Nasal COVID-19 vaccine

Nasal COVID-19 vaccine will be easy to give to children: AIIMS director (The Tribune: 20210121)


The director was also asked by the NDRF personnel if a person who has recovered from COVID-19 should get vaccinated with India commissioning two vaccines last week

Nasal COVID-19 vaccine will be easy to give to children: AIIMS director

A nasal COVID-19 vaccine will be easy to give to school-going children who bear a "very mild" load of the disease, but they are infectious, AIIMS Director Randeep Guleria said on Wednesday.

The noted pulmonologist, who was interacting with the personnel of the National Disaster Response Force (NDRF) during their 16th Raising Day celebrations here, also said that people who have contracted coronavirus should also get the jab about 4-6 weeks after recovery.

"It (coronavirus infection) is very mild in children, but they are infectious. They can spread the disease."

"The vaccines that have come are not approved for children because there have been no studies conducted on children but this (vaccination) is a very important step and trials are being done," he said.

Once children start going to the school regularly, and they contract the COVID-19 infection, they will not have much problem but if they bring it home they can spread it to their parents or grandparents, the chief of the premier Delhi-based All India Institute of Medical Sciences (AIIMS) said.
"Vaccines for children may come later... Bharat Biotech is trying to get approved a nasal vaccine. Such a vaccine will be very easy to be given to children as it is a spray and not a jab and hence compliance is more." "In half-an-hour you can vaccinate an entire class. So, if that (nasal vaccine) is approved it will be even easier to give the vaccine (for COVID-19)," Guleria said in reply to a question.

He was also asked by the NDRF personnel if a person who has recovered from COVID-19 should get vaccinated with India commissioning two vaccines last week.

"A vaccine jab is essential for them (recovered from coronavirus) due to two reasons." "One is you are not sure how strong is your post COVID-19 immunity, and it has been seen quite a few times that those who had a mild to moderate infection their anti-body response has been less, and we also don't know how long will it be," he said.

A vaccine will be "beneficial" for such an individual as it will act as a "booster" and if anti-bodies are depleting, with the vaccine it will be back to a high level, he said.

"So, you should get the vaccine if you have been infected with COVID-19 but if it has happened recently say like 7-10 days then one should wait and take the jab after may be 4-6 weeks," he said.

Before replying to queries, Guleria also gave a PowerPoint presentation on the topic "Infectious Diseases: Emergencies and Challenges Ahead" and said "bio-terrorism" is an upcoming challenge.

He said densely populated countries like India "provide an opportunity" for the outbreak of infectious disease emergencies as it is coupled with the phenomenon of crowding and urbanisation.

He batted for having a "very good surveillance system" to better combat coronavirus like diseases and epidemics.

He said the country did "aggressive" work with a strong political will in the aftermath of the COVID-19 outbreak and said the need of the hour was to have lab-based surveillance and more and more trained public health officials.

"We need to enhance our research capacity, and we should not forget what we learnt during the coronavirus outbreak," Guleria said.

World Health Organisation (WHO) chief scientist Soumya Swaminathan also addressed the personnel of the central force through an online link and said a good digital surveillance system should be in place to better deal with public health emergencies. She said a resilient health workforce was required as it was seen during COVID-19 outbreak that regular health services were "disrupted" as the manpower had to be "diverted" to combat the raging pandemic.

Swaminathan said a robust infection prevention and control system was required, especially for healthcare workers, for battling medical emergencies as it was seen that a major brunt is
borne by these professionals during disease outbreaks like COVID-19 as they bear the "highest risk of exposure".

NDRF chief S N Pradhan, while speaking during the event, said his rescuers faced the "double whammy or double challenge" of combating a disaster within a disaster last year.

He was implying the deployment of the force during rescue operations like battling cyclones, a gas leak incident in Vishakapatnam, floods in various states and other calamities even as COVID-19 continued to spread.

The National Disaster Response Force was raised on January 19, 2006 as a federal contingency combat wing to undertake specific tasks of relief and rescue during natural and man-made disasters or life-threatening situations. — PTI

**Pfizer vaccine**

**Pfizer vaccine appears effective against coronavirus variant found in Britain: Study (The Tribune: 20210121)**


Pfizer vaccine appears effective against coronavirus variant found in Britain: Study

Vials with a sticker reading, "COVID-19 / Coronavirus vaccine / Injection only" and a medical syringe are seen in front of a displayed Pfizer logo in this illustration taken on October 31, 2020. Reuters file photo

The COVID-19 vaccine developed by Pfizer and BioNTech is likely to protect against a more infectious variant of the virus discovered in Britain which has spread around the world, according to results of further lab tests released on Wednesday.

The encouraging results from an analysis of blood of participants in trials are based on more extensive analysis than those released by the U.S. drugmaker last week.

Last week, Pfizer said a similar laboratory study showed the vaccine was effective against one key mutation, called N501Y, found in two highly transmissible new variants spreading in Britain and South Africa.

The latest study, posted on bioRxiv.org but not yet peer-reviewed, was conducted on a synthetic virus with 10 mutations that are characteristic of the variant known as B117 identified in Britain.

Among the 11 authors of the study are Ugur Sahin and Oezlem Tuereci, co-founders of BioNTech. Sahin is chief executive and his wife Tuereci is chief medical officer.
It provides further hope as record numbers of daily deaths from COVID-19 are reported in Britain, which is believed to be driven by the more transmissible variant. It also means vaccine development would for now not have to start all over again.

But the virus needs to be continuously monitored to check that changes maintain protection by vaccines, the study said.

For the test, blood samples drawn from 16 vaccinated participants in prior clinical trials were exposed to a synthetic virus called pseudovirus which was engineered to have the same surface proteins as B117, as characterised by 10 hallmark mutations.

The antibodies in the blood of the volunteers given the vaccine, known as Comirnaty, or BNT162b2, neutralised the pseudovirus as effectively as the older coronavirus version that the product was initially designed for.

Experts said the findings were reassuring and not surprising and results from similar studies on the South African variant would be keenly watched.

"This makes it very unlikely that the UK variant will escape from the protection provided by the vaccine," said Jonathan Stoye, a specialist in virus science at Britain's Francis Crick Institute. "It will be interesting to carry out the same experiments with the South African variant." BioNTech has said it plans to publish a more detailed analysis of the likely effect of its vaccine on the South African variant within a few days.

The world is pinning its hopes on vaccines to rein in the coronavirus, first detected in the central Chinese city of Wuhan at the end of 2019, as many countries impose tighter and longer lockdowns to try to bring the pandemic under control.

Variants and vaccines

The variants are said by scientists to be more transmissible than previously dominant ones, but they are not thought to cause more serious illness.

"The South African strain has been detected in the UK - albeit currently in small numbers - but does seem to be increasing in recent weeks," said Paul Hunter, a professor in medicine at Britain's University of East Anglia.

"Variants with this mutation could reduce vaccine efficacy, though most likely all current vaccines would still be highly effective."

Experts have called for continued testing to establish whether vaccines will protect people as the virus mutates.

COVID-19 has killed more than 2 million people worldwide.

Preparation for potential COVID-19 vaccine strain changes would be "prudent", the study said on Wednesday.
The Pfizer/BioNTech COVID-19 vaccine and the one from Moderna Inc, which both use synthetic messenger RNA technology, or mRNA, can be quickly adapted to address new mutations in the coronavirus if necessary. Scientists have suggested the changes could be made in as little as six weeks.

AstraZeneca, Moderna and CureVac are also testing whether their respective shots will protect against the fast-spreading variants. They have not released the results of those tests.

**Alcoholism**

**Alcohol intake up in people with depression amid pandemic (The Tribune: 20210121)**


Pandemic may be triggering an epidemic of problematic alcohol use

People with anxiety and depression are more likely to report an increase in drinking during the Covid-19 pandemic than those without mental health issues, a new study suggests.

The study, published in the journal Preventive Medicine, indicates that while drinking grew the most among younger people, older adults with anxiety and depression saw a sharper increase in their risk for harmful alcohol use.

“This increase in drinking, particularly among the people with anxiety and depression, is consistent with concerns that the pandemic may be triggering an epidemic of problematic alcohol use,” said lead author Ariadna Capasso from the New York University.

For the study, the researchers created and administered an online survey in March and April 2020, using Facebook to recruit US adults from all the 50 states.

The researchers asked participants about their alcohol use during the pandemic, gathered demographic information, and measured symptoms of depression and anxiety based on self-report.

Of the 5,850 survey respondents who said that they drink, 29 per cent reported increasing their alcohol use during the pandemic, while 19.8 per cent reported drinking less and 51.2 per cent reported no change. People with depression were 64 per cent more likely to increase their alcohol intake, while those with anxiety were 41 per cent more likely to do so.
Drinking behaviours varied by age. In general, younger adults under 40 were the most likely to report increased alcohol use (40 per cent) during the pandemic, compared to those 40-59 years old (30 per cent) and adults over 60 (20 per cent).

However, older adults (40 and older) with symptoms of anxiety and depression were roughly twice as likely to report increased drinking during the pandemic compared to older adults without mental health issues.

“We expected that younger people and those with mental health issues would report drinking as a coping mechanism, but this is the first time we’re learning that mental health is associated with differences in alcohol use by age,” said Yesim Tozan from the varsity said.—IANS

**Loss of smell**

**Loss of smell most relevant sign of Covid: Study (The Tribune: 20210121)**


The loss of the sense of smell, the sense of taste was also significantly reduced, to 69.0 on a scale from 0-100.

It is due to Covid-19 that a majority of patients with respiratory infections lose their sense of smell, claims a new study.

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According to a study, published in the journal Chemical Senses, the disease also often results in both the loss of taste and other senses in the mouth.

“This emphasises how important it is to be aware of this symptom, as it may be the only symptom of the disease,” said Alexander Wieck Fjaeldstad, Associate Professor at Aarhus University, who also stresses only around half of the patients with a loss of smell have gotten their sense of smell back after 40 days.

For the study, a total of 23 nationalities and over 4,500 Covid patients from all over the world have responded to the researchers’ questionnaire.

The findings showed that the average loss of the sense of smell was 79.7 on a scale from 0-100— which indicates a large to complete sensory loss, said the researcher.

The loss of the sense of smell, the sense of taste was also significantly reduced, to 69.0 on a scale from 0-100, just as the remaining sense of feeling in the mouth was also reduced, this time to 37.3 on a scale from 0-100.
“It shows that the loss of smell is specific to Covid-19, which is both relevant in relation to recognising the infection, and because it indicates that the sense of smell is closely linked to how SARS-CoV-2 infects the body,” the researcher said.— IANS

Indian vaccines

Don’t doubt Indian vaccines (The Hindu: 20210121)

https://www.thehindu.com/opinion/op-ed/dont-doubt-indian-vaccines/article33603184.ece

Covaxin vaccine being administrated at Rajiv Gandhi Govt. General Hospital on Sunday. Photo Credit: R. Ragu

Vaccination is important to prevent a second wave

Several people have questioned the emergency approval given to the indigenously developed COVID-19 vaccine. They have demanded efficacy data and cast aspersions on the regulatory machinery. Such views will only increase vaccine hesitancy.

It is not the case that the vaccine developed indigenously is being pushed by vested interests, while the international vaccines are great. Questions have been raised about the Moderna and Pfizer vaccines too, which have reported more than 90% efficacy. As Peter Doshi wrote in The BMJ, questions have been raised about the exclusion of individuals from the efficacy analysis for ‘important protocol deviations’; the higher rate of medication in the vaccine arm to prevent side-effects due to reactogenicity; the processes of the primary event adjudication committees, comprising the companies’ own employees; vaccine efficacy in those who already had COVID-19; the non-availability of raw trial data; and so on.

Efficacy assessment

Efficacy would actually mean testing, say, 10,000 individuals who have been given the vaccine versus an equivalent number not given the vaccine in terms of the number who get the infection. Can these vaccines prevent transmission? We may have to wait at least six months to get meaningful results. Efficacy would reflect in the rate of hospitalisation, ICU cases and deaths. With a declining level of infection, perhaps the virus is weakening in India on its own, as is the case with most pathogens. This makes efficacy assessment of a vaccine very difficult.

The question of antibody-dependent enhancement, a phenomenon in which virus-specific antibodies enhance the severity of the virus, and in some cases the replication of the virus, has been put on the backburner with experts suggesting it may not be a major issue. It depends on vaccine design and it is not known whether all the candidate vaccines have been tested for this phenomenon.
In the case of the rabies vaccine, efficacy assessment is based on the virus neutralisation capacity of the serum from the vaccinated individual, assessed in terms of international units. It is a surrogate marker for efficacy, since the candidate vaccine cannot be tested in an experimental population that is administered the virus or bitten by rabid dogs, for validation. At this stage, no one can predict whether the COVID-19 vaccine candidates can protect against the circulating mutants. The SARS-CoV-2 virus is both intellectually and medically challenging. But there has been no prevention strategy in history other than vaccination to save lives. Therefore, vaccination of the population is very important for protection against fresh infections and a second wave, although the duration of protection is not known for any vaccine candidate. It is well known that some people take the flu vaccine every year.

The SARS-CoV-2 pandemic has been extraordinary, both in terms of positive and negative developments. The cooperation among the scientific community, industry and regulatory agencies has been truly remarkable in making vaccine development and deployment possible in less than two years, a process that would otherwise take 10-15 years. The future timelines for research and development, product development and expectations will be very different. On the negative side, we have tall claims by political leaders in the West on vaccines, major scientific journals coming under pressure to publish data with poor peer review, vaccine nationalism, etc.

Moving ahead

Given the context of the pandemic, it would be prudent for India to go by safety studies (Phase I and II) and assessment of virus neutralisation assays with the serum. It is also not appropriate to doubt the integrity of the expert committee advising the Drugs Controller General of India (DCGI). The DCGI is not just an individual to be pressured; it follows due process for making an informed decision regarding emergency use, or, as is called in India, approval for restricted use.

It is understandable that limited approval has been given in clinical trial mode, where individuals vaccinated will be monitored regularly. Though no particular vaccine candidate should be favoured, candidates with proven safety studies and efficacy, as assessed based on the virus neutralisation potency of the sera, should be allowed to go ahead. One or two more months into the trial could have given partial data to satisfy interim efficacy assessment, but we will get real data on efficacy only after vaccinating the masses. Eventually, affordability could become an issue. Selective criticism of indigenous efforts will only jeopardise such efforts. India has a huge population to be vaccinated and we need to move ahead.

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Vaccine hesitancy

Managing the rollout: On addressing vaccine hesitancy (The Hindu: 20210121)

https://www.thehindu.com/opinion/editorial/managing-the-rollout-the-hindu-editorial-on-why-government-should-address-vaccine-hesitancy/article33620731.ece

The government must investigate and publicise the reasons for vaccine hesitancy

Nearly a fortnight after it won approval for Covaxin under ‘restricted emergency use’ conditions, Bharat Biotech has formally informed, via its

Vaccine Aids (The Asian Age: 20210121)


Vaccine aid for neighbours

India has long called itself the pharmacy of the world and has now decided to live up to the claim. By the time these lines are printed, lakhs of doses of made-in-India vaccines against the novel coronavirus would have landed in our neighbouring countries, and more will do so in the coming days. While six nations — Bhutan, the Maldives, Bangladesh, Nepal, Myanmar and Seychelles — will get the Indian vaccines in the first tranche, Sri Lanka, Afghanistan and Mauritius will get them once “necessary regulatory clearances” are given. It is noteworthy that the Indian vaccines would be the first to arrive in most of these nations.

Vaccine, all said and done, is a knowledge product: it calls for the use of the knowledge humankind has created and every single tool it has made till now for its successful rollout. India’s soft move, peppered with diplomatic quotients, will earn a lot of goodwill for the country. It will also prove to the neighbours, and the world at large, that India becoming a superpower will benefit all.

The only exception as of now is Pakistan. The Drugs Regulatory Authority of Pakistan has cleared the use of Covishield, manufactured by Serum Institute of India, and the government there is reportedly exploring ways to get it through Covax, an alliance set up by the Global Alliance for Vaccines and Immunisation, Coalition for Epidemic Preparedness Innovations and World Health Organisation or directly. Both the routes are fine but India should positively decide should a request come from the western neighbour. It will have no dramatic consequences but will be the stating of the obvious — the real challenges the two now-estranged nations face are similar, and the ways to overcome them will be more successful if they are adopted together. Should it happen, the vaccine could produce some antibodies against ultra-nationalism and religious bigotry, too. The government should seize this chance.
'Mental well-being

'Mental well-being in men declined more in second wave of pandemic' (New Kerala: 20210121)


'Mental well-being in men declined more in second wave of pandemic'

Psychological well-being could affect both the genders but it declined more in men as compared to women during the second wave of the pandemic, a new study suggests.

The study indicates that in Denmark, the mental well-being of both men and women declined when the country closed down during the first wave of the coronavirus pandemic - with women being hit the hardest.

But during the second wave, it was the other way round in terms of gender as the psychological well-being of men and women was generally low but it has fallen most in men, according to a paper published in the journal Acta Neuropsychiatrica.

"We see that men's psychological well-being is lower in the November-December measurement than it was during the spring lockdown, while the trend has gone in the opposite direction for women," said researcher Soren Dinesen Ostergaard from Aarhus University in Denmark.

The five-item WHO well-being index (WHO-5) is used as a screening tool, for example, general practitioners to assess whether a patient should be further examined for depression. The responses to the five questions in the WHO-5 result in a total score between 0 and 100 -- with a higher score indicating higher psychological well-being.

If the score is below 50, the probability of depression is substantial. The researcher explained that the average WHO-5 score in the November-December survey had decreased by just under 4 points for men and 2.5 points for women since the (second) assessment at the end of April.

Compared to the first assessment at the end of March/beginning of April, during the peak of the first wave the psychological well-being has risen slightly with just under 1.5 points for women while it has fallen correspondingly for men.

However, there are still more women with scores below 50 on the WHO in the November-December assessment - 27 per cent of women compared to 23 per cent of men.
"Of course, we cannot know for sure that the course of the corona pandemic is the cause of the variations we see in the psychological well-being. But the results fit this explanation. The onset of winter may, however, also play a role," the researcher said.

"The gender difference in our results is interesting but we cannot determine the underlying mechanisms based on the data at hand. Perhaps it has to do with uncertainties related to employment.

"The job market has been negatively affected by the pandemic, especially the private sector which occupies more men than women so perhaps it is a question of men worrying more about their employment prospects and their family's economic situation than women. This is something we will try to address in the next round of the survey," he noted.

**Thyroid glands**

**Know your thyroid glands and how to take care of them (New Kerala: 20210121)**

Know your thyroid glands and how to take care of them

Do you constantly feel run down, exhausted and cold when others are warm? This so happens when the thyroid gland isn't working as well as it should be, you don't feel well. You end up putting on tons of weight irrespective of trying extremely hard despite trying very hard to keep your weight in the limit. These could be signs of Hypothyroidism.

Hypothyroidism occurs when your thyroid gland produces too little thyroid hormone. These hormones are needed to keep your organs functioning properly, which is why you feel dull and low, when they are in short supply.

Many times, most women do not realise that they have a thyroid problem and therefore bring about no change in their lifestyle. While there is no substitute for getting a proper diagnosis and starting hormone replacement treatment if you have hypothyroidism, leading a healthier lifestyle and following a strict routine will help you feel better faster.

One of the first things you need to do is get your diet in order. Nutrition and eating "well" plays the most important role in driving optimum functioning of the Thyroid gland.

Sheta Mittal, Co-founder of iamp;Me, a women's food and healthcare brand, says "For Thyroid gland nutrition, eating well, specifically includes consuming adequate amounts of Iodine and Tyrosine. Tyrosine and Iodine together make the famous T4/T3 thyroid hormones. We can get Iodine from sea food, dairy products and iodized salt, and Tyrosine from sesame seeds and soybeans in the diet. Also, make sure you include the full profile of micronutrients and macronutrients on a daily basis. Low fat, micronutrient rich, fibre heavy diet with 2-3 cups of
colourful fruits and vegetables daily will help you lose weight or least to say maintain your weight, Instead of popping thyroid pills, a lot of women these days are opting for a more natural choice."

Thyroid pills inject artificial Thyroxine (T3) in the body, and if the lifestyle is not in check the body gets immune to the pill and the dosages keep increasing over the lifetime. Look for new age products in the market that are providing healthy alternatives to managing Thyroid in lifestyle formats such as teas, juices and so on. Make sure you do your research and look for nutrients above in the ingredients, she says.

"While exercising is the last thing you want to do when you're feeling this lethargic, giving your body regular physical activity will boost your energy, help with weight loss efforts, and lower your stress levels."

She adds "Activities such as brisk walking and some toning exercises that target key muscle groups, including legs, hips, back, abdomen, chest, shoulders, and arms, can prove to be extremely helpful in losing that extra weight. 30 mins a day, 5 days a week, is sure to take you a long way on the journey to staying fit."

One thing you must pay grave attention to is keeping you mind stress-free. "Stress can make hypothyroidism worse. Stress can make any body problem worse. Why, because stress takes up a lot of mental energy and sucks nutrients, halts functioning of the body organs. Learning how to cope with stress can make a big difference in helping the body to function well and make you feel better. Yoga, meditation, deep breathing, or just chilling out to some relaxing music can all help you de-stress and let go of the anxiety. Find a stress-reducing technique that works for you and incorporate it into your lifestyle.

Getting sufficient good quality sleep will help improve your daytime fatigue. Make sure you set a regular sleep and wake time while keeping your bedroom temperature cool.

"It is extremely important that you do everything you can to keep yourself healthy. Bringing a change in your lifestyle can definitely help balance your thyroid levels, helping you avoid any serious health abnormalities, making you a fit and healthy individual," ends Mittal.

**New therapy for Covid**

**Researchers demonstrate success with new therapy for Covid (New Kerala: 20210121)**


A new therapy developed by researchers is showing success as a way to prevent Covid-19 disease.

The study, published in the Journal of Neuroimmune Pharmacology, showed that mouse models with Covid-19 showed positive results when a small peptide was introduced nasally.
The peptide proved effective in reducing fever, protecting the lungs, improving heart function and reversing cytokine storm -- a condition in which an infection triggers the immune system to flood the bloodstream with inflammatory proteins.

"This could be a new approach to prevent SARS-CoV-2 infection and protect Covid-19 patients from breathing problems and cardiac issues," said researcher Kalipada Pahan, Professor at Rush University in the US.

"Understanding the mechanism is proving important to developing effective therapies for Covid-19," Pahan added.

Many Covid-19 patients in the ICU suffer from cytokine storm that affects lungs, heart and other organs.

Although anti-inflammatory therapies such as steroids are available, very often these treatments cause immunosuppression.

"Since SARS-CoV-2 binds to angiotensin-converting enzyme 2 (ACE2) for entering into the cells, we have designed a hexapeptide corresponding to the ACE2-interacting domain of SARS-CoV-2 (AIDS) to inhibit the binding of virus with ACE-2," Pahan said.

"AIDS peptide inhibits cytokines produced by only SARS-CoV-2 spike protein, not other inflammatory stimuli, indicating that AIDS peptide would not cause immunosuppression. We found that after intranasal treatment, AIDS peptide reduces fever, protects lungs, normalises heart function, and enhances locomotor activities in a mouse model of Covid-19," Pahan added.

Although vaccine is available, Covid-19 could potentially morph into a seasonal and an opportunistic event, the researchers said.

**Mental health issues**

**Being obese may up mental health issues in teens** *(New Kerala: 20210121)*

If you are obese, there are chances that it may lead to some mental health issues, as a new study suggests that half of all young people treated for severe obesity have a neuropsychiatric problem.

The study, published in the journal Acta Paediatrica, indicated that over half of the parents estimated that their obese teenagers had difficulties resembling ADHD and/or autism, despite only a few of them having been previously diagnosed with these conditions.
"Symptoms of ADHD mean that the person has difficulty with impulse control. This increases the risk of eating without being hungry and the tendency to opt for quick solutions such as fast food," said researcher Kajsa Jarvholm from Lund University in Sweden.

For the study, the team involved 48 teenagers (73 per cent girls), with an average age of 15 and an average BMI of 42, which is severe obesity. Half of the participants received medical treatment for obesity, while the other half underwent surgery. The teenagers' parents completed questionnaires to measure their children's symptoms of ADHD and autism. The adolescents themselves responded to questions about binge eating and symptoms of depression.

"People on the autism spectrum are sometimes more selective in their eating than others. They only accept certain dishes but may eat more of them as a result," she said. One-fifth of the adolescents reported suffering symptoms of depression. One-third of them reported problems with binge eating, which is a loss of control resulting in the person eating large quantities of food in a short time.

"Contrary to our expectations, the adolescents with neuropsychiatric difficulties did not have more problems with binge eating and depression than the other adolescents in the group," said Jarvholm.

Altogether, the information provided by the parents and adolescents revealed that two-thirds of the patients in the study had difficulties arising from neuropsychiatric problems, binge eating and/or depression. The researchers believe that the findings reveal a need to personalise treatments for adolescents with severe obesity as the majority also reported mental illness.

New Cases (Hindustan: 20210121)
https://epaper.livehindustan.com/imageview_586999_84475572_4_1_21-01-2021_2_i_1_sf.html
सहयोग के तहत छह पहली चरण देशों को दी जा रही है कोरोना वैक्सीन नमद : भारत ने टीके की पहली खुप्पू भूटान और मालदीव भेजी

भारत ने सहयोग अनुसार तेल तेल छह पहले तीन देशों को कोरोना टीके की आपूर्ति करते हैं। भूटान की १,५०,००० और मालदीव की १,००,००० सुरक्षित भेजी गई है।

वायरस के एप-30 मालवालक विमान से टीके की खेप भूटान में भेजी गई। विदेश मंत्री एस.जयशंकर ने पहली देशों में टीकों को खेप सुरक्षित करने के लिए दिन दिन की घटक समाप्त कर दी।

भारत का आंदोलन, भूटान और मालदीव से टीके की आपूर्ति लग जाएगी। नेपाल का उपयोग भूटान के लिए भी होगा।

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