



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Tuesday

20210209

## **Pfizer vaccine**

### **Pfizer vaccine can neutralise coronavirus variants first reported in UK, SA: Study (The Tribune: 20210209)**

<https://www.tribuneindia.com/news/health/pfizer-vaccine-can-neutralise-coronavirus-variants-first-reported-in-uk-sa-study-209965>

Study authors call for continuous monitoring of vaccine efficacy

The COVID-19 vaccine co-developed by the American pharmaceutical giant Pfizer and the German biotechnology company BioNTech can neutralise variants of the novel coronavirus that were first reported in the UK and South Africa, a new study suggests.

The research, published in the journal Nature Medicine, noted that the vaccine is effective against coronavirus variants carrying the N501Y and E484K mutations.

According to the scientists, including those from the University of Texas in the US, these variants have a substitution of the amino acid building blocks that make up the viral spike protein—the part of the virus which enables it to enter human cells.

They said these mutations in the 501st and 484th positions of the protein's amino acid molecule chain appeared in the UK and the South African variants, and could potentially increase the affinity of the viral spike for the receptor on the human cell through which the virus enters cells.

In particular, they said the N501Y mutation may also expand the range of hosts the virus can infect to include mice.

In the current study, the scientists, Pei-Yong Shi and his colleagues engineered combinations of mutations found in these circulating variants and tested a panel of human sera from 20 participants.

They said the sera were obtained from their clinical trial of the Pfizer-BioNtech vaccine obtained two or four weeks after immunisation with two doses spaced three weeks apart.

When they tested the serum against the coronavirus strains, the authors found evidence of neutralisation of the mutant viruses by the sera panel, with slight variation.

According to the scientists, neutralisation against the E484K mutation was slightly lower than that against the N501Y mutation.

Commenting on the research, virologist Lawrence Young from the University of Warwick in the UK, said the findings confirm previous studies indicating that the Pfizer vaccine is very likely to be effective against the UK variant.

“It shows that the mutations found in the South African variant reduced the efficiency of virus neutralisation by 50 per cent but only in six out of the 20 sera examined,” said Young, who was not related to the study.

Jonathan Ball, Professor of Molecular Virology, University of Nottingham in the UK, also noted that the findings are promising.

“This is important work and provides reassurance that the antibody response generated by the Pfizer vaccine is able to neutralise coronavirus genetically engineered to carry some of the mutations seen in the variants of concern first identified in the UK and South Africa,” Ball, who was also unrelated to the study, said in a statement.

“However, we suspect that the effects of these mutations can be influenced by mutations occurring in other parts of the spike protein, so it will be important to validate these promising findings using viruses engineered to carry all of the mutations found in each variant,” he added.

Due to the ongoing evolution of the coronavirus, the study authors called for continuous monitoring of vaccine efficacy for emerging variants. —PTI

## **Alzheimer's disease risk**

### **Higher blood pressure at night may increase Alzheimer's disease risk (The Tribune: 20210209)**

<https://www.tribuneindia.com/news/health/higher-blood-pressure-at-night-may-increase-alzheimers-disease-risk-209656>

Higher blood pressure at night more than in daytime may be a risk factor for Alzheimer's disease in older men, suggest a new study from researchers at Uppsala University. Higher BP at night than in daytime may increase Alzheimer's disease risk.

The study has now been published in the journal Hypertension.

'Dementia' is an umbrella term used to describe a category of symptoms marked by behavioural changes and gradually declining cognitive and social abilities. Numerous factors, including hypertension (high blood pressure), affect the risk of developing these symptoms.

Under healthy conditions, blood pressure (BP) varies over 24 hours, with lowest values reached at night. Doctors call this nocturnal blood pressure fall 'dipping'.

However, in some people, this BP pattern is reversed: their nocturnal BP is higher than in daytime. This blood pressure profile is known as 'reverse dipping'.

"The night is a critical period for brain health. For example, in animals, it has previously been shown that the brain clears out waste products during sleep, and that this clearance is compromised by abnormal blood pressure patterns. Since the night also represents a critical time window for human brain health, we examined whether too high blood pressure at night, as seen in reverse dipping, is associated with a higher dementia risk in older men," said Christian Benedict, Associate Professor at Uppsala University's Department of Neuroscience, and senior author of the study.

To test this hypothesis, the researchers used observational data from one thousand Swedish older men, who were followed for a maximum of 24 years. The included men were in their early seventies at the beginning of the study.

"The risk of getting a dementia diagnosis was 1.64 times higher among men with reverse dipping compared to those with normal dipping. Reverse dipping mainly increased the risk of Alzheimer's disease, the most common form of dementia," said Xiao Tan, postdoctoral fellow from the same department and first author of this research.

"Our cohort consisted only of older men. Thus, our results need to be replicated in older women," said Benedict.

According to the researchers, an interesting next step would be to investigate whether the intake of antihypertensive (BP-lowering) drugs at night can reduce older men's risk of developing Alzheimer's disease. — ANI

## **Experimental drug**

### **Experimental drug can speed up COVID-19 recovery: Study (The Tribune: 20210209)**

<https://www.tribuneindia.com/news/health/experimental-drug-can-speed-up-covid-19-recovery-study-209604>

The study noted that patients who received a single injection of the drug peginterferon-lambda were over four times more likely to have cleared the infection within seven days compared to a group treated with placebo

Scientists have found that an experimental antiviral drug can significantly speed up recovery in COVID-19 patients who do not need hospitalisation, an advance that may lead to better interventions to treat those infected with the novel coronavirus.

The study, published in the journal *Lancet Respiratory Medicine*, noted that patients who received a single injection of the drug peginterferon-lambda were over four times more likely to have cleared the infection within seven days compared to a group treated with placebo.

“This treatment has large therapeutic potential, especially at this moment as we see aggressive variants of the virus spreading around the globe which are less sensitive to both vaccines and treatment with antibodies,” said study co-author Jordan Feld from the Toronto Centre for Liver Disease in Canada.

According to the researchers, people who were treated with the drug cleared the virus quickly with the effect being most pronounced in those with the highest viral levels.

“We also saw a trend towards quicker improvement of respiratory symptoms in the treatment group,” Feld explained.

Patients with higher viral levels were much more likely to clear the infection following treatment with the drug than those who received the placebo — 79 per cent in the treatment arm compared to 38 per cent in the placebo group.

The researchers added that the virus levels decreased quickly in everyone in the treatment group.

They explained that rapid clearance of the virus has several benefits, particularly in those with high viral levels, as such cases are associated with more severe disease and a higher risk of transmission to others.

Among the 60 patients followed in the study, the researchers said five went to emergency rooms with deteriorating respiratory symptoms.

And of those five, they said four were in the placebo group, while only one was in the group which received the actual drug.

“If we can decrease the virus level quickly, people are less likely to spread the infection to others and we may even be able to shorten the time required for self-isolation,” Feld said.

The scientists said interferon-lambda is a protein produced by the body in response to viral infections with the ability to activate a number of cellular pathways to kill invading viruses.

Since the novel coronavirus prevents the body from producing interferons as means to avoid being controlled by the body's immune system, the study said treatment with the drug activated those same virus-killing pathways in the cells.

According to the researchers, the drug peginterferon-lambda is a long-acting version of the drug developed by Eiger BioPharmaceuticals, adding that it could be given as a single injection under the skin with a tiny needle.

They hope to conduct a phase 3 trial in the near future to find the efficacy of the drug in a much larger population. PTI

## **Rapid on-site drug**

### **Rapid on-site drug detection using wearable sensor (The Tribune: 20210209)**

<https://www.tribuneindia.com/news/health/rapid-on-site-drug-detection-using-wearable-sensor-209598>

A sweat patch is attached to the skin for a certain period of time and then irradiated with light for testing

Researchers have developed a wearable sensor that can detect illegal drugs in sweat.

The drugs can be detected by using nanomaterials technology that amplify the optical signal of narcotics to a flexible, body-worn material.

The technology enables fast and highly sensitive drug detection—the sweat patch is attached to the skin for a certain period of time and then irradiated with light for testing.

According to the researchers, it only takes one minute without requiring additional process.

“The developed technology would overcome the technological limitations on identifying drug and prohibited substance use and enable drug detection without invasive and ethical problem,” said researcher Ho Sang Jung from the Korea Institute of Materials Science (KIMS).

For the study, published in the journal ACS Applied Materials and Interfaces, the researchers focused on sweat which is not invasive and relatively free from human rights issues.

However, only small amount of substances is discharged in sweat, even though sweat contains various drugs taken so a highly sensitive sensor technology had to be developed for better detection.

The team's highly sensitive sensing utilised the surface-enhanced Raman scattering technology capable of enhancing the Raman signal of chemical substances by 1010 times and more.

As the Raman scattering signal includes the specific signal of molecules, intuitive substance identification is possible no matter what drug is discharged.

The researchers paid attention to the cocoon protein, a flexible and wearable material to develop a wearable optical sensor, according to the researchers.

A silk fibroin solution, a natural protein, was extracted from silkworm cocoon to make a 160 nanometer (nm) thick film.

The film was coated with 250 nm thick silver nanowire and transferred to the medical patch that can be attached to the skin.

Once the patch absorbs the sweat, the drug substance in the sweat penetrates the wearable sensor and reaches the silver nanowire.

By exposing the Raman laser on the patch, the drug can be detected in real time without removing the sensor. IANS

## **Anticancer drug**

### **Anticancer drug may improve outcome for severe Covid patients (The Tribune: 20210209)**

<https://www.tribuneindia.com/news/health/anticancer-drug-may-improve-outcome-for-severe-covid-patients-209180>

Bevacizumab is a medication that has been used to treat various types of cancer since 2004

Treating severe Covid-19 patients with an anticancer drug may reduce mortality and speed up recovery, a new study suggests.

According to a small clinical study, published in the journal Nature Communications, the drug called bevacizumab may be beneficial for Covid-19 patients.

"Our findings suggest that bevacizumab plus standard care is highly beneficial for patients with severe Covid-19 and should be considered as a potential first-line therapeutic regimen for this group," said researcher Yihai Cao from the Karolinska Institutet in Sweden.

Bevacizumab is a medication that has been used to treat various types of cancer since 2004.

It works by slowing the formation of new blood vessels by inhibiting a growth factor known as VEGF. Many patients with severe Covid-19 have elevated levels of VEGF as well as symptoms associated with this marker, including excess fluid and disorganized blood vessels in the lungs.

Against this background, the researchers designed a clinical trial to investigate the effect of combining bevacizumab with standard care for treating patients with severe Covid-19.

For the study, the team recruited twenty-six confirmed Covid-19 patients with symptoms such as difficulty breathing, low blood oxygen levels and pneumonia.

They were retrospectively matched with 26 patients of similar characteristics who received standard care at the same hospitals in roughly the same time period and thus served as the control group.

The recruits received standard care plus a single low dose of about 7.5 mg/kg bevacizumab, which markedly improved blood oxygen levels within 24 hours compared to the control group.

By the end of the 28-day follow-up period, 92 per cent of the bevacizumab-treated patients no longer needed the same level of oxygen support as before the trial began, compared with an improvement rate of 62 per cent for the controls.

None of the bevacizumab-treated patients died and 17 (65 per cent) improved so much that they were able to leave the hospital within the follow-up period. In the control group, three died and only 46 per cent were discharged within 28 days.

The drug also shortened the duration of oxygen-support to a median of nine days compared with 20 for the standard care group. — IANS

## **Mediterranean diet**

### **Vegan diet better for weight loss than Mediterranean diet (The Tribune: 20210209)**

<https://www.tribuneindia.com/news/health/vegan-diet-better-for-weight-loss-than-mediterranean-diet-209130>

Blood pressure decreased on both diets

Vegan diet better for weight loss than Mediterranean diet

Photo for representation only. Source: iStock.

A vegan diet is more effective for weight loss and cholesterol control than a Mediterranean diet, a new study suggests.

The findings, published in the Journal of the American College of Nutrition, indicated that the study participants lost an average of 6 kilograms on the vegan diet, compared with no mean change on the Mediterranean diet.

“Previous studies have suggested that both Mediterranean and vegan diets improve body weight and cardiometabolic risk factors, but until now, their relative efficacy had not been compared in a randomized trial,” said researcher Hana Kahleova from the Physicians Committee for Responsible Medicine, a non-profit organization in the US.

According to the researchers, a low-fat vegan diet has better outcomes for weight, body composition, insulin sensitivity, and cholesterol levels, compared with a Mediterranean diet.

For the study, the team randomly assigned participants—who were overweight and had no history of diabetes—to a vegan diet or a Mediterranean diet in a 1:1 ratio.

For 16 weeks, half of the participants started with a low-fat vegan diet that eliminated animal products and focused on fruits, vegetables, whole grains, and legumes.

The other half started with the Mediterranean diet, which followed the PREDIMED protocol, which focuses on fruits, vegetables, legumes, fish, low-fat dairy, and extra virgin olive oil, while limiting or avoiding red meat and saturated fats.

The study found that the vegan diet decreased total and LDL cholesterol levels by 18.7 mg/dL and 15.3 mg/dL, respectively, while there were no significant cholesterol changes on the Mediterranean diet.

### **New questions: On COVID-19**

### **New questions: On COVID-19 infecting one-fifth of Indian population ((The Hindu: 20210209)**

<https://www.thehindu.com/opinion/editorial/new-questions-the-hindu-editorial-on-covid-19-infecting-one-fifth-of-indian-population/article33762932.ece>

ICMR’s serological survey findings may have relevance for modifying vaccination policy

The results of the ICMR’s third serological survey to ascertain the spread of COVID-19 show that nearly one in five Indians — about 270 million — may have been infected. The headline findings were publicised at a press conference and it will be a while before granular details of the course of the infection — as was known till December — will be made public in a peer-reviewed journal. However, what is known so far is that compared to August — when data for the second serological survey was announced — there has been a three-fold rise in infections. There has also been a five-fold rise (in percentage terms) of the infection in those aged 10-17 years. The third edition also included a serological survey of doctors, nurses and paramedical staff, revealing that nearly 25% — significantly above the national average — had been infected. Compared to reports of city-focused serology surveys in Delhi and mathematical modelling estimates, the ICMR survey-results appear to be more conservative in estimating the true spread. Experts of various hues point to the declining trend in infections since September,

and the absence of multiple peaks in coronavirus cases as a pointer to the spread being far wider and speeding up ‘herd immunity’— a state when a significant proportion of people in a locale have been infected, thereby retarding future spread. But it would be wrong to derive comfort from this situation. The ICMR emphasises that the results point to a significant number still potentially vulnerable, underscoring the need to be vaccinated and continuing with distancing and masking up. Also, neither this survey nor any city-wide survey has evaluated how long antibodies persist and if certain virus mutant variants can overcome the protection from antibodies.

Given that vaccines are round the corner for the general public and that no district has been immune from the virus, it is now no longer useful to know that 80% of India is still vulnerable. Rather, such surveys must shift focus to asking more granular questions: should the rise in spread among teenagers and children mean that they be considered for vaccination earlier than scheduled? Should companies accelerate trials to test protection in children? Should the rise in rural India — the survey is designed in a way to sample more villages than urban pockets — mean that they be given vaccines earlier? These and many more questions are no doubt already on the minds of specialist researchers but alongside the vaccination drives, the ICMR and the government health facilities must coordinate with a broader spectrum of specialists to investigate questions that can be used to guide and modify vaccination policy.

## **COVID-19: New cases**

### **COVID-19: New cases fall below 10,000 for second time in February (The Hindu: 20210209)**

<https://www.thehindu.com/news/national/covid-19-new-cases-fall-below-10000-for-second-time-in-february/article33789288.ece>

Workers sanitise a classroom as schools prepare to reopen for 6th to 8th standard students after remaining closed for months due to COVID-19 pandemic, in Mirzapur on February 8, 2021. | Photo Credit: PTI

The COVID-19 active caseload remained below 2 lakh

The daily new COVID-19 cases fell below 10,000 for the second time this month taking India’s tally of cases to 1,08,47,304, while fresh fatalities remained below 100 for the fourth consecutive day, according to the Union Health Ministry data updated on February 9.

Coronavirus updates — February 9, 2021

A total of 9,110 new infections were reported in a span of 24 hours, while the death toll increased to 1,55,158 with 78 daily new fatalities, the data updated at 8 am showed. The number

of people who have recuperated from the disease surged to 1,05,48,521 pushing the national COVID-19 recovery rate to 97.25%, while the COVID-19 case fatality rate stands at 1.43%.

The COVID-19 active caseload remained below 2 lakh.

State Helpline numbers for COVID-19

There are 1,43,625 active cases of coronavirus infections in the country which comprise 1.32% of the total caseload, the data stated. India's COVID-19 tally had crossed the 20-lakh mark on August 7, 30 lakh on August 23, 40 lakh on September 5 and 50 lakh on September 16. It went past 60 lakh on September 28, 70 lakh on October 11, crossed 80 lakh on October 29, 90 lakh on November 20 and surpassed the one-crore mark on December 19.

## Surgery (The Asian: 20210209)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=15397118>

### SC sets aside Centre's decision not to lower cut-off marks for dental surgery course

New Delhi, Feb. 8: In a setback to the Centre, the Supreme Court, on Monday, set aside its order not to lower the minimum marks for admission to the Bachelor of Dental Surgery (BDS) course for 2020-2021 saying it suffers from the vices of illegality and irrationality.

The top court directed the Centre that the vacant seats in first year BDS for the academic year 2020-2021 be filled from the candidates who participated in the NEET (UG) courses for the current year after lowering the minimum

mark by 10 percentile. It noted that there are about 7,000 seats available for admission to the first-year BDS course during the current academic year for which the examinations were held on September 13, 2020.

A bench of Justices L.N. Rao and Krishna Murari held that the candidates belonging to the general category who have secured 40 percentile shall be eligible to be considered for admission in the first year BDS course for 2020-2021.

The bench said the students belonging to the

SC/ST/OBC categories shall be declared qualified if they have secured 30 percentile.

In so far as general candidates with bench mark disabilities specified under the Rights of Persons with Disabilities Act, 2016, is considered they would be eligible if they have secured 35 percentile, it said, adding that the admissions shall be made strictly in accordance with merit and the admission process shall be completed by February 18, 2021.

It said that any other student who has qualified in

the BDS course. THE TOP court directed the Centre that the vacant seats in first year BDS for the academic year 2020-2021 be filled from the candidates who participated in the NEET (UG) courses for the current year after lowering the minimum mark by 10 percentile.

NEET (UG)-2020 examination, even without lowering the minimum marks and is willing to participate in the admission process, shall also be considered for admission to

the BDS course.

The bench rejected the submission of the Centre that there is sufficient number of dentists in the country and, therefore, there is no harm in the seats being unfilled.

It, however, concurred with the government submissions that the actual reason for BDS seats going vacant is due to the exorbitant fee charged by the private dental colleges which is a deterrent for the seats not being filled up.

Only 265 out of 7,000 seats are vacant in government colleges. All the

other unfilled seats are in private dental colleges. The managements of private dental colleges shall consider reducing the fee charged by them to encourage students to join the colleges, the bench said. It noted that the Centre has reduced the minimum marks for admission to first-year BDS course for the year 2019-2020 in consultation with the Dental Council of India but for the current academic year, despite recommendation by the council on December 29, 2020, it deemed fit not to lower the

minimum marks.

The bench noted that the total number of seats available for the academic year 2020-2021 for MBBS is 91,367; BDS 26,049; and AYUSH 52,720, making it a total of 1,71,036 seats. However, the NEET qualified candidates are 7,71,500.

The ratio of seats available vis-à-vis eligible students is 14.5 and not 7. The basis for the decision to not reduce minimum marks, that there are sufficient eligible candidates, is without considering these vital facts. —PTI

## HIV: An innovative therapeutic

## HIV: An innovative therapeutic breakthrough to optimize the immune system (New Kerla: 20210209)

<https://www.newkerala.com/news/2021/24118.htm>

Prompted by the need to improve conventional treatments for people infected with the human immunodeficiency virus (HIV-1), a team from the Institut national de la recherche scientifique (INRS) has identified a therapeutic approach to restore the effectiveness of immune cells.

The study, led by doctoral student Hamza Loucif and Professor Julien van Grevenynghe, was published in the journal *Autophagy*.

Most people infected with HIV-1 require daily antiretroviral therapy to control the infection. These drugs cause significant side effects without fully restoring the normal functioning of the immune system. Yet, a specific group of patients, called "elite controllers", are able to live with the infection without any drug intervention.

"They represent an incredible model for detecting, at the molecular level, what needs to be improved for other patients," said Professor Julien van Grevenynghe.

"That's why the team of immunologists wanted to find out what differentiates them from conventionally treated patients to develop new weapons against infection," added Grevenynghe.

Scientists demonstrated that the strength of elite controllers comes from their energy metabolism within CD8 lymphocytes.

"Cells require energy, produced in the mitochondria to protect the body and carry out their functions. However, this energy is not used effectively by treated patients. Due to a deregulation of the metabolism, the cells are weakened in their immune function," said Professor van Grevenynghe, who has worked on HIV for 15 years.

This energy deficiency is not permanent. Indeed, the research team demonstrated that CD8 lymphocytes can be "re-educated" using a soluble protein that optimizes their energy intake and immune function.

"The protein, called interleukin-21 (IL-21), restores mitochondrial energy metabolism through a cell recycling process called autophagy. For elite controllers, the degradation of lipid reserves through autophagy, or lipophagy, is highly effective," said the Ph.D. student.

"These results have an undeniable therapeutic interest, as the protein already exists! Moreover, the mere fact that elite controllers exist is proof in itself that we will one day be able to survive the infection without aggressive treatment," Professor van Grevenynghe enthusiastically points out. "We might ultimately be thinking about ending the treatment. The cells could also respond better to vaccination and treatment with better energy efficiency."

All the immune protection associated with CD8 lymphocytes comes from the presence of CD4 lymphocytes. These cells act as orchestra conductors' cells of the immune system. Therefore, the research team wants to determine if CD4 lymphocytes also have a metabolic advantage. Ultimately, the group wants to test their therapeutic approach in humanized mouse models and even macaques.

An additional benefit of this breakthrough is that the results of the study would not be limited to HIV-1 alone. "A comparison can be made with other pathologies associated with persistent inflammation, such as cancer, diabetes and even COVID-19 with lung inflammation," said Julien van Grevenynghe. (ANI/3 hours ago)

Alzheimer's disease

Higher blood pressure at night than in daytime may increase Alzheimer's disease risk (New Kerala: 20210209)

<https://www.newkerala.com/news/2021/24036.htm>

Higher blood pressure at night than in daytime may be a risk factor for Alzheimer's disease in older men, suggest a new study from researchers at Uppsala University. Higher BP at night than in daytime may increase Alzheimer's disease risk

The study has now been published in the journal Hypertension.

'Dementia' is an umbrella term used to describe a category of symptoms marked by behavioural changes and gradually declining cognitive and social abilities. Numerous factors, including hypertension (high blood pressure), affect the risk of developing these symptoms.

Under healthy conditions, blood pressure (BP) varies over 24 hours, with lowest values reached at night. Doctors call this nocturnal blood pressure fall 'dipping'.

However, in some people, this BP pattern is reversed their nocturnal BP is higher than in daytime. This blood pressure profile is known as 'reverse dipping'.

"The night is a critical period for brain health. For example, in animals, it has previously been shown that the brain clears out waste products during sleep, and that this clearance is compromised by abnormal blood pressure patterns. Since the night also represents a critical time window for human brain health, we examined whether too high blood pressure at night, as seen in reverse dipping, is associated with a higher dementia risk in older men," said Christian Benedict, Associate Professor at Uppsala University's Department of Neuroscience, and senior author of the study.

To test this hypothesis, the researchers used observational data from one thousand Swedish older men, who were followed for a maximum of 24 years. The included men were in their early seventies at the beginning of the study

"The risk of getting a dementia diagnosis was 1.64 times higher among men with reverse dipping compared to those with normal dipping. Reverse dipping mainly increased the risk of Alzheimer's disease, the most common form of dementia," said Xiao Tan, postdoctoral fellow from the same department and first author of this research.

"Our cohort consisted only of older men. Thus, our results need to be replicated in older women," said Benedict.

According to the researchers, an interesting next step would be to investigate whether the intake of antihypertensive (BP-lowering) drugs at night can reduce older men's risk of developing Alzheimer's disease. (ANI/5 hours ago)

## **Fertility**

### **Zinc could help with fertility during COVID-19 pandemic: Study (New Kerla: 20210209)**

<https://www.newkerala.com/news/2021/23809.htm>

A new study has suggested that zinc supplements for both men and women, who are attempting to conceive can assist in reproduction during the coronavirus pandemic. Zinc may help prevent mitochondrial damage in young egg, and sperm cells.

The study was published in the journal 'Reproductive Sciences'. The COVID-19 pandemic, which has taken a toll on the physical and mental health of people, has also reportedly affected fertility among men and women. The new study has found a way to combat the ill-effects of the pandemic, on fertility.

Wayne State University School of Medicine researchers, who led the study, also reported that zinc could enhance immunity against the virus.

In 'Potential Role of Zinc in the COVID-19 Disease Process and its Probable Impact on Reproduction', Husam Abu-Soud, Ph.D., associate professor of Obstetrics and Gynecology and the C.S. Mott Center for Growth and Development, said that in addition to benefiting couples attempting to conceive during the pandemic, zinc supplementation of up to a maximum of 50 mg per day for all adults could be beneficial in enhancing immunity and fighting the viral disease process of COVID-19.

Dr Abu-Soud and co-authors Ramya Sethuram, Reproductive Endocrinology and Infertility fellow, and medical student David Bai, reviewed the pathophysiology of COVID-19, particularly in relation to reproductive function.

They found that zinc depletion in connection with the cytokine storm - the overreaction of the immune system that causes inflammation, tissue damage, and possible organ failure in fighting COVID-19 - can cause mitochondrial damage and an accumulation of reactive oxygen species in the immature egg and sperm. The result could prevent reproduction and conception.

Zinc has beneficial effects as an antioxidant and anti-inflammatory agent, and could prevent or mitigate the damage in the egg and sperm cells that result from the body's immune reaction to the virus, Dr Abu-Soud said. The use of zinc could improve embryo quality and potentially lessen some pregnancy complications.

He also noted that zinc can be beneficial to the general population in enhancing immunity and fighting the viral disease process. The element works by combating oxidative cell damage.

Zinc alone may be insufficient to reverse the process once widespread oxidative cell damage has occurred. However, if the supplement is administered to those infected with COVID-19 before the cytokine storm phase, zinc may assist in ameliorating disease progression in the mild and early phases by suppressing viral replication and preventing cell damage as a pro-antioxidant, the researchers said. (ANI/21 hours ago)

## Green Tea

**ग्रीन टी के फायदों की लिस्ट है लंबी पर क्या सुबह खाली पेट इसका सेवन है लाभकारी? जानिए यहां (Navbharat Times: 20210209)**

<https://navbharattimes.indiatimes.com/lifestyle/health/is-it-ok-to-drink-green-tea-on-an-empty-stomach/articleshow/80759600.cms?story=2>

कुछ लोग इसका सेवन वर्कआउट से पहले करना भी पसंद करते हैं और कुछ काम करते वक्त भी पीते हैं। यह आपकी इच्छा पर निर्भर करता है कि आप इसे कब पीना पसंद करते हैं। लेकिन खाली पेट इसका सेवन बिल्कुल भी न करें।

is it ok to drink green tea on an empty stomach

ग्रीन टी के फायदों की लिस्ट है लंबी पर क्या सुबह खाली पेट इसका सेवन है लाभकारी? जानिए यहां

सेहत के लिए ग्रीन टी (Green tea) कई तरह से फायदेमंद होती है। वेटलॉस ड्रिंक की बात करें तो इसमें सबसे ऊपर ग्रीन टी का ही नाम आता है। वजन घटाने से लेकर ब्लड शुगर कंट्रोल और इससे पाचन में भी सुधार होता है। ग्रीन टी पीने से कोलेस्ट्रॉल कम करने में भी मदद मिलती है। इसके फायदों की लिस्ट काफी लंबी है और सेहत विशेषज्ञों की मानें तो एक दिन में दो कप ग्रीन टी पीने से सेहतमंद रहा जा सकता है।

कुछ लोगों को ग्रीन टी इतनी पसंद होती है कि इसी से अपने अपने दिन की शुरुआत करते हैं लेकिन क्या वास्तव में सुबह के वक्त खाली इसका सेवन फायदेमंद है? जानकारों की मानें तो खाली पेट ग्रीन टी पीने से शरीर पर नकारात्मक प्रभाव पड़ सकता है।

कब्ज की समस्या को जन्म दे सकती है ग्रीन टी

ग्रीन टी में टैनिन होता है जो पेट में एसिड को बढ़ा सकता है जिससे पेट में दर्द हो सकता है। पेट में अत्यधिक एसिड पहुंचने से मिचली यानी घबराहट या उलटी (Nauseous) जैसा अहसास हो सकता है। खाली पेट ग्रीन टी के सेवन से कब्ज (constipation) की समस्या को भी जन्म दे सकता है। इसलिए खाली पेट ग्रीन टी का सेवन नहीं करना चाहिए। इसे हमेशा खाने के बाद या खाने के बीच में पी पीना चाहिए। पेटिक अल्सर (या एसिड रिफ्लक्स (peptic ulcers or acid reflux) से ग्रस्त लोगों के लिए ग्रीन टी सही नहीं है।

कब्ज में बिल्कुल न खाएं ये चीजें, बढ़ सकती हैं मुश्किलें

एनीमिया से पीड़ित लोगों को नहीं करना चाहिए ग्रीन टी का सेवन

ऐसा माना जाता है कि ग्रीन टी में जो कैफीन होता है उससे एंग्जायटी की स्थिति और बदतर हो सकती है। इसलिए एंग्जायटी यानी चिंता या पैनिक अटैक से ग्रस्त लोगों को ग्रीन टी का सेवन कम करना चाहिए। खाली पेट तो बिल्कुल भी नहीं करना चाहिए। इसमें मौजूद कैटेचिन खाद्य पदार्थों से आयरन के अवशोषण को घटा देता है। अगर आपको आयरन डेफिशियंसी एनीमिया है तो नेशनल कैंसर इंस्टीट्यूट के अनुसार आपको खाना खाने के बीच में ग्रीन टी पीनी चाहिए। इससे खाने से मिलने वाले आयरन का अवशोषण बढ़ जाता है।

नुकसान दायक है खाली पेट चाय

जब भी आप खाली पेट चाय का सेवन करते हैं तो इसमें मौजूद यौगिक शरीर और रक्त यानी ब्लड को प्रभावित करते हैं। इसीलिए जब आप ग्रीन टी पीते हैं तो इसके साथ कुछ खाएं जरूर। यह शरीर में मौजूद प्रोटीन को कम करती है। खाली पेट इसके सेवन करने वालों को अल्सर और हाइपर एसिडिटी होने का खतरा रहता है। खाली पेट लेने से आपको गैस और एसिडिटी की भी परेशानी हो सकती है। साथ ही इसके सेवन से पित्त रस के बनने और काम की प्रक्रिया पर असर पड़ता है। इसकी वजह से मिचली आ सकती है और घबराहट महसूस हो सकती है।

## Ayurved

**आयुर्वेद कहता है बच्चों के लिए जहर है इन चीजों को एक साथ खाना, बीमारियों का लग सकता है डेर((Navbharat Times: 20210209)**

<https://navbharattimes.indiatimes.com/lifestyle/family/foods-that-kids-should-not-be-eaten-together-in-hindi/articleshow/80760000.cms?story=3>

कुछ चीजों को एक साथ खाना आयुर्वेद के अनुसार स्वास्थ्य के लिए नुकसानदायक हो सकता है।

### foods that kids should not be eaten together in hindi

आयुर्वेद कहता है बच्चों के लिए जहर है इन चीजों को एक साथ खाना, बीमारियों का लग सकता है डेर

हेल्दी और पौष्टिक चीजें खाने से स्वास्थ्य अच्छा रहता है लेकिन अगर इन्हीं चीजों को ठीक तरह से ना खाया जाए तो ये फायदे की जगह नुकसान दे सकती हैं। जी हां, कुछ खाद्य पदार्थों को एकसाथ खाना स्वास्थ्य के लिए हानिकारक साबित हो सकता है और बच्चों के मामले में तो यह बहुत ज्यादा खतरनाक हो सकता है।

वहीं कुछ खाद्य पदार्थ ऐसे हैं जो अक्सर बच्चों को एकसाथ दिए जाते हैं जो कि बिल्कुल गलत है। इसलिए इस आर्टिकल में हम आपको बताने जा रहे हैं कि बच्चों को क्या चीजें एकसाथ नहीं खिलानी चाहिए।

### फ्रूट और योगर्ट

आयुर्वेद के अनुसार योगर्ट के साथ फल खाने के साथ पाचन अग्नि खराब होती है और इससे शरीर में विषाक्त पदार्थ बनते हैं। इसकी वजह से एलर्जी, जुकाम और खांसी हो सकती है।

### सफेद ब्रेड और जैम

बच्चों को नाश्ते में ब्रेड और जैम खूब पसंद आता है लेकिन आपको जानकर हैरानी होगी कि ये कॉम्बिनेशन सेहत के लिए ठीक नहीं होता है। इससे अचानक ब्लड शुगर लेवल बढ़ जाता है। ऐसे में बच्चों को बहुत थकान महसूस होती है और उनकी रोजमर्रा की जिंदगी प्रभावित होती है। इससे थकान और नींद ज्यादा आती है।

इसके अलावा ब्रेड और जैम खाने से रक्त वाहिकाओं में अचानक से शुगर बढ़ जात है और इस समय पर्याप्त इंसुलिन बनाने के लिए शरीर को ज्यादा मेहनत करनी पड़ती है। इससे शरीर पर खासतौर पर पैक्रियाज पर अनावश्यक दबाव पड़ता है।

व्हाइट ब्रेड की जगह बच्चे को फाइबर युक्त होल ग्रेन और मल्टी ग्रेन ब्रेड खिलाएं।

यह भी पढ़ें : बच्चे की मोटाई और लंबाई बढ़ाने के लिए उसे खिलाएं केले से बनी दलिया

## मीट और स्टार्च

मीट के साथ कभी भी स्टार्च युक्त वाली चीजें जैसे कि आलू, पास्ता और ब्रेड आदि नहीं खानी चाहिए। इन दोनों चीजों को पचाने के लिए पेट की अलग-अलग स्थिति की जरूरत होती है जिसमें एसिडिटी का लेवल खासतौर पर शामिल है।

बच्चों को एक साथ प्रोटीन और स्टार्च वाला खाना ना खिलाएं। शरीर कंप्यूज हो जाता है कि उसे पहले किसे पचाना है। ऐसा देखा गया है कि शरीर पहले प्रोटीन और फिर स्टार्च को पचाता है। हालांकि, इस बीच पेट में मौजूद एसिड की वजह से स्टार्च फर्मेंट हो जाता है। यह सड़ जाता है और शरीरमें विषाक्त पदार्थ पैदा करता है। इससे पेट में ऐंठन, अपच, गैस और पेट फूलने जैसी कई समस्याएं पैदा होती हैं।

इसलिए बेहतर होगा कि आप एक समय पर एक ही टाइप का फूड सर्व करें वरना बच्चे के पेट और सेहत को नुकसान पहुंच सकता है। इसके अलावा बच्चे के खाने में हरी सब्जियों को भी शामिल करें।

## केला और दूध

अक्सर पेरेंट्स बच्चों को नाश्ते में केला और दूध खिलाते हैं जो कि आयुर्वेद के अनुसार बिल्कुल गलत है। आयुर्वेद के अनुसार केला और दूध एकसाथ शरीर में विषाक्त पदार्थों के उत्पादन को उत्तेजित करते हैं।

इससे सुस्ती और दिमाग भी स्लो हो जाता है। केले की समूदी खाने के बाद बच्चों को अक्सर सुस्ती और उनींदापन महसूस होता है। इससे शरीर में कफ और खांसी भी बढ़ सकती है इसलिए खांसी-जुकाम होने पर बच्चे को केले के साथ दूध ना दें।

यह भी पढ़ें : इस उम्र में शिशु को केला जरूर खिलाएं, मिलेगा दोगुना फायदा

**Navbharat Times News App:** देश-दुनिया की खबरें, आपके शहर का हाल, एजुकेशन और बिजनेस अपडेट्स, फिल्म और खेल की दुनिया की हलचल, वायरल न्यूज और धर्म-कर्म... पाएँ हिंदी की ताज़ा खबरें डाउनलोड करें **NBT** ऐप

लेटेस्ट न्यूज से अपडेट रहने के लिए **NBT** फेसबुक पेज लाइक करें