Poshan Abhiyan

Need to bring back Poshan Abhiyan at the level it was in pre-COVID times: UNICEF
According to Wagt, there was a need to adjust and look for alternative ways of implementation of different programmes related to nutrition because of the pandemic (The Tribune: 2020105)


Need to bring back Poshan Abhiyan at the level it was in pre-COVID times: UNICEF
Photo for representation. PTI file

There was a need to bring back the national nutrition mission at the same level it was before the coronavirus outbreak, said chief of UNICEF India (Nutrition) Arjan de Wagt.

He said programmes under the Poshan Abhiyan such as the functioning of the Integrated Child Development Services (ICDS), take-home rations and giving pregnant women and children iron folic tablets to prevent anaemia needed to be fully implemented again.

“We need Poshan Abhiyan back at the same level and beyond than where we were in January (pre-COVID times). It does not require any different response. We need the same programmes. We need the ICDS functioning, take-home rations functioning, pregnant women and children receiving iron folic tablets to prevent anaemia,” Wagt told PTI.

He stressed that all routine services needed to get back on track and not any new intervention.

According to Wagt, in many cases, there was a need to adjust and look for alternative ways of implementation of different programmes related to nutrition because of the pandemic.
“In many cases, we need to adjust. For example, since schools are closed, children need to get the food they used to get in schools. So, we need to look for other ways like take-home rations delivered door-to-door. There is a need to go to every door that needs it and not a smaller number of people. Iron folic tablets, which are distributed to adolescent girls in schools, can be given to those who need it through communities,” he said.

There are three pathways on how coronavirus affects nutrition in India. The first is increasing poverty with people losing jobs. Poverty leads to food insecurity and different eating behaviours. The second is how services were affected and the third one is how leadership was affected in these times in terms of focus on nutrition, Wagt said.

He stated that in the past, ‘Poshan Pakwada’ and ‘Poshan Maah’ had a key component of bringing a large number of people together in communities, mass gatherings to educate people about good nutrition, but as seen in the last four weeks there were no such gatherings due to the coronavirus infection.

“So, more mass media, home visits, home counselling are needed,” he said.

Poshan Abhiyan was launched by the Centre in 2018 to reduce low birth weight, stunting and undernutrition and anaemia among children, adolescent girls and women. Under the mission, Poshan Maah is observed every September.

During Poshan Maah, initiatives are taken to bring a behavioural change towards issues related to maternal, infant and young childcare and feeding practices. Poshan Pakwada is a 14-day event held every year to spread awareness on the importance of nutrition.

According to the National Family Health Survey-4 (NFHS-4), 38.4 per cent children under five years of age are stunted (low height-for-age) and 21 per cent wasted (low weight-for-height).

About the impact of missing out on midday meals given to children in schools due to coronavirus, Wagt said many children went to school as they knew they would get food there, and in many cases, it was one of the most nutritious meals a child gets.

“During the lockdown, there have been efforts to bring that food to the doorstep of children. But I am not sure how effective that has been,” he said.

Asserting that families needed to be made adequately aware of the importance of nutrition, Wagt said: “For many people, food is for hunger but people don’t realise that eating is to nourish the body and mind, to build the immune system.”

“I have always been saying that all these government programmes of feeding and nutrition are crucial, but for me, it also lays emphasis on how nutrition is too important to be left to the government. For me, nutrition is even too personal to leave it to government and it needs to be communities, families and parents that are also feeding children and at the end of the day the plate in the home is provided by the family,” he said.

On the importance of breastfeeding even in the times of coronavirus pandemic, Wagt said breast milk was the first vaccination provided to a child and the risk of not breastfeeding or poor breastfeeding was much higher than the risk of transmitting COVID to the baby.
“There are special proteins, special immune factors in the breast milk that builds the immune system of the baby in the first few days and then in the first six months. So breastfeeding is very essential but people have been afraid of spreading the virus to other people and are asking if they should continue breastfeeding,” he advised.

There was very little evidence that breastfeeding could transmit the virus. Also, the risk of coronavirus among children didn’t seem to be that high as the risk of not breastfeeding. Breastfeeding must continue even in times of COVID with proper precautions, Wagt stressed.

‘Keto’ diet

Why prolonged 'Keto' diet can be deadly for you (The Tribune: 2020105)


Go for it only if the prime focus is on losing weight and ask a nutritionist first and follow every related precaution

As the nation left shocked after the death of actress Mishti Mukherjee due to renal failure as a result of 'Keto diet,' health experts warned on Sunday that this hardest diet leads to an overload consumption of protein and burdens the kidney function and should not be made a permanent diet schedule.

According to experts, Keto diet is not advisable to be continued for more than six months, that too with breaks during this period.

Parmeet Kaur, the Senior Dietician at Narayana Hospital in Gurugram, told IANS: "Once you start a keto diet, the results start showing up in one week, it works that fast because the body starts using body fat itself to produce more energy than carbohydrates."

"But prolonged intake of fat has the high risk of increasing cholesterol and also high protein puts pressure on kidneys, some Keto diet followers even report low blood pressure as well which in the long run can result in heart diseases as well," Kaur said.

Go for it only if the prime focus is on losing weight and ask a nutritionist first and follow every related precaution.

A recent study from Harvard University in the US had revealed that the ketogenic diet has numerous risks. Kidneys help metabolize protein, and the keto diet may overload them.

It is also associated with an increase in "bad" LDL cholesterol, which is also linked to heart disease.
According to Salil Jain, Director-HOD, Nephrology and Renal Transplant, Fortis Memorial Research Institute in Gurugram, Keto diet is high in fats and proteins and low carbohydrates. If you consume a lot of these foods, especially red meat, it may lead to a higher risk of forming kidney stones.

"It may also worsen the kidney functioning of those who already have kidney diseases. The theory is that higher intake of animal food products can make your urine more acidic i.e. increase level of excretion of calcium from your urine," Jain said.

There are numerous studies which say that the keto diet may reduce citrate level that's released in your urine. Citrate binds calcium and prevents kidney stone formation. A reduced level of citrate may raise the risk of developing a stone.

Studies claim that this overdrive of the kidney leads to excess amounts of sodium, calcium and potassium excretion, the expert said.

"Keto diet is one of the hardest diet schedules to follow which primarily focuses on weight loss. It surely has the potential risk of other health problems as the user is on high proteins and fats intake," said Priya Bharma, Senior Dietician, Sri Balaji Action Medical Institute in New Delhi.

"A person with ideal or lesser body weight is generally not suggested to go for it. It is not suggested to continue for more than 45 days in one go as the body starves for other nutrients as well as high protein puts pressure on the kidney without other related precautions," she noted. IANS

COVID-19 test

Researchers develop new COVID-19 test that doesn’t use scarce reagents
(The Tribune: 2020105)


New method correctly identified 92 per cent of the positive samples and 100 per cent of the negatives

Researchers develop new COVID-19 test that doesn’t use scarce reagents
Photo for representational purpose only. iStock

Scientists have developed a new method of testing for COVID-19 that doesn’t make use of key reagents but still delivers an accurate result, an advance that may lead to an inexpensive diagnosis technique in developing countries where chemical supplies are in short supply.
The method, described in the journal PLOS Biology, omits the step in the widely used reverse transcription polymerase chain reaction (RT-PCR) test where the scarce reagents are needed, but has an accuracy of 92 per cent, missing only the lowest viral loads.

The researchers, including those from the University of Washington in the US, tested the new method using 215 COVID-19 samples that RT-PCR tests had shown were positive, with a range of viral loads, and 30 that were negative.

They said it correctly identified 92 per cent of the positive samples and 100 per cent of the negatives.

While the positive samples the new test failed to catch had very low levels of the virus, the scientists said ultra-sensitive tests that identify individuals with even the smallest viral loads may not be needed to slow the spread of the disease.

“It was a very positive result,” said Jason Botten senior author of the study from the University of Vermont in the US.

“You can go for the perfect test, or you can use the one that’s going to pick up the great majority of people and stop transmission,” Botten said.

While standard PCR tests have three steps, the version developed by the researchers has only two, the study noted.

“In step 1 of the RT-PCR test, you take the swab with the nasal sample, clip the end and place it in a vial of liquid, or medium. Any virus on the swab will transfer from the swab into the medium,” Botten said.

“In step 2, you take a small sample of the virus-containing medium and use chemical reagents, the ones that are often in short supply, to extract the viral RNA. In step 3, you use other chemicals to greatly amplify any viral genetic material that might be there. If virus was present, you’ll get a positive signal,” he explained.

In the new method, Botten said, a sample of the medium that held the nasal swab is taken directly to the third, amplification step, removing the need for scarce RNA extraction reagents as well as significantly reducing the time, labour and costs required to extract viral RNA from the medium in step 2.

According to the researchers, the test is ideally suited to screening programs, in both developed and developing countries, since it is “inexpensive, takes much less processing time, and reliably identifies those who are likely to spread the disease.” Its low cost and efficiency could extend testing capacity to groups not currently being tested, including the asymptomatic, nursing home residents, essential workers and school children, Botten added.

He said the standard RT-PCR test could be reserved for groups, like health care workers, where close to 100 per cent accuracy is essential. PTI
There is growing hope that a vaccine against coronavirus may be given the green light by health regulators by the end of this year to be rolled out for a vaccination programme in six months' time or even less, according to a UK media report.

Covid vaccine rollout unlikely before fall 2021, say experts

The vaccine candidate under trial by University of Oxford scientists in collaboration with pharmaceutical giant AstraZeneca is the furthest in the process of trials and, according to a report in ‘The Times’, it could be given the required clearances by Christmas.

The newspaper quoted UK government sources involved in the making and distribution of vaccines as saying that a full vaccine roll-out programme for adults could take six months or less after approval.

“We are looking at closer to six months and it is likely to be far shorter than that,” said a government source.

Under a protocol developed by the UK’s joint committee on vaccination and immunisation, any approved vaccine will then be given to all over 65s, followed by younger adults at higher risk, which could include those from ethnic minorities as well as those with serious health issues based on their higher risk from the deadly virus. People over 50 will be next in line, with younger adults at the back of the queue.

The UK government has ordered 100 million doses of the Oxford vaccine once it is ready for roll-out and the doses are being manufactured before it has been shown to be successful in order to save time once it clears all the regulatory stages.

According to the newspaper report, scientists on the trial are hopeful that they will get results before the end of this year, and that they will at the very least show that it prevents 50 per cent of infections, the threshold for success.

If it is approved by the regulators, the UK’s National Health Service (NHS) is said to be in a position to begin mass vaccination almost immediately.

There are others within the UK government, however, who are more cautious on the timelines as vaccinating every adult is a big challenge. A Royal Society report this week, co-authored by
an Indian-origin scientist, warned of the massive uphill task ahead in producing and distributing a vaccine.

“Even when the vaccine is available, it does not mean within a month everybody will be vaccinated. We’re talking about six to nine months to a year after a vaccine is approved,” said Professor Nilay Shah, head of chemical engineering at Imperial College London.

The report called for the criteria for vaccine prioritisation to be “defined and made explicit” and then “public dialogue and engagement to manage expectations and understanding of vaccine effectiveness, safety, side effects, availability, and access”.

The government's Department of Health sought to downplay the findings and stressed that its planning process would ensure a speedy roll-out.

“This study fails to reflect the enormous amount of planning and preparation that has taken place across government to quickly roll out a safe and effective COVID-19 vaccine,” said a department spokesperson.

“We are confident we have adequate provision or transport, PPE [personal protective equipment] and logistical expertise to deploy a Covid-19 vaccine across the country as quickly as possible,” said the spokesperson. PTI

### Diabetes

**100 Indian students join UK University’s new online diabetes course**
The university says it hopes the brand new course will meet the needs of interdisciplinary healthcare practitioners working in partnership with people living with diabetes (The Tribune: 2020105)


100 Indian students join UK university's new online diabetes course
Around 100 Indian students have enrolled for a UK university's newly-launched online course focussed on supporting people living with diabetes and leading new research into the condition.

Birmingham City University launched its new Master's Degree in Advancing Diabetes Care in partnership with the University Hospitals Birmingham Diabetes Team this week.

The course is aimed at helping healthcare professionals develop specialist skills and techniques to enhance the level of care provided to people living with diabetes.

The first cohort of students taking up their places on the course are based in India and are sponsored by Mumbai-headquartered pharmaceutical company Lupin Pharmaceuticals.
"When I was an undergraduate student of medicine, at that point in time in India we used to read about diabetes in the subcategory of lifestyle diseases. Now we have seen the spread of this disease across all age groups, impacting people with different social backgrounds," said Dr Shishank Vikram, Consul General of India, Birmingham.

"At this particular juncture the launch of the MSc is a very important step which will go a long way in not only providing quality training but in the exchange of best practice between the two sides. The students that are joining this course are all medical doctors and I wish them the best," he said.

According to figures quoted by the university, India is home to nearly 77 million people with diabetes and the course has been designed to further research and development into diabetes care, particularly with COVID-19 causing a disproportionate mortality rate for people with diabetes.

It is open to healthcare professionals including general practitioners (GPs), hospital-based doctors, specialist nurses and practice nurses, midwives, dietitians, podiatrists, pharmacists, psychologists and other roles across healthcare sectors.

"By providing training to medical doctors who specialise in diabetes care, we know what this is going to do, is to reach out to those communities who are most impacted by diabetes," said Professor Philip Plowden, Vice-Chancellor at Birmingham City University.

"The skills and knowledge that you develop on this course are going to result in evidenced-based effective diabetes care. We know the impact of this is going to be felt for generations," said Plowden.

Professor Wasim Hanif, Professor of Diabetes & Endocrinology, Consultant Physician, & Head of Service in Diabetes at University Hospital Birmingham, said the reason the new course is important is that there are currently 463 million people living with diabetes globally.

"Globally every seven seconds somebody dies from diabetes, including in countries like India. To give you some perspective on these things, every day nearly 12,000 people die from diabetes. The aim of this course is to try and give the most advanced skills to healthcare professionals trying to manage diabetes," he said.

The university says it hopes the brand new course will meet the needs of interdisciplinary healthcare practitioners working in partnership with people living with diabetes. PTI

**Nitric oxide a possible treatment for COVID-19 too**

**Nitric oxide a possible treatment for COVID-19 too**

NO is a compound produced naturally in the body(The Tribune: 2020105)

In a major finding, researchers have discovered that an effective way of treating the coronavirus behind the 2003 SARS epidemic also works on the SARS-CoV-2 virus behind the Covid-19 pandemic.

According to the study, published in the journal Redox Biology, the substance concerned is nitric oxide (NO), a compound with antiviral properties that is produced by the body itself.

“To our knowledge, nitric oxide is the only substance shown so far to have a direct effect on SARS-CoV-2,” said study author Ake Lundkvist from the Uppsala University in Sweden.

Since there is still no effective cure for Covid-19, the main emphasis in the treatments tested has been on relieving symptoms.

This can shorten hospital stays and reduce mortality. To date, however, it has not been possible to prove that any of these treatments have affected the actual virus behind the infection.

Nitric oxide (NO) is a compound produced naturally in the body. Its functions include acting like a hormone in controlling various organs. It regulates, for example, the tension in the blood vessels and blood flow between and within organs.

In acute lung failure, NO can be administered as inhaled gas, in low concentrations, to boost the blood-oxygen saturation level.

During the SARS (severe acute respiratory syndrome) coronavirus epidemic of 2003, this therapy was tried out with success. One key reason for the successful results was that inflammation in the patients’ lungs decreased.

This property of nitric oxide -- the protection it affords against infections, by being both antibacterial and antiviral -- is the very one that now interests the researchers.

Their study builds further on a discovery about the coronavirus that caused the first SARS epidemic.

In 2003, NO released from S-Nitroso-N-acetylpenicillamine (SNAP) proved to have a distinct antiviral effect.

The researchers have now investigated how the novel coronavirus involved in the current pandemic, SARS CoV-2, reacts to the compound.

And SNAP was shown to have a clear antiviral effect on this virus, too - and an effect that grew stronger as the dose was raised.

“Until we get a vaccine that works, our hope is that inhalation of NO might be an effective form of treatment,” the study authors wrote.

The dosage and timing of starting treatment probably play an important part in the outcome, and now need to be explored as soon as possible,” they added. — IANS
Active cases hit first-ever plateau With 936,089 active cases of Covid-19, (Hindustan Times: 2020105)

https://epaper.hindustantimes.com/Home/ArticleView

as of Sunday night, India appears to have stemmed the rise in the crucial statistic for the first time as the figure remained below the million mark for 14 consecutive days. This is the first time since the start of the pandemic that the total number of active cases in the country has seen a sustained decline for two weeks. A look at how this change happened, and which states are driving the trend:
FOR THE FIRST TIME ACTIVE CASES STOP RISING

The total number of active cases of COVID-19 in India breached the million mark for the first time on September 29. This comes on the back of a reduction of new cases outstanding. The peak of 105,083 on September 17, and 124,829 on September 20, has since seen a steep decline to 33,082.

IN DAILY TRENDS: A REVERSAL

The seven-day average of growth of active cases as of October 4 stands at 0.0%. In fact, active cases on averages have seen a sustaining mediocre downturn for the past 14 days—the first time since the start of the pandemic that this has happened. In the past two weeks, active cases have declined by 60,388.

Changes in active cases

- Seven-day average
- Net change
Covid-19: What you need to know today (Hindustan Times: 2020105)

That the Sars-CoV-2 virus has got the most powerful man in the world is yet again proof that no one is safe. Sure, it’s not kryptonite, he’s not Kal-El, and in every possible way, US President Donald Trump has no one to blame but himself, but still, if it can get him, it can get anyone.

Trump mocked his rival in the US presidential election next month, former vice president Joe Biden, for always wearing a mask in a debate last week, emphasising that there was no need to wear one in safe environments such as the one where the debate was being held — the Western Reserve University’s Health Education Campus in Cleveland, Ohio, with a live studio audience, largely the entourages of the two candidates, officials of the university, and reporters. Everyone had been tested, Trump said, and there was social distancing.

Subsequent reports, and also video footage shows the first family violating the rules by taking off their masks during the debate, and keeping them off. And subsequent reports also mentioned, citing White House officials, that the President, his entourage and their guests, underwent a rapid antigen test ahead of the debate.

These are the new Abbott Laboratories rapid antigen tests that perform as well as molecular tests (such as the reverse transcription-polymerase chain reaction or RT-PCR) in the laboratory, but which have a false negative rate of 20% in the field, according to some studies. That is still a whole lot better than the up to 50% false negative rate of many other rapid antigen tests. Indeed, Abbott’s tests, fast (15 minutes) and cheap, were considered a breakthrough among antigen tests, all of which (including those used widely in India) were fast and inexpensive, but with a high false negative rate.

I’ve written a lot on rapid antigen tests. There is a context for their use — in a containment zone for instance, where cases are peaking; or in an airport, to test passengers before they board a flight, or test those who have just alighted from one; even ahead of a public or publicly private event (such as the debate). But to use them in any other context is downright foolish.
There’s a theory doing the rounds that because rapid antigen tests recognise only moderate to high viral loads, they identify the truly infectious patients — a completely misguided and dangerous theory. There’s another theory doing the rounds that molecular tests such as RT-PCR are bad because they have a high rate of false positives. A false positive is when a test identifies an uninfected individual as infected — something that, no doubt, causes anguish to that person and also results in them being placed in some sort of quarantine. A false negative, on the contrary, identifies an infected person as uninfected, allows them to move around freely, and perhaps infect others, including those from vulnerable sections of the population who, in turn, may succumb to the disease. It’s easy to see which is more harmful.

But back to the debate: media reports say that after people in the Trump camp took off their masks (the minute they were seated; no one was allowed in without masks), they were approached by a health worker from The Cleveland Clinic who offered them masks, only to be shooed away. Trump and his supporters have made the mask a political issue in the US; the President has also encouraged large campaign rallies and meetings with utter disregard for social distancing; and he is rarely seen wearing a mask when with his inner circle. This behaviour, US media reports say, extends to other White House officials.

There are anti-maskers in India as well, but they are a fringe group, best known for a video posted online and pamphlets inserted in newspapers distributed in a few Mumbai neighbourhoods (and both were widely criticised).

Trump’s infection — there are conflicting reports on how serious it is, although he has been hospitalised — is a reminder to everyone that testing (using the right kind of tests, ideally), wearing masks and social distancing hold the key to staying safe from the virus.

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**Until vaccine: On Unlock 5 (The Hindu: 2020105)**

[https://www.thehindu.com/opinion/editorial/until-vaccine-the-hindu-editorial-on-unlock-5/article32767148.ece](https://www.thehindu.com/opinion/editorial/until-vaccine-the-hindu-editorial-on-unlock-5/article32767148.ece)

Unlock moves should continue to protect the vulnerable, as the economy shifts gears India’s fifth round of unlock regulations for October, allowing a further expansion of public activity mainly in education, entertainment and business conferences, comes at a time when COVID-19 transmission is steady in many cities. Nationally, though, the new infections being added everyday, at about 60,000, represent a decline in recent days, as per Johns Hopkins
Coronavirus Resource Center data. The stringent March-April lockdown, and the subsequent measures to unlock the economy to prevent an equally debilitating crisis to livelihoods, have made India an uncommon case study. The decision to allow States to consider reopening schools and coaching centres after October 15, for students who wish to optionally attend, will prove a difficult one, considering new research evidence based on data from Tamil Nadu and Andhra Pradesh pointing to high prevalence of infection among children who were contacts of virus cases in the same age group. Slowing community spread is bound to become more complicated, since governments blame careless attitudes for continued transmission — notably in Kerala and Tamil Nadu. While essential movement for economic reasons, including use of public transport, is unavoidable, indifference towards safe public behaviour is extracting a heavy social cost. Even in the face of a deadly pandemic, governments are taking a benign view of recalcitrant people who do not wear masks, even on buses and trains, spit in public, and crowd commercial locations. During the monsoon and winter months, and the festive season, polite, persuasive enforcement would be essential to reduce infection rates.

**Typhoid, Influenza cases**

**Monsoon 2020 brought 50% less Typhoid, Influenza cases: Delhi hospitals (New Kerala: 2020105)**

As the Covid-19 continues to rage, a silver lining has appeared amid the dark clouds of the pandemic. The national capital has witnessed a sharp decrease in the cases of Typhoid and Influenza in 2020.

The hospitals have reported at least 50 per cent fewer cases of these two seasonal illnesses, the doctors said.

Aakash Healthcare Super-Speciality Hospital in Dwarka said that they received only 50 patients so far who had Typhoid and Influenza in the last two months. The hospital stated that the count usually went up to 100 to 150 in previous monsoon seasons.

"We are not receiving the cases of Typhoid that usually comes in this season," informed Vikramjeet Singh, senior consultant, department of internal medicine at the hospital.

Max Super Speciality Hospital, Shalimar Bagh, also witnessed around 50 per cent fall in the cases related to Typhoid. However, the same situation was not reported in the cases of Influenza. "There has been a surge in flu (Influenza) cases recently, but again, the surge is expected during this season so not much variation from the routine," said Parul Kakkar, consultant, internal medicine, at the hospital.

BLK Hospital in Rajendra Place, which also saw a notable decrease in Typhoid and Influenza cases, said that cases of Typhoid and Influenza decrease with the end of monsoon. However, they did not reach their peak this year.
"During the monsoon season, normally the typhoid cases increase every year, which usually decreases by the end of this season. However, this was not the case this year," Rajinder Kumar Singal, senior director iamp; head of the department of internal medicine at BLK.

The doctors attributed two scenarios behind the fall in the cases of Typhoid and influenza. One is a newfound change in the lifestyle enforced by the Covid-19 pandemic where eating home-cooked food and maintaining an optimum level of hygiene have become an integral part of life.

"During the current pandemic, everything around us is undergoing a change, including our lifestyle, eating habits and socialising etiquettes. Thankfully not every change is for the worse! The number of typhoid and hepatitis cases this year has decreased, and the full credit goes to our renewed respect and regard for the home-cooked "safe and healthy food ". Besides, the frequent hand washing that the public is now following also helped," said Kakkar.

"People are avoiding outside food and have not been going to eateries. Also, school and colleges are closed too. Elderly people are avoiding the parks and outdoor activities," reasoned Pankaj Solanki who runs Dharmaveer Solanki Multi-Speciality Hospital in Rohini.

Another reason behind the recorded fall in Typhoid and influenza cases is the less reporting due to fear induced by the Covid-19 outbreak. Doctors said people wish to avoid coming to hospitals. Also they relate the symptoms of the two seasonal illnesses with the COVID-19 disease.

"They are worried that they will have to follow isolation or hospital admission if they are confirmed with the Covid-19. This fear is making them not report the cases of Typhoid and Influenza," said Singh.

Solanki also said that people tend not to report the case as they relate the symptoms of the two viral illnesses, especially Influenza with the Covid-19 disease. "Most of the people who had symptoms did not come forward due to the fear of Covid-19 testing and mandatory isolation that follows. People are not reporting it as they are afraid of coming to the hospital as they assume the fever and other symptoms of Typhoid and Influenza are due to the Covid-19. So they are treating themselves at home," he added.

The symptoms of Covid-19 are almost similar to the Typhoid and Influenza, particularly. In the Typhoid, people usually have a sustained fever (one that doesn't come and go) that can be as high as 103-104 degrees fahrenheit (39-40 degrees Celsius). Some people with typhoid fever or paratyphoid fever develop rash or rose-coloured spots. Cough and sore throat are also symptoms.

Just like the SARS-CoV-2, which causes the Covid-19, Influenza also attacks the respiratory system -- nose, throat and lungs. Its symptoms include fever, runny or stuffy nose, sore throat, aching muscles and shortness of breath.
Depression, anxiety drugs

Researchers find key protein to make depression, anxiety drugs (NewKerala: 2020105)


Researchers have identified a protein in the brain that is important both for the function of the mood-regulating substance serotonin and for the release of stress hormones.

The study, published in the journal Molecular Psychiatry, may have implications for the development of new drugs for depression and anxiety. After experiencing trauma or severe stress, some people develop an abnormal stress response or chronic stress, according to the researchers.

"This increases the risk of developing other diseases such as depression and anxiety, but it remains unknown what mechanisms are behind it or how the stress response is regulated," said the study authors from the Karolinska Institutet in Sweden. The research team has previously shown that a protein called p11 plays an important role in the function of serotonin, a neurotransmitter in the brain that regulates mood.

Depressed patients and suicide victims have lower levels of the p11 protein in their brain, and laboratory mice with reduced p11 levels show depression- and anxiety-like behaviour. The p11 levels in mice can also be raised by some antidepressants.

The new study shows that p11 affects the initial release of the stress hormone cortisol in mice by modulating the activity of specific neurons in the brain area hypothalamus. Through a completely different signalling pathway originating in the brainstem, p11 also affects the release of two other stress hormones, adrenaline and noradrenaline.

In addition, the tests showed that mice with p11 deficiency react more strongly to stress, with a higher heart rate and more signs of anxiety, compared to mice with normal p11 levels. "We know that abnormal stress response can precipitate or worsen depression and cause anxiety disorder and cardiovascular disease," said study first author Vasco Sousa from the Karolinska Institutet.

"Therefore, it is important to find out whether the link between p11 deficiency and stress response that we see in mice can also be seen in patients," Sousa added.

The researchers believe that the findings may have implications for the development of new, more effective drugs. There is a great need for new treatments because current antidepressants are not effective enough in many patients.
Controlling blood sugar levels improved the ability to clearly think, learn and remember among people with type 2 diabetes who were overweight, say researchers.

"It's important to properly control your blood sugar to avoid the bad brain effects of your diabetes," said study author Owen Carmichael from the Pennington Biomedical Research Centre in the US.

"The study, published in the Journal of Clinical Endocrinology and Metabolism, examined close to 1,100 participants in the Look AHEAD (Action for Health In Diabetes) study. One group of participants was invited to three sessions each year that focused on diet, physical activity, and social support. The other group changed their diet and physical activity through a program designed to help them lose more than seven percent of their body weight in a year and maintain that weight loss.

Cognitive tests - tests of thinking, learning, and remembering - were given to participants between 8 to 13 years after they started the study. The research team theorised that people with greater improvements in blood sugar levels, physical activity and weight loss would have better cognitive test scores.

This hypothesis proved partially true. Reducing your blood sugar levels did improve test scores. But losing more weight and exercising more did not always raise cognitive test scores.

"Every little improvement in blood sugar control was associated with a little better cognition," Carmichael said.

"Lowering your blood sugar from the diabetes range to prediabetes helped as much as dropping from prediabetes levels to the healthy range," Carmichael.

The study also revealed that more weight loss was either better or worse depending on the mental skill involved. People who lost more weight improved their executive function skills short-term memory, planning, impulse control, attention, and the ability to switch between tasks. But their verbal learning and overall memory declined, the study said.

"People with diabetes who let their obesity go too far, for too long may be past the point of no return, cognition-wise," the authors noted.
Cardiovascular disease

Daily almond intake cost-effective way to prevent cardiovascular disease (NewKerala: 2020105)


According to the World Health Organization, cardiovascular diseases (CVD) is the number one cause of deaths across the globe, and in India. CVD is also a costly disease to treat and can cause a huge economic burden on the patient, and his/her family.

For India in particular, CVD has become a severe cause of concern, owing to the disease's accelerated buildup, early age of onset in the population and the high case fatality rate. Some factors that have contributed to the rise of CVD cases across India include the south Asian genetic makeup and its proneness to the disease, the ever changing lifestyle, lack of exercise, dietary imbalance and a high intake of saturated and/or trans fats amongst the population.

In the past, multiple studies have also shown that regular consumption of almonds may help reduce low density lipoprotein (LDL "bad") cholesterol levels, a recognized risk factor for CVD - especially amongst Indians.

A recent research by Tufts University shows that eating 42.5 grams of almonds each day compared to not eating almonds may help reduce healthcare costs associated with cardiovascular disease among US consumers.

The objective of this study, funded by the Almond Board of California, was to estimate the cost-effectiveness of almond consumption in preventing coronary heart disease through changes in LDL cholesterol levels in the U.S. population, using both short-term base case analysis and 10-year risk prevention. The researchers developed a model to assess the relationship between eating 42.5g of almonds per day versus no almond intake. CVD parameters included the probabilities of increasing LDL levels, developing acute myocardial infarction (MI, or heart attack), MI-related surgeries, and death due to the disease and surgeries and the cost of disease and procedures in the US population in 2012. The cost of almonds used in this research was also factored into the model and was based on price in the US market in 2012, as well.

The base-case model used in this research, which was a study of 150 US adults with increased risk of type 2 diabetes, showed that eating 42.5g of almonds per day would result in an annual cost savings of $363 compared to eating no almonds. The almond eaters had reductions in CVD risk factors including LDL cholesterol, total cholesterol, body weight and Apolipoprotein B (also known as Apo-B, the main protein found in harmful LDL cholesterol). These improved parameters decreased the average healthcare costs for treating CVD.

Speaking about the study, Regional Head-Dietetics, Max Healthcare - Delhi, Ritika Samaddar noted "The study establishes a very positive correlation between almond consumption, heart health, and a derived cost benefit, each of which are relevant for a country like India where
CVD cases are rising every day. While the health benefits of almonds have been analyzed by several other studies in the past, this new research also highlights a long term cost advantage of almond consumption which is very unique. So make sure to include almonds in your family and your diet, to lead a healthier and more cost efficient lifestyle.

When the time horizon was expanded to 10 years, findings were similar in pattern it cost non-almond eaters $2566 in CVD prevention compared to a cost of just $1806 for almond eaters, or a savings of $760.

Sheela Krishnaswamy, Nutrition and Wellness Consultant said "The results of this new study are interesting to note. Owing to the genetic makeup, sedentary lifestyle, poor dietary regime and high salt intake, Indians are at higher risk of heart disease. If one develops the disease, it adds to the household's medical expenses. Therefore, I suggest that people with a genetic history of CVD or those with established risk factors (high BP, diabetes, obesity etc.) for heart disease alter their diets to include a daily dose of almonds, among other things. In the long run, improving your lifestyle will have a positive impact not just on your heart health, but may also reduce overall medical expenses."

Based on these analyses, researchers concluded that consuming 42.5g of almonds per day is a cost-effective strategy for preventing CVD in short term and potentially, up to 10 years.

Acknowledging the findings in the study, Madhuri Ruia, Pilates Expert and Diet iamp; Nutrition Consultant commented "It is interesting to note the long term viability of this study, especially in context of a country like India where CVD is one of the leading causes of mortality. Opting for healthier snacking options like almonds, is a small yet impactful investment that is sure to pay off in the long run, especially for people with high risk to CVD. So the next time you head to the supermarket, stock up on roasted, salted or raw almonds instead of unwholesome or fried snacks, to begin your journey towards a healthier lifestyle."

**Air Pollution (Hindustan: 2020105)**

https://epaper.livehindustan.com/imageview_356980_125300828_4_1_05-10-2020_3_i_1_sf.html
दिल्ली के 12 इलाकों की हवा खराब हुई

दिल्ली के 12 इलाकों की हवा दिवंगत को खराब श्रेणी में पहुंच गई। गुणवत्ता सूचकांक 200 अंक के पार हो गया। हालांकि, दिल्ली का सूचकांक समग्र तौर पर मध्यम श्रेणी में है। यही, एनएसआर में भी प्रदूषण बढ़ता जा रहा है।

इन इलाकों की वायु खराब श्रेणी में

- बवाना: 217
- डीटीएस: 205
- जहांगीरपुर: 235
- वजीरपुर: 201
- नरेला: 216
- बंजराङ्ग: 250
- नेहरू नगर: 234
- सीरी फॉर्ट: 261
- आरक पुराम: 203
- मथुरा रोड: 239
- कर्णेश्वर: 238
- फरीदाबाद: 187
- गाजियाबाद: 222
- नोएडा: 176
- गगरगाम: 169

वायु गुणवत्ता सूचकांक के रेट में मानक
Infection (Hindustan: 2020105)

https://epaper.livehindustan.com/imageview_356981_125137676_4_1_05-10-2020_4_i_1_sf.html
चार लाख से अधिक लोगों को चिह्नित कर जाँच की गई थी

मरीजों के सीधे संपर्क में आए 6.6% लोग संक्रमित

### कोरोना का हाल

22 सितंबर तक जिलेवार माहौल

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2,43,686 संक्रमित, 28,624 मानने वाले लोगों के 14 दिन का हामी कारोबार पूरा किया

### कोरोना के 2683 नए मानले, 38 की हुई मौत

- दिल्ली में शंघाई कोरोना के 2683 नए मामले आए हैं। इसके साथ ही 38 मरीज ने मौत की।
- वास्तव में, शंघाई कोरोना का कुल आंकड़ा 290613 हो गया है।
- राज्य विभाग के अनुसार दिल्ली में 10 दिन में 1.29 लाख मरीज की मौत हुई है।
- दिल्ली में 5510 मरीजों ने अभी तक दी गई मौत के लिए चिह्नित किया गया है।

### उत्तर पश्चिम जिले में सबसे अधिक संक्रमित मिले:
- दिल्ली में सबसे अधिक कोरोना संक्रमित मरीज उत्तर पश्चिम जिले में मिले हैं।

### उत्तर पूर्वी जिले में सबसे कम मरीज
- सबसे कम मरीज राजस्थान के उत्तर पूर्वी जिले में मिले हैं।
राहत: लोकनायक में अब तक आठ हजार मरीज स्वस्थ

दिल्ली के लोकनायक अस्पताल
(लोकनायक) से अब तक लगभग आठ हजार कोरोना पीड़ित मरीजों को और आठ हजार कोरोना निःशोधित मरीजों को रिहा करने का कार्य किया गया है।

1450 मरीजों की अवस्थाओं को जारी रखते हुए, लोकनायक अस्पताल के चिकित्सकों द्वारा कोरोना पीड़ित 1270 मरीजों को निःशोधित किया गया है।

कोरोना के खिलाफ चिकित्सा की ओर से अब तक 11,415 कोरोना संक्रमित मरीजों को भी राहत मिली है।

हस्तक्षेप के बाद, अवस्थाओं की रिहाए और आपके स्वास्थ्य के लिए रोकने के लिए लोकनायक अस्पताल ने कई कदम उठाए।