन एवं पारिवारिक जीवन के अधिकार से गहराई से जुड़े हैं। दंपती ने मई 2025 में बेटे की मृत्यु के बाद आईवीएफ कराने का फैसला किया। पहले चक्र में भ्रूण ट्रांसफर असफल रहा। जब दंपती ने शेष पांच क्रायोप्रिजर्व्ड भ्रूणों का उपयोग करने को कहा तो अस्पताल ने महिला की उम्र 50 वर्ष पार करने का हवाला देते हुए मना कर दिया। ब्यूरो

अरावली की सुरक्षा के लिए विशेषज्ञ समिति को 31 अगस्त तक संरक्षण रिपोर्ट पेश करने का सुप्रीम निर्देश

पारिस्थितिक क्षेत्र की सुरक्षा के लिए शीर्ष कोर्ट का बड़ा कदम, अगली सुनवाई सितंबर में

नई दिल्ली। सुप्रीम कोर्ट ने पर्यावरणीय रूप से संवेदनशील अरावली पर्वतमाला और पहाड़ियों की एक समान परिभाषा और स्पष्ट सीमांकन तब करने के लिए पांच सदस्यीय उच्चस्तरीय समिति का गठन किया है। इसका उद्देश्य भविष्य में खनन गतिविधियों को नियंत्रित करना और इस महत्वपूर्ण पारिस्थितिक क्षेत्र को बेहतर सुरक्षा सुनिश्चित करना है।

मुख्य न्यायाधीश सूर्यकांत, न्यायमूर्ति जयमाल्य बागची और न्यायमूर्ति विपुल एम पंचोली की पीठ ने समिति को 31 अगस्त तक अपनी संरक्षण रिपोर्ट पेश करने का निर्देश दिया। शीर्ष अदालत के 25 मई के इस फैसले की प्रति मंगलवार को ऑनलाइन जारी की गई। सुप्रीम कोर्ट का यह आदेश अरावली पहाड़ियों और पर्वतमालाओं की परिभाषा से जुड़े एक स्वतः संज्ञान मामले की सुनवाई के दौरान आया। इस मामले की अगली सुनवाई 7 सितंबर को होगी। इससे पहले, सुप्रीम कोर्ट ने पूरे अरावली क्षेत्र में खनन पर रोक लगा दी थी। पीठ ने समिति गठित करते हुए कहा कि पर्यावरण संरक्षण और सतत विकास से जुड़े मामलों को विशेषज्ञों के



मूल्यांकन के बगैर हल नहीं किया जा सकता और समिति को अरावली से जुड़े मौजूदा बांके और नियमों की पुनः समीक्षा करने की जिम्मेदारी सौंपी। पीठ ने यह भी कहा कि भविष्य में की जाने वाली कोई भी कार्रवाई वैज्ञानिक आकलन पर आधारित होने के साथ ही पर्यावरण संरक्षण व सतत विकास के सिद्धांतों के अनुरूप होनी चाहिए।

समिति को प्रस्तावित मानदंडों को जांचने का निर्देश : सुप्रीम कोर्ट ने केवल दो या अधिक अरावली पहाड़ियों के बीच 500 मीटर के दायरे वाली भूमि को अरावली माने जाने वाली मौजूदा परिभाषा पर चिंता जताई। शीर्ष अदालत ने कहा कि यह संकीर्ण व्याख्या संरक्षित क्षेत्र को काफी कम कर सकती है और पारिस्थितिक रूप से जुड़े क्षेत्रों को गैर-अरावली घोषित

प्रभावित पक्षों से सुझाव भी किए आमंत्रित : सुप्रीम कोर्ट ने इस मामले से जुड़े मुद्दों का अंतर दिल्ली, राजस्थान और हरियाणा की सरकारों, पर्यावरण समूहों, खनन पट्टा धारकों, किसानों, खदान मजदूरों और स्थानीय समुदायों सहित कई पक्षों पर पढ़ने के चलते समिति को एक सार्वजनिक सूचना जारी कर सभी इच्छुक व्यक्तियों और संस्थाओं से अपनी बात रखने और सुझाव देने के आमंत्रित करने का निर्देश भी दिया। अरावली पर्वतमाला उत्तर-पश्चिमी भारत की पारिस्थितिक जीवनरेखा का काम करती है। यह उत्तर-पश्चिम के सूखे रेगिस्तानी इलाकों और उत्तरी भारत के उपजाऊ मैदानों के बीच एक अहम प्राकृतिक टीवर का काम करती है।

कर खनन के लिए खोल सकती है। अदालत ने 100 मीटर ऊंचाई की शर्त पर भी सवाल उठाया। उसके अनुसार राजस्थान की 12,081 पहाड़ियों में से केवल 1,048 ही इस मानक को पूरा करती हैं, जिसे हजारों पहाड़ियां पर्यावरणीय सुरक्षा से बाहर रह सकती हैं। अरावली क्षेत्र को जैव विविधता से भरपूर और पर्यावरणीय रूप से अत्यंत संवेदनशील बताते हुए अदालत ने समिति को यह जांचने का निर्देश दिया कि प्रस्तावित मानदंडों से कहीं ऐसा नुकसान तो नहीं होगा जिसकी भरपाई भविष्य में संभव न हो। **आईसीएफआरई महानिदेशक की अध्यक्षता में होगी जांच :** अदालत के मुताबिक, समिति की अध्यक्षता भारतीय वैज्ञानिकी अनुसंधान एवं शिक्षा परिषद (आईसीएफआरई) की

महानिदेशक कंचन देवी करेंगी। समिति के अन्य सदस्यों में भारतीय वन सर्वेक्षण के पूर्व महानिदेशक डॉ सुभाष आशुतोष, भारतीय भूवैज्ञानिक सर्वेक्षण के पूर्व निदेशक डॉ राजेंद्र कुमार शर्मा, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के पूर्व संयुक्त सचिव वृज मोहन सिंह राठौर, और दिल्ली विश्वविद्यालय के वनस्पति विज्ञान विभाग के पूर्व प्रमुख प्रो अशोक के भटनागर शामिल हैं। इसके अलावा भारतीय मानव भस्मिया संस्थान के प्रो जगदीश कुष्णास्वामी और केंद्रीय विवि हरियाणा के प्रो लक्ष्मीकांत शर्मा को विशेष आमंत्रित सदस्य बनाया गया है, जो जो समय-समय पर समिति से जुड़ेंगे। पर्यावरण मंत्रालय का निदेशक स्तर का एक अधिकारी सदस्य सचिव होगा। नए

आज से फिर बदलेगा मौसम, पहाड़ों पर बर्फबारी, मैदानों में आंधी-बारिश का अलर्ट

गर्मी से राहत की उम्मीद...कई क्षेत्रों में 40 से 50 किमी प्रति घंटे की रफ्तार से चलेंगी हवाएं

अमर उजाला ब्यूरो

नई दिल्ली। देश के मौसम में अगले एक सप्ताह के दौरान बड़ा बदलाव देखने को मिल सकता है। एक ओर दक्षिण-पश्चिम मानसून केरल में प्रवेश की दहलीज पर है, वहीं दूसरी ओर उत्तर-पश्चिम, मध्य, पूर्वोत्तर और दक्षिण भारत के कई हिस्सों में बारिश, आंधी, ओलावृष्टि और तेज हवाओं का दौर जारी रहने का अनुमान है। मौसम विभाग (आईएमडी) के अनुसार आने वाले दिनों में देश के अलग-अलग हिस्सों में मौसम की गतिविधियां तेज रहेंगी।

आईएमडी ने कहा है कि अगले 24 घंटों के दौरान दक्षिण-पश्चिम मानसून केरल, लक्षद्वीप और तमिलनाडु के कुछ हिस्सों में आगे बढ़ सकता है। इसके साथ ही अरब सागर और बंगाल की खाड़ी के कई क्षेत्रों में भी मानसून की प्रगति के लिए परिस्थितियां अनुकूल बनी हुई हैं। मौसम विभाग ने हिमाचल प्रदेश में 4 जून (बुधवार) के लिए कांगड़ा, मंडी, कुल्लू, चित्तौड़गढ़ और सिरमौर जिलों में ओलावृष्टि, आंधी, बिजली गिरने और तेज हवाओं का लेकर अलर्ट जारी किया है। कई क्षेत्रों में 40 से 50 किलोमीटर प्रति घंटे की रफ्तार से हवाएं चल सकती हैं। उत्तराखंड में भी मौसम सक्रिय रहेगा। उत्तरकाशी, रुद्रप्रयाग, चमोली, देहरादून और टिहरी जिलों में भारी बारिश, ओलावृष्टि और तेज हवाओं की चेतावनी दी गई है। राज्य के कई हिस्सों में भारी बारिश हो सकती है। 4,200 मीटर से अधिक ऊंचाई वाले इलाकों में बर्फबारी की संभावना भी



मुंबई में बुधवार को गरज-चमक के साथ तेज बारिश के दौरान छाया अंधेरा।

अरुणाचल में भारी बारिश-भूस्खलन, यातायात बाधित

अरुणाचल प्रदेश में भारी बारिश के कारण बुधवार को अकाजन-लिफाबाली-बामे सड़क पर कई जगह भूस्खलन और मलबा जमा हो गया, जिससे यातायात बाधित हो गया। यह सड़क लोअर सियांग, लेपराडा, वेस्ट सियांग और अपर सुबनसिरी जिलों को जोड़ने वाला महत्वपूर्ण मार्ग है। लोअर सियांग के जिला आपदा प्रबंधन अधिकारी तारिक न्यातन ने बताया कि सिजी, हाथी नल्लाह और ब्रह्मपुत्र न्यु प्वाइंट के पास सड़क अवरुद्ध हो गई थी। इसके कारण ऊपरी जिलों की ओर आने वाले वाहनों की आवाजाही प्रभावित हुई। सूचना मिलते ही जिला प्रशासन ने प्रभावित इलाकों में अर्धमूवर और खुदाई मशीनें भेजीं। मलबा हटाने का काम तेजी से किया गया और दोपहर तक सड़क पर यातायात बहाल कर दिया गया। हालांकि प्रशासन ने लोगों को सावधानी बरतने की सलाह दी है, क्योंकि लगातार बारिश के कारण फिर से भूस्खलन हो सकता है।

जताई गई है। जम्मू-कश्मीर और लद्दाख में बारिश, गरज-चमक और ओलावृष्टि की संभावना है।

पूर्वोत्तर में भारी बारिश का अलर्ट : अरुणाचल प्रदेश, असम, मेघालय, नागालैंड, मणिपुर, मिजोरम और त्रिपुरा में अगले सप्ताह तक बारिश का सिलसिला

जारी रहने की संभावना है। असम और मेघालय में 8 और 9 जून को बहुत भारी बारिश हो सकती है। अरुणाचल प्रदेश में भी कई दिनों तक भारी वर्षा का अनुमान है।

मध्य और पश्चिम भारत में भी सक्रिय रहेगा मौसम : मध्य प्रदेश, छत्तीसगढ़ और विदर्भ में गरज-चमक, तेज

राजस्थान में गर्मी बरकरार लेकिन राहत के संकेत

राजस्थान में भीषण गर्म और उमस का कहर बना हुआ है। जैसलमेर 43.7 डिग्री सेल्सियस के साथ राज्य का सबसे गर्म स्थान रहा। हालांकि मौसम विभाग ने पूर्वी और पश्चिमी राजस्थान में अगले कुछ दिनों के दौरान आंधी, गरज-चमक के साथ बारिश और ओलावृष्टि की संभावना जताई है। इससे कुछ राहत मिलने की उम्मीद है। हालांकि पश्चिमी राजस्थान में धूल भरी आंधी भी चल सकती है।

पंजाब, हरियाणा और दिल्ली में बदलेगा मौसम

पंजाब और हरियाणा में अभी गर्मी का असर बना हुआ है। हरियाणा के रोहतक में 42.1 डिग्री और पंजाब के फरीदकोट में 42.6 डिग्री सेल्सियस तापमान दर्ज किया गया। आईएमडी के अनुसार पंजाब, हरियाणा, चंडीगढ़ और दिल्ली में 4 से 6 जून के बीच गरज-चमक, बारिश और 40 से 60 किलोमीटर प्रति घंटे की रफ्तार से तेज हवाएं चल सकती हैं। दिल्ली में 4 और 5 जून को हल्की बारिश, धूल भरी आंधी और तेज हवाओं का अनुमान है, जिससे तापमान में कुछ गिरावट आ सकती है।

हवाओं और कुछ स्थानों पर ओलावृष्टि की संभावना है। पश्चिमी मध्य प्रदेश में 3 से 5 जून के बीच मौसम अधिक सक्रिय रह सकता है। महाराष्ट्र, कोंकण-गोवा, मराठवाड़ा, गुजरात, सीराष्ट्र और कच्छ में भी बारिश और तेज हवाओं का दौर जारी रहने का अनुमान है।

वैवाहिक जिम्मेदारियों से लगातार इन्कार क्रूरता, तलाक का आधार : सुप्रीम कोर्ट

कोर्ट ने कहा-अधिकारों की पूर्ति की मांग करना व कर्तव्यों का त्याग विवाह को करता है कमजोर

अमर उजाला ब्यूरो

नई दिल्ली। सुप्रीम कोर्ट ने कहा कि अगर बिना किसी उचित कारण के पति या पत्नी लंबे समय तक वैवाहिक जिम्मेदारियों से इन्कार करते हैं, जिसमें शारीरिक संबंध भी शामिल है तो इसे क्रूरता माना जाएगा और यह हिंदू विवाह अधिनियम के तहत तलाक का वैध आधार हो सकता है। जस्टिस संजय करोल और जस्टिस ऑगस्टीन

मामला 1



जॉर्ज मसीह की पीठ ने अपने एक फैसले में कह कि वैवाहिक जीवन केवल कानूनी अधिकारों का संबंध नहीं है बल्कि यह आपसी सम्मान, विश्वास, भावनात्मक सहयोग और जिम्मेदारियों पर आधारित साझेदारी है।

पीठ ने कहा है, विवाह को, उसके कानूनी और सांविधानिक आयाम में, कभी भी केवल व्यक्तिगत अधिकारों के बीच एक संविदात्मक जुड़ाव तक सीमित नहीं किया जा सकता। यह एक महंग व्यक्तित्व और सामाजिक बंधन है जो आपसी सम्मान, साझा अपेक्षाओं और समान जिम्मेदारी पर आधारित है। कोर्ट ने इस बान पर जोर दिया कि वैवाहिक अधिकार और कर्तव्य अविभाज्य हैं। पीठ ने कहा है, अधिकारों की पूर्ति की मांग करना, जबकि जानबूझकर कर्तव्यों की पवित्रता को त्याग देना, इस संस्था के मूल सार को ही कमजोर करता है।

राजस्थान हाईकोर्ट का फैसला बरकरार : शीर्ष अदालत ने राजस्थान हाईकोर्ट के उस फैसले को बरकरार रखा है जिसमें एक डॉक्टर पति को क्रूरता के आधार पर तलाक दिया गया था। पत्नी, जो पेशे से स्त्री रोग विशेषज्ञ है, ने हाईकोर्ट के निर्णय को सुप्रीम कोर्ट में चुनौती दी थी।

पति-पत्नी दोनों डॉक्टर 15 साल से रह रहे अलग

इस मामले में पति-पत्नी दोनों डॉक्टर हैं। पति राजस्थान और पत्नी गुजरात में सरकारी सेवा में कार्यरत हैं। दोनों की शादी दिसंबर 2007 में हुई थी। सुप्रीम कोर्ट ने अपने 2 जून के फैसले में कहा कि दोनों पिछले 15 वर्षों से अधिक समय से अलग रह रहे हैं और उनके कोई संतान भी नहीं है। विभिन्न न्यायिक प्रयासों के बावजूद दोनों के बीच सुलह नहीं हो सकी। ऐसे में यह स्पष्ट है कि विवाह पूरी तरह टूट चुका है।

दोनों अलग-अलग कमरों में रहते थे, नहीं था संपर्क

पति का आरोप था कि साथ रहने के दौरान भी पत्नी अलग कमरे में सोती थी, कमरे को अंदर से बंद कर लेती थी, खटखटाने के बावजूद नहीं खोलती थीं। पत्नी ने इस तथ्य से इन्कार नहीं किया कि दोनों अलग-अलग कमरों में रहते थे। सुप्रीम कोर्ट ने कहा कि भारतीय अदालतें पहले भी यह मान चुकी हैं कि शारीरिक निकटता से लगातार दूरी बनाना जीवनसाथी को भावनात्मक पीड़ा पहुंचाता है, विवाह की बुनियाद को कमजोर करता है।

विचार भिन्न, साथ रहने की संभावना नहीं : दोनों पक्षों के बीच सुलह के कई प्रयास विफल रहे और उनके विचार इतने भिन्न हो चुके हैं कि साथ रहने की कोई संभावना नहीं बची है। पीठ ने माना कि यह विवाह पूरी तरह से टूट चुका है और केवल कागजों पर अस्तित्व में है। इसलिए सुप्रीम कोर्ट ने विवाह को समाप्त कर दिया।

जब कानून के रखवाले ही उगाही करने लगें तो नागरिक संदेह से भर जाता है, तीन पुलिसकर्मियों की जमानत रद्द

नई दिल्ली। सुप्रीम कोर्ट ने कहा कि जब कानून लागू करने वाले ही उगाही करने लगें तो नागरिकों के मन में संदेह पैदा होता है और वे असमंजस में पड़ जाते हैं। इस टिप्पणी के साथ शीर्ष अदालत ने धन उगाही के मामले में तीन पुलिसकर्मियों को दी गई अग्रिम जमानत रद्द कर दी। जस्टिस संजय कुमार और जस्टिस के सिन्धु ने संदेह की पीठ ने बॉम्बे हाईकोर्ट के उस आदेश को

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रद्द कर दिया, जिसमें तीनों पुलिसकर्मियों को अग्रिम जमानत दी गई थी। शीर्ष अदालत ने हाईकोर्ट के आदेश को संक्षिप्त और अपर्याप्त बताया। पीठ ने कहा, जब कानून के रखवाले ही उगाही करने लगें तो नागरिक संदेह की नजर से देखने लगता है। ऐसी स्थिति में विरोध करने पर तत्काल प्रतिरोध का खतरा रहता है और व्यक्ति वर्दीधारी अधिकारियों के सामने झुकने को मजबूर हो जाता है, भले ही अधिकारों का स्पष्ट दुरुपयोग ही रहा हो। मामले के अनुसार, शिकायतकर्ता अपनी बेटी के साथ मुंबई से हावा दुरंत एक्सप्रेस में यात्रा कर रहा था। उन्हें विद्य करने आए उनके साले के साथ रेलवे स्टेशन पर तोड़फोड़-रोधी जांच दल के पुलिसकर्मियों ने रोक लिया। ब्यूरो

तलाशी के दौरान शिकायतकर्ता के सामान से 14 ग्राम की सोने की छड़ और 31,900 रुपये नकद मिले। आरोप है कि संतोषजनक स्पष्टीकरण देने के बावजूद पुलिसकर्मी उन्हें एक कमरे में ले गए, जहां उन्हें उगाया-धमकाया गया।

■ शिकायतकर्ता का आरोप है कि सोने की छड़ लौटाने के बदले उनसे नकदी ले ली गई। एफआईआर दर्ज होने के बाद सत्र अदालत ने आरोपियों को अग्रिम जमानत याचिका खारिज कर दी थी। हालांकि, जांच के दौरान जुटाये गए सीसीटीवी फुटेज के आधार पर बॉम्बे हाईकोर्ट ने उन्हें राहत दे दी थी।

■ हाईकोर्ट ने यह भी माना था कि फुटेज में आरोपी पहचान पत्र पहने हुए दिखाई दे रहे हैं, जबकि शिकायतकर्ता और उसकी बेटी किसी तनाव में नहीं दिख रहे थे। अदालत ने एफआईआर दर्ज कराने में हुई देरी और आरोपियों की बेदाग सेवा रिकॉर्ड का भी उल्लेख किया था।

