



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Thursday 20210916

## **Sputnik Vaccine**

**Russia seeks approval for export of Sputnik Light produced in India (The Tribune: 20210916)**

<https://www.tribuneindia.com/news/coronavirus/russia-seeks-approval-for-export-of-sputnik-light-produced-in-india-311999>

Russia seeks approval for export of Sputnik Light produced in India

Russian envoy Nicholay Kudashev has urged the Indian Government to allow the export of single-dose Sputnik Light produced by Hetero Biopharma, one of the RDIF's partners in the production of the jab, to his country till the vaccine gets emergency use authorisation from India's drug regulator

## **Vaccination**

**Over 36K vaccinated during mega drive in Panchkula (The Tribune: 20210916)**

<https://www.tribuneindia.com/news/coronavirus/over-36k-vaccinated-during-mega-drive-in-panchkula-311906>

Over 36K vaccinated during mega drive in Panchkula

A youth being vaccinated against Covid-19 at a government dispensary, Sector 12-A, in Panchkula on Wednesday.

As many as 36,675 people were vaccinated during a three-day vaccination drive in the district that concluded today. The district had set a target to vaccinate 40k people during the special drive.

The three-day vaccination drive was organised across the state.

The first day of the mega drive on Monday saw 12,340 people turning up at vaccination centres.

The number rose to 12,519 on the second day. The figures ultimately came down to 11,816 on the final day (Wednesday)

The district tried to reach out to those who were yet to receive vaccine despite the district already achieving a target of 100 per cent first dose vaccination.

As per district figures, it has vaccinated 108.7 per cent of its target population with at least single dose.

After Gurugram and Ambala, Panchkula became the third district in the state to achieve the “exemplary feat.”

As per senior health officials, the district exceeded its target (as per 2011 Census) due to migratory population from neighbouring states, simply meaning that not every citizen of the district is given at least one dose.

As per the current available stock, the district is left with 37,770 doses of Covishield and 15,820 of Covaxin.

## **Vax**

### **Vax: Centre revises Chandigarh’s target population (The Tribune: 20210916)**

<https://www.tribuneindia.com/news/coronavirus/vax-centre-revises-chandigarhs-target-population-311898>

Chandigarh among seven states/UTs to record 100% first dose coverage

The Centre has revised the city’s target population for Covid vaccination. Now, there are 8,43,000 beneficiaries aged 18 and above.

The Central government had earlier set Chandigarh’s target population for 18 plus at 15,75,709. However, Chandigarh claimed that its population aged 18 and above is 7,29,822 and it

completed the entire adult population with the first dose on August 14. The UT Administration had requested the Centre to correct the target population in the official database.

With the revised target population of 8,43,000, Chandigarh is now among the seven states and union territories to have achieved 100 per cent coverage of first dose. UT Adviser Dharam Pal said even with the revised data of targeted population, the City Beautiful was among the selected states and UTs to achieve 100 per cent first dose coverage. The Adviser congratulated all doctors, nurses and health care workers in Chandigarh for the achievement and added that the UT Administration would continue with its since efforts to deal with all Covid-related issues.

### **Jaggery that tastes like chocolate: Nutritionist shares health benefits**

### **Jaggery that tastes like chocolate: Nutritionist shares health benefits (The Indian express: 20210916)**

<https://indianexpress.com/article/lifestyle/food-wine/palmyra-palm-jaggery-health-benefits-7510790/>

This jaggery variety is loaded with vitamins and minerals; know more about it

Jaggery is not only the perfect alternative to sugar but it also comes with a lot of health benefits. But there is one type of jaggery that leaves you with a taste similar to chocolate. Wondering what it is? Nutritionist Munmun Ganeriwal took to Instagram to talk more about it.

In Tamil Nadu, this jaggery is used to make a variety of sweet dishes as well as filter coffee. This is palm jaggery, originally made from the sap of Palmyra Palm. It is popularly known as karupatti.

“It has a unique chocolaty taste and contains a large number of vitamins and minerals. I discovered this wonder during my Yoga Teachers Training Course in Madurai,” Ganeriwal shared on Instagram.

A similar chocolate-like jaggery, made from the sap of date palm, is often used to make Bengal’s popular ‘sondesh’ — in fact, the sweet made with this jaggery, called ‘nolen gur’, is a winter delicacy in the state.

### **Healthy living**

### **Dietitian shares 10 time-tested secrets to healthy living (The Indian express: 20210916)**

<https://indianexpress.com/article/lifestyle/health/dietitian-top-10-effective-tips-acidity-healthy-diet-lavleen-kaur-7496000/>

"I am sharing top 10 tips, learnings, habits and remedies that I have compiled from my great grandmother and mother's treasures," said Dietitian Lavleen Kaur

how to live healthy, tips to live healthy, home remedies for acidity, indianexpress.com, indianexpress, indian home remedies, Make some quintessential tweaks to stay healthy. (Source: Getty Images/Thinkstock)

Healthy living may mean different things to different people, but there is no denying that many swear by certain traditional learnings or nuskhe that have stood the test of time. From the way food is prepared to how it is stored, family secrets that have been passed down for generations always make for healthier alternatives.

Sharing an important reminder on why it is always a good idea to fall back on traditional practices and habits, dietitian Lavleen Kaur posted an Instagram update listing the "top 10 tips, learnings, habits and remedies that I have compiled from their (great grandmother and mother's) treasure", along with a picture with them.

## **Ayurvedic tea**

### **Say goodbye to bloating, stomach discomfort with this Ayurvedic tea (The Indian express: 20210916)**

<https://indianexpress.com/article/lifestyle/health/ayurvedic-anti-bloating-tea-7437988/>

"It will relieve all the bloating, pain and discomfort in your abdomen in an instant," said ayurvedic practitioner Dr Dixa Bhavsar

ayurveda remedy for bloating, anti bloating tea, indianexpress.com, indianexpress, what is anti-bloating tea, how to remedy bloating by ayurveda, indianexpress.com, indianexpress, Time to try this ayurvedic remedy to beat bloating. (Source: Getty Images/Thinkstock)

Bloating, discomfort in the stomach, and gas have become extremely common owing to irregular eating habits, lack of exercise and a sedentary lifestyle.

[From improving digestion to immunity: Here's why you should have homemade achar or pickle this season

A digestive disorder, bloating is when the belly feels swollen due to excessive gas production owing to disturbances in the movement of the muscles of the digestive system. This may be caused due to overeating, or eating fast, and eating rich and fatty food.

While there are medications available, it is best to opt for natural remedies. As such, here's a simple anti-bloating tea that Ayurvedic practitioner Dr Dixa Bhavsar recommended.

"I had to eat some outside food yesterday and couldn't even exercise as I was travelling which eventually lead to bloating and mild pain in abdomen (due to gas) last night," she wrote on Instagram adding that she then had a pinch of ajwain, salt and hing (asafoetida) with warm water last night before going to bed. "I was better then," she said.

## **Chronic pain**

### **Chronic pain emerging as a major health problem: Specialists (The Indian express: 20210916)**

<https://www.thehindu.com/news/cities/bangalore/chronic-pain-emerging-as-a-major-health-problem-specialists/article36489097.ece>

Survey indicates that 46% of Bengaluru's population below the age of 65 suffers from spinal problems

Chronic pain – defined as any persistent pain lasting more than three months – is rapidly emerging as a significant healthcare challenge in India, said specialists.

## **Mental health**

### **This Kerala-origin doctor for Leicester City FC insists mental health is part of the job(The Indian express: 20210916)**

<https://www.thehindu.com/sport/football/dr-prithish-shyam-narayan-interview-football-clubs-leicester-city-premier-league/article36469799.ece>

Kerala-origin Dr Prithish Shyam Narayan, the club doctor for Leicester City FC, wants the sports industry to engender stronger mental health conversations for footballers during the pandemic and a high-pressure Premier League season

When Prithish Shyam Narayan was 16, his mother asked him what his dream was. He replied without hesitation, "I want to be the club doctor for Arsenal!"

# 27,176 fresh corona cases, 284 fatalities

**AGE CORRESPONDENT**  
NEW DELHI, SEPT. 14

Daily new cases of coronavirus in India continued to remain below 30,000 with the country recording 27,176 fresh Covid-19 cases, while 284 new fatalities were recorded, according to the Union health ministry data updated on Wednesday.

With the fresh cases, India's total tally of Covid-19 cases rose to 3,33,16,755, while the death toll has climbed to 4,43,497, according to the data updated at 8 am.

The active cases declined to 3,51,087 comprising 1.05 per cent of the total infections, while the national Covid-19 recovery rate was recorded at 97.62 per cent, the ministry said. A reduction of 11,120 cases has been recorded in the active Covid-19 caseload in a span of 24 hours.

As many as 16,10,829

tests were conducted on Tuesday taking the total cumulative tests conducted so far for detection of Covid-19 in the country to 54,60,55,796. The daily positivity rate was recorded at 1.69 per cent. It has been less than three per cent for last 16 days.

The weekly positivity rate was recorded at two per cent. It has been below three per cent for the last 82 days, according to the ministry. The number of people who have recuperated from the disease surged to 3,25,22,171, while the case fatality rate was recorded at 1.33 per cent.

The cumulative doses administered in the country so far under the nationwide vaccination drive has reached 75.89 crore according to the ministry. India's Covid-19 tally had crossed the 20-lakh mark on August 7, 2020, 30 lakh on August 23, 40 lakh on September 5.

# Agri Food (The Asian Age: 20210916)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=15836400>



Qu Dongyu

## Our agri-food systems are a mess, must be transformed

The UN Food and Agriculture Organization has entered a new era with a new structure and new dynamics. The 2030 Agenda and its Sustainable Development Goals (SDGs) are approaching, we have to change our agri-food systems urgently and holistically. This transformation requires a systemic approach and our collective action — “Hand in Hand” by producers, distributors and consumers, together with governments, the private sector, academia and civil society.

That is what the coming United Nations Food Systems Summit is about, and what the FAO wants to achieve, together with all our partners, through the new FAO Strategic Framework 2022-2031. The action of each and every one of us has an impact on the future of our planet through our agri-food systems.

The summit is timely. After decades of decline, the number of hungry people has been growing for the past five years, now amounting to as many as 811 million people. At the same time, obesity and other non-communicable diseases are ever-growing global problems associated with insufficiently diversified healthy diets and consumption patterns. Many of the current agri-food practices are also exacting a heavy toll on our planet. Our agri-food systems

are not functioning properly. What do we need to do to transform them? How does every individual impact on the process?

As the leading international organization in this field, FAO has been advocating for and supporting agri-food systems’ transformation. The “agri-food system” covers the journey of food from tillage to table — from when it is planted, grown, harvested, processed, packaged, transported, distributed, traded, bought, prepared, eaten and disposed of. It encompasses non-food products such as forestry, animal rearing, use of feedstock, biomass to produce biofuels and fibres, and it constitutes all of the activities, investments and choices made, and it impacts on the livelihoods of all the people that play a part in getting us these agri-food products.

With expertise ranging from policy and feasibility, science innovation, land and water, livestock and fisheries, to biodiversity and climate, food safety and normative work, geospatial data and digital technology, the FAO has been at the forefront supporting the preparation for this important global summit, and more importantly, in line with its mandate FAO will be taking the lead to implement follow-up actions after the summit.

In July, the United Nations Food

Systems Pre-Summit was held extraordinarily successfully at FAO’s headquarters in Rome. Together with FAO’s chief economist and chief scientist, I have been sitting on the summit advisory bodies, scientific groups and action tracks. We have been working closely with expert colleagues both inside and outside the UN system. With a presence in over 130 countries, our teams on the ground have been supporting “national dialogues” that contribute to the summit outcomes and national priorities ensuring they are targeted and solution-oriented.

Transforming our global agri-food systems rests ultimately with actions at the country and local levels. Culture is an important aspect. One needs only to look at cuisines to see how diverse agri-food systems are across and within countries. More than half of us — around 4.5 billion people — earn our livelihoods directly through the agri-food production chain, supply chain and value chain. And we are all consumers of foods, and game-changers.

What does it take to transform? We at FAO have identified four cross-cutting cross-sectional accelerators — technology, innovation, data and “complements” (governance, human capital, and institutions). The FAO has been organising and better preparing itself for the past two years to lead the

process. Our new strategic framework endorsed by members is focused on supporting the achievement of the SDGs through the transformation to more efficient, inclusive, resilient and sustainable agri-food systems for the “Four Betters”: better production, better nutrition, a better environment, and a better life.

We have reformed our organisational structure and made it more modular and agile in order to make ourselves fit for purpose. For example, the newly created position of chief scientist, along with an office of innovation, and the office of SDGs are concrete steps to strengthen the role of science and innovation to complement the socio-economic work led by the chief economist to underpin the transformation, as well as to track the achievement of the SDGs. Innovation is not just about technology. It is also about approaches and policies. It is about mindset.

Countries, communities and industries will determine their transformational pathways. Our goal is pragmatic: build up ownership of members and support members by walking the talk and achieving concrete results on the ground.

The FAO has the expertise and networks, and a vast array of tools to

assist. Our “Hand-in-Hand Initiative” has established the open-access geospatial platforms which can calculate forest cover, carbon sequestration potential and water evaporation rates. Our early-warning network systems can alert of coming droughts or crop pests. Our applications calculate fodder supply and demand conditions in drought- or conflict-prone areas. Furthermore, our analytical work, including our new modelling work, recently assessed the impacts and trade-offs of proposed actions and systems which often have detrimental social, economic and environmental effects, as well as determining how to better harness fiscal supports for agri-food systems.

The FAO is well placed and ready to take full responsibility after the summit outcomes are decided and move forward to catalyse impacts together with all our stakeholders and friends.

Agri-food systems are complex and diverse. We all agree that they are not realising their full potential if we run business as usual. We need to craft solutions to achieve the Four Betters and leave no one behind. The FAO has the capacity to lead this process with partners for a better world.

Qu Dongyu is the director general of the UN Food and Agriculture Organisation

## Coronavirus

**कोरोना के नए केस 30 हजार पार, एक्टिव मामलों में राहत, 3.5 लाख से नीचे आए (Hindustan: 20210916)**

<https://www.livehindustan.com/national/story-india-reports-30570-new-cases-in-the-last-24-hours-higher-than-yesterday-4596891.html>

भारत में कोरोना की रफ्तार का घटना-बढ़ना लगातार जारी है। गुरुवार को जारी ताजा आंकड़ों के मुताबिक, एक बार फिर से देश में कोरोना के मामले 30 हजार पार हो गए हैं। पिछले 24 घंटे में कोरोना वायरस के 30 हजार 570 नए मामले मिले हैं, जबकि उससे बीते दिन यह आंकड़ा 27 हजार के आसपास था। हालांकि, नए दर्ज मामलों में से 17 हजार से ज्यादा अकेले केरल के हैं।

हालांकि, राहत की बात यह है कि एक्टिव मरीजों की संख्या घटकर साढ़े तीन लाख से नीचे आ गई है और अब यह 3 लाख 42 हजार 923 पर है। यह देश में दर्ज किए गए कोरोना के कुल मामलों का 1.03 फीसदी है।

वहीं, कोरोना से ठीक होने वालों की दर भी 97.64 फीसदी हो गई है। बीते एक दिन में भी कोरोना के 38 हजार 303 मरीज ठीक हुए हैं। इसके बाद अब तक देश में कोरोना से ठीक होने वालों का आंकड़ा 3 करोड़ 25 लाख 60 हजार 474 तक पहुंच गया है।

केरल में मामले घटे पर अब भी टॉप पर

केरल में कोरोना के नए मामलों में थोड़ी गिरावट देखी गई है लेकिन राज्य में अब भी सबसे ज्यादा केस आ रहे हैं। केरल में बुधवार को कोरोना वायरस संक्रमण के 17,681 नए मामले सामने आए तथा महामारी से 208 और मरीजों की मौत हो गई। इसके साथ ही कुल मामले बढ़कर 44,24,046 हो गए और मृतकों की संख्या 22,987 पर पहुंच गई।

देश में साप्ताहिक पॉजिटिविटी रेट लगातार 83 दिनों से 3 फीसदी के नीचे है और दैनिक पॉजिटिविटी दर 17 दिनों से 3 प्रतिशत से नीचे है। देश में अब तक कोरोना वैक्सिन की 76 करोड़ 57 लाख से ज्यादा डोज दी जा चुकी है।

## Precautionary Measures

**हालिया अध्ययन में दावा, दो गज की दूरी घर के अंदर वायरस से प्रसार को रोकने के लिए काफी नहीं (Hindustan: 20210916)**

<https://www.livehindustan.com/lifestyle/story-recent-study-claims-two-yards-indoors-is-not-enough-to-stop-the-spread-of-the-virus-4596898.html>

हाल ही में एक अध्ययन में दावा किया गया है कि दो गज यानी करीब साढ़े छह फुट की शारीरिक दूरी वायरस ले जाने वाले वायुजनित एयरोसॉल के प्रसार को पर्याप्त रूप से रोकने के लिए काफी नहीं हो सकती।

अध्ययन के परिणाम दर्शाते हैं कि शारीरिक दूरी सांस के माध्यम से अंदर लिए जाने वाले एयरोसॉलों (सूक्ष्म कणों) को रोकने के लिए काफी नहीं है और इसे मास्क पहनने तथा हवा के आने जाने की पर्याप्त व्यवस्था यानी वेंटिलेशन जैसी अन्य नियंत्रण रणनीतियों के साथ लागू किया जाना चाहिए।



शोधकर्ताओं ने ट्रेसर गैस आने-जाने की तुलना मानव श्वास से निकलने वाले एक से दस माइक्रोमीटर के एयरोसॉल से भी की, जो आमतौर पर हवाबंद प्रणाली में लीक का परीक्षण करने के लिए प्रयोग की जाती है। इस रेंज के एयरोसॉल में सार्स-सीओवी-2 वायरस होते हैं जिसके कारण कोविड-19 होता है।

अध्ययन के लेखक एवं अमेरिका में पेनसिल्वेनिया स्टेट यूनिवर्सिटी में पीएचडी के विद्यार्थी जेन पेई ने कहा कि हमने इमारतों में संक्रमित लोगों से निकलने वाले वायरस से भरे कणों के हवाई माध्यम से फैलने का पता लगाने की कोशिश की।

अध्ययन से पता चलता है कि बिना मास्क पहने एक संक्रमित व्यक्ति के बात करने के दौरान उसकी सांस में वायरस से भरे कण दूसरे व्यक्ति के श्वास क्षेत्र में तुरंत पहुंच सकते हैं, यहां तक कि दो गज की दूरी रखने पर भी। यह अध्ययन सस्टेनेबल सिटीज एंड सोसाइटी पत्रिका में प्रकाशित हुआ है।

## Eye Problems

### आंखों से जुड़ी समस्याएं 60 फीसदी तक बढ़ा देती हैं डिमेंशिया का खतरा (Hindustan: 20210916)

ब्रिटिश जर्नल ऑफ ऑप्टल्मोलॉजी में प्रकाशित एक हालिया शोध के मुताबिक उम्र से संबंधित आंखों की बीमारी, मोतियाबिंद और मधुमेह से संबंधित नेत्र रोग डिमेंशिया (मनोभ्रंश) के बढ़ते जोखिम से जुड़े हैं। दृष्टि हानि मनोभ्रंश के पहले लक्षणों में से एक हो सकती है।

माना जाता है कि दृश्य संवेदी मार्गों की कम उत्तेजना डिमेंशिया के विकास को तेज करती है। कुछ अध्ययनों में यह पता चला है कि डिमेंशिया और नेत्र संबंधी स्थितियों के बीच एक संबंध हो सकता है, जो मोतियाबिंद, मधुमेह से संबंधित नेत्र रोग और ग्लूकोमा और याददाश्त में कमी का कारण बनता है।

उम्र के साथ बढ़ती हैं स्थिति:

इन नेत्र संबंधी स्थितियों के मामले उम्र के साथ बढ़ जाते हैं। जैसा कि मधुमेह, उच्च रक्तचाप, हृदय रोग, अवसाद और स्ट्रोक जैसी स्थितियां हैं और जो डिमेंशिया के लिए जोखिम कारक माने जाते हैं। यह स्पष्ट नहीं है कि क्या ये नेत्र संबंधी स्थितियां इन स्थितियों से स्वतंत्र रूप से डिमेंशिया के जोखिम से जुड़ी हैं। इसकी जांच करने के लिए शोधकर्ताओं ने 55-73 वर्ष की आयु के 12,364 वयस्कों के डेटा का विश्लेषण किया।

## Booster Dose

### माडर्ना का दावा- समय के साथ कम हो जाता है कोरोना वैक्सीन का प्रभाव, बूस्टर डोज की जरूरत (Dainik Jagran: 20210916)

[https://www.jagran.com/world/america-moderna-says-covid19-vaccine-protection-wanes-with-time-necessity-for-booster-dose-22025364.html?itm\\_source=website&itm\\_medium=homepage&itm\\_campaign=p1\\_compone](https://www.jagran.com/world/america-moderna-says-covid19-vaccine-protection-wanes-with-time-necessity-for-booster-dose-22025364.html?itm_source=website&itm_medium=homepage&itm_campaign=p1_compone)

कोरोना वैक्सीन से मिलने वाली सुरक्षा कितने समय तक रहती है इसको लेकर दुनियाभर में बहस जारी है। इस बीच माडर्ना कंपनी ने कहा है कि उसकी वैक्सीन का प्रभाव समय के साथ कम हो जाता है ऐसे में बूस्टर डोज की जरूरत है।

शिकागो, रायटर। कोरोना महामारी के खिलाफ दुनियाभर में जंग जारी है। कोरोना के खिलाफ वैक्सीन को सबसे बड़ा हथियार माना जा रहा है। इस बीच माडर्ना की कोरोना वैक्सीन को लेकर एक नया अध्ययन सामने आया है। इसमें पाया गया है कि वैक्सीन से मिलने वाली कोरोना के खिलाफ सुरक्षा समय के साथ कम हो जाती है। इसलिए बूस्टर डोज की जरूरत की बात कही गई है। कोरोना के खिलाफ वैक्सीन सबसे बड़ा हथियार है। कोरोना वैक्सीन से मिलने वाली सुरक्षा कितने समय तक रहती है इसको लेकर दुनियाभर में बहस जारी है। इस बीच माडर्ना ने कहा है कि उसकी वैक्सीन का प्रभाव समय के साथ कम हो जाता है ऐसे में बूस्टर डोज की जरूरत है।

समाचार एजेंसी रायटर्स की खबर के मुताबिक, माडर्ना ने यह बात ताजा अध्ययन के आधार पर कही है, जिसे बुधवार को सबके सामने रखा गया। माडर्ना के अध्यक्ष स्टीफन होज ने कहा कि यह सिर्फ एक अनुमान है। लेकिन आशंका है कि सुरक्षा कम होने की वजह से 600,000 कोविड केस अधिक देखने पड़ सकते हैं। यह आंकड़ा सिर्फ अमेरिका को आधार बनाकर दिया गया है। होज ने यह नहीं बताया कि इसमें गंभीर केस कितने होंगे। लेकिन यह दावा किया कि हास्पिटल में मरीजों की संख्या बढ़ सकती है।

डेल्टा वैरिएंट से सुरक्षित रखने में यह वैक्सीन है ज्यादा असरदार

कोरोना का डेल्टा वैरिएंट इस समय पूरी दुनिया के लिए चिंता का कारण बना हुआ है। अध्ययनों में दावा किया जा रहा है कि वैक्सीन लेने वाले लोगों में कोरोना के इस घातक वैरिएंट का खतरा कम हो सकता है, हालांकि कौन सी वैक्सीन डेल्टा वैरिएंट पर ज्यादा असरदार है, इसको लेकर अब भी शोध जारी है। इसी से संबंधित, यूएस सेंटर फॉर डिजीज कंट्रोल एंड प्रिवेंशन (सीडीसी) ने अपने हालिया अध्ययन में बताया कि डेल्टा वैरिएंट्स से सुरक्षा देने में फाइजर और जॉनसन एंड जॉनसन वैक्सीन के मुकाबले माडर्ना की वैक्सीन ज्यादा असरदार हो सकती है।

## **Booster shot benefits**

### **Study of booster shot benefits fans debate over extra doses (The Indian Express: 20210916)**

<https://indianexpress.com/article/world/study-of-booster-shot-benefits-fans-debate-over-extra-doses-7511926/>

The study, published in the New England Journal of Medicine, is the latest salvo in the conflict over whether booster doses are needed for healthy adults and whether they should be given out, as the Biden administration plans to do, when so much of the world remains unvaccinated.

Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, speaks during a Senate Health, Education, Labor, and Pensions Committee hearing at the Dirksen Senate Office Building in Washington, D.C., U.S., July 20, 2021. (REUTERS)

Wading into an acrimonious debate over booster doses, researchers in Israel reported Wednesday that a third dose of the Pfizer coronavirus vaccine can prevent both infections and severe illness in adults older than 60 for at least 12 days.

The study, published in the New England Journal of Medicine, is the latest salvo in the conflict over whether booster doses are needed for healthy adults and whether they should be given out, as the Biden administration plans to do, when so much of the world remains unvaccinated.

Last year, artist Suzanne Brennan Firstenberg created an outdoor installation in Washington comprised of more than 267,000 white flags - one for every American who had died from COVID-19. Now, she is reprising her work, this time with some 650,000 flags.

Several independent scientists said the cumulative data so far suggests that only older adults will need boosters — and maybe not even them.

Vaccination remains powerfully protective against severe illness and hospitalization in the vast majority of people in all of the studies published so far, experts said. But the vaccines do seem less potent against infections in people of all ages, particularly those exposed to the highly contagious delta variant.

What the Israeli data shows is that a booster can enhance protection for a few weeks in older adults — a result that is unsurprising, experts said, and does not indicate long-term benefit.

“What I would predict will happen is that the immune response to that booster will go up, and then it will contract again,” said Marion Pepper, an immunologist at the University of Washington in Seattle. “But is that three- to four-month window what we’re trying to accomplish?”

Federal health officials — including Dr. Anthony Fauci, President Joe Biden’s top medical adviser on the pandemic — have justified plans to distribute booster shots by pointing to emerging evidence from Israel and other countries suggesting that immunity from vaccination wanes over time.

The idea has sent some Americans scrambling for booster shots even before they are formally authorized, a step the Food and Drug Administration may take as soon as Friday. But even among government scientists, the idea has been met with skepticism and anger.

Two scientists who lead the FDA’s vaccine branch said they would leave the agency this fall, in part because of their unhappiness over the administration’s push for booster doses before federal researchers could review the evidence.

On Monday, an international group of scientists, which included the departing FDA officials, decried the push for boosters. In their review, published in *The Lancet*, the scientists analyzed dozens of studies and concluded that the world would be better served by using vaccine doses to protect the billions of people who remain unvaccinated.

“Our primary goal here in this pandemic was, first of all, to avoid, to end all preventable deaths,” said Dr. Soumya Swaminathan, chief scientist at the World Health Organization and a co-author of *The Lancet* review. “And since we have the tools to do that very effectively, we should be using it to prevent deaths around the world.”

To prevent the virus from morphing into even more dangerous forms than the delta variant — and perhaps into one that evades the immune response entirely — the more urgent need, experts said, is to protect the unvaccinated, both in the United States and elsewhere.

In the new study, the Israeli team collected data on the effect of booster shots, based on the health records of more than 1.1 million people over age 60. At least 12 days after the booster, rates of infection were elevenfold lower and of severe disease nearly twentyfold lower in those

who received a booster compared with those who had received only two doses, the researchers found.

The researchers acknowledged that their results were preliminary. “We cannot tell at this point what will happen in the long run,” said Micha Mandel, a professor of statistics and data science at the Hebrew University of Jerusalem.

The question is scientifically complex, in part because protecting against infection is a substantially different goal than protection against hospitalization and death.

Antibodies are the body’s front-line defense against infection. It is unlikely that vaccines will reliably protect against infections over the long term, because the antibodies they stimulate the body to produce inevitably decline over time, scientists say.

But the cellular branch of the immune system is the body’s heavy armament against hospitalization and death. So-called immune memory that is encoded in this branch can take a few days to kick in, but it remains robust months after the initial immunization.

Therein lies the problem with the booster strategy, some scientists say: The tools to prevent hospitalization and death are already at hand. If the goal is to prevent infections, the nation will be stuck in a never-ending cycle of booster shots.

“If you really use infection as an outcome, you probably need a booster every six months, which is unrealistic and unattainable,” said Dr. Peter Chin-Hong, an infectious disease expert at the University of California, San Francisco. “I don’t care about symptomatic disease — I care about severe disease.”

The only vaccinated patients he has seen in the hospital are immunocompromised or adults over 70 who also have other health conditions, he added.

In citing the need for boosters, Fauci and other health officials have referenced the Israeli data showing a rise in severe illness among vaccinated people of all ages. But lumping all age groups together can statistically inflate the rates.

When the Israeli figures are broken down by age, only people above 60 show a notable drop in efficacy against severe illness, noted Dr. Celine Gounder, an infectious disease specialist at Bellevue Hospital Center in New York and a former adviser to the Biden administration.

“We have known for some time that the vaccines elicit less robust immune responses in the elderly,” Gounder said. “Recommending additional doses of vaccine for the elderly isn’t controversial.”

There are other differences in the vaccination campaigns in Israel and America that raise questions about whether the new results are applicable to citizens of both countries. More than 90% of Israelis older than 50 have been immunized, for example, and older adults are more likely to be hospitalized for COVID-19.

FDA scientists acknowledged this limitation Wednesday, saying studies based in the U.S. “may most accurately represent vaccine effectiveness in the U.S. population.”

Research in the U.S. so far also suggests a drop in vaccine efficacy against severe illness only in older adults. Three studies published last week by the Centers for Disease Control and Prevention found that the ability of the vaccines to prevent hospitalizations barely budged even after the delta variant’s arrival, except in adults over 75.

For older people, a decline in protection against infection is a compelling argument for boosters, some scientists said. “One would always want to be proactive in that group versus reactive,” Chin-Hong said.

Michel Nussenzweig, an immunologist at Rockefeller University in New York, said he wanted the booster shot (he is 66), but also supported their use in the general population to interrupt chains of transmission.

Although immunity in younger people is not yet waning, he said, an extra dose that prevents infections would curtail the spread of the virus to the unvaccinated people around them.

“It will ultimately prevent others from going to the hospital, and it ultimately would benefit the way the country is going,” Nussenzweig said.

Other experts questioned that premise, saying there is no data to suggest that the drop in transmission would be significant enough to justify boosters.

In younger people, officials must balance the limited benefit of a third dose with the risk of side effects like blood clots or heart problems, researchers said. And repeatedly stimulating the body’s defenses can also lead to a phenomenon called “immune exhaustion,” Pepper said.

“There’s obviously some risk in continuously trying to ramp up an immune response,” she said. “If we get into this cycle of boosting every six months, it’s possible that this could work against us.”

## **Health Insurance**

**सुधारी जाए स्वास्थ्य बीमा की सेहत, लागू हो ‘वन नेशन वन हेल्थ बीमा पालिसी’ (Dainik Jagran: 20210916)**

<https://www.jagran.com/news/opinion-corona-pandemic-today-one-nation-one-health-insurance-policy-is-needed-jagran-special-22025164.html>

भारत में जनस्वास्थ्य बीमा असल में भयंकर विसंगतियों से भरा मामला है

जनस्वास्थ्य बीमा अभी कई विसंगतियों से भरा है। उससे सबक लेकर वन नेशन-वन हेल्थ पालिसी बनाई जाए स्वास्थ्य बीमा में शामिल हो सभी बीमारियों का इलाज। भारत में जनस्वास्थ्य बीमा असल में भयंकर विसंगतियों से भरा मामला है। बुनियादी संकट सरकार की नीतियों में एकरूपता के अभाव का है।

डा. अजय खेमरिया। युष्मान भारत योजना के ताजा आंकड़े बताते हैं कि 16.20 करोड़ भारतीय परिवारों को आयुष्मान बीमा कार्ड जारी किए गए हैं और अब तक दो करोड़ लोगों का इलाज इस योजना के तहत किया जा चुका है। सरकार ने 24,683 करोड़ रुपये की भारी-भरकम राशि गरीबों के इलाज पर इस मद में खर्च की है। करीब 60 करोड़ नागरिक इन बीमा कार्डों के जरिये बीमित हैं। निःसंदेह आयुष्मान एक बड़ा नीतिगत कदम है, लेकिन कोरोना संक्रमण जैसी आपदाओं ने जनस्वास्थ्य क्षेत्र में तमाम विसंगतियों को रेखांकित किया है। जन स्वास्थ्य बीमा भी एक ऐसा ही मसला है, जो मोदीकेयर (आयुष्मान) जैसी बड़ी योजना के बाद भी हमारे नीति निर्धारकों से विमर्श का आग्रह करता है। कोविड की बात करें तो आयुष्मान योजना के तहत 20.32 लाख नमूनों की जांच की गई और 7.08 लाख मरीज अस्पताल में भर्ती हुए, जबकि कुल संक्रमित मरीजों का आंकड़ा लगभग 3.5 करोड़ है और मौतों की संख्या 4.5 लाख यानी महज दो फीसद कोरोना पीड़ितों के लिए आयुष्मान योजना में इलाज मिला। सवाल है कि देश के 23 हजार संबद्ध अस्पतालों वाली इस योजना के तहत कोरोना का इलाज समुचित संख्या में क्यों नहीं किया जा सका? इसके जवाब मुश्किल नहीं हैं। बुनियादी संकट सरकार की नीतियों में एकरूपता के अभाव का है।

भारत में जनस्वास्थ्य बीमा असल में भयंकर विसंगतियों से भरा मामला है। कोरोना के सबक के रूप में आज आवश्यकता है 'वन नेशन वन हेल्थ बीमा पालिसी।' सरकार को हर आदमी का बीमा कराने की अपनी जबाबदेही पूरी करनी होगी। मोदीकेयर जैसा बड़ा कदम उठाने वाली सरकार थोड़ा प्रयास कर प्रत्येक भारतीय को इंग्लैंड, अमेरिका, ब्राजील और अन्य विकसित देशों की तरह प्रामाणिक स्वास्थ्य बीमा उपलब्ध करा सकती है। करीब 60 करोड़ नागरिक तो आयुष्मान योजना में कवर किए ही जा चुके हैं। वहीं 13 करोड़ लोग ईएसआइ के दायरे में हैं, जिसे बढ़ाकर 20 करोड़ किए जाने पर श्रम मंत्रालय आगे बढ़कर काम कर रहा है। केंद्र सरकार के कार्मिकों के लिए सीजीएचएस का प्रविधान है। राज्य सरकारें भी अपने कर्मचारियों के लिए कुछ न कुछ स्वास्थ्य बीमा का प्रविधान करती ही हैं। यहां आवश्यकता है सभी योजनाओं को एकीकृत करके लागू करने की।

शेष आबादी जो इन योजनाओं के दायरे से बाहर है, के लिए भी कुछ किया जाए। इसमें देश का मध्यम एवं निम्न मध्यमवर्गीय तबका शामिल है। बेहतर होगा सरकार देश में अनिवार्य स्वास्थ्य बीमा का कानून लेकर आए और एक ही योजना में सभी नागरिकों को शामिल किया जाए। जो सक्षम हैं, उनके लिए प्रीमियम का प्रविधान हो। आयुष्मान, ईएसआइ की तरह सभी केंद्रीय एवं राज्य सरकारों के कर्मचारियों को अनिवार्य बीमा उपलब्ध कराया जा सकता है। उनके वेतन से प्रीमियम की व्यवस्था भी आसान है। इसी तरह सभी निजी नियोजकों के लिए अपने कार्मिकों से राष्ट्रव्यापी एकीकृत बीमा का अनुपालन अनिवार्य किया जा सकता है।

आज से 20 साल पहले निजी क्षेत्र के लिए खोले जाने के बावजूद स्वास्थ्य बीमा आम आदमी के लिए हितकर साबित नहीं हुआ। इसके मूल में एकरूपता का अभाव है। मसलन निजी एवं सार्वजनिक क्षेत्र की बीमा कंपनियों में प्रीमियम की समरूपता न होना। आयुष्मान 918 बीमारी पैकेज का प्रविधान करता है, मगर डेंगू, चिकनगुनिया और जापानी बुखार जैसी कई बीमारियों के लिए आयुष्मान कोई व्यवस्था नहीं करता। कैंसर जैसी बीमारी के लिए लोगों को अपनी हेल्थ पालिसी में कैंसर टाप अप कराने पड़ते हैं।

भारतीय बीमा क्षेत्र मरीज के अस्पताल में भर्ती होने यानी उसके गंभीर हालत पर ही प्रतिपूर्ति की प्रक्रिया आरंभ करता है। यदि कोई बीमित व्यक्ति ओपीडी में जाकर जांच या उपचार कराता है तो उसके लिए बीमा का कोई लाभ नहीं। भारत में 572 मेडिकल कालेज हैं, लेकिन निजी कालेज आयुष्मान, सीजीएचएस या ईएसआइ के बीमाधारकों का इलाज नहीं करते। इसकी वजह जांच, उपचार और सर्जरी की दरों में एकरूपता न होना है। उदाहरण के लिए अपेंडिक्स आपरेशन में ईएसआइ तीन हजार रुपये की व्यवस्था करता है, लेकिन निजी अस्पतालों में इसका खर्चा 10 हजार से अधिक आता है। वस्तुतः 13 करोड़ लोगों के कवरेज वाले ईएसआइ के चंद अस्पतालों को छोड़कर कहीं भी एमआरआइ, डायलिसिस और सीटी स्कैन जैसी सुविधाएं नहीं हैं। स्पष्ट है कि भारतीय जन स्वास्थ्य बीमा समावेशी नहीं है और न ही प्रामाणिकता से काम कर पा रहा है।

सरकार ने आयुष्मान भारत पर बड़ी रकम खर्च की है, मगर उसमें विसंगतियां हैं। सबसे पहले ओपीडी और भर्ती के प्रविधान को समाप्त करना होगा। सार्वभौमिक बीमा की अवधारणा के अनुरूप सभी बीमारियों के इलाज को बीमा का हिस्सा बनाना होगा। ब्रिटिश नेशनल हेल्थ सर्विस में यही है।

इससे बीमारियों को बार-बार अधिसूचित करने का झंझट नहीं रहेगा। साथ ही देश के हर स्वास्थ्य संस्थान को इसके अनिवार्य दायरे में लाना चाहिए ताकि बीमित व्यक्ति को बीमारी की स्थिति में उपचार के लिए अधिसूचित अस्पताल के लिए न भटकना पड़े।

सार्वभौम बीमा कवरेज के तहत उपचार की दरें व्यावहारिक और एक समान बनाई जानी चाहिए, जो एक नियत समय पर पुनरीक्षित भी होती रहें। बीमा को लक्ष्य केंद्रित बनाने के लिए सरकार को यह कदम भी उठाना चाहिए कि सभी मेडिकल कालेजों की पीजी सीट्स कालेज की जगह उस क्षेत्र की पीएचसी, सीएचसी या वेलनेस सेंटर से अटैच कर दी जाएं। उनके स्नातकोत्तर विद्यार्थी इन सेंटर्स पर काम करें और केवल थियरी के लिए कालेज जाएं। इससे ग्रामीण इलाकों में हर वक्त पेशेवर चिकित्सक उपलब्ध रहेंगे, जो मोदीकेयर जैसी पहल को परिणामोन्मुखी बनाने में सहायक होंगे।

## Environmental Health

### जलवायु परिवर्तन से बदल रहे अंगों के आकार, गर्म खून वाले जानवरों में देखे जा रहे हैं ऐसे बदलाव (Dainik Jagran: 20210916)

<https://www.jagran.com/world/america-shapeshift-are-being-seen-in-warm-blooded-animals-due-to-warming-climate-22025346.html>

शरीर का तापमान रेगुलेट करने के लिए चोंच, पैर और कान लंबे हो रहे हैं।

नए अनुसंधान में सामने आया है कि बढ़ते तापमान की वजह से कुछ वार्म ब्लड्डेड एनिमल्स में अंगों के आकार भी बदलने लगे हैं। शरीर के तापमान को रेगुलेट करने के लिए चोंच पैर और कान के आकार बड़े होने लगे हैं।

वाशिंगटन, एएनआइ। जलवायु परिवर्तन के कारण धरती के बढ़ते तापमान के दुष्परिणाम चहुंओर दिख रहे हैं। मौसम, फसल और स्वास्थ्य को लेकर कई सारे अध्ययन हो चुके हैं। अब एक नए अनुसंधान में सामने आया है कि बढ़ते तापमान की वजह से कुछ गर्म खून वाले प्राणियों (वार्म ब्लड्डेड एनिमल्स) में अंगों के आकार भी बदलने लगे हैं। शरीर के तापमान को रेगुलेट करने के लिए चोंच, पैर और कान के आकार बड़े होने लगे हैं। यह अध्ययन 'ट्रेंड्स इन इकोलाजी एंड इवोल्यूशन' नामक जर्नल में प्रकाशित हुआ है।

जलवायु परिवर्तन सिर्फ इंसानों की ही समस्या नहीं है, बल्कि अन्य प्राणियों को भी उसके अनुकूल ढालना होता है। आस्ट्रेलिया की डीकिन यूनिवर्सिटी की पक्षी विज्ञानी सारा राइडिंग का कहना है कि जलवायु परिवर्तन को लेकर मुख्यधारा की मीडिया में बहुत चर्चाएं होती हैं। सवाल उठाया जाता है कि इंसान इससे निपट पाएगा या नहीं या किस तकनीकी से इस समस्या का समाधान हो पाएगा। ऐसे में इस बात को अहमियत देनी होगी कि पशु-पक्षियों को इन बदलावों के सापेक्ष खुद को अनुकूलित करना पड़ रहा है। उनमें बदलाव हो रहे हैं, लेकिन ये बदलाव विकासवाद के किसी भी कालखंड की तुलना में बहुत तेजी से हो रहे हैं। मतलब कम समय में ज्यादा या बड़े बदलाव दिखने को मिल रहे हैं।

अनुकूलन का बढ़ रहा जबरदस्त दबाव

राइडिंग ने कहा है कि इंसानी गतिविधियों के कारण हो रहे जलवायु परिवर्तन से अन्य प्राणियों पर भी जबरदस्त दबाव बढ़ा है। इनमें से कुछ प्रजातियों में अनुकूलन हो रहा है और कुछ ऐसे भी हैं, जो बचेंगे ही नहीं। उनका कहना है कि जलवायु परिवर्तन एक जटिल और बहुआयामी घटना है, जो निरंतर जारी है। ऐसे में आकार में हो रहे बदलाव का कोई एक सटीक कारण बताना कठिन है। लेकिन ये बदलाव व्यापक भौगोलिक क्षेत्रों में और विविध प्रकार की प्रजातियों में हो रहे हैं, जिनमें जलवायु परिवर्तन के अलावा कुछ भी समान नहीं है।

पक्षियों में दिख रहे बड़े बदलाव

अंगों के आकार में सबसे ज्यादा बदलाव पक्षियों में देखे जा रहे हैं। आस्ट्रेलियाई तोतों की कई प्रजातियों में 1871 से लेकर अब तक उनकी चोंच के आकार में चार से 10 फीसद तक की वृद्धि पाई गई है। खास बात यह कि इसका संबंध हर वर्ष की गर्मियों में तापमान से रहा है। शोधकर्ताओं ने

चूहों की पूंछ तथा छल्लूंदरों के पैर के आकार में वृद्धि की रिपोर्ट की है। हालांकि कान जैसे कुछ अहम अंगों के आकार में वृद्धि को भविष्य में बड़े ही स्पष्ट तरीके से दिखाया जा सकेगा। अगले चरण में राइडिंग पिछले 100 वर्षों के म्यूजियम के नमूनों की 3-डी स्कैनिंग करके आस्ट्रेलियाई पक्षियों के अंगों के आकार में बदलावों की और पड़ताल करेंगी।

पारिस्थितिकी तंत्र भी होगा प्रभावित

अंगों के आकार में बदलाव सिर्फ यह मतलब नहीं कि वे (प्राणी) जलवायु परिवर्तन से निपट रहे हैं और यह सही हो रहा है। इसका यह मतलब यह भी है कि वे अपना अस्तित्व बचाए रखने के लिए खुद को अनुकूलित कर रहे हैं। लेकिन इन बदलावों से पारिस्थितिकी तंत्र पर पड़ने वाले असर को लेकर हम आश्वस्त नहीं हैं। या फिर यह भी जरूरी नहीं कि सभी प्रजातियां अपना अस्तित्व बचाने के लिए अनुकूलित बदलाव में सक्षम हो पाएंगी।

## Drug Addiction

**देश में हर 10वां स्कूली बच्चा नशे की लत का शिकार, एम्स के सर्वे में सामने आई बात (Dainik Jagran: 20210916)**

<https://www.jagran.com/delhi/new-delhi-city-ncr-every-10th-school-child-in-the-country-is-a-victim-of-drug-addiction-jagran-special-22025171.html>

स्कूली बच्चे औसतन 13 साल की उम्र में नशा शुरू करते हैं। कई बच्चे परिवार के लोगों को देखकर व दोस्तों के कहने पर प्रयोग के तौर पर पहली बार नशा करते हैं लेकिन बाद में इसकी गिरफ्त में आ जाते हैं। इसका असर बच्चों की पढ़ाई पर पड़ता है।

नई दिल्ली [रणविजय सिंह]। बच्चों में नशे की लत बढ़ रही है। देश में करीब हर दसवां स्कूली बच्चा नशे की लत का शिकार है। एम्स के मनोचिकित्सा विभाग के डाक्टरों द्वारा देश के 10 शहरों के स्कूली बच्चों पर किए गए सर्वे में यह बात सामने आई है। बच्चे परिवार के सदस्यों व दोस्तों को तंबाकू, अल्कोहल व नशीले पदार्थों का सेवन करते देख नशे के लिए प्रेरित होते हैं। एम्स के सर्वे में यह बात भी सामने आई है कि पारिवारिक कलह भी बच्चों को नशे की तरफ धकेल रहा है। क्योंकि पारिवारिक कलह से बच्चे मानसिक रूप से परेशान होते हैं। इस वजह से कई बच्चे नशा करने लग जाते हैं।

इस सर्वे के लिए एम्स को केंद्रीय सामाजिक न्याय व अधिकारिता मंत्रालय ने फंड दिया था। एम्स के डाक्टरों की ओर से कोरोना से पहले वर्ष 2019-20 में दस शहरों के आठवीं से 12वीं कक्षा के छह हजार स्कूली बच्चों पर यह सर्वे किया गया। इसमें श्रीनगर, चंडीगढ़, लखनऊ, रांची, मुंबई, बेंगलुरु, हैदराबाद, इम्फाल, डिब्रूगढ़ व दिल्ली के निजी व सरकारी स्कूलों के बच्चे शामिल थे। इनमें 52 फीसद लड़के व 48 फीसद लड़कियां शामिल थीं।

दो फीसद बच्चे भांग व चरस का भी करते हैं नशा

एम्स के मनोचिकित्सा विभाग की प्रोफेसर डा. अंजू धवन ने कहा कि सर्वे में पाया गया कि 10.3 फीसद स्कूली बच्चे नशा करते हैं, जिसमें तंबाकू का सेवन करने वाले बच्चे भी शामिल हैं। 8.3 फीसद बच्चे नशे की दवाओं का सेवन करते पाए गए। हालांकि, सर्वे में 50 फीसद बच्चों ने कहा कि नशा करने पर वे इसकी जानकारी साझा नहीं करेंगे। इसलिए नशा करने वाले बच्चों की संख्या 10.3 फीसद से अधिक भी हो सकती है। सर्वे में पाया गया कि दो फीसद बच्चे भांग व चरस का नशा करते हैं। 0.6 फीसद बच्चे नशे के लिए बेहोशी की दवा व 2.5 फीसद बच्चे अन्य नशे की दवाओं का इस्तेमाल करते हैं। 1.9 फीसद बच्चे सूंघने वाला पदार्थ इस्तेमाल करते हैं।



औसतन 13 साल की उम्र में नशा शुरू करते हैं बच्चे

स्कूली बच्चे औसतन 13 साल की उम्र में नशा शुरू करते हैं। कई बच्चे परिवार के लोगों को देखकर व दोस्तों के कहने पर प्रयोग के तौर पर पहली बार नशा करते हैं लेकिन बाद में वे इसकी गिरफ्त में आ जाते हैं। इसका असर बच्चों की पढ़ाई पर पड़ता है। इसके अलावा बच्चों में उग्रता बढ़ जाती है। इस वजह से माता-पिता व दोस्तों से उनका रिश्ता भी खराब हो जाता है। वे गैरकानूनी गतिविधियों में संलिप्त होने लगते हैं। नशा करने वाले एक चौथाई बच्चों में मानसिक परेशानी देखी गई। पांच से दस फीसद बच्चे प्रतिदिन व दस से 20 फीसद बच्चे सप्ताह में एक बार नशा करते हैं।

## **Pregnancy**

### **Better mental health support needed for pregnant individuals during Covid-19 pandemic: Study (Hindustan Times: 20210916)**

<https://www.hindustantimes.com/lifestyle/health/better-mental-health-support-needed-for-pregnant-individuals-during-covid-19-pandemic-study-101631756454213.html>

A new study finds that more mental health support is needed for pregnant people during the pandemic after it was found that nearly three-quarters of individuals who were pregnant during this time reported moderate to high levels of distress.

A team of researchers suggested that more mental health support is needed for pregnant individuals after a survey found nearly three-quarters of individuals who had been pregnant during the pandemic reported moderate to high levels of distress, and one in five experienced depressive symptoms.

The findings of the study appeared in the journal titled 'Canadian Family Physician'.

The researchers, led by clinicians at Unity Health Toronto, surveyed nearly 1,500 participants online - 87 per cent of whom were Canadian - who had been pregnant during the Covid-19 pandemic. Nearly 69 per cent of respondents reported moderate to high levels of distress and 20 per cent had depressive symptoms.

"The high levels of distress highlight the importance of considering mental health centrally in support for this population," said Dr Tali Bogler, study lead author and family physician and chair of family medicine obstetrics at St. Michael's Hospital of Unity Health Toronto.

"The findings also highlight the overall impact the pandemic has had on families in general and the downstream impact this will have," added Dr Bogler.

A limitation of the study was that it did not have comparable data on distress levels among pregnant people prior to the pandemic. However, a population-based survey conducted in Japan before the pandemic found 28 to 32 per cent of pregnant people reported distress.

Researchers also sought to learn more about what the common sources of concern were for expectant parents during the pandemic. Participants were provided with a list of 27 concerns and asked to indicate their level of concern for each issue.

The top five concerns during pregnancy included: hospital policies regarding support persons in labour; not being able to introduce their baby to loved ones; getting sick from Covid-19 while pregnant; not being able to rely on family or friends after labour for support; and conflicting medical information on Covid-19 in pregnancy and newborns, especially early in the pandemic.

There were differences in the concerns of first-time and second/third-time parents. First-time parents were more concerned about the cancellation of in-person prenatal classes and hospital tours, whereas second/third-time parents were more concerned about the transmission of Covid-19 from older children in the home.

The authors said that family physicians are well placed to support perinatal mental health and can engage in screening practices and offer appropriate treatment, such as counselling, public health nursing, and psychiatric appointments. They also recommend hospitals better utilize technology to help address parents' concerns by arranging more virtual check-ins and hospital tours and provide more online resources with evidence-based information on Covid-19 relevant to expectant and new parents.

"Clinicians and hospital administrators need to explore innovative ways to increase perinatal support," said Dr Bogler, who is also one of the leads of the Pandemic Pregnancy Guide, a virtual platform that provides medical information on pregnancy and Covid-19 and helps form a community for expecting parents during the pandemic.

## **Bladder cancer**

**Bladder cancer: Symptoms, causes, treatment. All you want to know (Hindustan Times: 20210916)**

<https://www.hindustantimes.com/lifestyle/health/bladder-cancer-symptoms-causes-treatment-all-you-want-to-know-101631711042882.html>

Bladder cancer is the ninth most common malignancy worldwide, affecting nearly 4,30,000 people every year. All you want to know about its signs and symptoms.

Bladder cancer, the ninth most common malignancy worldwide, begins when the bladder's lining (urothelial) cells start to grow abnormally and out of control. The bladder is a hollow, muscular and elastic organ. The urinary bladder collects and stores urine from the kidneys.

Urothelial cells are also found in your kidneys and the tubes or ureters that connect the kidneys to the bladder. Urothelial cancer can happen in the kidneys and ureters, too, but it's much more common in the bladder.

Dr Pankaj N. Maheshwari, Senior Consultant and Chief Urologist, Fortis Hospitals, Mulund explains the symptoms and causes of bladder cancer and the precautions that must be followed to avoid getting it.

#### Symptoms of bladder cancer

**Blood in urine:** This should be a cause for alarm for you and a screening is a must in case there is blood in your urine, especially after the age of 40.

**Frequent and painful urination:** If you are facing any kind of difficulty in passing urine, a doctor should be consulted immediately.

**Urinary incontinency or loss of bladder control:** This is one of the indicators that all is not well with your bladder.

"The significant risk factors for bladder cancer include tobacco smoking, industrial exposure to potential carcinogens such as aromatic amines and carbon black dust, long-term drinking of arsenic-contaminated or chlorinated water, and family history of prostate, endometrial and bladder cancer," says Dr Maheshwari.

#### Causes of bladder cancer

**Smoking:** Smoking is not just responsible for oral and lung cancer. Smoking cigarettes, cigars and even pipes can cause bladder cancer, as certain harmful chemicals excrete out of the body through urine. This, in turn, damages and deteriorates the bladder lining, thus increasing cancer chances.

**Gender:** Men are more likely to develop this cancer in their lifetime than women.

**Exposure to chemicals:** Kidneys play a primary role in filtering harmful substances from our bodies and bloodstream. Thus, exposure to arsenic, aromatic amines, chemicals used to manufacture dyes, rubber, leather, etc., is detrimental to health.

**Personal or family history of bladder cancer** is another highly probable risk factor for the disease.

**Urinary Tract infections or bladder problems:** Frequent bladder inflammation or infections and bladder stones may go on to cause bladder cancer

#### Diagnosis

Apart from basic pathology evaluation, CT scan and endoscopic examination (Cystoscopy) are used for diagnosis.

Treatment depends on the stage of the disease. Early and superficial tumours may be managed endoscopically, but once it grows inside the bladder wall, removal of the bladder becomes necessary.

#### Precautions

\*One is advised to make lifestyle changes to prevent risk of the disease. To initiate lifestyle changes, one must avoid or, consider quitting smoking.

\*Drink lots of fluids because when a person urinates, they get rid of the harmful chemicals that initiate and cause cancer growth.

\*If your job requires you to be around chemicals, take necessary precautions to protect yourself.

\*Include plenty of colourful fruits and vegetables, rich in antioxidants, macro and micronutrients, in your diet.

\*Finally, being observant of the colour of urine and symptoms can be instrumental in saving lives.

## **Stress hormones**

### **High levels of stress hormones may raise risk of hypertension, cardiovascular disease (Medical News Today: 20210916)**

<https://www.medicalnewstoday.com/articles/high-levels-of-stress-hormones-may-raise-risk-of-hypertension-cardiovascular-disease#Study-limitations-and-continuing-research>

New research finds a link between elevated stress hormones and a higher risk of cardiovascular problems. Jose Luis Pelaez Inc/Getty Images

The body's hormonal response to experiencing stress is a natural function that humans and animals have in common.

Excessive levels of stress hormones, such as norepinephrine, epinephrine, dopamine, and cortisol can adversely affect people's health.

A new study suggests that higher levels of stress hormones may have links to an increased risk of high blood pressure and cardiovascular events.

Scientists have studied how the body responds to its environment for years. Stress Trusted Source is the result of pressures or tensions and how the body responds to them. Stressors Trusted Source lead to a change in the body's normal state, causing it to respond in

several different ways. These changes, which are called the stress response, include the release of certain hormones.

Scientists are still exploring the effect of this stress response and the overall impact of stress on long-term health complications.

A new study published in *Hypertension*, an American Heart Association journal, shows mounting evidence that higher levels of stress hormones may increase a person's risk of high blood pressure and cardiovascular events.

#### Stress hormones and the impact of stress

The body's stress response is complex and involves multiple hormones, including cortisol. The adrenal glands produce cortisol, which increases energy levels and helps the body react during emergencies.

Stress also plays a role in the release of catecholamines. Examples of catecholamines include dopamine, epinephrine, and norepinephrine (also known as adrenaline and noradrenaline, respectively).

Epinephrine and norepinephrine both play key roles in the body's fight or flight response. When exposed to a perceived threat, the fight or flight response prepares the body to face or evade the danger.

Epinephrine and norepinephrine help to:

constrict blood vessels to maintain blood pressure

increase heart rate and the force with which the heart pumps blood to the rest of the body

relax airway muscles

control the metabolism of glucose

When a person is under stress, the body has higher levels of these hormones. While these stress responses can help short-term, longer-term stress or continued exposure to stress can cause health problems.

As noted by the American Heart Association, chronic stress may lead to high blood pressure, which increases a person's risk of having a stroke or heart attack. Furthermore, when people experience stress, they may turn to unhealthy coping mechanisms that put them at risk for poor physical health.

This is partly why the American Heart Association has recently focused on stress reduction techniques as a vital component of overall health. In a recent Facebook post, they shared tips for stress reduction from Psychiatry Professor Dr. Helen Lavretsky.

Dr. Lavretsky emphasized how people can utilize several techniques for stress reduction, including looking for joyous moments throughout the day, finding things to be grateful for, and using slowed breathing techniques.

Scientists are still exploring the relationship between stress hormones and risks of cardiovascular problems, and the study in question offers further information.

#### Increased risk for high blood pressure and cardiovascular events

The research — carried out by scientists from the University of California in Los Angeles — is a prospective cohort study that examines the association between higher levels of stress hormones and increased risk of high blood pressure and cardiovascular events.

The study included 412 adults ages 48–87 years. Participants had no previous history of high blood pressure, which was one of the key differences between the current and previous studies. The study also involved a diverse mix of participants, including white, Black, and Hispanic individuals.

Researchers took into account the participants' sex, education level, income, and health insurance status. They also examined their lifestyle factors, including whether they drank alcohol, smoked, and did any physical activity.

Finally, researchers looked at the health status of the participants, including whether they had diabetes, their use of any medications, body mass index, and kidney function.

This study was part of a larger study called the Multi-Ethnic Study of Atherosclerosis (MESA). At the start of the study, the researchers asked a subset of participants from the larger study with no diagnosed cardiovascular disease to participate in a 12-hour overnight urine collection. The researchers analyzed the urine for levels of epinephrine, norepinephrine, dopamine, and cortisol.

The researchers included participants who had no hypertension at baseline and had complete data and specific covariates in further data analysis.

Researchers followed up with participants for an average of 6.5 years to evaluate hypertension. During the years of follow-up, 48.8% of participants had developed high blood pressure. Over the average follow-up of 11.2 years, 5.8% of participants experienced cardiovascular events. Cardiovascular events included heart attacks, coronary heart disease death, stroke, and the development of peripheral vascular disease.

Using multivariable Cox proportional hazard models, researchers calculated the risk of high blood pressure and cardiovascular events associated with urinary stress hormones.

Results revealed that higher levels of stress hormones in the urine have associations with a greater risk of high blood pressure. The researchers found this association was stronger among younger individuals than among older individuals.

They further found that a double than normal level of urinary cortisol has associations with a higher incidence of cardiovascular events. They did not find an association between higher levels of catecholamines and cardiovascular events.

#### Study limitations and continuing research

The study accounted for several factors and included a diverse sample. However, researchers do acknowledge the study's limitations. Due to the nature of the 12-hour overnight urine collection, there was the possibility for errors in specimen collection.

The authors also acknowledge the possibility of sample bias and unaccounted influencing factors. For example, their analysis method did not account for the stratified analysis of cardiovascular events. The researchers also did not differentiate the causes of the developed high blood pressure.

Considering these limitations and the small sample size of the study, researchers encourage the following when it comes to continued data collection in this area:

continued long-term studies that look at urinary stress hormones and include larger sample sizes

studies that do multiple measurements of urinary stress hormone levels

studies that account for the causes of high blood pressure

more inclusion of factors that can influence a study's results

Overall, the results indicate the importance of taking psychological stress into account to create a holistic view of health and help prevent long-term complications. Professor of Medicine and cardiology specialist Dr. Glenn N. Levine told MNT:

“It has been clearly established that psychological health can positively impact cardiovascular health. Stress is one of the important factors when one considers negative psychological health. This study demonstrated that elevated stress hormones were associated with an increased risk of developing high blood pressure and an increased risk of overall cardiovascular events. It further adds to our appreciation of the fact that we, as healthcare professionals, must pay attention to not only the heart and the patient but also to the mind and the person as a whole..”

Dr. Glenn, a Professor of Medicine at Baylor College of Medicine in Houston, Texas, and co-authored the study. MNT also reached out to Prof. Bernard Cheung, Ph.D., FRCP, Sun Chieh Yeh Heart Foundation Professor in Cardiovascular Therapeutics at the University of Hong Kong.

Prof. Cheung, who was not involved in the research, felt that the study findings were “interesting.” However, he said, people should interpret the results with caution.

“Firstly, association is not the same as causation. One should not jump to the conclusion that hypertension can be prevented by stress management,” Prof. Cheung said.

“Secondly, there is a phenomenon known as white coat hypertension. People with white coat hypertension are more nervous, and their blood pressure goes up when it is being measured. Thirdly, the study did not analyze men and women separately. Finally, it would have been better if [the researchers] had measured stress using a questionnaire to supplement the data from urinary hormones,” added the expert.

## **Obesity**

### **Obesity: High fat diet breaks the body clock in rats (Medical News Today: 20210916)**

<https://www.medicalnewstoday.com/articles/obesity-high-fat-diet-breaks-the-body-clock-in-rats>

A new study reveals that complex neuronal centers in the brainstems of rodents rhythmically control feeding behavior.

Day-night rhythms in feeding changed when the rodents consumed high fat diets (HFDs).

Rats fed these diets consumed more calories, changed their feeding times, and gained weight, compared with rats fed a healthy diet.

Similar brainstem centers exist Trusted Source in humans. This fascinating study opens avenues to research involving circadian rhythms, HFDs, and obesity in people.

This week, The Journal of Physiology published interesting results about the effects of HFDs on feeding behavior and weight gain in rodents.

With an intricate study, the researchers mapped an area of the rodent brain that exhibits robust day-night, or circadian, changes in activity, called the nucleus of the solitary tract.

Remarkably, this group of neurons — in an evolutionarily primitive part of the brain, the brainstem — demonstrates dramatic day and night differences in neuronal activity. The researchers describe these areas as “circadian oscillators.”

Prior research had identified a “master clock” in rodents. The hypothalamus, which is located in the center of the brain, possesses this mechanism, which “tells” the body when to wake up, when to eat, and other important functions for survival.

However, since the master clock’s discovery, scientists have identified Trusted Source multiple areas beyond the hypothalamus that also demonstrate circadian oscillations.

Through painstaking neuronal experiments Trusted Source, researchers have shown that the nucleus of the solitary tract, one of three portions of the dorsal vagal complex Trusted Source, is a “robust circadian oscillator.”



While the master clock is driven primarily by exposure to light, these other oscillators are influenced by food consumption.

### Examining the brain

Using a range of “immunohistochemical and electrophysiological approaches,” the authors of the recent study investigated these independent oscillators in more detail.

Speaking about the team’s techniques, the first author of the study, Dr. Lukasz Chrobok, told Medical News Today:

“We can measure neuronal activity in a more direct way. [...] With this technology, we are able to study hundreds of neurons simultaneously over a long time, still being able to maintain single cell resolution.”

“By studying isolated brain slices, rather than recording neuronal activity in vivo from the whole brain,” he explained, “we are sure this rhythmicity comes from these exact brain centers. [...] Thus, we are sure that the brainstem clock doesn’t need the master clock in the hypothalamus to generate its rhythmicity.”

Dr. Chrobok added: “The brainstem is an evolutionarily ancient part of the brain [and] we share [it] with all vertebrates. That is why I think it is wise to study this, even in animal models. We do hope that its basic mechanisms are very similar to humans.”

### Two dietary regimes

With this accurate brain activity and mapping methodology in place, the researchers fed adolescent rats an HFD or a control diet for either 2–3 or 4 weeks.

The scientists observed the rodents to assess how much they ate, how they divided their food up in a 24-hour cycle, and their overall change in weight.

The results were startling. Predictably, those rats consuming the HFD initially decreased the amount that they ate but still consumed more calories than the other group.

As the study progressed, the two groups became more divergent. Initially, the HFD rodents increased their nighttime food intake and later began to consume excess calories during the day.

Ultimately, there was a trend toward increased weight gain in the HFD rats. But importantly, the weight gain did not occur before the changes in circadian feeding activity.

Dr. Chrobok explained: “We found that rats on this type of [HFD] started changing their feeding behavior. Normally, they are nocturnal — they kind of lock the food intake into the nighttime.” But, he continued, as the study progressed:

“They started to eat 24 hours a day. Also, they would wake up and snack during the day — considered a rats’ inactive phase: They would feed, rather than rest.”

“With the [HFD], we found the difference in day-to-night appetite and eating variation is eliminated. The brainstem clock doesn’t know if it’s day or night!”

When MNT asked whether the rats reversed their circadian clocks when exposed to the HFD, Dr. Chrobok responded:

“No, I don’t think they reversed their clock, but their clock is blunted because they lost the amplitude of their feeding behavior. Instead of eating exclusively during the active night, they would compartmentalize their food intake to the inactive day, too.”

Dr. Chrobok added, “I think the most groundbreaking thing is that we can see the changes in the brain, in the malfunctioning of the ‘clock’ before we can see the actual weight gain.”

This implies that “Brainstem clock disturbances were a cause, rather than a result, of obesity.”

### The role of neuropeptides

In addition to the dorsal vagal complex’s circadian control of satiety, other parts of the brain, such as the hypothalamus, secrete hormones and neuropeptides that regulate homeostasis. In doing so, they help our bodies maintain a stable temperature, heart rate, appetite, and metabolism.

Orexin is one of these important neuropeptides; it stimulates Trusted Source food intake and energy expenditure.

In this study, the researchers assessed the activity of the orexin neurons in the brains of their rats. Using neural-staining methods, they identified which neurons were increasing in activity: day, night, or overall.

Control rodents displayed day-to-night variation Trusted Source in orexin activity; it was increased during the late day through to the middle of the night, presumably to prepare them for their nighttime activity and feeding. HFD rats, however, exhibited reduced orexin activity during the day — plausibly because these rats were continuing to eat.

Another neuropeptide, glucagon-like peptide-1 receptor, plays a role Trusted Source in food intake. While this is more difficult to measure, the researchers demonstrated that HFD rats had a reversed response to this “stop eating” neuropeptide, being more responsive late in the day, rather than at night, as in the control group.

### Implications and future research

Regarding the implications of the study’s findings, Dr. Chrobok cautioned: “As always, one needs to be super careful with extrapolating results from rats to humans. Especially in chronobiology [the science of circadian rhythms] because we study rats and mice, and they are nocturnal, and we humans are diurnal animals.”

In summary, Dr. Chrobok reflected: “I think it opens up some therapeutic possibilities, as well. In trying to prevent obesity, one could be more careful of one’s clock — your personal

circadian clock or rhythm. Don't wake up and snack during the night or stay awake for long hours. [...] Rather, get sleep and eat at proper times to synchronize yourself. This is 'lifestyle hygiene' and can be therapeutic!"