

Best time to buy apples in Hyderabad, prices have never been this low

Hyderabad: A sweet surprise for people in Hyderabad! The encouraging arrivals of apples this season from Kashmir and Himachal Pradesh to the twin cities has triggered a price drop, making it the best time to indulge. As a result, a good quality apple now costs Rs. 18 in the market while a dozen costs Rs. 180. The regular quality of the fruit is sold for around Rs 10 each.

M Srinivas, secretary, Batasingaram market, said everyday around 20 trucks carrying apple loads arrive at the market from Kashmir and Himachal Pradesh. The trucks also arrive at Mozamjahi Market, and Bowenpally markets. Good availability of apples has subsequently led to a drop in price. The prices will continue to be within reach of a common man until January end," said the official. A truck carries between 600 and 1,000 boxes of apples and the fruit to the city comes from Shimla, Chamba, Kahaul-Spiti, Mandi, Kinnaur and Kullu dis-

tricts of Himachal Pradesh. The Kashmir variety grown is in all districts of the valley and is sourced by the local wholesale traders. Varieties like Kulu Delicious, Kinor, Jonthon, Maharaji, BalgariaTrel, Dodhi Ambri, Chari Ambri, Walayati Amberi and Mah Ambri are grown in the valley. In Himachal Pradesh the widely grown and quality apple varieties are Royal Delicious, Dark Baron Gala, Scarlet Spur, Red Velox and Golden Delicious.

Traders point out that the pricing is basically done after sorting out the fruit from the boxes. "Depending upon the taste, size and other features, the sorting is done and price for the apples fixed," said Farooq Ahmed, a fruit trader at Mozamjahi Market. The arrival of apples in the city begins from August end when the produce from Himachal Pradesh is transported to the city. The prices are high around August and September but after October when the Kashmir



varieties start arriving the prices slowly come down. Between November and January

around 2200 trucks arrive in the city from Himachal Pradesh and Jammu & Kashmir.

Telangana faces growing health crisis as 50,000 unqualified 'doctors' spread quackery, medicine abuse



Hyderabad: Telangana State is staring at a significant public health crisis due to unchecked quackery and irrational use of antibiotics, steroids and pain killers. As the State government and its health care machinery remain silent spectators, quackery is flourishing and fuelling the abuse of medicines that should otherwise be prescribed by a qualified MBBS degree holder. The State Public Health Wing, especially the District Health and Medical Officers (DM&HO), under Clinical Establishment Act, have special powers to take action on unqualified medical practitioners. However, according to the estimates from Telangana State Medical Council, there are anywhere between 50,000 and 53, 000 Unqualified Medical Practitioners, who practice allopathy without MBBS

degree. In Hyderabad alone, by rough estimates, there could be over 10,000 such unqualified individuals who are illegally practicing allopathy without a qualification.

While the DM&HOs have shied away from taking action on quacks, it is Telangana State Medical Council and TS Drug Control Administration (TSDCA), which have been actively involved in identifying such persons. Over the last few months, the DCA has seized significant stocks of antibiotics, steroids and painkillers and initiating legal action on them. "Quackery is a major challenge for public health system in Telangana. We have observed large number of patients, especially from districts who come to NIMS, OGH and Gandhi Hospital with resistance to high-end antibiotics. The reason is the

practice of irrational and unscientific use of antibiotics, steroids and pain killers etc by quacks on vulnerable patients," says vice-chairman, Telangana State Medical Council, Dr G Srinivas. Non-availability of doctors A major reason why people, especially in villages and districts still visit quacks is non-availability of doctors. Based on available data, Telangana State has close to 5, 500 sub-centres with each facility covering at least 2 to 3 villages. However, there are no qualified doctors (medical officers), nursing staff, pharmacists and related medical infrastructure at the sub-centre level.

"Medical officers and other staff must be available to people in districts 24x7. That's why Kerala model of public health is

far ahead that ours because of availability of qualified health care workers at the primary health care level," says Dr Srinivas. Apart from the sub-centres, there is a requirement for 30 percent increase in the number of Primary Health Centres (PHCs) and 50 percent additional Community Health Centres (CHCs), with proper manpower allocation i.e. each additional facility must have doctors and nursing staff round the clock to take care of the patients. "The argument that doctors are unwilling to accept positions in districts or rural areas is totally false. Recently, while recruiting 600 medical officers posts at PHCs in Telangana State, for one single post, at least 10 doctors had applied. The best way to deal with quacks is to improve accessibility of doctors," says Dr Srinivas.

Hyderabad's Osmania Medical College doctors win RBI90 quiz zonal round, advance to national finals

Hyderabad: Young doctors from Osmania Medical College (OMC), Hyderabad, Syed Mohammad Hashmi and Hussain Ahmed have emerged victorious in the second zonal round of the RBI90 Quiz, organised by Reserve Bank of India (RBI) in Kochi. The win in the zonal round secures the OMC doctors a place in the national round of RBI90 Quiz, to be held on December 6, 2024 in Mumbai. The teams from PES University, Karnataka and Mar Ivanois College, Kerala, secured the second and third places, respectively in the zonal round. The top three teams won prizes of Rs 5 lakh, Rs 4 lakh,

and Rs 3 lakh, respectively. The RBI is conducting the RBI90 Quiz nationwide for undergraduate students as part of the ongoing celebrations commemorating 90 years of the Reserve Bank. Speaking on the occasion, R.S Ratho, ED, RBI said that the RBI90 Quiz was a key initiative taken to mark 90 years of the RBI, with the objective of engaging with undergraduate students who are future professionals and decision-makers. He also highlighted the importance of financial literacy and drew attention to various steps taken by RBI to promote financial awareness among the student community.

Using the body's own defences to fight cancer: new research offers a clue from COVID-19

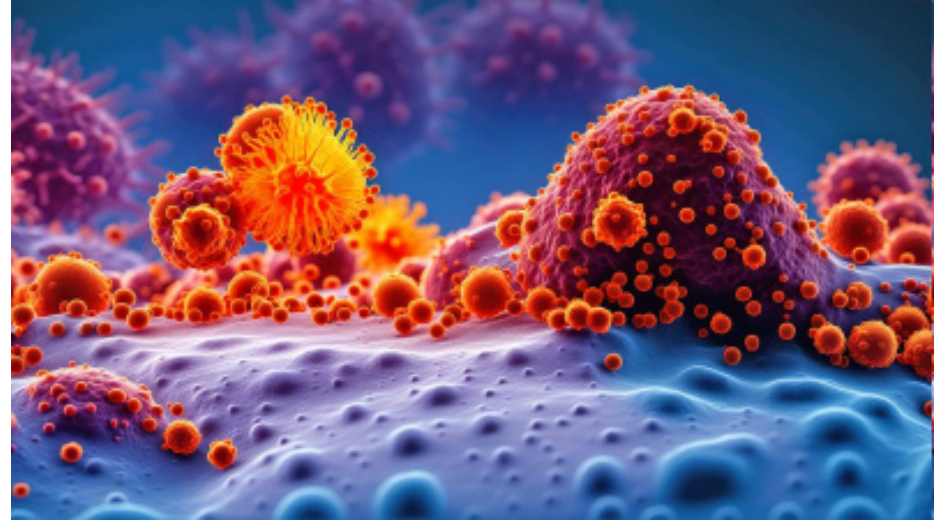
Cancer, often called the “emperor of all maladies,” remains a formidable adversary despite decades of scientific progress. However, research in recent years has brought us closer to unlocking new ways to combat it. A study from Northwestern University in Chicago, published in the November issue of *The Journal of Clinical Investigation*, has gained attention for discovering that white blood cells activated by severe COVID-19 demonstrate cancer-fighting abilities. Working with laboratory mice, researchers showed that the spread of cancer, also known as metastasis, could be slowed by a specialised type of white blood cell called induced non-classical monocytes (I-NCMs). These cells can be generated through severe infections like COVID-19 or by using certain chemicals. Once activated, I-NCMs are able to leave blood vessels and migrate to tumours, where they launch an attack on cancer cells. COVID-19 is known to cause worse outcomes for older individuals and those weakened by ailments including cancer. However, there are rare reports of cancer going into remission (absence of disease) following COVID-19. A 2023 study by De Nigris and colleagues in the *Journal of Translational Medicine* described 16 such cases involving different types of cancer, including leukemia, lymphoma, myeloma, and kidney cancer. However, it is unclear if these outcomes were directly caused by COVID-19 or were part of the natural progression of the disease. This raises the question: Can cancers go away on their own? While extremely rare, the answer is yes. The most well-studied example is neuroblastoma, a rare childhood tumour that occasionally disappears without treatment. Such spontaneous improvement may be due to a newly-activated immune system gaining the ability to target cancer cells.

Broadly speaking, cancer is a rogue colony of body cells that grow uncontrollably, feed on the body's resources, and spread to other parts of the body through the bloodstream. Cancer cells often reprogramme the body's immune system to protect themselves from detection and destruction, much like a thief bribing a security guard to look the other way. Immunotherapy aims to overcome these defences by empowering the body's immune cells to fight back. The Northwestern University research showed that injecting a specific type of white blood cell, I-NCMs, into mice was effective in combatting cancer metastasis.

I-NCMs are derived from monocytes which circulate in the bloodstream. Monocytes are involved with fighting off infections, immune regulation and repairing damaged tissue. When exposed to certain bacterial or viral infections or chemicals, a small number of these monocytes transform into I-NCMs. If white blood cells represent all adults in a town and monocytes are those who made it to military selection, think of I-NCM's as the select few from the military who qualified for a specialised commando unit. Unlike regular monocytes, I-NCMs possess a unique receptor, CCR2, which acts like a specialised antenna to detect signals emitted by certain types of cancer cells or inflamed tissues. These signals guide I-NCMs to the source, where they perform specific tasks. For example, at an infection site, they help eliminate pathogens. At a tumour site,

they recruit other immune cells called natural killer (NK) cells, which are effective at destroying cancer cells. Natural killer cells are a vital component of the immune system, directly targeting and eliminating abnormal-appearing cells, such as cancer cells or virus-infected cells. Unlike T cells and B cells, natural killer cells do not require prior approval from the body's adaptive immune system. This ability to act swiftly and assertively makes them a critical part of the body's innate immunity. They work as frontline defenders against infections and cancer. The Northwestern University study found that I-NCMs play a crucial role in summoning these NK cells to tumour sites. So, how can these specialised I-NCMs be generated? The researchers discovered that infections like COVID-19, caused by the SARS-CoV-2 virus, can trigger their formation. However, this does not mean that all COVID-19 patients will experience improvements in cancer outcomes. Bacterial products like peptidoglycans and NOD2 agonists such as MDP (muramyl dipeptide) analogues can also be used to convert regular monocytes to I-NCM's.

The idea of using the immune system to fight cancer is not new. In the late 19th century, William Coley, a surgeon at Memorial Hospital in the United States, observed that some cancer patients who developed bacterial infections showed better outcomes. He injected bacterial toxins into cancer patients and found that it helped to prevent cancer recurrence after surgery. These “Coley's toxins” were used until the mid-20th century, eventually giving way to treatments such as chemotherapy and radiation. Although Dr. Coley's work fell out of favour, it laid the foundation for modern immunotherapy, which has seen remarkable success in select patients. A groundbreaking study published in *The New England Journal of Medicine* in 2022 by Cersek et al. demonstrated this potential. In the study, carefully-selected patients with rectal cancer achieved complete remission—without surgery—using an immune checkpoint inhibitor. These are agents that remove the checkpoints or brakes on T cells that were preventing them from recognising cancer cells. Once the T cells are able to recognise cancer cells, they go on to destroy them. The key to the success of immune checkpoint inhibitors in rectal cancer lay in the specific characteristics of the patients' tumours. These patients had locally advanced mismatch repair-deficient (dMMR) rectal cancer, a condition where the tumour's DNA repair mechanism is impaired. This impairment leads to the accumulation of numerous DNA errors or mutations, resulting in the production of abnormal proteins that are readily recognisable to the immune system. This baseline handicap made these tumours vulnerable to immunotherapy. Another form of immunotherapy is the use of CAR-T where the patient's own T cells are reprogrammed in the lab and reintroduced into the body to attack the cancer. This is used in certain blood cancers like leukaemia and lymphoma. Not all cancers respond to immunotherapy, and even when treatments show initial success, cancer cells can adapt and develop resistance. Factors such as the tumor microenvironment, the number of mutations, and PD-L1 expression, play a role in determining the



effectiveness of immune checkpoint inhibitors. Similarly, attempts to generate non-classical monocytes (I-NCMs) using chemicals like MDP analogues, such as mifamurtide, have shown limited success when tried in actual cancer patients. Complete remission remains elusive. At present, mifamurtide is approved only as an additional therapy for a rare type of bone cancer in children and young adults, showcasing its limited scope. The Northwestern University

study highlights the potential of using I-NCMs in treating cancer metastasis, independent of adaptive components of the immune system like T cells and B cells. If these findings can be replicated in humans, they could add a new dimension to cancer treatment. While we are still far from a universal cure for cancer, this research offers a glimpse into a future where the body's own defences could be effectively harnessed to fight one of humanity's greatest challenges

Good sleep linked to healthy aging: Study



New Delhi: A team of Chinese researchers found that healthy and successful ageing is determined by sleep patterns. The team from Wenzhou Medical University in China defined successful ageing, as the absence of major chronic diseases such as diabetes, cancer, chronic lung diseases, heart disease, and stroke; having good cognitive and mental health; and with no physical impairments. The study called for maintaining stable and adequate sleep durations to promote healthy ageing. “The findings underscore the critical importance of monitoring dynamic changes in sleep duration in middle-aged and older adults,” said the team in the paper, published in the journal *BMC Public Health*. In the study, the team analysed 3,306 participants who were free of major chronic diseases in 2011 and had

reached age 60 or older by 2020. The team combined nighttime sleep and daytime naps to calculate total daily sleep hours in 2011, 2013, and 2015. The researchers identified five distinct sleep duration trajectories: normal-stable (26.1 per cent of participants), long-stable (26.7 per cent), decreasing (7.3 per cent), increasing (13.7 per cent), and short-stable (26.2 per cent). People with increasing and short stable sleep trajectories exhibited significantly lower odds of successful ageing. The decreasing sleep pattern also showed reduced odds. Overall, just 13.8 per cent of the cohort met the definition of successful ageing by 2020. The team found that regular shorter and longer sleep durations may hamper successful ageing, as it can disrupt physiological and psychological well-being.

Understanding why chemotherapy is a lifeline in cancer care

On November 13, at a government hospital in Tamil Nadu, the son of a woman who was receiving chemotherapy for Hodgkin Lymphoma, stabbed her doctor, disturbed by the suffering that his mother was undergoing. Notably, the family had been to other hospitals and were advised everywhere that one of the side effects of the chemotherapy the woman was undergoing would affect her lungs. As his mother found it difficult to breathe, her son decided to attack the doctor who was offering her the treatment. Cancer is one of the leading causes of death in India and the world. India registers over 1.4 million new cancer cases annually as per the national cancer registry, and the numbers are expected to rise due to ageing populations, lifestyle changes, and environmental factors. Common cancers in India include those of the breast, lung, cervix, and stomach, with tobacco use contributing significantly to oral and lung cancers. Cancer is not a single disease but a term used for various illnesses, just like the word "vehicle" can refer to cars, trains, or planes. Similarly, cancers can vary greatly depending on the type, location, and their behaviour in the body. It is a disease caused by a breakdown in the body's normal processes that control how cells grow, divide, and develop into specialized types. Cancer cells that have undergone abnormal changes (known as neoplastic transformation), often display markers on their surfaces that resemble those found in immature or foetal cells. These cells may also show chromosomal abnormalities like structural rearrangements (translocations). Research has shown that within a tumour, there is often a small group of cells called tumour stem cells. These cells can multiply repeatedly and may contribute to the growth and spread of cancer.

What is chemotherapy?

Treating cancer usually requires one or more of three main approaches: surgery, radiotherapy, and chemotherapy. Surgery involves removing the tumour from the body through surgery. Radiotherapy uses high-energy rays to target and destroy cancer cells. Chemotherapy, which means chemical therapy, refers to using medicines to treat cancer, targeting cells that grow and divide quickly. While each of these treatments can work alone in some cases, they are often used in combination depending on the type of cancer and how far it has spread. Based on this understanding, chemotherapy is designed to disrupt the cell cycle. By targeting specific stages of the cycle, chemotherapy drugs aim to stop cancer cells from growing and dividing. Cancer cells grow through a sequence called the cell cycle, which consists of phases where the cell grows, duplicates its DNA, and divides. Cancer cells divide uncontrollably, unlike healthy cells, making them particularly vulnerable to treatments that interfere with DNA replication or cell division. Chemotherapy drugs target specific stages of this cycle. Some drugs disrupt DNA synthesis during the 'S' phase; others prevent cell division in the 'M' phase, while certain drugs attack cancer cells regardless of stage, making them versatile tools in cancer therapy.

How is it delivered?

Chemotherapeutic agents are administered through different routes, including oral pills, intravenous infusions, or injections into the tumour site. Depending on the cancer's stage and type, chemotherapy can serve as the main treatment. Primary chemotherapy means that chemotherapy is the main treatment used to fight cancer, especially in blood cancers like leukaemia or lymphoma, where other treatments like surgery or radiation are not as effective. On the other hand, neoadjuvant chemotherapy means it plays a supportive role with other therapies like surgery or radiation. Chemotherapy, while effective, faces challenges like drug resistance and toxicity that necessitate careful planning and management. Drug resistance occurs when cancer cells adapt to evade the effects of chemotherapy, either by mutating, repairing damage more effectively, or expelling the drugs. To combat resistance, combination therapy is often employed, using multiple drugs with different mechanisms of action to target cancer cells. The key principles of combination therapy include balancing efficacy and toxicity, ensuring optimum scheduling to maximise impact during sensitive phases of the cancer cell cycles. The complications of chemotherapy range from acute toxicities like nausea, vomiting, and immune suppression to delayed toxicities such as pulmonary fibrosis, organ damage, or secondary cancers. These side effects can significantly affect the patient's quality of life.

Why does chemotherapy cause side effects?

All cancer treatments—surgery, radiotherapy, and chemotherapy—have side effects because they do not exclusively target cancer cells. Chemotherapy is a form of systemic cancer treatment, meaning it travels through the bloodstream to attack cancer



cells throughout the body. Since some healthy cells -- such as those in the hair follicles, bone marrow, and digestive tract -- also divide quickly, and since chemotherapy drugs exploit the rapid division of cancer cells, these healthy cells can be inadvertently harmed, leading to side effects. The inability of chemotherapeutic agents to differentiate between cancerous and healthy rapidly dividing cells leads to its most common side effects. Damage to hair follicle cells results in hair loss, while suppression of bone marrow activity reduces red blood cell production, leading to fatigue. The gastrointestinal lining is also affected, causing nausea and vomiting, and the immune system becomes compromised due to decreased white blood cell production, increasing susceptibility to infections. Anti-nausea (vomiting) medications, growth factors to stimulate white blood cell production, and improved drug formulations have significantly reduced the treatment's impact on healthy cells, making it more tolerable for patients. Innovations in chemotherapy have led to improved safety,

efficacy, and precision. Advances in targeted drug delivery, such as liposomal formulations, ensure that chemotherapy drugs attack cancer cells while sparing healthy tissue. Pharmacogenomics tailors chemotherapy regimens based on a patient's genetic makeup, enhancing treatment effectiveness and minimising side effects. While chemotherapy may be feared for its side effects, its role in saving lives cannot be overstated. With ongoing advancements in drug design, delivery methods, and supportive care, chemotherapy continues to evolve as a more precise and effective treatment. Chemotherapy plays a critical role in managing the growing epidemic of cancer. Despite its reputation for severe side effects, chemotherapy remains an essential treatment modality, especially for cancers that cannot be addressed by surgery or radiation.

While innovations such as immunotherapy and precision medicine are gaining attention, chemotherapy remains a primary line of defence.

Are You in a Reading Race?

I look at my reading stats on the Goodreads app. And find myself in a reading race. Two days later, I finish *Never* by Ken Follett and head for my app to update my books tracker. After that I read a YA book called *Almond* with a sense of triumph – I'm now at 94!! notice many of my reader friends are also in reading races. "I can't read *Nexus* by Yuval Noah Harari, it's too long. I need novellas to hit this year's reading target" says a friend. Huge numbers of books are being published every day and we now have access to them all. The new Sally Rooney, the new Amor Towles, the new Richard Osman, the new Manu Pillai, the new Malcolm Gladwell...the list is limitless. Then there are the literary prizes – the Booker, the Pulitzer, the Nobel, the Woman's prize, the JCB, the Lit Live, the Crossword Awards etc. Each prize produces a much anticipated long list. After which there is a splashy shortlist and then finally the winner. The prize committee stagger their longlists and shortlists to heighten the suspense and to give us time to read the list. It's hard to resist this temptation - but what a lot of reading it is – and all of this to a deadline. Other reading deadlines come from our favourite communities – the

book clubs. And there are many of these - the celebrity book clubs, the online book clubs, the offline book groups, reading communities like Gurgaon Reads or Juhu Reads that are mushrooming in every city. These are fabulous - and much needed, they provide bonding over books and the rituals of community that modern life so lacks. Yet each book club demands its own reading. And then there are the booklists – 'The Best Books of 2024', 'The 100 Must Read Books of 2024', 'Authors pick the best books of 2024' and so on...we love lists but oh my God the pressure they can bring. And finally the TBR – our very own to-be-read book list. What could be an exciting list of books becomes a dead weight, a burdensome (and burgeoning) list of the books we should have already read. When I was growing up in Jamshedpur we had a limited supply of books -we borrowed from each other or from the library. We were perpetually starved of print, reduced to reading encyclopaedias and old news on paper bags we picked up from the kirana store. In all my years as a reader, the only place I encountered a TBR was in a school syllabus – for the rest, you read whatever was available.

And when you had run through everything around you, you re-read. You read *A Secret Island* by Enid Blyton and *Circus Shoes* by Noel Streatfeild ten times, and *The Thorn Birds* and *Pride and Prejudice* many more times. I wonder whether we can go back to a slower way of reading, to reading fewer books and being able to absorb and imbibe them better. Can we simply set aside the FOMO of not having read the latest prize winner? And curl up into the cosy comfort of re-reading a favourite book - so stories sink in and marinate in our minds? 1.

I will try not to be too influenced by the hype around recently published books – in fact I will alternate every new book I read with a book published at least 5 years ago. 2. I will re-read – at least one book every month. 3. I will resist the urge to finish every book I pick up – if I am not enjoying it by page 40 I will give it up. 4. I will stop tracking my books on Good Reads and move to a reading journal where I will note the books I read, but I will not number them. What about you dear Reader? Do you believe in reading targets? Does your TBR feel like a pleasure or is it a pressure? Do write in with suggestions and recommendations.

At his best, Gukesh plays only the best moves — just like a chess engine: Daniil Dubov

Daniil Dubov won the 2018 World Rapid Chess Championship against a field that included Magnus Carlsen and Hikaru Nakamura. The Russian prodigy, who became a Grandmaster at 14, has also worked as Carlsen's second for two World Championship matches. Excerpts from an interview Dubov gave *The Hindu* at Kolkata, during the Tata Steel Chess India tournament: You were Magnus Carlsen's second for two World Championship matches, in 2018 and 2021. How do you look at the upcoming title match between Ding Liren and D. Gukesh? This will be somewhat a strange experience for me, as I was part of the last three World title matches in different capacities. In 2018 and 2021, I worked as Magnus' second. And at the last World Championship, I was commentating for the official broadcaster. But this time, I will be following the match from the couch. I want Gukesh and Ding to fight. I don't want the match to be over with three games to go, or something like that. Yes, I think Gukesh is the favourite, but not to the extent some people seem to believe.

Why do you think Gukesh starts as the favourite? Is it because of his form and Ding's lack of form?

Gukesh has been the better player over the last two years. Why wouldn't he over the next two weeks? It has to be said that matches [a series of games] are generally different, and I think, sometimes, even when you are better, there are certain opponents who are probably not as good as you, but they are really tough to crack.

What do you like about Gukesh's chess?

I like that when he is at his best, he plays only the best moves — just like a chess engine. He plays the way that is sort of difficult to explain. Very often he plays moves that have nothing in common. It is like there is no basic idea behind them, but they are all the best moves still. I mean that is the feeling that you normally get from the engine. Like, one move on that side, then another move on that side. I mean like five random moves, and then suddenly the engine is winning. That is the same with Gukesh. When Magnus is playing, the move seems more human to me. That is, I can see the idea behind the moves. With Magnus, you always get the logic. Sometimes you guess all his moves, but still you lose. He makes it look simple. Gukesh is exactly the opposite. We are going through some tipping point in chess history, I feel. If Gukesh becomes the World champion, my mind realises that it is well deserved — he is almost 2800 [in Elo rating] and beating everyone — and still my soul refuses to accept that this little boy is 18. Chess is getting younger. Garry Kasparov was 22 when he won the World Championship. Before that, Mikhail Tal was 23. Gukesh perfectly embodies everything that chess is going through. How do you look back at your time with Carlsen as his second, for his matches against Fabiano Caruana and then Ian Nepomniachtchi? Magnus had a team of four to five people, and we would basically have to prepare some opening ideas. I was one of the people responsible for making his openings better. I apparently was doing my job

well, as I was invited for a second time. I was helping with openings that had been a part of my repertoire for many years, like the Catalan obviously. For the match against Caruana, the Sveshnikov and Rossolimo [variations in Sicilian Defence] were also coming from me. It kind of makes sense. Magnus wants to learn from the people who are doing it for their whole life.

How important do you think the role of the seconds is in a World title match?

I think seconds used to be way more important previously. Now we all have the same engines, and there is basically no room for, say, brain competition, you know. When I worked for Magnus, especially the first term, it used to be completely different. You could analyse a certain position for two weeks, and still you wouldn't be sure if it is good or bad for you. A few Russian players criticised you for helping Carlsen against Nepomniachtchi, a Russian. And you replied then that working with Carlsen would help you as a player because of which Russian chess could benefit. Yes and only a couple of players [were critical], really. The rest were supporting me. I was glad to take up the offer from Magnus. There was no downside to it. You basically get paid for working in the best team on Planet Earth with the best player in history. I would be happy doing it for free.

And what did you learn from working with Carlsen? I have learned a lot, but it is hard to specify, like I learned these five things. It was generally the way he looks at chess, the way he prepares or chooses openings... For the rest of the people, it is probably a bit more mysterious why he is playing this opening against a certain opponent, and then he plays another one against another guy. But I started to get his general take on chess, and the preparation... It is not that I agree on everything. How did you find playing at the Tata Steel Chess India tournament here in Kolkata, at the Dhono Dhanyo Auditorium, in front of capacity crowds? It is always pleasant to see so many people in the audience. Sometimes it can cause some lack of comfort for players, but looking at the larger picture, I like it. It inspires me way more than prevents me from making a particular move. It is not my first time in India, but it is my first time playing in India actually. It is impressive. There is this old saying about the Soviet Union that every random guy plays better than you when you come to the USSR. You can say the same about India now. It feels like everybody plays chess pretty well. Yes, India is like what the USSR used to be, chess-wise, that is.

Are you surprised by the speed with which Indian chess has moved ahead?

Not at all. I remember saying it aloud in Russia five or six years ago that India was going to sort of overtake us, and that their juniors would be better because I know the way they work and what conditions they are given to work. I was saying in Russia we either need to provide the same kind of conditions for our best juniors or we would be overtaken. So there is no surprise for me here. There is, of course, Vishy, first of all. His role has been very, very big. Are you happy with the way your career has progressed, especially after winning the World



Rapid Championship in 2018? No. It could have been better. But when I was at my best, COVID happened. Then the war happened.

I cannot play in events like the Olympiad, but that is fine, I have no worries. If people stop dying, I will be happy.

Around a bonfire, the eternal debate over rebirth

On a crisp cold evening in Mussoorie recently, as we sat around a roaring bonfire, the conversation turned to the question of rebirth. There were those who were convinced that rebirth is an unquestioned reality. There were others who rejected the possibility outright. And, as always, there were the fence sitters, who either had no views, or were willing to go with both extremes. The proponents of rebirth argue the theory of karma, which is a widespread belief, not only relevant in Hinduism but in some other faiths as well. Depending on your deeds in your past life, you reap the rewards in the present one; and as you act in this one, will determine how you will fare in the next one. They said that this human life, governed by certain definitions of good and bad, cannot be just a random happenstance. Someone is keeping an account, and will hand out the dividends, if not in your current incarnation, then in the next. They also cited some cases where living people actually remembered accurate factual details of their past lives: who they were, where they were born, what they did, and in what circumstances they died. Their accounts, the believers said, were tested, by taking them to places and people who they vividly recalled, and they were proven right. None could cite more than one or two examples, and were unsure or hazy about names, but the stories as told sounded quite dramatic. In the Hindu faith, the Bhagwad Gita says that death is but a transient experience, where the physical body perishes, but the soul survives, and moves on. The soul is eternal, imperishable, and indestructible. Like a person changing one set of clothes for another, rebirth is just another version of the same soul in a new form. But there is another interpretation of this well-known shloka from the Gita. In the Advaita school of Hindu philosophy, which is derived from the Upanishads, nothing exists except consciousness. The Upanishads call it Brahman. This consciousness pervades the cos-

mos. It is omnipotent, omnipresent, omniscient, and nirguna or attribute-less. It was never born, never dies, never was not, and never will not be. In us, this Brahman exists as our Atman. It is this Atman that does not die. After death it is merely released from the captivity of its physical body, and merges with the Brahman. Where then does the question of physical rebirth arise? Of course, at the saguna-leela level of divinity, Hindus believe in reincarnation. Ram and Krishna were avatars of Vishnu. And, there are stories galore of similar avatars in our Puranas and mythology. But Shiva, supposed to be the very symbol of Brahman, is ajanman, unborn. He, like Brahman, always was, and will always be, beyond birth and rebirth. Buddhism too is supposed to believe in karma and rebirth. But in my view, this is a human distortion of what the Buddha actually taught. Buddhism differs from Hindu philosophy by stating that there is nothing like an enduring Brahman or Atman. In this non-self (anatta), what exists is only the rupa (body) and the nama (mind).

All is inherently nairatmaya (unsubstantial), and all experience is kshana bhanga vada (a series of impressions, conceived and extinguished in the same instance). Nirvana, is the realisation of the emptiness of the notion of self, a process of blowing out and extinguishing oneself from the shackles of the web of life: samsara. This Nirvana is to be achieved in this life, because after we die, we merge into the nothingness that we always were. Christians believe in the Resurrection of Jesus Christ after his crucifixion on Good Friday. Two days later, occurred the Resurrection, celebrated as Easter. This seems to give validity to the theory of rebirth, and Christians widely believe that it is the truth. But whether it was applicable only to Christ, as God, or to ordinary human beings is a matter of debate among Christian theologians.

A rinderpest outbreak devastated the gaur population of Mudumalai in 1968

In 1968, a deadly outbreak of rinderpest, a highly contagious viral disease, also known as cattle plague, swept through the Mudumalai Wildlife Sanctuary in Tamil Nadu. The outbreak devastated the sanctuary's gaur population, killing dozens of these majestic wild cattle native to the Western Ghats. Rinderpest primarily affects cattle, buffaloes, and certain wild ruminants. It spreads rapidly through direct contact with infected animals and contaminated environments. It is marked by symptoms such as high fever, nasal discharge, and diarrhoea. By the summer of 1968, rinderpest started affecting the wildlife of Mudumalai, which was home to large populations of gaurs, elephants, and other species. The disease was particularly devastating to the wild herbivores of the sanctuary. The outbreak quickly worsened from isolated cases to an epidemic that killed over 100 buffaloes and at least 40 gaurs by mid-August. Steady spread

As D. Pattabiraman, a retired Director of Animal Husbandry, explained in *The Hindu* in 1965, rinderpest is a disease that spreads in a steady, gradual manner, with death occurring over two to three weeks. Its impact on livestock was so severe that it led to the formation of the India Cattle Plague Commission as early as 1869, tasked with finding ways to protect the livestock. By the early 20th Century, the rinderpest mortality figures were staggering. Pattabiraman noted that over 1,50,000 head of cattle succumbed to the disease during 1908-1909, and similar figures were reported during 1918-1919 and 1928-1929. The disease's cyclical nature — flaring up roughly every decade — showed its potential to wreak havoc on the cattle population. However, significant progress was made in controlling rinderpest after compulsory inoculation was introduced in 1929. This method became widely accepted after people witnessed its success in preventing the disease, despite the difficulty in securing the vaccines. Yet, as the Mudumalai outbreak in 1968 demonstrated, the challenge remained particularly acute for wild ruminants. While domestic cattle populations had been better protected, thanks to government-led vaccination programmes, wild populations like the gaurs in Mudumalai were not so fortunate. In fact, Pattabiraman's report highlighted that rinderpest remained a persistent threat to both domestic and wild herds in India, with a devastating effect in unprotected areas. M. Krishnan's concerns For M. Krishnan, one of India's leading naturalists, the outbreak was deeply troubling. He had spent years observing the wildlife of Mudumalai and was familiar with the sanctuary's ecosystem. He had long called for stronger measures to manage wildlife habitats, especially measures against the threat posed by diseases that could spread from domestic animals to wildlife. His concerns about the dangers posed by domestic cattle to wild animals were recorded by historian Ramachandra Guha in his book *Speaking with Nature: The Origins of Indian Environmentalism*. In his profile of Krishnan, Guha captured the naturalist's worries about how the presence of domestic cattle — particularly in sanctuaries like Mudumalai — posed a serious threat to wild herbivores, exposing them to devastating diseases. Krishnan had first raised the alarm

in 1966 when the foot-and-mouth disease spread from cattle to wild herbivores in the sanctuary. He urged the authorities to ban cattle from the preserve. His advice, however, went unheeded, and the rinderpest outbreak in 1968 served as a painful vindication of his concerns. In the aftermath, Krishnan lamented the tragic loss of the gaurs, a species he had long admired, and noted how domestic cattle not only served as disease vectors but also competed with wild herbivores for resources. He emphasised the need for stricter controls on cattle in protected areas. His observations contributed to a broader understanding of the challenges faced by wildlife sanctuaries in India. The outbreak had severe consequences not only for the gaurs but also for the entire ecosystem of Mudumalai. As large herbivores, gaurs play a vital role in shaping the vegetation of the forest. By browsing on grasses and shrubs, they help to maintain the landscape and prevent the overgrowth of certain plants. Their decline disrupted the food chain, affecting smaller herbivores that relied on similar vegetation. With fewer gaurs, certain types of grasses flourished, altering the plant community and further impacting the balance of the sanctuary's ecosystem. The decline of this important species also affected the predators and scav-



engers that relied on gaurs as prey. Response The wildlife officers of Mudumalai worked to contain the spread of the disease. Forest Department workers searched for carcasses and disposed them of quickly to prevent further contamination. However, in the absence of the resources or scientific knowledge to combat rinderpest in wild animals, their efforts were limited. As E.R.C. Davidar, naturalist and wildlife conservationist, noted in *The Hindu* on November 10, 1968, the outbreak exposed the

serious weaknesses in India's wildlife management policies. He said that while more sanctuaries were being created, few had the proper infrastructure or scientific support to manage emergencies. He advocated for a more proactive approach towards wildlife management, organised responses to epidemics, and better integration of veterinary care for wild species. He also highlighted the importance of creating stronger boundaries for sanctuaries to prevent the spread of diseases from domestic animals.

Battle Of The Bulge: Are semaglutides the answer?

While each of us should aim to be fit as a fiddle, how we achieve our fitness goals is the real question. With Ozempic and Wegovy becoming a global rage, here's what experts have to say about using semaglutides for weight loss. Formulated to manage blood sugar levels in type-2 diabetics, Ozempic is the new buzzword. It is a semaglutide subcutaneous injection that has caught the fancy of celebs and influencers for its rapid weight-loss properties.

Hyderabad: In the winter of 1944, Nazi Germany unleashed its final major offensive to stop the Allied forces from using the strategic Belgian port of Antwerp and to split enemy lines. It was called The Battle of The Bulge — a key turning point in World War II. Today, our world is living through two major wars — Russia-Ukraine and Israel-Gaza-Lebanon. And, it is on the brink of a full-blown escalation that many fear may manifest in World War III. While top diplomats, leaders of State and geopolitical analysts are yet again in a huddle to save humankind, this time from ballistic missiles and drones, another 'Battle of The Bulge' is ensuing far, far away from the frontlines — in the glistening urban landscapes where vanity is up against wellness and cosmetic against health in the race to look like a million bucks.

With every passing day, as lifestyle changes for the worse — blame it on technology, sedentary work culture, lack of discipline or arrogance — our world is spending every waking moment fighting OBESITY. According to a recent study published in *Lancet*, 70 per cent of India's urban population is obese, which puts the country in the midst

of a global obesity crisis. More than one billion people worldwide are obese, which makes them prone to several diseases such as heart ailments, diabetes and cancer, the study states. While each of us should aim to be fit as a fiddle, how we achieve our fitness goals is the real question. Today, many believe that the wait to rid ourselves of weight has ended. Enter Ozempic and Wegovy!

Formulated to manage blood sugar levels in type-2 diabetics, Ozempic is the new buzzword. It is a semaglutide subcutaneous injection that has caught the fancy of celebs and influencers for its rapid weight-loss properties. With many in the West — notably Elon Musk and Oprah Winfrey — drastically shedding those pounds due the injectable, it's being touted as a 'miracle drug', a 'gamechanger'. The drug has become an internet sensation; people are jabbing themselves with it even if it is just to lose those last few extra kilos. Drugs with semaglutide as their active ingredient trick your brain into making you feel full. They mimic the role of Glucagon-like Peptide-1 (GLP-1), which is a hormone that is secreted when we eat. It signals the body that there's food entering and to get ready to convert the nutrients into energy. Drugs like Ozempic do just that — they suppress appetite and induce satiety.

The success of Ozempic in terms of attaining weight loss has been such that drug maker Novo Nordisk came out with Wegovy — another semaglutide injection that it markets purely as a weight-loss drug. While these two are not yet available in India, people either import them or procure them from the grey market, wherein they run the

risk of using counterfeit products. "Ozempic, which is a Type-2 diabetes medicine and also used off-label for weight loss, and Wegovy, the first USFDA-approved medicine for weight management, are both semaglutide injection products from Novo Nordisk. These may be imported for personal use by submitting an application in Form 12A to the Central Drugs Standard Control Organisation (CDSCO) and obtaining permission in Form 12B from the CDSCO. However, the instances of Ozempic injections being sold in the grey market were detected by the Drugs Control Administration, Telangana. Stocks of Ozempic were seized at a medical shop in Nampally, Asha Medical Hall, in September 2023. A case was filed against the offenders," says VB Kamalasan Reddy, Director General of Telangana State Drugs Control Administration (TSDCA).

These come at a steep price. A month's supply can set you back by over Rs 80,000, according to reports. For example, Ozempic has to be taken weekly once, with each dose, if imported, costing around Rs 20,000. Meanwhile, manufacturer Novo Nordisk sells the same semaglutide medication for type-2 diabetics in a pill form in the country under the brand name Rybelsus, which needs to be taken every day. A Rybelsus strip of 10 costs around Rs 3,000, each pill costing Rs 300. But experts warn that semaglutides are not for all. "All drugs come with side effects. Weight loss is a side effect of Ozempic, which has gained prominence. If one has to take a weight loss drug, it has to be done under strict medical supervision by a doctor.

Clearing the air on Delhi's pollution crisis

Since 1984, when M.C. Mehta filed a public interest litigation petition, there has been a flurry of activity to combat air pollution beginning in October and then a long lull. A lot has been achieved, but the growing economy and population have outpaced these measures. This is not unique to Delhi. Los Angeles established its air pollution control programme in 1947 and currently remains among the worst in the U.S., both for PM 2.5 and ozone. The lesson is that urban toxicity is a 'wicked problem' where the problem itself is debated and requires long-term measures. The National Green Tribunal (NGT) began the process of taking a new look at an old problem by asking the government to list the causes of air pollution. However, the National Clean Air Programme, launched in 2019 with its "collaborative and participatory approach," focus on monitoring, set targets, emergency measures, and inclusion of international organisations, has made minimal impact.

The Supreme Court held the right to a clean environment and good health is an inherent part of the fundamental right to life and personal liberty. This is the context of judicial review moving from guiding government decisions to implementing them. The court has asked pertinent questions: despite compliance reports why results on the ground are negligible and what the Commission for Air Quality Management (CAQM), set up in 2021, is doing? It has been dealing with the symptoms developing linear solutions and not responding to interdependent causes driven by rapid urbanisation. The challenge is to move away from coordination between discrete administrative units and enforcement, which is also the standard response of the Delhi government, to transformative action. The population of the city and the surrounding area significantly contributes to year-round toxicity because of vehicular emissions and traffic congestion. Driven by sunlight and low temperatures, a photochemical reaction combines hydrocarbons from the partially unburned exhaust of automobiles with nitrogen oxides, a combustion by-product, to form ozone. This concentration of particulate matter (PM 2.5) causes serious health problems. Dispersed sources in Delhi, Los Angeles, and Beijing, 60% of toxicity comes from vehicles. Another 20% comes from soil dust and less than 20% is from other sources. Stubble burning is temporary and official data show its share in Delhi's PM 2.5 was less than 1% on October 17, prompting the Delhi government to set up committees for dust control.

The usual response to point sources of pollution — legislating new technology and enforcing stringent prosecution — does not work for dispersed sources, which have a strong societal component and few viable options. For example, 35 years ago, when new vehicle emission standards were being discussed, Rahul Bajaj argued that his foreign collaborator was not parting with technology and that he needed two years to develop his own. The government successfully explained the situation to Parliament and the court. Today, the farmers of Haryana and Punjab are in a worse situation. To conserve groundwater, they are required to delay sowing, reducing the time between harvesting and planting the next crop, and technological solutions have not worked. The Supreme Court is not adjudicating between the fundamental rights of the farmers and those of the residents of Delhi to implement a management plan. We have a case of goal displace-

ment, with Haryana and Punjab being pushed to bear the burden of providing clean air to Delhi, even as Delhi itself is not being similarly prodded. Delhi is facing the classic bureaucratic response to a complex political problem. Cosmetic steps, unverified claims, statistical compliance, and shifting responsibility, were earlier noted by the NGT. This raises the question of whether the CAQM can discharge a political function for the needed hard choices. A review of Beijing's approach to controlling air pollution by the United Nations Environment Programme provides useful lessons. The population sizes of both cities are comparable, and Delhi shares with Beijing, and other cities, the three stages of dealing with urban air pollution as a long-term task. It begins with end-of-pipe air pollution control, gradually moving to integrated measures targeting primary pollutants, with the government playing the main role. Later, the focus shifts to secondary pollutants, or particulate matter leading to toxic smog, primarily PM2.5, which requires a regional mechanism, our current stage. The similarity ends there. The UN review points to Beijing's techno-political management system, which builds public awareness to deal with toxicity. First, forecasting severe smog levels through warnings issued at least 24 hours in advance with over 1000 PM 2.5



sensors throughout the city to accurately monitor high-emission areas and periods. Second, Beijing has over 30,000 low-floor buses, five times the number operated by Delhi Transport Corporation. Third, both Beijing and Delhi, as transit centres with no peak-hour traffic, require additional measures to manage regional transportation. The Court should be mandating the Graded Response Action Plan and the preparation of a toxicity

management plan for the national capital and surrounding areas with budgetary allocations and political endorsement rather than episodic prosecution of farmers or requiring smog towers. Mukul Sanwal served as policy adviser to the Executive Director of UNEP and later to the Executive Secretary of the UNFCCC and was closely associated with Inter-Agency Relations in the Chief Executives Board of the UN

Konkona Sen Sharma says she doesn't feel 'female' all the time: 'It's a layer I've put on myself'

Many of us might have felt the need to perform our femininity without even realising it. And we're not alone. Even Bollywood actor and director Konkona Sen Sharma confesses to feeling similarly. In a recent interview with film critic Sucharita Tyagi, the acclaimed actor reflected on the portrayal of femininity in Bollywood and the pressures of embodying "hyper femme" ideals on-screen. Known for her versatility across 50+ films, Konkona described her experience performing in Aaja Nachle, where she played a traditionally feminine role, complete with elaborate attire and styling. She highlighted how Indian cinema often requires female characters to conform to exaggerated ideals of femininity—like voluminous hair and delicate attire—intended to appeal to traditional beauty standards. This idealised version, she notes, is less about natural identity and more about a "hyper femme" construct. "It is so normalised that we don't realise its hyper-femme. The default for women is a hyper-femme version of themselves. Like, especially in India. Like hair, for example. The hair is voluminous. Even the clothes. You're always catering to a notion," Konkona said.

In discussing how women are frequently expected to present an idealised, desirable self-image, Konkona referenced a thought by Margaret Atwood: the image of oneself that women present is often filtered through an invisible "male gaze." The result is a dual experience for many women, wherein they navigate the pressures of projecting feminine desirability while privately feeling detached from such hyper-feminised versions of themselves. For Konkona, and many women, this dichotomy becomes especially pronounced at home, where they embrace a more natural, less constructed version of themselves. "That (male gaze version of herself) is a more hyper femme ver-



sion of myself. For me, I don't feel very female all the time. Sometimes you're just neutral, or you're just human, or whatever. When I'm at home, my hair is just like up on the side, or even the way I'm dressed. In films, I've learnt that. It's a layer I've put on myself. You know, with hair, makeup and wardrobe," Konkona added.

Counselling psychologist Priyamvada Tendulkar adds depth to this discussion by emphasising the importance of unconditional self-acceptance. This idea encourages individuals to value themselves as they are, free from conditions or qualifications often imposed by societal expectations. For women in particular, this means recognising that self-worth need not be anchored in beauty standards or external validation. Priyamvada advocates for viewing oneself as the "primary consumer" of one's life, asking questions like, "What would I like to do? What are

my aesthetics? What makes me happy?" Building relationships grounded in acceptance rather than mere approval can further support a sense of intrinsic value. When we seek only the approval of others, especially when this approval aligns narrowly with appearance or achievements, we risk feeling reduced to mere objects of consumption rather than individuals with agency. Priyamvada encourages cultivating an inner circle that values us unconditionally, allowing us to feel appreciated for what we achieve and who we genuinely are. Recognising oneself as the primary consumer of life's experiences allows a more fulfilling connection to one's identity—one that transcends stereotypes and celebrates individuality. For women, this journey toward self-acceptance is a pathway to experiencing life fully, not as products for external consumption, but as individuals embracing authenticity.

'This is the fabric of our country': As actor Vikrant Massey speaks about his interfaith roots, we sought stories of young adults navigating dual faiths

In today's world, as barriers of religion, caste, and other divisions are increasingly fading, many are growing up in households where their parents practice different faiths. 12th Fail actor Vikrant Massey, who revealed his parents had an interfaith marriage—his father is a Christian and mother, a Sikh—recently shared his experience of growing up in such an environment. Adding to the family's pluralistic story, Massey also mentioned that his brother, Moeen, embraced Islam. "My brother does Laxmi puja on Diwali. His conversion is his personal choice. But we celebrate Diwali and Holi together here. On the occasion of Eid, we celebrate it at his place, having biryani. Today, that fulcrum is absent (in society)," Massey said. "My father has been to Vaishno Devi temple (located in Katra, Jammu and Kashmir) six times. He is a Christian and goes to church twice a week even now. But that's what India has always been like. We go to gurudwaras and many Hindus go to Ajmer Sharif Dargah (located in Rajasthan). This is our Hindustan. Why is it so surprising? There's a temple in my house. My son's name is Vardaan. This is the fabric of our country."

While most children are raised with a singular religious perspective, kids of parents who practice different faiths gain a deeper understanding of two distinct worldviews. Indianexpress.com spoke with several individuals who grew up in interfaith households to learn about their experiences—the benefits and challenges, the unique traditions, moments of inner conflict between faiths, and how these dynamics shaped their relationships with family members and peers.

Growing up with parents of different faiths Pranjali Kumar, 21, recalled her childhood with traces of two distinct spiritual traditions—her father's Hindu customs and her mother's Christian practices. "I was exposed to two distinct religious traditions, which instilled open-mindedness and curiosity in me," she told indianexpress.com. This exposure gave her a balanced perspective on life, and encouraged her to explore and embrace diversity, fostering a lifelong journey of self-discovery. Similarly, Sahil Khan, 25, described his home as a "beautiful amalgamation of faiths." He grew up celebrating Christmas with Christian friends and Eid with Muslim neighbours. "Religious hatred never entered our house or mind. Living in a dual-faith household ingrains tolerance in you whereas in households with a single religion, this often seems like a matter of personal choice," he said.

"I was exposed to two distinct religious traditions, which instilled open-mindedness and curiosity in me," said 21-year-old Pranjali Kumar. "I was exposed to two distinct religious traditions, which instilled open-mindedness and curiosity in me," said 21-year-old Pranjali Kumar. (Source: Pranjali Kumar) Sonia Rodrigues, 36, said that experiencing both Hinduism and Roman Catholic traditions taught her that, at the core, "all religions share the same foundational principles: love, forgiveness, compassion, and the pursuit of truth." "I fasted on Ekadashi and during Lent, celebrated Diwali and Christmas alike. This balance taught me to embrace universal human values," she said. "My mother was Catholic and my dad a Hindu," said Rhea Cheryl Shivan, 32. "While they had a Christian wedding, my dad wasn't obliged

to convert. I was raised Catholic, as is common in many households in my family and friend circles, but my father occasionally shared aspects of his religion with us (He's a believer in a higher power but not necessarily a practicing Hindu)," she told indianexpress.com. Shivan's parents raised her to be very mindful and respectful of all religions, and said that her home library was a symbol of inclusivity, with the Bible, the Bhagavad Gita, and the Quran side by side. Feeling conflicted between the two religions

"I don't believe I ever felt conflicted between two religions," Shivan said, adding that culturally and socially, people usually tend to adopt the practices of the maternal side, and this was the case for her. "Hindu festivals or religious practices became moments of exploration and learning. This continues to be true today." Khan echoed this, "Never happened." However, for Kumar it was the opposite. "There were certainly moments when I felt conflicted or torn between the two religions. During religious holidays or family gatherings, I often found myself navigating between different traditions and practices. However, my parents were always supportive and understanding, allowing me to explore both faiths without feeling pressured to choose one over the other." "My parents believed that religion should never be imposed," said Rodrigues. "I was equally fine fasting on Ekadashi or Mahashivratri as I was during Lent. Festivals like Diwali and Christmas were celebrated with the same enthusiasm and joy." Rhea Cheryl Shivan (second from right) spoke about how her parents raised her to be very mindful and respectful of all religions Rhea Cheryl Shivan (second from right) spoke about how her parents raised her to be very mindful and respectful of all religions (Source: Rhea Cheryl Shivan) Relationships with extended family members or peers "Coming from a family where many of my parents' generation had interfaith marriages, relationships vary," Shivan said. She acknowledged that not all family members and friends are as open and accepting of other religions as they are. "There have been heated debates, but also unifying moments—especially during weddings—when we manage to blur the lines and celebrate love and togetherness, irrespective of religion." Rodrigues confessed that her parents had a love marriage, but not against the family's will. "As a result, our relationships with extended family members have remained warm and positive. In fact, being part of an interfaith household often adds an interesting dynamic to these relationships." Khan said, "My social life has also been enriched." He believes his openness towards other religions draws him to people from diverse backgrounds, and his peers are often curious to learn about different religions from him.

Although a few relatives were initially curious or had questions about his parents' interfaith marriage, Kumar acknowledged that the majority ultimately came to welcome and embrace his family's one-of-a-kind dynamic. "My friends were also interested in my background and frequently inquired about my religious beliefs. These discussions allowed me to share my experiences and promote understanding and tolerance," she said. Psychological benefits



and challenges of being raised in interfaith households Neha Parashar, senior clinical psychologist at Cadabams Hospitals, said, "Growing up with exposure to two distinct faiths fosters open-mindedness and tolerance." She cited a study in the Journal of Intercultural Psychology (2018), which found that children from interfaith families tend to develop a nuanced understanding of cultural diversity. "Adjustment, mutual respect, and communication become foundational values in such households. Skills such as critical thinking, compassion, empathy, and the ability to hold meaningful dialogues are cultivated, strengthening interpersonal relationships," said mental health counsellor Anuckriti Garg. Sahil Khan, 25, described his home as a "beautiful amalgamation of faiths." Sahil Khan, 25, described his home as a "beautiful amalgamation of faiths." (Source: Sahil Khan)

In terms of the challenges, Smitha Kashi, consultant art psychotherapist at Spandana Health Care, stressed that children may experience internal conflicts if the beliefs of both parents are at odds or if extended families express disapproval. "Inconsistencies in how the faiths are practiced can lead to confusion or a feeling of not fully belonging to either tradition. It is crucial for parents to provide clarity and stability while encouraging exploration and dialogue about faith," she said. In families where one faith dominates, Parashar noted that children may feel pressured to favour one belief system over the other, "leading to guilt or anxiety. Development of empathy, adaptability, or critical thinking skills According to Garg, "In interfaith households, without a single theological framework, children are

encouraged to explore diverse cultures, ideas, and perspectives. As a non-normative structure, interfaith families are more likely to foster an appreciation for diversity, inclusivity, and empathy. Learning to navigate the stigma associated with interfaith households equips children to adapt and cope with challenging situations." Parashar concurred, saying, "Children in interfaith families often grow up adapting to two sets of norms, celebrations, and expectations. This adaptability makes them more comfortable in multicultural environments, a key trait in today's globalised world." She is also of the opinion that reconciling differing beliefs, values, or practices pushes children to think critically about their own identities and moral frameworks. "They learn to evaluate which aspects of each faith resonate with them personally, fostering independent thought and intellectual growth," she said. Sonia Rodrigues, 36, said that experiencing both Hinduism and Roman Catholic traditions taught her that, at the core, "all religions share the same foundational principles." Sonia Rodrigues, 36, said that experiencing both Hinduism and Roman Catholic traditions taught her that, at the core, "all religions share the same foundational principles." (Source: Sonia Rodrigues) Can navigating dual religious identities help build resilience or unique coping mechanisms? Yes, navigating dual religious identities can foster resilience, according to Parashar. "Children learn to mediate between differing viewpoints, a skill transferable to social and professional situations," she said. "When supported effectively, they often develop a robust sense of identity, grounded in the ability to synthesise and embrace diverse aspects of their upbringing," Kashi said.

After US indictment, Adani Group stocks shed Rs 2.45 lakh cr market value

New Delhi: After US prosecutors charged billionaire Gautam Adani over his role in an alleged years-long scheme to pay \$250 million bribe to Indian officials in exchange for favourable terms for solar power contracts, the Adani group stocks faced heavy drubbing during the morning trade on Thursday, with the combined market valuation of all the listed firms getting eroded by Rs 2.45 lakh crore. The stock of the group's flagship firm Adani Enterprises plunged 22.99

per cent, Adani Ports dived 20 per cent, Adani Energy Solutions tanked 20 per cent, Adani Green Energy plummeted 19.53 per cent and Adani Total Gas tumbled 18.14 per cent on the BSE. Shares of Adani Power slumped 17.79 per cent, Ambuja Cements cracked 17.59 per cent, ACC fell 14.54 per cent, NDTV dropped 14.37 per cent and Adani Wilmar declined 10 per cent. Some of the group firms also hit their lowest trading permissible limit for the day.

Why has Gautam Adani been indicted in the U.S. over alleged \$250mn bribery scheme?

The story so far: Federal prosecutors in New York on Wednesday (November 21, 2024) indicted Adani Group Chairman Gautam S. Adani, his nephew Sagar Adani, and six others on multiple counts of fraud. The charges stem from an alleged multibillion-dollar scheme to bribe Indian officials in exchange for favourable terms on solar power contracts, which were projected to generate over \$2 billion in profits. "This indictment alleges schemes to pay over \$250 million in bribes to Indian government officials, to lie to investors and banks to raise billions of dollars, and to obstruct justice," a press release issued by the US Attorney's Office, Eastern District of New York, said quoting U.S. Deputy Assistant Attorney General Lisa Miller. The individuals named as defendants, alongside Gautam Adani and his nephew Sagar Adani, include Vneet Jaain, CEO of Adani Green Energy Ltd; Ranjit Gupta, who served as CEO of Azure Power Global Ltd from 2019 to 2022; Rupesh Agarwal, who was with Azure Power from 2022 to 2023; and Cyril Cabanes, an Australian-French dual citizen, along with Saurabh Agarwal and Deepak Malhotra — all of whom were affiliated with Canada-based pension fund Caisse de dépôt et placement du Québec (CDPQ). Solar power plant project at the heart of the indictment

The indictment alleges that Gautam Adani and his associates paid over \$250 million in bribes to Indian government officials between 2020 and 2024. These payments were reportedly made to secure contracts projected to generate \$2 billion in profits over 20 years and to develop India's largest solar power plant project.

The U.S. prosecutors have claimed that the seeds of the bribery scheme were sown between December 2019 and July 2020 when Adani Green Energy and another renewable energy company listed on the New York Stock Exchange secured contracts from the Solar Energy Corporation of India (SECI), a state-owned entity dedicated to promoting renewable energy adoption across the country. At the time, Adani Green Energy proclaimed in a press statement that it had won "the world's largest solar award". According to the indictment, the \$6 billion investment was projected to yield over \$2 billion in post-tax profits over 20 years. However, the project encountered an unexpected setback — its high energy costs made it unaffordable for Indian States, leaving the SECI grappling to attract customers to sign on. Between 2021 and February 2022, several States including Odisha and Jammu and Kashmir agreed to participate in the solar power initiative. Around the same time, more individuals joined the bribery scheme, including former employees of CDPQ — Cyril Cabanes, Saurabh Agarwal and Deepak Malhotra. Violation of the Foreign Corrupt Practices Act The indictment accuses Adani and his associates of conspiring to bribe Indian officials to secure energy contracts in a purported violation of the Foreign Corrupt Practices Act (FCPA). Although enacted in 1977, the law has been more stringently enforced in recent decades resulting in substantial fines for major companies, including Germany's Siemens, Brazil's state-owned Petrobras, and a subsidiary of Halliburton, the oil services giant. President-elect Donald J. Trump re-

portedly wanted to strike down the legislation in his first term since he considered it "unfair" to American companies. Another prominent critic of the law, Jay Clayton, whom Trump appointed as U.S. Attorney for the Southern District of New York, contended in a 2011 paper that U.S. anti-bribery policies disproportionately burdened American companies in international transactions, thereby undermining U.S. competitiveness. The prosecutors alleged that the defendants meticulously tracked their bribes and offers to Indian officials using messaging apps, phones, and PowerPoint presentations, often employing "code names" in their communications. It was further claimed that two of the defendants even engaged in discussions to delete "incriminating electronic materials, including emails, electronic messages and a PowerPoint analysis." Securities fraud Gautam Adani, Sagar Adani, and Vneet Jaain are accused of conspiring to deceive investors by issuing bonds supported by falsified and misleading financial data. According to the indictment, the scheme involved employing fraudulent tactics, such as withholding crucial information and fabricating corporate resolutions, to attract U.S. investors to their bond sales. The indictment outlines that Adani Green Energy Ltd. attempted to raise funds from U.S. and international investors in connection with a 2021 bond offering by making false and misleading claims regarding the company's anti-corruption and anti-bribery measures. The defendants also face charges of conspiring to commit wire fraud by making false promises and fraudulent claims to secure loans and investments for their energy ventures. According to the indictment, Adani and his nephew lied to investors when their businesses took out a \$1.35 billion loan and issued \$750 million in bonds in 2021. Additionally, they are accused of withholding information from investors regarding ongoing U.S. investigations into their business practices in 2023 and 2024. Former employees of CDPQ — Cyril Cabanes, Saurabh Agarwal, and Deepak Malhotra — have been accused of obstructing an investigation into the bribery scheme by deleting emails and agreeing to provide false information to the U.S. government. CDPQ, a shareholder in Adani companies, invests in infrastructure projects. In response to the indictment, CDPQ issued a statement saying, "CDPQ is aware of charges filed in the US against certain former employees. Those employees were all terminated in 2023 and CDPQ is co-operating with US authorities. In light of the pending cases, we have no further comment at this time." The US Security and Exchange Commission (SEC) has filed a parallel civil lawsuit against Adani and his associates "for conduct arising out of a massive bribery scheme". The complaint alleges that they engaged in a scheme that involved "paying or promising to pay the equivalent of hundreds of millions of dollars in bribes to Indian government officials to secure their commitment to purchase energy at above-market rates". This was reportedly done while simultaneously raising \$175 million from U.S. investors, based on "materially false and misleading" statements. Additionally, the US securities watchdog has sought the imposition of mon-



etary penalties and a lifetime prohibition on the defendants from serving as directors or officers in any company governed by the Securities Exchange Act of 1934.

What happens next? If proven, the charges could invite hefty financial penalties and a ban on the defendants from holding directorial or executive positions in companies that fall under US exchange regulations. The case will now proceed to the "arraignment" stage where the concerned judge will formally communicate the charges to the defendants and decide whether to grant bail or not. The defendants will then be required to enter a plea — either guilty or not guilty. If they plead not guilty, the case will move forward to a jury trial. The indictment risks reigniting a reputational crisis for the Adani con-

glomerate, which had been previously accused of "brazen accounting fraud, stock manipulation and money laundering" by Hindenburg Research, a small investment firm in New York. Although the Adani Group denied those claims, its stock price plummeted following the release of the report. On Thursday, Adani Green Energy Ltd, the company at the heart of the allegations, cancelled a \$600 million bond sale, the proceeds of which were intended to repay a foreign-currency loan. Several Adani Group shares, including those of the flagship firm Adani Enterprises, also suffered massive losses and hit their lower circuits in early trade. An Adani Group spokesperson has denied the allegations as baseless and maintained that the conglomerate is fully compliant with existing laws.

Smoking alters throat microbiota and worsens flu risk, study finds

New Delhi: Smoking cigarettes can cause changes in throat microbiota and worsen influenza A virus infection, finds a study. Smoking has long been known as unhealthy. It is known to lead to chronic pulmonary disease and has also been associated with increased risk for influenza-related illness, among a host of other conditions. More recently, scientists demonstrated a link between cigarette smoke and a disordering of the oropharyngeal microbiota composition. However, this association has not been clear. The soft palate, side and back walls of the throat, tonsils, and the back of the tongue make up the oropharynx. To decode, researchers from the University of Bern, Bern, Switzerland led a mice study.

They showed that gut and oropharyngeal microbiota are altered by chronic cigarette exposure in mice. Markus Hilty, Associate Professor at the Institute for Infectious Diseases, at the varsity said that smoking alone does not impact respiratory disease. "The smoker's microbiota may also impact respiratory disease and/or infection. In our case, it impacts viral infection," said Hilty. In the study, the team exposed mice to cigarette smoke, and then cohoused them with air-exposed mice (control) and germ-free mice. The experiment allowed the trans-



fer of the microbiota from donor mice to germ-free mice. The results, published in *mSystems*, a journal of the American Society for Microbiology, showed that the original germ-free mice were colonised either with bacteria from a smoke-exposed or air-exposed mouse. Further, the team infected the recipient mice with influenza A virus and monitored the disease course. They found that the original germ-free mice who received bacteria from smoke-exposed mice had a more severe disease course, which was measured by increased weight loss. In addition, virus infection was linked with substantial changes in the oropharyngeal microbiota composition. The changes were particularly visible on day 4 and day 8 after infection. Hilty urged physicians to consider "cigarette-induced disordering of the microbiota as probably an important factor during viral infection".