



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Tuesday 20220927

## **Chemo strategy**

### **IIT-Guwahati develops chemo strategy for cancer patients that reduces side effects (The Tribune:20220927)**

<https://www.tribuneindia.com/news/health/iit-guwahati-develops-chemo-strategy-for-cancer-patients-that-reduces-side-effects-435547>

Molecules developed by IIT researchers self-assemble as capsules to hold the drug, which then attaches only to cancer cells

Researchers at IIT-Guwahati have developed a new strategy to deliver chemotherapeutic drugs directly to the infected cells of a cancer patient, thereby significantly reducing side effects.

Explaining it, professor Debasis Manna of the Department of Chemistry said the researchers had two needs in the development of chemotherapy drugs—it must be targeted at the cancer cells and must be released by an external trigger whenever it is required.

“The problem with existing chemotherapeutic drugs is that they kill healthy cells of the body in addition to cancerous cells, leading to numerous undesirable side effects,” IIT-Guwahati said in a statement on Monday.

In fact, it is believed that cancer deaths are as much due to the side effects of chemotherapy as the disease itself, it added.

“There is worldwide research to overcome the drawbacks of secondary toxicity of chemotherapeutic drugs. Some strategies that are being explored include target-specific delivery of the drugs and on-demand delivery of appropriate drug doses to cancerous cells and tissues,” it said.

The molecules developed by the IIT-Guwahati researchers self-assemble as capsules to hold the drug, which then attaches only to cancer cells, the statement said.

“When infrared light is shone on it, the shell breaks and releases the encapsulated drug into the cancerous cell. The IIT-G scientists rightly believe that their approach would allow the

development of drug carriers for chemotherapy with enhanced efficacy and negligible side effects,” it added.

The research papers have been co-authored by Manna, along with his research scholars Subhasis Dey, Anjali Patel, and Biswa Mohan Prusty among others.

Anti-cancer activities were carried out in collaboration with professors Siddhartha Sankar Ghosh and Plaboni Sen of IIT-Guwahati, and professors Arindam Bhattacharyya and Soumya Chatterjee of Calcutta University.

“The path-breaking results of this research have been published in prestigious journals of The Royal Society of Chemistry, including ‘Chemical Communications’ and ‘Organic and Biomolecular Chemistry’,” the statement said.

The premier technical institute said that the societal impacts of this work cannot be overstated given the number of cancer patients in India anticipated to be 30 million by 2025.

## **Type 2 diabetes**

### **India among top ten countries with highest Type 2 diabetes prevalence: Lancet study (The Tribune:20220927)**

The estimates were tested for accuracy against real world prevalence data from 15 countries

<https://www.tribuneindia.com/news/health/india-among-top-ten-countries-with-highest-type-2-diabetes-prevalence-lancet-study-433969>

India among top ten countries with highest Type 2 diabetes prevalence: Lancet study

Photo for representational purpose only. iStock

An estimated 8.4 million people were living with Type 1 Diabetes across the globe in 2021, and India was among the top ten countries with highest prevalence of the disease, according to a modelling study published in The Lancet Diabetes & Endocrinology journal.

This number is predicted to increase to 13.5-17.4 million people living with Type 1 Diabetes (T1D) by 2040, the researchers said.

“Given that prevalence of people with T1D is projected to increase in all countries to up to 17.5 million cases in 2040, our results provide a warning for substantial negative implications for societies and healthcare systems,” said Professor Graham Ogle, one of the authors of the study, from the University of Sydney, Australia.

“There is an opportunity to save millions of lives in the coming decades by raising the standard of care for T1D and increasing awareness of the signs and symptoms of T1D to enable a 100 per cent rate of diagnosis in all countries,” Ogle said.

Researchers modelled data on childhood, adolescent and adult T1D prevalence in 97 countries, along with incidence over time data from 65 countries.

They also analysed mortality data from 37 countries to predict T1D incidence, prevalence, and mortality in 2021 for 201 countries, with projections of future prevalence through 2040.

The estimates were tested for accuracy against real world prevalence data from 15 countries.

In 2021, the model estimated that 8.4 million individuals worldwide were living with T1D. Of these individuals, 18 per cent were under 20 years old, 64 per cent were between 20-59 years, and 19 per cent were over 60 years.

“These findings have important implications for diagnosis, models of care, and peer support programmes,” said Professor Dianna Magliano, one of the authors of the study, from Monash University, Australia.

“Such programmes, in countries where they exist, are almost exclusively designed, and delivered for children and youth with T1D,” Magliano said.

The ten countries with the highest estimated T1D prevalence US, India, Brazil, China, Germany, UK, Russia, Canada, Saudi Arabia, and Spain account for 5.08 million (60 per cent) of global cases of T1D, the researchers said.

Model estimates also suggest that 21 per cent of individuals with T1D live in low income countries (LICs) and lower and middle income countries (LMICs), they said. Model estimates place global deaths due to T1D at 175,000 in 2021, the researchers said.

Of these, 35,000 or 20 per cent were attributed to non-diagnosis, of which 14,500 were in sub-Saharan Africa and 8,700 were in South Asia, they said.

The researchers estimate that an extra 3.1 million people would have been alive in 2021 if they hadn't died prematurely due to suboptimal care of T1D, and a further 700,000 people would still be alive if they hadn't died prematurely due to non-diagnosis.

“Our findings indicate that the overall footprint of T1D is much larger than previous estimates have indicated, when missing prevalence due to excess mortality is accounted for,” said Professor Kim Donaghue, one of the authors of the study, from the University of Sydney, Australia.

“This is particularly true in low- and middle-income countries – for example in sub-Saharan Africa which accounts for 357,000 cases of T1D or 4 per cent of global prevalence but 23 per cent (40,000) of the lives lost each year – highlighting the urgent need to increase awareness of the signs and symptoms of T1D in LMICs,” Donaghue said.

The projected T1D prevalence in 2040 given by the model was 13.5-17.5 million people, with largest relative increases predicted to occur in LICs and LMICs, the researchers said.

Conservative estimates place the relative increase in the number of people living with T1D by 2040 compared to 2020 at 66 per cent, they added.

## Daily covid cases

### Daily covid cases in India lowest in 118 days 32 fresh fatalities reported

### Daily covid cases in India lowest in 118 days (The Tribune:20220927)

<https://www.tribuneindia.com/news/nation/active-cases-in-country-decline-to-42-358-435799>

India logged 3,230 new coronavirus infections, the lowest recorded in 118 days, taking the total tally of covid cases to 4,45,75,473, according to the Union Health Ministry data updated on Tuesday.

The active cases declined to 42,358 while the death toll climbed to 5,28,562 with 32 fatalities which includes 22 deaths reconciled by Kerala, the data updated at 8 am stated.

## Heart disease

### Heart disease in women: How to understand symptoms and risk factors? (Indian Express:20220927)

Tobacco use sharply reduces HDL cholesterol and markedly increases the risk of heart attacks in women, even more than in men, says cardiologist and epidemiologist Prof K. Srinath Reddy

<https://indianexpress.com/article/lifestyle/health-specials/why-women-need-to-take-good-care-of-their-heart-health-8173489/>

It is important to bust the myth that heart and blood vessel diseases are uncommon in women. (Photo source: Pexels)

Half a century ago, it was a popular misconception that heart disease was mostly a male problem. That was because men more often adopted behaviours which increased the risk of heart and blood vessel disease. Prior to menopause, hormonal influences were protective in women. A male-dominated medical research enterprise designed and tested diagnostic tools in men only and later inappropriately applied them to women, often missing the signs and symptoms of heart disease in women. Health education messages and risk reduction programmes exclusively targetted men. Even clinical trials with medicines had only men as subjects. As the threshold for suspecting heart disease was inordinately high in women, few women sought care for symptoms. Those who did were often misdiagnosed by doctors who did not expect women to have heart disease.

## **knee replacement surgery**

### **5 important things to know before undergoing total knee replacement surgery (Indian Express:20220927)**

<https://indianexpress.com/article/lifestyle/health/important-things-undergoing-total-knee-replacement-surgery-health-8146104/>

Waiting for too long can result in increased pain, muscle atrophy, deformity, and a reduction in the ability to fully straighten the knee post surgery, warns a doctor

total knee replacement surgery, severe knee problems, orthopedics and joint replacement surgery, bone health, knees, indian express newsIt is a surgical procedure that removes the patient's thighbone, shinbone and kneecap, and replaces the injured bone and cartilage with an artificial joint. (Photo: Getty/Thinkstock)

In recent times, orthopedic problems have been on the rise, affecting people across age groups. It could be because of the sedentary lifestyle led by people, who are bound to their chairs and their computer screens all day every day, leaving no time for physical activities like yoga, working out in the gym or exercising outdoors.

## **Food and Nutrition**

### **Why millets are better than rice, wheat or your breakfast cereal for diabetes, heart and weight loss (Indian Express:20220927)**

<https://indianexpress.com/article/lifestyle/health-specials/millets-better-rice-wheat-breakfast-cereal-diabetes-heart-weight-loss-8175160/>

Not for nothing are millets being called the next superfoods. Experts break down what makes them the perfect recipe for future-proofing our lives

millets-1200One of the many benefits of millets is that they are gluten free and ideally suited for people with gluten allergy and irritable bowel syndrome. (Representative image of millets/Pexels)

Replacing your white rice with bajra rotis and switching your breakfast bread and cereal with a ragi uttapam can help you keep your blood sugar levels in check, lose weight and prevent heart damage. And come to think of it, they can easily agree with our systems, considering that they were traditionally used in our diet quite liberally during the bronze age.

## **Dementia**

### **Nightmares are a good predictor of future dementia, says new study (Indian Express:20220927)**

<https://www.thehindu.com/sci-tech/health/nightmares-are-a-good-predictor-of-future-dementia-says-new-study/article65936940.ece>

Study shows that frequent nightmares during middle or older age, may be linked with an increased risk of developing dementia.

We spend a third of our lives asleep. And a quarter of our time asleep is spent dreaming. So, for the average person alive in 2022, with a life expectancy of around 73, that clocks in at just over six years of dreaming.

Yet, given the central role that dreaming plays in our lives, we still know so little about why we dream, how the brain creates dreams, and importantly, what the

## **COVID – 17.7**

### **We were on a global panel looking at the staggering costs of COVID – 17.7 million deaths and counting. Here are 11 ways to stop history repeating itself (The Hindu:20220927)**

<https://www.thehindu.com/sci-tech/health/a-report-highlights-11-ways-to-prepare-for-future-pandemics/article65936941.ece>

The report highlights that the pandemic has reversed progress made towards the UN Sustainable Development goals in many countries.

A global report released today highlights massive global failures in the response to COVID-19.

The report, which was convened by The Lancet journal and to which we contributed, highlights widespread global failures of prevention and basic public health.

## **WHO**

### **WHO cautions against unsafe medication practices (The Hindu:20220927)**

<https://www.thehindu.com/sci-tech/health/who-cautions-against-unsafe-medication-practices/article65930359.ece>

Targeted efforts on to reduce such practices and errors, says WHO Regional Director for Southeast Asia

In low- and middle-income countries in the Southeast Asia region of the World Health Organization, patient harm due to unsafe care contributes to an estimated 134 million adverse events annually, resulting in around 2.6 million deaths, the global body said in a press release.

Unsafe medication practices and errors can occur at different stages of the medication use process and can result from weak medication systems and/or

## **COVID-19 infection**

### **COVID-19 infection increases risk of long-term brain problems: Study (The Hindu:20220927)**

<https://www.thehindu.com/sci-tech/health/covid-19-infection-increases-risk-of-long-term-brain-problems-study/article65926232.ece>

Complications include strokes, cognitive and memory problems, depression, anxiety and migraine headaches.

People infected with the SARS-CoV-2 virus are at increased risk of developing a range of neurological conditions in the first year after the infection, according to a large study conducted in the US.

Such complications include strokes, cognitive and memory problems, depression, anxiety and migraine headaches, the researchers said.

## **Fiber**

शरीर में फाइबर की कमी होने पर घेरने लगते हैं ये रोग, इन चीजों से पूरी होगी कमी

फाइबर की कमी पेट ही नहीं अन्य स्वास्थ्य संबंधी दिक्कतें भी खड़ी कर सकती है। फाइबर एक तरह का कार्बोहाइड्रेट ही होता है जो पेट में आसानी से नहीं पचता है। ये कार्ब्स छोटे-छोटे कणों में टूट कर शुगर के रूप

शरीर में फाइबर की कमी होने पर घेरने लगते हैं ये रोग, इन चीजों से पूरी होगी कमी(Hindustan:20220927)

<https://www.livehindustan.com/lifestyle/health/story-know-signs-that-indicate-you-are-not-getting-enough-fiber-deficiency-symptoms-in-hindi-7136642.html>

**Fiber Deficiency Symptoms:** शरीर को हेल्दी रखने के लिए हमें प्रोटीन, विटामिन और मिनरल्स के अलावा फाइबर की जरूरत भी होती है। फाइबर कोलस्ट्रॉल और ग्लूकोज के स्तर को कम करने में मदद करता है। साथ ही यह भोजन को पाचन प्रणाली से निकलने में मदद करने के साथ-साथ जरूरी मात्रा में मल निकाल कर शरीर को स्वस्थ बनाता है। फाइबर की कमी पेट ही नहीं अन्य स्वास्थ्य संबंधी दिक्कतें भी खड़ी कर सकती है। फाइबर एक तरह का कार्बोहाइड्रेट ही होता है जो पेट में आसानी से नहीं पचता है। ये कार्ब्स छोटे-छोटे कणों में टूट कर शुगर के रूप में परिवर्तित हो जाते हैं। शरीर में फाइबर की कमी होने पर शरीर में कई लक्षण दिखाई देते हैं।

शरीर में फाइबर की कमी के लक्षण (Fiber Deficiency Symptoms in Hindi)

शरीर में फाइबर की संतुलित मात्रा होने से आपका पाचन तंत्र दुरुस्त रहता है। इसके अलावा कब्ज, पेट में गैस बनने की समस्या भी फाइबर की कमी से होती है।

कब्ज की समस्या-

डाइट में फाइबर की कमी कब्ज का कारण बन सकती है। कब्ज होने पर व्यक्ति को मलत्याग करने में परेशानी, गैस, एसिडिटी होने लगती है। कई दिनों तक कब्ज की प्रॉब्लम बनी रहे, तो ऐसे में पाइल्स भी हो सकती है। कब्ज की समस्या होने पर फाइबर की अच्छी मात्रा वाले खाद्य पदार्थों को डाइट में शामिल करें।

ब्लड शुगर लेवल में बदलाव-

शरीर में फाइबर की कमी होने पर शुगर लेवल में उतार-चढ़ाव देखने को मिल सकता है। डायबिटीज के मरीजों में वजन बढ़ने की सबसे मुख्य वजह डाइट में फाइबर की कमी होता है। ऐसे में पर्याप्त मात्रा में फाइबरयुक्त खाद्य पदार्थों का सेवन करने से व्यक्ति का वजन संतुलित बना रहने के साथ ब्लड शुगर लेवल भी ठीक रहता है।

**Peanut side effects:**

**Peanut side effects: गलती से भी मूंगफली न खाएं ये 4 तरह के लोग, शरीर आ जाएगा 8 गंभीर बीमारियों की चपेट में (Navbharat Times:20220927)**

**Health benefits and side effects of peanuts:** मूंगफली के सेवन से शरीर को ऊर्जा मिलती है और यह कई पुरानी बीमारियों को भी दूर रखने में मददगार है। इतने फायदे होते हुए भी मूंगफली के कई नुकसान हैं। ऐसा माना जाता है कि जिन लोगों को मूंगफली से एलर्जी है उन्हें इसे हर कीमत पर खाने से बचना चाहिए। क्योंकि इससे उन्हें गले में खराश, त्वचा की समस्याएं, पाचन समस्याएं, सांस फूलना जैसी समस्याएं हो सकती हैं।

health benefits and severe side effects of eating too much peanuts



<https://navbharattimes.indiatimes.com/lifestyle/health/health-benefits-and-severe-side-effects-of-eating-too-much-peanuts/articleshow/94467458.cms?story=1>

**Peanut side effects:** गलती से भी मूंगफली न खाएं ये 4 तरह के लोग, शरीर आ जाएगा 8 गंभीर बीमारियों की चपेट में

मूंगफली (Peanuts) को सस्ता बादाम माना जाता है। इसमें वो सभी तत्व और गुण पाए जाते हैं, जो महंगे बादाम में पाए जाते हैं। भारत में लगभग सभी लोग मूंगफली खाना पसंद करते हैं। सर्दियों के दिनों बिना करारी मूंगफली का के गुजारा नहीं होता है।

बेस्ट सेलिंग टीवी पर छप्पर फाड़ ऑफर्स, 60% तक की छूट।

मूंगफली खाने के फायदे क्या है? यह एक ऐसा स्वस्थ खाद्य पदार्थ है, जो न केवल वजन कम करने में सहायक है बल्कि यह प्रोटीन, कार्ब्स, हेल्दी फैट, फाइबर और फैटी एसिड का भी एक बढ़िया स्रोत है। मूंगफली के सेवन से शरीर को ऊर्जा मिलती है और यह कई पुरानी बीमारियों को भी दूर रखने में मददगार है।

इतने फायदे होते हुए भी मूंगफली के कई नुकसान हैं। ऐसा माना जाता है कि जिन लोगों को मूंगफली से एलर्जी है उन्हें इसे हर कीमत पर खाने से बचना चाहिए। क्योंकि इससे उन्हें गले में खराश, त्वचा की समस्याएं, पाचन समस्याएं, सांस फूलना जैसी समस्याएं हो सकती हैं। चलिए जानते हैं कि मूंगफली खाने के फायदे-नुकसान क्या हैं।