



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Friday 20201218

कोरोना वायरस

देश में एक करोड़ के पास पहुंचा कोरोना का आंकड़ा, 24 घंटों में आए 22 हजार मामले (Dainik Jagran: 20201218)

https://www.jagran.com/news/national-india-coronavirus-updates-coronavirus-tally-near-one-crore-in-the-country-22-thousand-cases-in-24-hours-21178311.html?itm_source=website&itm_medium=homepage&itm_campaign=p1_component

देश में कोरोना के मामले एक करोड़ के पास पहुंच गए हैं। बीते 24 घंटों में देश में कोरोना के 22 हजार नए मामले सामने आए हैं। भारत में कोरोना से अब तक 1.44 लाख मौतें हो चुकी हैं।

नई दिल्ली, एएनआइ। India Coronavirus Updates, देश में कोरोना वायरस का आंकड़ा एक करोड़ के पास पहुंच गया है। हालांकि देश में 95 लाख से अधिक लोग कोरोना से ठीक भी हो चुके हैं, जो राहत की बात है। बीते 24 घंटों की बात करें तो देश में कोरोना के 22 हजार से ज्यादा मामले सामने आए हैं। केंद्रीय स्वास्थ्य मंत्रालय के ताजा आंकड़ों के मुताबिक, देश में पिछले 24 घंटों में कोरोना के 22,889 मामले सामने आए हैं। इस दौरान देश में कोरोना से 338 लोगों की मौत हुई है।

केंद्रीय स्वास्थ्य मंत्रालय के आंकड़ों के अनुसार, भारत में कोरोना का आंकड़ा एक करोड़ के पास पहुंच गया है। देश में अब तक कुल 99 लाख 79 हजार 447 मामले सामने आ चुके हैं। देश में कोरोना के एक्टिव केस की बात करें तो अब भारत में कोरोना के 3 लाख 13 हजार 831 सक्रिय मामले बचे हैं।

इसके अलावा देश में कोरोना से अब तक ठीक होने वाले मरीजों की संख्या 95 लाख 20 हजार 827 हो गई है। भारत में कोरोना से मौत का आंकड़ा 1 लाख 44 हजार 789 है।

कोरोना के सक्रिय मामलों में कमी

देश में कोरोना के सक्रिय मामलों में भी लगातार कमी आ रही है। बीते 24 घंटों में देश में कोरोना के 8,535 एक्टिव केस कम हुए हैं। इससे एक्टिव केस की दर 3.14% है। देश में कोरोना से ठीक होने वाले मरीजों की संख्या भी बढ़ रही है। भारत में कोरोना से बीते 24 घंटों में 31,087 लोग ठीक हुए हैं। इससे कोरोना की रिकवरी दर 95.40% हो गई है। देश में कोरोना की मृत्यु दर 1.45% है।

देश में अब तक 15.89 करोड़ कोरोना टेस्ट

देश में कोरोना की जांच का आंकड़ा भी बढ़ रहा है। देश में अब तक 15 करोड़ से ज्यादा सैंपलों की कोरोना जांच की जा चुकी है। भारतीय चिकित्सा अनुसंधान परिषद (Indian Council of Medical Research, ICMR) की तरफ से जारी आंकड़ों के मुताबिक, देश में गुरुवार(18 दिसंबर) तक 15,89,18,646 सैंपलों की जांच हो चुकी है, जिनमें से 11,13,406 टेस्ट कल किए गए हैं।

Implications of the mutated coronavirus in the UK (The Indian Express: 20201218)

<https://indianexpress.com/article/explained/mutated-coronavirus-in-uk-implications-7109120/>

A mutated variant of the novel coronavirus has been associated with recent infections in England. What is it? What does it mean for people's response to vaccines? Is the strain in India?

Mutated coronavirus in UK: implications A mutation means a change in the genetic sequence of the virus. In the case of SARS-CoV-2, which is an RNA virus, a mutation means a change in the sequence in which its molecules are arranged.

A mutated variant of the novel coronavirus SARS-CoV2 has been associated with recent infections in England. The question being raised is whether the mutation could affect people's response to vaccines — and scientists say this is unlikely. The virus has undergone

several mutations since it first infected humans, which scientists say is neither unexpected nor a cause for panic.

What is a mutation?

A mutation means a change in the genetic sequence of the virus. In the case of SARS-CoV-2, which is an RNA virus, a mutation means a change in the sequence in which its molecules are arranged. A mutation in an RNA virus often happens when the virus makes a mistake while it is making copies of itself.

Only if the mutation results in a significant change in the protein structure can the course of a disease be altered, said Prof V Ravi, retired Head of the Department of Neurovirology at NIMHANS (National Institute of Mental Health and Neuro-Sciences), Bengaluru.

What is the new mutation?

UK researchers have identified it as N501Y. The virus carrying this mutation has caused 1,100 new infections in 60 local authority areas, according to reports quoting UK Health Secretary Matt Hancock. The Consortium for Covid-19 genomics UK (COG-UK) has been tracking the mutation and is likely to provide a critique soon.

Prof Ravi said that it is likely to be a mutation in the spike protein. There has been a single nucleotide change in one portion of the spike protein, so there would be no bearing on the disease biology or even diagnostics, he said.

Is a mutation in the spike protein particularly significant?

Dr Gagandeep Kang, Professor at Christian Medical College, Vellore, said that in general, there would be more concern about a mutation in the spike region than other regions of the coronavirus genome. It is the coronavirus spike protein that binds to a human protein to initiate the process of infection. So, changes here could possibly affect how the virus behaves in terms of its ability to infect, or cause severe disease, or escape the immune response made by vaccines — but these are theoretical concerns at the moment, Dr Kang said.

Through the pandemic, over 4,000 mutations have been detected in the spike region. This one appeared initially in Brazil in April, in a small proportion of cases. Since numbers have gone up in the UK, Dr Gang stressed the need to understand why the increase and what it means. At the moment, however, there is no data to indicate severity or faster spread.

What can it mean for people's response to coronavirus vaccines?

Several coronavirus vaccines are designed to create antibodies targeting the spike protein. But the vaccines target multiple regions on the spike, while a mutation refers to a change in a single point. So, if there is one mutation, it does not mean vaccines would not work, Dr Kang said. But changes in the virus will be tracked around the world because there is now unprecedented sequencing capacity and data sharing.

Should we worry about these changes?

Mutations will keep happening and the new virus variants will survive or disappear depending upon our immune

response and their ability to multiply and transmit, said Prof Arindam Maitra of the National Institute of Biomedical Genomics. But all SARS-CoV-2 strains are genetically similar to one another, and scientists do not expect these mutations to have a significant impact on their ability to cause more severe disease than what has been observed so far.

“Many mutations mean nothing at all, or at least are more successful for reasons we don’t know. For instance a different strain may be more transmissible, but cause less disease. Bottom line is that we need to monitor, but at present, there is no evidence that the new strain in UK is more transmissible nor severe nor resistant to treatment or vaccination,” Dr Marc-Alain Widdowson, Director of Institute of Tropical Medicine, Antwerp, told The Indian Express.

“We have not seen this variant in India,” said Dr Rakesh Mishra, Director, CISR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad. “But we are watching out for mutations as they are constantly happening. For the moment, it is not something to be worried about and is restricted to a few countries.”

Scientists at CCMB have analysed several thousand SARS-CoV-2 genomes from India available in the public domain. Dr Mishra said there are no indications so far that the UK mutation has more affinity to the ACE-2 receptor (the human protein with which the virus spike protein binds). Also, it is not proven that there are clinical and immunological consequences.

टीके की पहली खुराक के असर पर नजरें



नई दिल्ली | मदन जैड़ा

पूरी दुनिया में कोरोना के टीकाकरण की तैयारियां तेजी पर हैं। कुछ देशों में टीकाकरण शुरू भी हो चुका है, लेकिन इस बीच दुनिया का ध्यान कोविड टीके के सिंगल और डबल डोज के प्रभावों की तरफ आकर्षित हुआ है। विशेषज्ञों का मानना है टीकाकरण में इस बात का खासा महत्व होगा कि किस टीके की सिंगल डोज भी कारगर रहती है।

देश से बाहर अब तक जो तीन टीके तैयार हुए हैं, उनमें तीनों ऐसे हैं जिनकी पहली डोज भी कारगर है। ऑक्सफोर्ड-एस्ट्राजनेका की सिंगल डोज दो डोज से भी ज्यादा प्रभावी है। फाइजर की एकल डोज भी असरदार पाई गई है। हालांकि कितना प्रतिशत असर होगी, यह स्पष्ट नहीं है। तीसरे

कितना कारगर यह महत्वपूर्ण

वर्धमान महावीर मेडिकल कालेज के कम्युनिटी विभाग के निदेशक प्रोफेसर जुगल किशोर ने कहा कि यह बेहद महत्वपूर्ण है कि किस टीके का असर पहली खुराक के साथ ही शुरू होता है तथा किस टीके का असर दोनों खुराक लेने के बाद होता है। यदि पहली खुराक लेने के बाद ही टीके का कुछ असर शुरू हो जाता है तो ऐसे टीके को राष्ट्र प्राथमिकता देंगे। एक तो बचाव जल्द शुरू हो जाएगा। दूसरी डोज लगने तक भी संक्रमण से कुछ हद तक बचाव होगा। तीसरे,



यदि किसी कारणवश कोई व्यक्ति दूसरी डोज नहीं ले पाता है तो उसकी पहली डोज निरर्थक नहीं जाएगी। वे कहते हैं कि जब कई टीके बाजार में उपलब्ध हो जाएंगे और उनके सभी तरह के प्रभाव सामने होंगे तो इससे सरकारों के लिए यह चयन करना अस्थान रहेगा कि किस टीके को वह लगाना चाहते हैं। निश्चित रूप से ऐसे टीकों को लोग प्राथमिकता देंगे, जिनकी पहली खुराक से ही असर शुरू हो जाता है।

टीके मॉडर्ना को अमेरिका समेत कई देशों में मंजूरी देने की तैयारी की जा रही है, इसकी भी पहली डोज कारगर पाई गई है। नेचर जर्नल में प्रकाशित एक शोध में कहा गया है कि फाइजर के बाद मॉडर्ना के टीके की एकल डोज का असरदार होना महत्वपूर्ण है। मॉडर्ना

टीके के एक डोज लेने पर यह बिना लक्षणों वाले संक्रमण को रोकने में कारगर है। जबकि इसकी दोनों डोज लेने के बाद यह कोरोना के लक्षणों वाले संक्रमण को 94 फीसदी तक रोकती है। साथ ही संक्रमण की भयावह स्वरूप को भी काफी कम करती है।

कोवैक्सीन को दो से आठ डिग्री पर रखा जा सकेगा

नई दिल्ली | विशेष संवाददाता

भारतीय चिकित्सा अनुसंधान परिषद (आईसीएमआर) ने दावा किया है कि उसके और भारत बायोटेक द्वारा देश में विकसित किए गए कोरोना के टीके कोवैक्सीन के पहले चरण के नतीजे प्रभावित रहे हैं। यह टीका 2-8 डिग्री तापमान पर सुरक्षित रखा जा सकेगा।

कोवैक्सीन टीके के पहले चरण के नतीजों को लेकर साइंस जर्नल मेडरेक्सीव में शोधपत्र भी प्रकाशित किया गया है। आईसीएमआर ने यह शोधपत्र ट्विटर पर साक्षा किया है। इसमें कहा गया है कि पहले चरण के मानवीय परीक्षण कुल 375 लोगों पर हुए थे। पहले चरण के परीक्षणों में टीके के दुष्प्रभाव को देखा जाता है। शोधपत्र में कहा गया है कि इस दौरान कुछ लोगों में हल्के साइड इफेक्ट देखे गए,

सभी समूहों में टीके के अच्छे प्रभाव दिखे

आईसीएमआर ने ट्वीट कर दावा किया कि इन नतीजों से साफ है कि टीका सुरक्षित पाया गया है तथा उससे प्रतिरोधकता देखी गई है। तीनों फार्मूलों में यह देखा गया है। सभी समूहों में टीके के अच्छे प्रभाव देखे गए हैं। भारत के टीकाकरण कार्यक्रम के हिसाब से यह तापमान बेहद उपयुक्त है।

जिन्हें आसानी से दूर कर दिया गया। एक मामले में गंभीर दुष्प्रभाव आए थे, लेकिन जांच के बाद चला कि वह टीके के कारण नहीं हुआ था। इन लोगों को टीके तीन श्रेणियों में टीके की अलग-अलग मात्रा प्रदान की गई थी।

बच्चों के लिए कोरोना की वैक्सीन आने में समय

वाशिंगटन | एजेसी

इंतजार

पूरी दुनिया की नजर फिलहाल कोरोना के टीके पर टिकी हुई है। इस समय कोरोना के कई टीके अपने अंतिम चरण के ट्रायल में हैं। अमेरिका में फाइजर की वैक्सीन 16 साल के ऊपर के लोगों को लगाई जाएगी। ऐसे में सवाल है कि क्या बच्चों को कोरोना वैक्सीन मिल पाएगी।

कई लोग चिंतित हैं, कि वैक्सीन लगने की इस दौड़ में उनके बच्चे कहां खड़े होते हैं। हालांकि बच्चों को वैक्सीन दी जाएगी या नहीं इसके बारे में अभी कुछ कहना मुश्किल है। डॉक्टरों का

- अगले साल तक शोध के नतीजे आने के बाद होगा तय
- 12 साल से कम उम्र के बच्चों पर अभी शुरू ही हुआ शोध

मानना है कि मौजूदा वैक्सीन बच्चों के लिए सुरक्षित नहीं हो सकती है और दवा कंपनियों को उनके लिए अलग से ट्रायल शुरू करना होगा। वैज्ञानिकों ने अलग-अलग आयु वर्ग के लोगों के ऊपर वैक्सीन को लेकर शोध किए हैं, जिनके परिणाम अभी सामने नहीं आए हैं।

भारत बायोटेक की कोरोना वैक्सीन 'Covaxin' के तीसरे फेज के ट्रायल के लिए AIIMS को नहीं मिल रहे वॉलंटियर (Hindustan: 20201218)

<https://www.livehindustan.com/national/story-covid19-vaccine-news-coronavirus-vaccination-aiims-unable-to-find-required-number-of-volunteers-for-phase-3-trial-of-bharat-biotech-covaxin-vaccine-3690335.html>

भारत बायोटेक के कोविड-19 टीके के तीसरे चरण के ट्रायल लिए अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स) को पर्याप्त संख्या में स्वेछा से टीकाकरण कराने वाले लोग (वॉलंटियर) नहीं मिल रहे

हैं। अधिकारियों का कहना है कि लोग यह सोच कर नहीं आ रहे हैं कि जब सबके लिए टीका जल्दी ही उपलब्ध हो जाएगा तो ट्रायल में भाग लेने की क्या जरूरत है।

भारत बायोटेक के कोवैक्सिन नामक टीके के अंतिम चरण के ट्रायल के लिए निर्दिष्ट संस्थानों में से एक एम्स है। ट्रायल के लिए संस्थान को लगभग 1,500 लोग चाहिए। कोवैक्सिन का निर्माण, भारत बायोटेक और भारतीय आयुर्विज्ञान अनुसंधान परिषद (आईसीएमआर) द्वारा संयुक्त रूप से किया जा रहा है।

एम्स में सामुदायिक चिकित्सा विभाग में प्रोफेसर और इस अध्ययन के प्रधान निरीक्षक डॉ. संजय राय ने कहा, 'हमें 1500 से 2000 के लगभग लोग चाहिए थे, लेकिन अभी तक केवल 200 लोग आए हैं। लोग इस प्रक्रिया में यह सोचकर भाग नहीं ले रहे हैं कि जब टीका सबको मिलने वाला है तो ट्रायल में भाग लेने की क्या जरूरत है।' उन्होंने कहा कि जब स्वेच्छा से आने वाले लोगों को प्रक्रिया के बारे में बताया जाता है तब वे इसमें भाग लेने से मना कर देते हैं।'

ट्रायल में भाग लेने का सुझाव दिया

डॉ. राय ने कहा, 'क्लिनिकल ट्रायल की प्रक्रिया के बारे में जानने के बाद लोग भाग लेने से यह कहकर मना कर देते हैं कि जब टीका जल्दी ही मिलने वाला है तो इसमें भाग क्यों लिया जाए।' उन्होंने कहा कि जब पहले चरण का ट्रायल शुरू होने वाला था तब उन्हें सौ प्रतिभागियों की जरूरत थी लेकिन 4,500 आवेदन मिले थे। दूसरे चरण के ट्रायल के समय भी अस्पताल को चार हजार आवेदन मिले थे। डॉ. राय ने कहा कि लोगों को ट्रायल में भाग लेना चाहिए। उन्होंने कहा कि वह टीके के ट्रायल में भाग लेने की आवश्यकता के बारे में जागरूकता फैलाने के लिए विज्ञापन, ईमेल और फोन कॉल का सहारा लेने की योजना बना रहे हैं।

Nearly 70% Indians unwilling to take Covid-19 vaccine, finds study (The Indian Express: 20201218)

<https://indianexpress.com/article/india/nearly-70-indians-unwilling-to-take-covid-19-vaccine-finds-study-7109474/>

LocalCircles, a community social media platform, surveyed more than 18,000 people from 242 districts across the country.

At least 69 per cent of Indians are hesitant to take a vaccine against the novel coronavirus, a study conducted this month by LocalCircles has found. This number has increased from October, when 61 per cent said they were reluctant to take the shot.

LocalCircles, a community social media platform, surveyed more than 18,000 people from 242 districts across the country. Of the respondents, 66 per cent were men and 34 per cent women. The first study was conducted between October 15 and 20, while the second was done from December 10 to 15.

Sachin Taparia, the founder of LocalCircles, said the key reasons for the hesitancy were the limited information about side-effects, efficacy levels, and a growing belief that one would not be infected with the disease due to high immunity levels.

The average daily caseload from around Diwali in mid-November to mid-December has declined from 50,000 cases a day to 25,000. This is also a reason to explain the unwillingness, Taparia said.

Taparia suggested government measures to curb fake news on vaccines. “Governments need to keep citizens updated at every step about vaccine trial results, both about successes and adverse events. With high penetration of social media, the risk of fake information going viral is high,” Taparia said, adding that authentic and timely information could play a role in converting people into “vaccine champions.”

In a separate independent survey of healthcare professionals, 45 per cent said they were willing to take the vaccine as soon as it was made available, while 55 per cent comprised of workers who would either defer vaccination or hadn't yet decided what to do.

The study, coordinated by Dr Abdul Ghafur to understand health workers' attitudes towards Covid vaccination, received 1,424 responses. “The findings reveal significant concerns and suggest potential solutions,” Dr Ghafur said.

हाइपरटेंशन

हाइपरटेंशन को कंट्रोल करने में मददगार हैं ये पांच सुपरफूड्स (Hindustan: 20201218)

<https://www.livehindustan.com/lifestyle/story-hypertension-diet-these-five-superfoods-are-helpful-in-reducing-hypertension-3688563.html>

भागती-दौड़ती जिंदगी में लोग अक्सर खाने-पीने को लेकर लापरवाही बरतते हैं, जिससे कई बीमारियों की चपेट में आने के साथ लम्बे समय तक अस्त-व्यस्त जीवनशैली रखने के कारण लोग हाइपरटेंशन के भी शिकार हो जाते हैं। अपनी जीवनशैली में सही बदलाव लाते हुए डाइट में पोटेशियम, कैल्शियम और मैग्नीशियम की अच्छी मात्रा लेते हैं, तो आप अपने ब्लड प्रेशर को नियंत्रित कर सकते हैं। आज हम आपको ऐसे सुपरफूड्स के बारे में बता रहे हैं, जिनके नियमित सेवन से आप हाइपरटेंशन की बीमारी से बच सकते हैं।

हाइपरटेंशन क्या है

हाइपरटेंशन को ही उच्च रक्तचाप व हाई बीपी की समस्या कहते हैं, जिसमें धमनियों में रक्त का दबाव बढ़ जाता है। इस दबाव की वृद्धि से रक्त की धमनियों में रक्त का प्रवाह बनाए रखने के लिए दिल को अधिक काम करने की आवश्यकता पड़ती है। 130/80 mmHg से ज्यादा रक्त का दबाव होने पर व्यक्ति हाइपरटेंशन या हाई ब्लड प्रेशर की श्रेणी में आ जाता है। वैसे तो हाई ब्लड प्रेशर शरीर के किसी अंग को कभी भी प्रभावित कर सकता है, लेकिन इससे सबसे ज्यादा नुकसान हृदय को होता है।

फायदेमंद सुपरफूड्स

नींबू

नींबू में उच्च मात्रा में विटामिन सी होता है और ये एंटीऑक्सीडेंट्स से भरपूर होता है। ये बॉडी से फ्री रेडिकल्स को खत्म करता है। इसके अलावा नींबू के सेवन से ब्लड वैसल्स फ्लैक्सिबल और सॉफ्ट होती हैं जिससे ब्लड प्रेशर कम होता है।

दही

दही में प्रोटीन, कैल्शियम, राइबोफ्लेविन, विटामिन बी 6 और विटामिन बी 12 काफी मात्रा में होते हैं, जो कि उच्च रक्तचाप की समस्याओं को कम करते हैं और शरीर को कई प्रकार के लाभकारी अवयव मिलते हैं। दही में कैल्शियम अधिक मात्रा में पाया जाता है।

नारियल पानी

जो लोग हाइपरटेंशन की समस्या से परेशान हैं उन्हें बॉडी को हाइड्रेट रखना चाहिए। कोकोनट वॉटर में पोटैशियम, मैग्नीशियम और विटामिन सी होता है जो कि ब्लड प्रेशर को कम करता है।

लहसुन

गार्लिक के यूं तो कई हेल्थ बेनिफिट्स हैं लेकिन कम लोग ही जानते होंगे कि लहसुन के सेवन से आसानी से ब्लड प्रेशर कम किया जा सकता है। बैड कॉलेस्ट्रॉल लेवल को भी कम करता है।

अंडे

अंडे में विटामिन, मिनरल और कई अन्य पौष्टिक तत्व पाए जाते हैं, जो एंडोर्फिन नामक एक रसायन का उत्पाद करते हैं। यह रसायन हमारे दिमाग में भी पाया जाता है। जो अवसाद व दर्द जैसी समस्याओं से राहत दिलाता है।

स्पाइन स्ट्रोक

हाथों-पैरों में झनझनाहट महसूस होना स्पाइन स्ट्रोक का है लक्षण, न करें नजरअंदाज (Dainik Jagran: 20201218)

<https://www.jagran.com/delhi/new-delhi-city-spin-stroke-symptoms-causes-and-treatment-jagran-special-21178285.html>

छोटा चीरा लगाकर स्पाइनल कार्ड के लिए रक्त के प्रवाह को पहले की तरह पुनः शुरू कराया जाता है।

गाजियाबाद के न्यूरो सर्जन डॉ. मनीष वैश्य ने बताया कि स्पाइनल कार्ड में रक्त और ऑक्सीजन के न पहुंचने पर होती है स्पाइन स्ट्रोक की समस्या। यदि समय पर मिल जाए उपचार तो नहीं रहता कोई खतरा...

नई दिल्ली, जेएनएन। स्पाइन स्ट्रोक, ब्रेन स्ट्रोक से अलग होता है। ब्रेन स्ट्रोक, मस्तिष्क को प्रभावित करता है और मस्तिष्क की ओर होने वाले रक्त प्रवाह को बाधित करता है। जब स्ट्रोक स्पाइनल कार्ड को प्रभावित करता है तो उसे स्पाइन स्ट्रोक कहते हैं। स्पाइनल कार्ड, सेंट्रल नर्वस सिस्टम का भाग है, जिसमें मस्तिष्क भी सम्मिलित है। हालांकि स्पाइन स्ट्रोक के मामले ब्रेन स्ट्रोक से कम होते हैं। कुल स्ट्रोकस में से महज दो फीसद ही इसके मामले देखने को मिलते हैं। स्पाइन स्ट्रोक के कारण नर्व इंपल्स (संदेश) भेजने में असमर्थ हो जाती हैं। ये नर्व इंपल्स, शरीर की विभिन्न गतिविधियों जैसे हाथ और पैर को हिलाना या ये कहें कि शरीर को नियंत्रित करने में अहम भूमिका निभाती हैं।

जब रक्त का प्रवाह बाधित होता है तो स्पाइनल कार्ड को रक्त के साथ ऑक्सीजन और आवश्यक तत्व मिलने बंद हो जाते हैं, जिससे ऊतकों को नुकसान पहुंचता है। इसके कारण स्पाइनल कार्ड से गुजरने वाले संदेशों में बाधा आती है। अधिकतर स्पाइन स्ट्रोक रक्त के प्रवाह में ब्लॉकेज (ब्लड क्लॉट्स) के कारण होता है। कुछ स्पाइन स्ट्रोक ब्लीडिंग के कारण भी होते हैं, जिसे हैमरेज स्पाइन स्ट्रोक कहते हैं। स्पाइन स्ट्रोक में यदि रोगी को समय पर उपचार न मिला तो मरीज लकवाग्रस्त या अवसाद की गंभीर स्थिति में जा सकता है, लेकिन सही समय पर उपचार मिल जाए तो यह पूरी तरह ठीक भी हो जाता है। चिकित्सक रोगी की स्थिति के हिसाब से दवाओं व सर्जरी से इसका उपचार करते हैं।

स्पाइन स्ट्रोक के लक्षण : स्पाइन स्ट्रोक के लक्षण इस पर निर्भर करते हैं कि स्पाइनल कार्ड का कौन सा भाग कितना प्रभावित हुआ है और उसे कितनी क्षति पहुंची है। अधिकतर मामलों में लक्षण अचानक दिखाई देते हैं, लेकिन कुछ मामलों में लक्षण स्ट्रोक आने के कई घंटे बाद पता चल पाते हैं।

स्पाइन स्ट्रोक के लक्षण

- लकवा मार जाना
- अचानक सुन्नता आना
- मांसपेशियों में ऐंठन होना
- गर्म या ठंडा न महसूस कर पाना
- अचानक गर्दन या कमर में दर्द होना
- हाथों-पैरों में झनझनाहट महसूस करना
- पैरों की मांसपेशियों का कमजोर हो जाना
- बॉउल और ब्लैडर को नियंत्रित करने में परेशानी होना



 **जागरण**
jagran.com

इससे होने वाली परेशानियां: अगर स्पाइनल कार्ड के आगे के भाग को रक्त की आपूर्ति कम हुई है तो रोगी के पैर स्थायी रूप से लकवाग्रस्त हो सकते हैं। अन्य जटिलताओं में सांस लेने में कठिनाई होना, मांसपेशियों में कमजोरी आना और शरीर का लचीलापन प्रभावित होना तथा अवसाद की समस्या हो सकती है।

स्पाइन स्ट्रोक का कारण

- डायबिटीज
- उच्च रक्तचाप
- स्पाइन में चोट लगना
- कोलेस्ट्रॉल का उच्च स्तर
- स्पाइन में ट्यूमर का होना
- स्पाइनल कार्ड का किसी तरह से दब जाना



जागरण
jagran.com

आसान है उपचार: स्पाइनल स्ट्रोक के कुछ मामलों में चिकित्सक स्पाइनल कार्ड पर पड़ रहे दबाव को दवाओं से ठीक कर लेते हैं, जबकि कुछ मामलों में सर्जरी का विकल्प अपनाया जाता है। इसमें छोटा चीरा लगाकर स्पाइनल कार्ड के लिए रक्त के प्रवाह को पहले की तरह पुनः शुरू कराया जाता है।

Celiac disease

The ultimate guide on everything you need to know about celiac disease (Hindustan Times: 20201218)

<https://www.healthshots.com/intimate-health/sexual-health/some-more-ridiculous-sex-tips-from-the-internet-you-just-shouldnt-believe/>

Celiac disease is an autoimmune disease caused by an allergy to gluten. It can damage the intestines and needs to be looked into by a medical professional for timely diagnosis.

Many cultures consider grains to be sacred, because they are considered life-giving. To be honest, isn't far from the truth if you think about it. Grains like wheat, barley, and rye are converted into flour, and used widely across multiple cuisines. Be it the comforting roti, the fancy pizza, or the sweet cupcakes, you require flour to make most dishes.

There's no doubt that flour is important to make food, but what if you discovered you're allergic to the exact thing that gives you life? Well, most flours contain a protein called gluten. It's what helps to bind the flour, giving it a sticky texture. It's actually a fairly harmless ingredient for most people but for those allergic to it, it can be extremely damaging.

You see, when you're allergic to gluten, your body attacks itself. It goes into an overdrive against the protein, and ends up damaging its own intestines. Apart from the immediate discomfort, it can have devastating long-term effects.

When your small intestine gets damaged, it won't be able to absorb nutrients. Eventually, this mal-absorption can result in several deficiencies and diseases, related to malnourishment.

Allergy to gluten is referred to as celiac disease, which is classified as an autoimmune disorder. It isn't just a simple allergic reaction, but a life-threatening attack initiated by the body's immune system, with no medicine for cure. The only way to ensure gluten doesn't hurt you is to avoid it. Yes, you'd have to cut all sources of gluten from your diet.

So, how does one figure out if they have celiac disease, and if they need to fix their diet?

Well, the tricky part with celiac disease is that the symptoms are very common. It may seem like a simple digestion problem, until things get too serious. Here are some of the most common symptoms associated with it:

Abdominal pain
Gas
Constipation
Diarrhoea
Poop that is too smelly, pale or floats
Nausea
Itchy rash
Vomiting

When the disease progresses and your body isn't absorbing any nutrients, the symptoms might get more pronounced:

Weight loss
Anaemia
Damaged tooth
Mood swings
Problems with focus
Delayed growth and development in children

Clearly, you need to take celiac disease seriously, and get yourself diagnosed in order to make appropriate diet changes and replenish any deficiency.

How do you get diagnosed with celiac disease?

It can be diagnosed with simple blood tests:

Blood works for certain antibodies
Complete blood test to check for anaemia
Liver and kidney panel

Visit your doctor because other tests could be suggested, based on your case. In addition, if you get diagnosed with celiac disease, go for a diet plan developed by a professional to ensure you're meeting all your nutrient and vitamin needs. In the meanwhile, stop consuming anything with gluten in it. Ensure you're checking the ingredient list of anything you're buying from the market. Moreover, you can amp up the vegetables and fruits on your plate, because these are rich in all the essential nutrients but devoid of gluten.

Air Pollution

A four-point action plan to improve Delhi's air (Hindustan: 20201218)

<https://www.hindustantimes.com/analysis/a-four-point-action-plan-to-improve-delhi-s-air/story-uBznEWrnzcz6InOQ6TpBFM.html>

A sustainable plan to reduce emissions from the transport sector requires a comprehensive and multi-year effort

Gurugram: Vehicles ply on roads, amid hazy weather conditions, in Gurugram, Saturday, Oct. 31, 2020. The concentration of major air pollutants PM 2.5 and PM 10 are high in the five immediate neighbours of Delhi including Gurugram, according to the air quality index (AQI) maintained by the Central Pollution Control Board (CPCB). (PTI Photo)(PTI31-10-2020_000070A)

Gurugram: Vehicles ply on roads, amid hazy weather conditions, in Gurugram, Saturday, Oct. 31, 2020. The concentration of major air pollutants PM 2.5 and PM 10 are high in the five immediate neighbours of Delhi including Gurugram, according to the air quality index

(AQI) maintained by the Central Pollution Control Board (CPCB). (PTI Photo)(PTI31-10-2020_000070A)(PTI)

The deteriorating air quality in Delhi has led the Centre to set up the Commission for Air Quality Management in National Capital Region and Adjoining Areas. Every year, as the air quality reaches dangerous proportions, emergency measures are taken to ease the situation. However, in the absence of a long-term strategy, the problem recurs every winter. The new commission, it is hoped, will initiate a comprehensive, multi-sectoral action strategy.

The causes of poor air in the National Capital Region (NCR) range from stubble-burning in neighbouring states to construction dust, industrial pollution, localised bonfires to meet the heating needs of the poor and emissions from motor vehicles. Transport remains a consistent and significant contributor to pollution across all seasons and time frames. Several source apportionment studies carried out variously by the Central Pollution Control Board, IIT, Kanpur and TERI have shown that on-road vehicular exhaust emissions account for nine per cent to 38% of particulate matter (PM_{2.5}) in the atmosphere. Reducing vehicular emissions alone could positively impact the air quality of NCR.

Short-term interventions like the odd-even scheme have yielded temporary relief. Some significant initiatives to convert the state's bus and para-transit fleet to run on Compress Natural Gas (CNG) have also resulted some results, despite the substantial cost.

A sustainable plan to reduce emissions from the transport sector requires a comprehensive and multi-year effort. A four-pronged approach could help. One is deployment of clean technologies; electric mobility is a rapidly-growing choice, globally. India is focused on this sector, having formulated a National Electric Mobility Mission Plan and has instituted programmes that offer financial incentives for electric buses and other vehicles. However, effective deployment requires a comprehensive and actionable road map involving all stakeholders which has not been put in place. A phased road map stretching over 10-15 years needs to be prepared to raise the stakeholders' confidence.

This road map must cover supply- and demand-side interventions – mandating purchase of Electric Vehicles (EVs), establishing charging and swapping stations, awareness campaigns, setting standards and incentives to vehicle and component manufacturers. It should establish the way forward for registering Zero Emission Vehicles (ZEVs), increasing its share on roads by 50% or more (of all vehicles) and mandating that all buses, locally- operated freight vehicles, auto rickshaws and taxis in NCR become ZEVs by 2035.

Hydrogen Fuel Cell vehicles (HFCs), though not yet commercialised, are said to be a fitting complement to EVs, especially to cover long distances of freight and passenger commute.

A second is adopting shared and non-motorised transport. The key to effecting a modal shift is to persuade people to move from personal motor vehicles to either shared modes, like buses, metro rail and shared taxis or to non-motorised modes, like cycling and walking.

Unfortunately, the quality of India's public transport systems – especially our city buses – have discouraged private vehicle commuters from making a shift. To date, our city bus systems are primarily designed for affordability, not quality.

Affluent commuters seek high-quality options, featuring door-to-door travel, greater comfort, less crowding, and tracking and smart ticketing choices. They are willing to pay higher fares for such services. To earn their buy-in, public transport should incorporate a variety of premium services that ensure quality even if it means steeper ticket prices. A strong push for premium, vastly improved last-mile connectivity options, to and from the Delhi metro would ensure ridership.

Meanwhile, Mobility as a Service (MaaS) is an emerging concept in some European cities that allows transportation services to be available on demand and as per need, through a mobile app. Identical to the app-based taxi services in India, MaaS cuts across modes of transport to offer multi-modal trip options based on willingness to pay, time availability and other parameters. In India, MaaS can revolutionise daily commutes and offer the much-needed solution for a modal shift.

To promote non-motorised modes, NCR must invest in well-planned and safer infrastructure for cycling and walking. Developing bicycling and pedestrian masterplans and implementing them effectively could be key. For shorter commutes, these can be important modes of travel.

A third is improving traffic flow. If traffic congestion is reduced and vehicles move seamlessly, then vehicular pollution will diminish. This is because moving vehicles will disperse the emissions effectively, ensuring they don't get locked up in one location.

Staggering peak time travel could be a solution to distribute the movement of traffic over a longer period of the day. Offices and commercial establishments can adopt staggered and flexible timings for employees.

A fourth is reducing travel demand. Improving online delivery of public services can help reduce the average number of trips people make. Policies and supporting infrastructure that allow citizens to work from home and shop online will help this effort.

Likewise, mixed land-use planning could reduce trip lengths. Newly-developing areas should co-locate offices, commercial and residential addresses to minimise long commutes.

These actions to reduce vehicular pollution could begin the process of improving NCR's air quality. However, the need of the hour is a focused, comprehensive, systematic and multi-year effort across sectors. Today, Delhi looks up to the commission to develop a scientific plan with a long-term vision, be adequately resourced and empowered to implement it. This holds out a glimmer of hope that people can breathe easy in future winter seasons.

Heart Disease

Nightmares linked to anxiety, insomnia in heart patients (New Kerala: 20201218)

<https://www.newkerala.com/news/2020/217924.htm>

Tokyo, Dec 17 : Heart patients with weekly nightmares are five times more likely to feel depressed or anxious and even more likely to have difficulty sleeping compared to those without frequent nightmares, say researchers.

According to the study, published in the European Journal of Cardiovascular Nursing, psychological disorders and insomnia are linked with the development and progression of heart disease and upsetting dreams could be a clue that patients need extra prevention efforts.

"Our study shows strong associations between depression, anxiety, insomnia, and bad dreams in patients with heart disease," said study author Takashi Kohno from the Keio University in Japan.

"As this was an observational study, it cannot determine the cause-effect relationship, but it may be bidirectional. In other words, depression, anxiety and insomnia may cause nightmares, and nightmares could lead to depression, anxiety and insomnia," Kohno added.

Previous research has shown that frequent nightmares are associated with sleep and psychological disorders in the general population.

This was the first study to investigate this relationship in patients with heart diseases. It also examined whether heart medications were connected with unpleasant dreams.

The study included 1,233 patients admitted with various heart diseases to Keio University Hospital. The average age was 64 years and 25 per cent were women.

Nightmares, sleep and psychological characteristics were assessed with self-reported questionnaires and sleep-disordered breathing (when breathing stops and starts during sleep) was measured using overnight pulse oximetry (a measure of blood oxygen levels).

The findings showed that nearly 15 per cent of patients had at least one nightmare per month, and 3.6 per cent had at least one nightmare per week (defined as frequent nightmares).

Women were more likely to have frequent unpleasant dreams compared to men. Some 45.9 per cent of patients reported insomnia, 18.5 per cent had depression, 16.9 per cent had anxiety, and 28.0 per cent had sleep-disordered breathing.

Frequent nightmares were not associated with heart medications and sleep-disordered breathing but were linked with depression, anxiety, and insomnia.

Patients with weekly bad dreams were five times more likely to be depressed, five times more likely to be anxious and seven times more likely to have insomnia.

"The prevalence of nightmares and frequent nightmares in the general population, reported by other groups, is similar to the experience of heart patients in our study," the researchers said.

"Nightmares may be an alert for underlying psychological or sleep problems that should be addressed to avoid new, or worsening, heart problems. Healthcare professionals should include a question about bad dreams in their assessments," the authors noted.

Oral contraceptive pills

Oral contraceptive pills protect against ovarian, endometrial cancer (New Kerala: 20201218)

<https://www.newkerala.com/news/2020/217889.htm>

Washington , December 17: A comprehensive study from Uppsala University, involving more than 250,000 women, shows that oral contraceptive use protects against ovarian and endometrial cancer.

The protective effect remains for several decades after discontinuing the use. The study is published in the journal Cancer Research.

Ovarian and endometrial cancer are among the most common gynaecological cancers, with a lifetime risk of just over 2 per cent. Endometrial cancer is slightly more common but as it has clearer symptoms and is therefore often detected at an early stage, the mortality rate is low.

However, ovarian cancer is among the deadliest cancers, since it is often not detected until it has already spread to other parts of the body.

The first oral contraceptive pill was approved already in the 1960s, and 80 per cent of all women in Western Europe have used oral contraceptives at some point in their life.

Oral contraceptives include oestrogen and progestin, which are synthetic forms of the female sex hormones. The oestrogen and progestin in oral contraceptives prevent ovulation and thereby protect against pregnancy.

In the current study, the scientists compared the incidence of breast, ovarian and endometrial cancers between women who had used oral contraceptive pills and those who had not.

"It was clear that women who had used oral contraceptive pills had a much lower risk of developing both ovarian and endometrial cancer. Fifteen years after discontinuing with oral contraceptives, the risk was about 50 per cent lower. However, a decreased risk was still detected up to 30-35 years after discontinuation," said Asa Johansson at the Department of Immunology, Genetics and Pathology, Uppsala University, one of the leading researchers behind the study.

However, oral contraceptive pills have previously been associated with an increased risk of breast cancer.

"Surprisingly, we only found a small increased risk of breast cancer among oral contraceptive users, and the increased risk disappeared within a few years after discontinuation," said Johansson.

"Our results suggest that the lifetime risk of breast cancer might not differ between ever and never users, even if there is an increased short-term risk," added Johansson.

The results from the current study are important, since oral contraceptive use has commonly been associated with side effects such as deep vein thrombosis and breast cancer.

"In addition to protecting against pregnancy, we have shown that oral contraceptive pills also have other positive effects. Our results can enable women and physicians to make more informed decisions about which women should use oral contraceptive pills," said Therese Johansson, one of the PhD students behind the study.

Women Health

Oral hormone therapy shown to significantly alter metabolome of menopausal women (New Kerala: 20201218)

<https://www.newkerala.com/news/2020/217881.htm>

Washington , December 17: Groundbreaking research led by a team of scientists including a University of Massachusetts Amherst biostatistician shows that oral hormone therapy (HT) significantly alters the metabolome of postmenopausal women.

This finding, which examined blood specimens from the landmark Women's Health Initiative (WHI) study, may help explain the disease risks and protective effects associated with different regimens of hormone therapy.

"This is the first analysis of the metabolomic effects of hormone therapy conducted within the framework of a randomized clinical trial," said Raji Balasubramanian, associate professor in the School of Public Health and Health Sciences, whose research connects biostatistics, molecular epidemiology, and women's health.

Balasubramanian, in collaboration with Dr Kathryn M Rexrode at Brigham and Women's Hospital, a teaching affiliate of Harvard Medical School, and colleagues at the Broad Institute of Harvard and MIT, Harvard's TH Chan School of Public Health, Brown University, and several institutions in Spain, wanted to study whether hormone therapy alters the universe of small molecule metabolites.

"The answer was a resounding yes," said Balasubramanian, lead author of the paper published in *Circulation Genomic and Precision Medicine*.

The WHI's hormone therapy trials in the 1990s examined the effects on coronary heart disease (CHD), breast cancer, and other conditions of two hormone therapies-- estrogen alone and a combination of estrogen and progestin.

The combination therapy was found to significantly increase CHD risk by 29 per cent; estrogen alone was found to decrease CHD risk by 9 per cent, although this effect was not statistically significant.

"Our focus was on cardiovascular disease and understanding at a molecular level why these two hormone therapy regimens had disparate effects in regard to cardiovascular disease," Balasubramanian said.

Using liquid chromatography mass spectrometry (LC-MS) techniques, researchers at the Broad Institute measured 481 metabolites in blood specimens from the WHI hormone therapy trial participants 503 from women in the estrogen-only group, half of whom were on placebo; and 431 in the estrogen plus progestin group, with half on placebo.

The research team recorded measurements obtained right before hormone therapy began and one year later, when the women were still on active treatment or placebo.

The findings revealed "profound changes in the metabolome, spanning a wide range of classes including lipids, amino acids and other small molecule metabolites," Balasubramanian said.

In fact, 62 per cent of metabolites were significantly changed with estrogen-alone therapy, and 52 per cent with estrogen plus progestin.

While most of the changes in metabolites were consistent with each type of hormone therapy, 22 metabolites were identified that had discordant effects. Twelve of those were associated with CHD risk in an evaluation of an independent WHI dataset.

With estrogen-alone treatment, the changes in all 12 metabolites provided a protective CHD effect. With estrogen plus progestin, 11 metabolites were unchanged.

The amino acid lysine was significantly altered by both hormone therapies, but in the opposite direction. Estrogen-alone therapy increased lysine levels, providing a protective effect, and estrogen plus progestin decreased lysine levels, elevating CHD risk.

"Getting a handle on what subset of metabolites had differential changes between the two drugs related to cardiovascular diseases might point to the molecular underpinnings of the difference in risk between the two treatments," Balasubramanian said.

UMass Amherst 2020 graduate Ryan Sheehan contributed to the data analytic aspects of the study and continues to work in Balasubramanian's lab as a research associate.

Taking part in the study was "the best experience a student could have," he says. "Not only was I able to contribute my own skills and knowledge to this important paper, but also I was able to learn so much about the processes that go on with professional research. The amount of time and attention to detail that went into each step is something I will try to mimic in my own work as I progress in my professional career."

The study also lays the groundwork for identifying other hormone therapy-related metabolomic changes in a broader age group of women and how those changes are associated with differential risks for other health conditions, such as breast cancer, depending on the hormone regimen.

"We're excited to contribute to advancing research in women's health," Balasubramanian said.

Neurology

Immune cells in the brain may help prevent seizures (Medical News Today: 20201218)

<https://www.medicalnewstoday.com/articles/immune-cells-in-the-brain-may-help-prevent-seizures>

Research in mice reveals that immune cells in the brain constantly survey their neighborhood for overexcited nerve cells. The findings could shed light on neurological conditions in which nerves are "hyperexcitable," such as epilepsy and Alzheimer's disease.

Image credit: CHRISTOPH BURGSTEDT/SCIENCE PHOTO LIBRARY/Getty Images

Night and day, immune cells in the brain called microglia restlessly extend and retract branch-like "processes" into their surroundings.

The established view among neuroscientists has been that the cells are looking for invading pathogens or evidence of damage.

“This never made sense to me,” says Dr. Katerina Akassoglou, a senior investigator at Gladstone Institutes in San Francisco, CA.

“Why would a cell expend so much energy for something that might never happen? I always thought there must be another reason for microglia to be moving all the time, likely related to a normal function in the brain,” she adds.

Dr. Akassoglou and her colleagues have now shown that the cells use their processes to monitor neighboring nerve cells for signs of overexcitement. When they touch overactive cells, the processes somehow limit their activity and prevent seizures.

“Microglia seem to sense which neuron is about to become overly active, and keep it in check by making contact with it, which prevents that neuron’s activity from escalating,” explains Dr. Mario Merlini, the study’s co-first author and a former research scientist in Dr. Akassoglou’s lab who now heads a team at the University of Caen Normandie in France.

Inactive microglia

Hyperexcitable neurons are known to be involved in a wide range of neurological conditions, including Alzheimer’s disease, traumatic brain injury, epilepsy, and autism.

After years of trying, researchers in Dr. Akassoglou’s lab managed to create a strain of mice called MgPTX, in which the microglia are alive but unable to send out processes.

“It was purely driven by curiosity,” says Dr. Akassoglou. “We just wanted to know, why do these cells move all the time, and what happens to the brain if they stop?”

For a while, the mice appeared to be fine, but then some of them began to have seizures.

Seizures occur when there is an uncontrolled burst of electrical activity in the brain.

To observe the effects of overstimulation on a discrete part of the mouse brain, the scientists developed a novel technique for continually tickling the whiskers of normal and MgPTX mice as they ran on a wheel.

The automated whisker stimulation model allowed the scientists to image overactive neurons in the whisker barrel cortex of the mouse brain, where processing of signals from the whiskers takes place.

The researchers discovered that in genetically normal mice, microglia primarily extend their processes toward active neurons.

Crucially, the researchers discovered that when a process touches an active neuron, the cell’s activity does not increase any further. By contrast, in MgPTX mice — whose microglia cannot send out branches — this calming of hyperexcitable nerves does not occur.

“[I]n our mouse model where microglia movements are frozen, we found that the activity of nearby neurons keeps increasing, a bit like a heater with a broken thermostat,” says Dr. Merlini.

“This changed our thinking on how neuronal activity is regulated in the brain. Instead of an on-off switch, microglia are the brain’s thermostat, controlling excessive neuronal activity,” he explains.

The scientists report their research in the journal *Nature Neuroscience*.

Hypersynchrony

Nerve inflammation and degeneration in the brain are known to disrupt the way microglia survey their surroundings.

Dr. Jorge Palop, a co-author of the study and associate investigator at Gladstone Institutes, explains: “Network hyperexcitability can be observed in patients with epilepsy and in other conditions in which epilepsy is more likely to occur, such as Alzheimer’s disease and autism. And, a hyperactive brain causes a large number of neurons to fire (or become active) at the same time — a process known as hypersynchrony that can lead to spontaneous seizures.”

The authors hope that their findings will inspire new treatments that improve the brain’s capacity to keep electrical activity within safe limits.

In their study, they were able to chemically restore the ability of microglia in MgPTX mice to send out processes and survey their neighborhoods for excess activity.

When the animals’ whiskers were tickled, their newly restored microglia returned neuronal activity to normal levels.

“In many brain diseases, the ability of microglia to survey the brain is impaired,” says Dr. Akassoglou. “We now have a model to study the consequences of impaired microglia surveillance on brain inflammation and cognition in diseases including Alzheimer’s disease, multiple sclerosis, and also brain infection by viruses, like COVID-19.”

In November 2020, *Medical News Today* reported a review of research that found abnormal electrical discharges in the brains of some patients who recovered from COVID-19.