Corona Virus (Hindustan: 20200731)

https://epaper.livehindustan.com/imageview_225647_80665420_4_1_31-07-2020_2_i_1_sf.html
India records more than 50,000 Covid-19 cases for second straight day, tally over 1.63 million (Hindustan Times: 20200731)


According to health ministry data, India has added 1,053,377 cases since July 1—702,689 have been just in a fortnight. It is the third worst-hit country in the world after the United States and Brazil.

A health worker in PPE kit holds up a sample taken for coronavirus testing at Happy School Darya Ganj in New Delhi.

India recorded more than 50,000 new cases of the coronavirus disease (Covid-19) in the last 24 hours, for the second day in a row, pushing its infection tally to more than 1.63 million, according to the Union health ministry data.

According to health ministry data, India has added 1,053,377 cases since July 1—702,689 have been just in a fortnight. It is the third worst-hit country in the world after the United States and Brazil.

With 779 fatalities between Thursday and Friday morning, the country’s death toll is now 35,747. The toll at the beginning of the month was 17,400.

The government has said India has one of the lowest case fatality rate (CFR) at 2.21% as compared to the global average of 4%. It added that 24 states and Union territories have lower CFR than the national average and eight of them have a CFR below 1%.

With 37,223 patients discharged in the last 24 hours, the number of recovered people have jumped to 1,057,805. The recovery rate is up from 64.44% on Thursday to 64.54% on Friday.

India on Thursday achieved the landmark of more than a million recoveries from Covid-19. There has been a consistent trend of more than 30,000 recoveries daily for the eighth day in a row now.

There has been a continued increase in the average daily recoveries from around 15,000 in July’s first week to around 35,000 in the last week.

The gap between recovered patients and active Covid-19 cases currently stands at more than 5 lakh now.

The government has also said that 16 states and Union territories are recording higher recovery rate than the national average. It has also said that 16 states and Union territories are recording higher recovery rate than the national average.
A senior official of the health ministry said on Thursday that the herd immunity level is “far away” for the Indian population and it can only be achieved through immunisation by vaccines.

“For a large country like India, herd immunity cannot be a strategic choice or a strategic option... It will come at too high a cost and can be done only through immunisations via vaccination,” Rajesh Bhushan, the officer on special duty, said during a briefing.

The march of an infectious disease such as Covid-19 can be halted only when there is a large enough proportion of the population that is immune to it – a threshold known as herd immunity. Besides a vaccine, which is yet to be approved, the only way people become immune is if they have had the disease and recovered.

The official also hinted that India is looking at a multilateral, World Health Organization (WHO)-led mechanism to secure Covid-19 vaccines and the country is yet to begin direct discussions with any of the developers that are leading the development race.

Bhushan also said the question on who would get the vaccine first was still under deliberation at the health ministry.

There are at least 25 vaccines in human trial phases, including two from India, across the world. Three vaccine candidates—one each from the US, UK and China—are largely regarded as the frontrunners since they are now at advanced stages of experiments among people.

In India, Bharat Biotech’s Covaxin and Zydus Cadila’s ZyCov-D are both in Phase I/II human trials for determining its safety and dosage.

India now fifth in terms of Covid-19 fatalities, rate of recovery improves (Hindustan Times: 20200731)


The health ministry further said that it will continue to implement the strategy of comprehensive testing, tracking and treatment to effectively tackle the coronavirus pandemic.

A man in personal protective equipment (PPE) sprays disinfectant on an escalator inside a mall in Mumbai.
India has achieved another grim milestone in terms of the number of Covid-19 fatalities. The country is already recording over 50,000 daily cases (the number stood at 55,078 on Friday) which has taken the countrywide tally to over 1.6 million (16,38,870 to be exact).

Another 779 deaths in the last 24 hours took the number of fatalities in India to 35,747. It has now replaced Italy to reach at the fifth place in terms of the number of fatalities, according to World Health Organisation (WHO).

The countries ahead of India are the United States (1,48,640 fatalities), Brazil (88,539 fatalities), the United Kingdom (45,961 fatalities) and Mexico (44,876 fatalities), according to WHO data.

Though the number of Covid-19 cases are high in India, it has conducted over six lakh tests in the last 24 hours, according to Union health ministry. “India achieves another landmark. More than 6 lakh tests done in 24 hours,” the Ministry tweeted on Friday morning.

The ministry further said that it will continue to implement the strategy of comprehensive testing, tracking and treatment to effectively tackle the pandemic. “The objective is to raise the testing capacity to 10 lakhs tests per day in the medium term,” the health ministry said in its subsequent tweet.

The recoveries too have increased in the country. The number of recovered patient crossed the one million-mark on Thursday and is now 1.9 times the total active cases.

According to the health ministry, the fatality rate in the country has dropped to 2.21 per cent.

Addressing a press briefing, Officer on Special Duty in the Health Ministry Rajesh Bhushan said on Thursday that 21 states and union territories have case positivity rate less than 10 per cent, while in four it is less than five per cent.

Bhushan said the ‘test, track and treat’ strategy has shown good results in terms of managing the situation by curbing the spread of infections and keeping the mortality low.

To date, more than 17.2 million people have been infected with the coronavirus worldwide, with over 671,000 fatalities, according to Johns Hopkins University.
Children younger than five carried major amounts of coronavirus in their upper respiratory tract, a small study published on Thursday showed, raising new questions about whether kids can infect others.


Children younger than five carried major amounts of coronavirus in their upper respiratory tract, a small study published on Thursday showed, raising new questions about whether kids can infect others.

Data on children as sources of coronavirus spread are sparse, and early reports did not find strong evidence of children as major contributors to the deadly virus that has killed 669,632 people globally.

Understanding the transmission potential in children will be key to developing public health guidelines, said the researchers who published the study in the journal JAMA Pediatrics.

Between March 23 and April 27, 2020, a research team from Ann & Robert H. Lurie Children’s Hospital and Northwestern University tested swab collections from inpatient, outpatient, emergency department, and drive-through testing sites in Chicago, Illinois.

The study included 145 individuals aged between one month and 65 years with mild to moderate COVID-19 who were studied in three groups - children younger than five years, children 5 to 17 years, and adults 18 to 65 years.

Their analysis suggests the young children had a viral load 10-fold to 100-fold greater than adults in their upper respiratory tracts.

Viral loads in older children with COVID-19 are similar to levels in adults. This study found greater amounts of viral nucleic acid – the genetic codes for proteins to produce new viruses - in children younger than 5 years.

The study only looked at viral nucleic acid and not infectious virus, meaning it is not clear if the children would spread the virus.
Still, the prevalence in young children raise concerns about their behavioural habits, and their proximity in schools and day care centers as public health restrictions are eased, researchers said.

In addition to public health implications, the researchers said the results could help put the focus on this population while targeting immunization efforts when COVID-19 vaccines become available.
दावा: रूस में दुनिया की पहली वैक्सीन को मंजूरी जल्द

नोटको | संदेश

दुनिया में लोग कोरोना-19 की वैक्सीन का इंतजार कर रहे हैं। रूस 10 अगस्त से तक दुनिया की पहली कोरोना वैक्सीन को मंजूरी देने की घोषणा पर काम कर रहा है। रूस ने इसके लेख में खास राष्ट्रीय तैयारी की है। सीएनएन ने गुरुवार को यह जानकारी दी।

सांख्यिक सन्दर्भ: 1957 में रूस दुनिया के पहले उपवाह का जिक्र करते हुए रूस के संपुष्ठ थन कोष के प्रमुख किरि पिकार्टिन ने कहा कि रूस कोरोना वैक्सीन के साथ भी दैनिका है और इस क्षेत्र में भी पहले फुहामे। संपुष्ठ थन कोष कोरोना वैक्सीन की फैलाव कर रहा है।

डेटा जारी नहीं किया: सीएनएन ने बताया, रूस 10 अगस्त तक कोरोना वैक्सीन को मंजूरी देने की घोषणा बना रहा है, जिसमें मुश्किल स्थिति मामलेये 13 अगस्त 2020 ने बाएँ है। रूस ने अतीत और वैक्सीन की सार्वजनिक मंजूरी मिलने के बाद पहले फ्रांस (हैन्डवेल्स) के द्वारा प्रथम वक्सीन को दी गई। हालांकि, रूस ने अभी तक वैक्सीन के दुराल को टीके डेटा जारी नहीं किया है। इस वजह से इसकी प्रायासीत्वता के बारे में अनुमान नहीं की जा सकती है।
पहले किसे मिलेगा कोरोना का टीका, चल रहा मंथन, जानें क्या है नीति निर्माताओं की राय (Dainik Jagran: 20200731)


कोरोना के खिलाफ काम करने वाला टीका विकसित होने के बाद इसे सबसे पहले किसे दिया जाए इस पर गहन मंथन चल रहा है। जानें इस मसले पर क्या है विशेषज्ञों की राय...

नई दिल्ली, पीटीआई। कोविड-19 का टीका विकसित होने के बाद सबसे पहले किसे दिया जाए, इस पर गहन मंथन चल रहा है। स्वास्थ्य मंत्रालय के ऑफिसी राजेश भूषण ने इस महामारी के खिलाफ बन रहे टीके को लेकर विज्ञान एवं मैनविकता के मंथन के लिए पर आयोजित अंतरराष्ट्रीय संगठन में यह बात कही। वर्चुअल प्लेटफॉर्म पर हुई संगठन में उन्होंने कहा कि सरकार के भीतर और बाहर हर जगह यह चर्चा का विषय है कि टीका पहले किसे उपलब्ध होना चाहिए। संगठन का आयोजन इंटरनेट काउंसल ऑफ मेडिकल रिसर्च (आईसीएमआर) ने किया था।

फ्रैंटलाइन वर्कर्स को प्राथमिकता देने की बात

भूषण ने कहा, इस बात पर एक राय बन रही है कि फ्रैंटलाइन वर्कर्स को सबसे पहले टीका लगना चाहिए। हालांकि इस सवाल का कोई स्पष्ट जवाब नहीं मिल पाया है। सबसे अधिक भी है कि अगर फ्रैंटलाइन वर्कर्स को सबसे पहले टीका लगाया गया तो उसके बाद किसका नंबर आएगा और टीका किस क्रम में उपलब्ध कराया जाएगा। उन्होंने कहा कि विचार-विमर्श इस बात पर भी चल रहा है कि क्या बुजुर्ग लोगों को प्राथमिकता में रखना चाहिए, या फिर उन्हें प्राथमिकता में रखा जाए जिन्हें पहले से कई बीमारियां हैं या कमजोर सामाजिक-आर्थिक स्थिति वालों को आगे रखा जाए, जिनकी प्रतिरक्षा शक्ति कमजोर है।

नैतिक सिद्धांतों के आधार पर बदलेगा भारत

सरकार के भीतर नीति निर्माता इन सवालों का हल दूर ने में लगे हुए हैं। नीति आयोग के सदस्य और कोविड-19 राष्ट्रीय कार्यकल के अधिकारी वीके पॉल ने कहा कि इस बात पर संक्रियता से विमर्श हो रहा है कि टीका विकसित होने के बाद किन लोगों को प्राथमिकता में रखा जाए। इस संबंध में भारत वैज्ञानिक
एवं नैतिक सिद्धांतों के आधार पर बढ़ेगा। हम ऐसी स्थिति नहीं बनाने दे सकते कि अमीरों को टीका मिल जाए और गरीब बचे रह जाएं।

आबादी के आधार पर हो वितरण

आयोजन में शामिल रहे अंतरराष्ट्रीय विशेषज्ञों ने भी इस विषय पर चर्चा की। अमेरिका के हार्वर्ड टीएच चाँ फ्लोरा ऑफ पब्लिक हेल्थ के मार्क टिन्सलिच ने कहा कि अंतरराष्ट्रीय स्तर पर टीके का वितरण आबादी के आधार पर होना चाहिए। स्वास्थ्य कामयाबी की संख्या के आधार पर देशों में टीके का वितरण सही तरीका नहीं होगा। विशेषज्ञों ने इस बात पर भी जोर दिया कि टीका विकसित करने की जल्दी में मानकों की अनदेखी नहीं होनी चाहिए।

चार चुनौतियों से होगा सामना

इंडियन काउंसिल ऑफ मेडिकल रिसर्च (आइसीएमआर) के महानिदेशक बलराम भागवत ने कहा कि टीका बनाने के बाद चार बड़ी चुनौतियां होंगी। पहली चुनौती होगी प्राथमिकता तय करना और जसुरतमंद तबके तक टीका पहुंचाना, दूसरी चुनौती होगी वैक्सीन के लिए कोल्ड चेन एवं लॉजिस्टिक्स की व्यवस्था, तीसरी चुनौती होगी वैक्सीन को संभालकर रखने (स्टॉक बनाने) की और चौथी चुनौती होगी ऐसे चुनावों को प्रशिक्षित करने की जो टीका लगाएंगे। इन चारों चुनावों पर भारत को अहम भूमिका निभानी होगी और में भरोसा दिलाता हूं कि भारत पूरी जिम्मेदारी के साथ भूमिका निभाएगा।

बंदरों पर कारगर ऑक्सफोर्ड का टीका

इस बीच, विज्ञान पत्रिका नेचर में प्रकाशित अध्ययन के मुताबिक, ब्रिटेन की ऑक्सफोर्ड यूनिवर्सिटी द्वारा विकसित टीका बंदरों पर बहुत प्रभावी पाया गया है। यह बंदरों को कोविड-19 के कारण होने वाली गंभीर परेशानियों से बचाने में कारगर रहा। इससे बंदरों के फेफड़े को नुकसान नहीं पहुँचा और वायरस की वृद्धि भी कम हुई। फिलहाल यह टीका ह्यूमन ट्रायल के तीसरे चरण में है। अमेरिकी फर्म मॉडना का टीका भी परीक्षण के अंतिम चरण में है। हालांकि अभी यह तय नहीं किया जा सकता है कि टीका बाजार में कब तक उपलब्ध हो पाएगा।
Herd Immunity

Herd immunity far away, Covid-19 vaccine only option: Health ministry (Hindustan Times: 20200731)

https://www.hindustantimes.com/india-news/herd-immunity-far-away-vaccine-only-option-govt/story-Ov9cp9oWXWCSSYX4QLrrAI.html

The official also hinted that India is looking at a multilateral, WHO-led mechanism to secure Covid vaccines and the country is yet to begin direct discussions with any of the developers that are leading the development race.

Experts said vaccine is the most cost-effective way to achieve immunity against an infectious disease.

The herd immunity level is “far away” for the Indian population and it can only be achieved through immunisation by vaccines, a top health ministry official said on Thursday and added that reaching this threshold – believed to be crucial for the Covid-19 outbreak to end – in any other manner will exact too high a cost.

The official also hinted that India is looking at a multilateral, WHO-led mechanism to secure Covid vaccines and the country is yet to begin direct discussions with any of the developers that are leading the development race.

“For a large country like India, herd immunity cannot be a strategic choice or a strategic option... It will come at too high a cost and can be done only through immunisations via vaccination,” said Rajesh Bhushan, the officer on special duty, health ministry, during a briefing on Thursday.

The march of an infectious disease such as Covid-19 can be halted only when there is a large enough proportion of the population that is immune to it – a threshold known as herd immunity. Besides a vaccine, which is yet to be approved, the only way people become immune is if they have had the disease and recovered.

“Government has not signed an agreement with any vaccine manufacturing company. There are multiple stakeholders within and outside government and ministry of health has started actively engaging with such stakeholders. It’s too premature to comment on supply and distribution of vaccine at this stage but whenever it comes it has to be deployed on a much larger scale than the existing vaccines,” said Bhushan.

Bhushan also said the question on who would get the vaccine first was still under deliberation at the health ministry.
World over, there are roughly 25 vaccines in human trial phases – including two from India. Three vaccine candidates – one each from US, UK and China – are largely regarded as the frontrunners since they are now at advanced stages of experiments among people.

Several countries have entered into commercial deals with the UK candidate’s developer AstraZeneca and the US candidate’s Moderna.

“India is in touch with global multilateral organisations such as GAVI, CEPI, WHO etc. to see how it can be made accessible for people in India,” said Bhushan. GAVI (Gavi-The Vaccine Alliance) and CEPI (Coalition for Epidemic Preparedness Innovations) have partnered with WHO and several of the vaccine developers to help pool resources for the production, acquisition of distribution of any potential Covid-19 vaccine, with fair access being one of the factors that they will keep in mind.

The two Indian vaccine candidates are Bharat Biotech’s Covaxin and Zydus Cadila’s ZyCov-D, both in phase I/II human trials for determining its safety and dosage.

About 141 vaccine candidates globally are in the pre-clinical stage, which means these are into research stages or in pre-clinical trials where animal experiments are taking place to generate toxicity data.

The virus strain isolated for Bharat Biotech’s Covaxin was isolated at the Indian Council of Medical Research-National Institute of Virology (ICMR-NIV) in Pune, and transferred to the company. It received central drugs controller’s approval for early human trials on June 29.

Zydus Cadila’s vaccine candidate is called ZyCov-D, a DNA plasmid vaccine that received drug controller’s approval for early human trials on July 2. The candidate was developed indigenously at the company’s Vaccine Technology Centre in Ahmedabad, Gujarat, and uses DNA to train the body to recognise parts of Sars-Cov-2 and build an immune response.

Experts said vaccine is the most cost-effective way to achieve immunity against an infectious disease.

“The vaccine will be ultimate to check the disease spread but we don’t know when an effective vaccine will be available for use even though all our efforts are being directed towards making it happen as soon as possible. A good vaccine is the most cost-effective way of preventing a disease,” said Dr Amita Jain, head, microbiology department, KGMU, Lucknow.

Till the time a vaccine comes, Covid-19 appropriate behaviour such as wearing a mask, maintaining physical distancing, and maintaining hand hygiene, etc, will work the best, Bhushan said at the briefing.

As the Covid-19 outbreak turned into a pandemic, epidemiologists around the world said countries would need to use a combination of suppression (not letting the virus spread) and mitigation (focussing on helping infected people and letting the virus spread in a limited manner to allow immunity to build up) strategies till a vaccine is developed.
For India, the second part has been deemed as not feasible since the country has fewer hospitals per person than developed countries – which raises the possibility of health services being overwhelmed.

**Herd Immunity (Hindustan: 20200731)**

https://epaper.livehindustan.com/imageview_225647_80666994_4_1_31-07-2020_2_i_1_sf.html
पीलक हेल्थ

पीलक हेल्थ इंग्लेंड की चेतावनी, तीन साल से कम बच्चों को मास्क पहनाना हो सकता है

खतरनाक (Amar Ujala: 20200731)

पीएचई ने कहा कि तीन साल से कम उम्र के बच्चे के मुंह पर स्माल या कपड़ा बांधना खतरनाक हो सकता है। पीएचई में चीफ नरस प्रो. विव बेनेट का कहना है कि तीन साल से कम उम्र के बच्चों को मास्क पहनाया जाता है तो उनका दम घुट सकता है सांस लेने में तकलीफ होने से उनकी जान खतरे में पड़ सकती है।

मास्क से सांस लेने, छोड़ने में तकलीफ

वैज्ञानिकों का कहना है कि तीन साल से कम उम्र के बच्चों की श्वास नलिका नाजुक होती है। मास्क से उन्हें सांस लेने और छोड़ने तकलीफ हो सकती है। इससे उनका दम घुट सकता है या सांस संबंधी तकलीफ हो सकती है। नेशनल हेल्थ सर्विस का कहना है कि जो बच्चे मुंह और नाक दोनों से सांस लेते हैं उनके लिए तकलीफ और बढ़ सकती है ऐसी स्थिति में छोटे बच्चों को मास्क पहनाने से बचना होगा।

खुद न उतार पाने वाले बच्चों को मास्क न पहनाएं

ब्रिटेन के डॉक्टरों का कहना है कि जो बच्चा मास्क खुद न उतार पाए, उसे मास्क किसी हाल में नहीं पहनना है। एक व्यक्ति जब लगातार मास्क पहनता है तो उसे भी सांस लेने या छोड़ने में तकलीफ होती है और राहत के लिए वह मास्क उतार देता है।

इसे देखते हुए जो बच्चे मास्क खुद नहीं उतार सकते उन्हें मास्क नहीं पहनाना है। दम घुटने या सांस फूलने की स्थिति में वह मास्क नहीं उतार पाएंगे तो खतरा बढ़ सकता है।

बच्चे को घर से बाहर लेकर न निकालें

पीएचई की सलाह के मुताबिक तीन साल से कम उम्र के बच्चों को वायरस से बचाने के लिए घर में रखें। घर से निकलने की कोई जरूरत नहीं है। अगर बच्चे में कोरोना के लक्षण हैं या बीमार है तो जांच करा लें तेरिक ध्यान-उधर न ले जाएं। बच्चों की रोग प्रतिरोधक क्षमता कमजोर होती है। इस कारण उनकी मुश्किल बढ़ सकती है। आपात स्थिति में तुरंत अपने चिकित्सक की सलाह ले।
गुलकंद का महत्व

कोरोना काल में जरूर खाएं गुलकंद, रहें रस्त्रेस फ्री (Navbharat Times: 20200731)


गुलकंद हमारी शारीरिक और मानसिक दोनों तरह की सेहत के लिए बहुत अधिक लाभकारी है। यदि आप कोरोना वायरस से बचने के लिए गुलकंद का सेवन करने तो आपको मेटली फिट रहने में भी बहुत अधिक सहायता मिलेगी...

गुलाब के पूलों का मौसम युं तो सरदियों में होता है और खासतौर पर फरवरी-मार्च में। लेकिन इस पूल की नाजुक पंखुड़ियों से तैयार गुलकंद को सालभर उपयोग किया जा सकता है। हालांकि तैयार गुलकंद को सालभर सहेजना आसान नहीं होता है, लेकिन अगर नहीं तो यहां जानकारी के माध्यम से शारीरिक और मानसिक सेहत को बनाए रखते हैं गुलाब के पूल...

कैसे बनाया जाता है गुलकंदगुलाब के पूलों की ताजा पंखुड़ियों को शक्कर या शुगर के मिलकर गुलकंद तैयार किया जाता है। जबकि आप इसे शहद के साथ मिलकर भी तैयार कर सकते हैं। जब गुलाब की पंखुड़ियों को शुगर में मिलाकर 2 या 3 दिन के लिए हल्की धूप में रखते हैं तो शुगर और गुलाब की पंखुड़ियों का प्राकृतिक पानी मिलकर एक स्वादिष्ट पेस्टी फूड तैयार करते हैं। इसे ही गुलकंद कहा जाता है।

आयुर्वेद में गुलकंद का महत्व

आयुर्वेद में गुलकंद को औषधि की संजा दी गई है। कई दवाइयों या कुछ खास बीमारियों में प्रभाव बढ़ाने के लिए गुलकंद खाने की सलाह दी जाती है। आयुर्वेद में पूलों के रस और उनके अलग-अलग गुणों का उपयोग अलग-अलग तरह की बीमारियों को ठीक करने के लिए किया जाता है। आमतौर पर गुलकंद खाने का मौसम सरदी में माना जाता है। इसकी एक वजह यह भी है कि इस मौसम में गुलाब के पूलों की खेती होती है और बड़ी में मात्रा में ताजा गुलकंद खाने के लिए उपलब्ध होता है।

पाचन के लिए अच्छा होता है गुलकंद का पान

कोरोना काल में गुलकंद के फायदे
कोरोना वायरस के कारण होनेवाली बीमारी कोविड-19 पूरी तरह से एक संक्रामक रोग है। यह आमतौर पर उस व्यक्ति को अपना शिकार बहुत जल्दी बनाता है, जिसकी रोग प्रतिरोधक क्षमता कमजोर होती है। ऐसे में गुलकंद खाने से आपको अपने शरीर की इम्युनिटी बढ़ाने में मदद मिलेगी। गुलकंद में मिक्स शहद या शुगर का सीमित मात्रा में सेवन होने से शरीर में ग्लूकोज की कमी नहीं होगी और आप खुद को ऊर्जावान महसूस करेंगे।

कब्ज दूर करे और जलन शांत करे

अगर किसी को कब्ज की समस्या रहती है तो खाना खाने के बाद 1 से 2 घम्मद गुलकंद का सेवन किया जा सकता है। इससे आपका पाचन बेहतर होगा और कब्ज की समस्या दूर होती है। साथ ही अगर पेट में जलन, एसिडिटी या एसिड बनने की समस्या हो रही है, तब भी आप तुरंत राहत पाने के लिए 1 से 2 घम्मद गुलकंद खा सकते हैं। इससे आपको जलन राहत मिलेगी। ध्यान रखें कि यह राहत पाने का तरीका है, बीमारी का इलाज नहीं। इसलिए अगर ऐसी दिक्कत बार-बार हो रही है तो डॉक्टर से सलाह लें।

स्किन को सुंदर बनाता है

जिस तरह गुलाबजल लगाने से हमारी लापरवाही की खूबसूरती बढ़ती है, उसी तरह गुलकंद खाने से भी हमारे शरीर की रंगत में निखार आता है। गुलकंद अपने जादुई गुणों के साथ हमारी लापरवाही की सेल्स को अंदर से प्रेरित करता है। रोम किश्तों को बंद करनेवाले अपशिष्ट पदार्थों को हटाने का काम करता है। साथ ही बढ़ती उम्र का असर हमारी लापरवाही पर नहीं होने देता है।

अनिद्रा और थकान दूर करने में सहायक है गुलकंद का सेवन

थकान और तनाव दूर करे

गुलकंद खाने से नीद ना आने की समस्या में राहत मिलती है। गुलाब के पूल में ईंटिओक्सिडेंट्स के साथ ही प्लेजर हॉम्मन्स को बढ़ानेवाले तत्व पाए जाते हैं। इस कारण यह मानसिक तनाव दूर करने में भी सहायक है। यदि आप दूध के साथ हर दिन गुलकंद का सेवन करेंगे, तो शरीरिक खराब भी आपके दिल के लिए नहीं हो पाएंगी। आप खुद को अधिक ऊर्जावान अनुभव करेंगे।
Infectiousness of SARS-CoV-2

The infectiousness of SARS-CoV-2 (Hindustan Times: 20200731)

https://www.hindustantimes.com/analysis/the-infectiousness-of-sars-cov-2/story-QhTBa4DKqkN0cIov3q5dVP.html

The case rate among contacts of an infected person appears surprisingly low. This gives hope.

Given the fast spread of the infection, other cities may follow the course of Ahmedabad and Delhi and achieve herd immunity.

The coronavirus pandemic is unprecedented, and has infected 16.8 million in at least 180 countries in seven months. India has reported 1.5 million cases and 34,000 deaths. By April end, 0.78% of India’s 1.3 billion population was infected as per the Indian Council of Medical Research (ICMR) studies. By mid-July, 24% of Delhi’s 20 million population was infected as per the National Centre for Disease Control’s (NCDC) sero-surveillance survey.

Sero-prevalence studies from many countries indicate that the infection numbers are about 20-50 times more than the test positives reported in the same areas. This implies that the number of very mild and asymptomatic cases is much higher, and is not captured by the health system.

Yet, this fast-spreading virus does not infect all the members of an infected person’s family. On an average, only 10-20% of family members develop the infection after one infection in their family. This rate of secondary cases in a close contact in the family is called household Secondary Attack Rate (SAR).

A global literature review we conducted at the Indian Institute of Public Health Gandhinagar (IIPHG) on SAR showed that the rate is variable — from 4.6% to 50%. Infection rates are higher among the spouse or partner of the primary case and elderly members of the family, but it is lower in children. But most studies showed that 80 -90% family members do not develop Covid-19 after a primary case is diagnosed in the family.

Early ICMR data indicates SAR in India is 6%, which means that 94% of family members did not develop Covid-19 even when one member tested positive. This is surprising as the virus is infectious and we are told that one can get infected during a brief five-10 minute exposure at public places such as shops, vegetable vendors or banks. Studies have shown that a person with Covid-19 is most infectious two days before symptoms appear. This means a person begins infecting others on an average at least three to five days before being diagnosed, when no one around them at home is using masks or maintaining social distancing.
Family members are in close contact with each other, sleeping, eating and living in close proximity. In spite of this close contact with an infected person, only 10-20% family members get infected as per most studies published in scientific literature globally.

This is surprising for a highly infectious disease. This tells us something about the infectiousness of the virus and individual immunity against disease.

One obvious interpretation is that around 80% people who remain uninfected in a family are resistant or not susceptible to the coronavirus in spite of close contact without any precautions. This contradicts the notion of a highly infectious disease agent. A low SAR rate of 10-20% questions the assumption that everyone is susceptible to the infection because no one has immunity against it.

One competing explanation is that most cases are very mild with a low viral load, which carries a lower risk of transmission. Only 7-15% of cases have a moderate or high viral load, which leads to the transmission of infection in many others. But such families will be few, and 85% people with mild disease will not have secondary cases in their families.

A similar phenomenon is observed in epidemics caused by other new viruses, such as chikungunya, that saw 1.4 million cases and thousands of deaths in India in 2006. Even then, not all family members were affected and many people in the community did not fall ill even though the mosquitoes that transmit the disease were ubiquitous.

The explanation there also seems to be that many people have resistance to the new infection and individual-centric immunity or resistance plays a critical role in the transmission of the disease in a population even in the case of new infections.

What is the implication of the finding that a large proportion of the population is resistant to Covid-19? British neuroscientist Karl Friston from University College, London, has modelled data from many European countries and proposed a new concept called “Immunological Black Matter”. He suggests that a large proportion of the population is not exposed to the virus or are not susceptible to the infection. The practical implication of this is that with 20-30% infection rates or sero-prevalence in the community, the city or area will start seeing effects of herd immunity as about 50-60% of the population is not susceptible to the infection. It seems this is what is seen in cities such as Ahmedabad (central zone) where the sero-prevalence has reached 28%, and in Delhi where the sero-prevalence has reached 23% in July.

This does not mean that people should stop taking precautions to prevent transmission as social distancing and masks must be used until the epidemic completely disappears. But given the fast spread of this largely asymptomatic infection, other cities will follow the course of Ahmedabad and Delhi and will soon reach effective herd immunity.

Conducting more sero-surveillance in various cities will give a better understanding of the infection prevalence and how far we are from effective herd immunity. We need local epidemiological and public health studies to understand the disease dynamics. The “vocal for
local” call by Prime Minister Narendra Modi should also be interpreted to mean generation and use of local data for disease modelling, and not just using global and imported models.

Alzheimer's disease

New blood test shows great promise in the diagnosis of Alzheimer's disease (Science Daily: 20200731)

https://www.sciencedaily.com/releases/2020/07/200729114404.htm

A new blood test demonstrated remarkable promise in discriminating between persons with and without Alzheimer's disease and in persons at known genetic risk may be able to detect the disease as early as 20 years before the onset of cognitive impairment, according to a large international study.

For many years, the diagnosis of Alzheimer's has been based on the characterization of amyloid plaques and tau tangles in the brain, typically after a person dies. An inexpensive and widely available blood test for the presence of plaques and tangles would have a profound impact on Alzheimer's research and care. According to the new study, measurements of phospho-tau217 (p-tau217), one of the tau proteins found in tangles, could provide a relatively sensitive and accurate indicator of both plaques and tangles -- corresponding to the diagnosis of Alzheimer's -- in living people.

"The p-tau217 blood test has great promise in the diagnosis, early detection, and study of Alzheimer's," said Oskar Hansson, MD, PhD, Professor of Clinical Memory Research at Lund University, Sweden, who leads the Swedish BioFINDEr Study and senior author on the study who spearheaded the international collaborative effort. "While more work is needed to optimize the assay and test it in other people before it becomes available in the clinic, the blood test might become especially useful to improve the recognition, diagnosis, and care of people in the primary care setting."
Researchers evaluated a new p-tau217 blood test in 1,402 cognitively impaired and unimpaired research participants from well-known studies in Arizona, Sweden, and Colombia. The study, which was coordinated from Lund University in Sweden, included 81 Arizona participants in Banner Sun Health Research Institute's Brain Donation program who had clinical assessments and provided blood samples in their last years of life and then had neuropathological assessments after they died; 699 participants in the Swedish BioFINDER Study who had clinical, brain imaging, cerebrospinal fluid (CSF), and blood-based biomarker assessments; and 522 Colombian autosomal dominant Alzheimer's disease (ADAD)-causing mutation carriers and non-carriers from the world's largest ADAD cohort.

In the Arizona (Banner Sun Health Research Institute) Brain Donation Cohort, the plasma p-tau217 assay discriminated between Arizona Brain donors with and without the subsequent neuropathological diagnosis of "intermediate or high likelihood Alzheimer's" (i.e., characterized by plaques, as well as tangles that have at least spread to temporal lobe memory areas or beyond) with 89% accuracy; it distinguished between those with and without a diagnosis of "high likelihood Alzheimer's" with 98% accuracy; and higher ptau217 measurements were correlated with higher brain tangle counts only in those persons who also had amyloid plaques.

In the Swedish BioFINDER Study, the assay discriminated between persons with the clinical diagnoses of Alzheimer's and other neurodegenerative diseases with 96% accuracy, similar to tau PET scans and CSF biomarkers and better than several other blood tests and MRI measurements; and it distinguished between those with and without an abnormal tau PET scan with 93% accuracy.

In the Colombia Cohort, the assay began to distinguish between mutation carriers and non-carriers 20 years before their estimated age at the onset of mild cognitive impairment.

In each of these analyses, p-tau217 (a major component of Alzheimer's disease-related tau tangles) performed better than p-tau181 (another component of tau tangles and a blood test recently found to have promise in the diagnosis of Alzheimer's) and several other studied blood tests.

Other study leaders include Jeffrey Dage, PhD, from Eli Lilly and Company, who developed the p-tau217 assay, co-first authors Sebastian Palmqvist, MD, PhD, and Shorena Janelidz, PhD, from Lund University, and Eric Reiman, MD, Banner Alzheimer's Institute, who organized the analysis of Arizona and Colombian cohort data.

In the last two years, researchers have made great progress in the development of amyloid blood tests, providing valuable information about one of the two cardinal features of Alzheimer's. While more work is needed before the test is ready for use in the clinic, a p-tau217 blood test has the potential to provide information about both plaques and tangles, corresponding to the diagnosis of Alzheimer's. It has the potential to advance the disease's research and care in other important ways.
"Blood tests like p-tau217 have the potential to revolutionize Alzheimer's research, treatment and prevention trials, and clinical care," said Eric Reiman, MD, Executive Director of Banner Alzheimer's Institute in Phoenix and a senior author on the study.

"While there's more work to do, I anticipate that their impact in both the research and clinical setting will become readily apparent within the next two years."

Alzheimer's is a debilitating and incurable disease that affects an estimated 5.8 million Americans age 65 and older. Without the discovery of successful prevention therapies, the number of U.S. cases is projected to reach nearly 14 million by 2050.

Heart Disease

Cholesterol-lowering drug improved function of heart's arteries (Science Daily: 20200731)

https://www.sciencedaily.com/releases/2020/07/200729124409.htm

In a pilot study of people living with HIV or high levels of cholesterol, researchers found that a six-week course of a cholesterol-lowering medication improved the function of the coronary arteries that provide oxygen to the heart.

In a pilot study of people living with HIV or high levels of cholesterol, Johns Hopkins Medicine researchers found that a six-week course of a cholesterol-lowering medication improved the function of the coronary arteries that provide oxygen to the heart.

The drug used in the study, a PCSK9 inhibitor, lowers the activity of PCSK9, a protein involved in cholesterol metabolism. These levels are higher in people with HIV and in those with high cholesterol.

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The drug used in the study, a PCSK9 inhibitor, lowers the activity of PCSK9, a protein involved in cholesterol metabolism. These levels are higher in people with HIV and in those with high cholesterol. Currently, people with HIV receive antiretroviral medications and rarely die from the virus itself. However, the same people have an increased risk of
cardiovascular disease as a result of chronic inflammation due to the virus, and they are significantly more likely to die from cardiovascular disease than the general population.

In a study published July 17 in the Journal of the American Heart Association, the Johns Hopkins researchers suggest there may be a way to limit cardiovascular disease risk in those living with HIV and other cardiovascular risk factors, such as high cholesterol, by improving the function of blood vessels.

"We hypothesized that PCSK9 mediates an inflammatory response that impairs vascular function in addition to its effects on cholesterol metabolism, and we tested this idea with the protein's inhibitor to learn whether it could help people who have impaired blood vessel function," says lead author of the study, Thorsten M. Leucker, M.D., Ph.D., assistant professor of medicine at the Johns Hopkins University School of Medicine. "We were surprised that this worked so well, but also heartened that there may be a way we can improve blood vessel function in those with increased inflammation."

For the study, 19 people with HIV and 11 people with high blood lipids but no HIV were given the drug evolocumab, a PCSK9 inhibitor, for six weeks. At the start of the study and following the course of treatment, the team used cardiac magnetic resonance imaging (MRI) to measure the area of, and blood flow in, the right coronary artery at rest and during a hand exercise, which normally results in relaxation of the blood vessels. When healthy people perform the test, the coronary artery responds to the exercise and its area increases, enabling more blood to flow through. In people with impaired blood vessel function, such as those with HIV or high cholesterol, the artery doesn't get larger or may even constrict. Therefore, blood flow remains the same or decreases in those with impaired blood vessel function.

After the six-week treatment with the PCSK9 inhibitor, the participants living with HIV had an average 7.9% increase in coronary artery area and a 10.1% increase in blood flow during the hand grip exercise when compared to the resting value. These changes were significantly greater than the changes from rest to hand grip exercise during the baseline pre-treatment visit. Participants with high blood lipids also had improvements in coronary artery area and an increase in blood flow after six weeks of treatment.

The researchers say future studies will need to include more patients and study them over a longer time.
A new technique that can spot a potential preterm birth in asymptomatic high-risk women, with up to 73% accuracy months before delivery, has been developed by scientists at the University of Warwick.

Utilising cutting-edge volatile organic compound analysis technology, designed to characterise airborne chemicals, the scientists 'trained' the device using machine-learning techniques to identify the chemical vapour patterns from preterm birth using vaginal swabs taken during routine examinations.

Their technique is detailed in a paper for Scientific Reports and could lead to a cost-effective, non-invasive, point-of-care test that could form part of routine care for women identified as being at risk of delivering prematurely. This could enable healthcare staff to better support those women during pregnancy and birth and help to reduce the risks to their baby.

Preterm birth is the leading cause of death in children under five and at present there are few accurate tools to predict who is going to deliver preterm.

The researchers initially analysed volatile organic compounds (VOCs) present in the vagina for a condition called bacterial vaginosis, in which the bacteria of the vagina have become imbalanced. Previous research has shown that bacterial vaginosis in early pregnancy is associated with an increased risk in having a preterm birth, although treating bacterial vaginosis doesn't decrease that risk.

The technology they used works by separating the vapour molecules by combining two techniques that first pre-separates molecules based on their reaction with a stationary phase coating (a gas-chromatograph), followed by measuring their mobility in a high-electric field (an Ion Mobility Spectrometer). Using machine learning techniques, the team 'trained' the technology to spot patterns of VOCs that were signs of bacterial vaginosis.

The researchers then analysed vaginal swabs taken from pregnant women attending a preterm prevention clinic as part of their routine care. These women either had prior histories of preterm births or a medical condition that makes it more likely that they would deliver preterm but had shown no other indications that they would deliver preterm and were considered asymptomatic.

Vaginal swabs were taken during the second and third trimesters of pregnancy and the outcome of all pregnancies followed up. The first test had an accuracy of 66% while the
second, closer to the time of delivery, had an accuracy of 73%. The test results means that 7/10 women with a positive test went on to deliver preterm. 9/10 women with a negative test delivered after 37 weeks.

Lead author Dr Lauren Lacey of Warwick Medical School and an obstetrics and gynaecology registrar at University Hospitals Coventry and Warwickshire NHS Trust said: "We've demonstrated that the technology has good diagnostic accuracy, and in the future it could form part of a care pathway to determine who would deliver preterm.

"Although the first test taken earlier in pregnancy is diagnostically less accurate, it could allow interventions to be put in place to reduce the risk of preterm delivery; for the test towards the end of pregnancy, high risk women can have interventions put in place to optimise the outcome for baby.

"There are a number of different factors that could cause a woman to go into preterm labour. Because of that, prediction is quite difficult. There are lots of things we can look at -- the patient's history, the examination, ultrasound scan, various other biomarkers that are used in clinical practice. No single test fits all.

"VOC technology is really interesting because it reflects both the microbiome and the host response, whereas other technologies look for a specific biomarker. It's the beginning of looking at the association of VOCs with preterm delivery. We want to develop this and look at whether these patterns could be implemented into a care pathway."

The next stage of research would see a small VOC analysis device stored at a hospital so samples could be analysed on site. The hope is that it could eventually be developed for use in a labour ward triage so tests can be administered and results obtained rapidly.

Professor James Covington from the University of Warwick School of Engineering said: "There is a strong interest around the world in the use of vapours emanating from biological waste for the diagnosis and monitoring of disease. These approaches can non-invasively measure the health of a person, detect an infection or warn of an impending medical need. For the need described in the paper, the technology can be miniaturised and be easily located in a maternity ward. The analysis only takes few minutes, the instrument needs no specialised services (just power) and is easy to use. We believe that the analysis of odours will become commonplace for this and many other diseases in the near future."

The researchers behind this study are part of the newly established Centre for Early Life, based at Warwick Medical School at the University of Warwick, which launches on 31 July. The new Centre builds on the University's existing expertise in early life research by aiming to pioneer research into the formative factors in our lives such as this latest research.

Professor Siobhan Quenby, Co-Director of the new Centre and Honorary Consultant at University Hospital Coventry and Warwickshire NHS Trust said: "I am delighted that the new Centre for Early Life will facilitate further interdisciplinary collaborations, to the benefits of my patients."
Chronic psychological stress leads to painful vessel-clogging episodes or VOE. Stress causes release of glucocorticoid hormones in the brain, which travels to the gut and increases permeability of the gut lining.

The increased permeability allows the friendly gut bacteria to stimulate the immune cells to produce pro-inflammatory molecules. These molecules enter the circulation and promote the aging and accumulation of neutrophils that drive the VOE.

VOE is most common complication of sickle cell disease (SCD) that can lead to hospitalizations. There are no therapies can reverse VOE and, over time, they cause significant damage to internal organs.

‘Stress-induced vessel-clogging episodes can be reduced by interventions such as inhibiting the synthesis of glucocorticoids, depleting gut bacteria or blocking the inflammatory molecules induced by these bacteria. This can limit the impact of psychological stress on people with sickle cell disease.’

The latest study in mice show that the gut microbiome plays a key role in triggering those episodes and reveals possible ways to prevent them. The research was conducted by scientists at Albert Einstein College of Medicine and published online in Immunity.

SCD occurs in about 1 in 365 African-American births. People with SCD have inherited a gene mutation that leads to abnormal hemoglobin, causing red cells (which contain hemoglobin) to take on a sickle shape and become less flexible. The sickled red cells tend to clog small vessels, impeding blood flow and preventing oxygen from reaching tissues. This can result in painful and debilitating vaso-occlusive episodes, or VOE, which can last for days. This causes significant damage to internal organs which is the major reason that life expectancy for those with severe SCD is 20 to 30 years shorter than for those without the disease.

"Research for sickle-cell disease is chronically underfunded and those with the condition are in need--and deserve--new treatments that can help address this major health disparity," said study leader Paul S. Frenette, M.D., professor of medicine and of cell biology and chair and director of the Ruth L. and David S. Gottesman Institute for Stem Cell and Regenerative Medicine Research at Einstein. "We hope our most recent findings can help point to novel solutions for treating this painful and deadly disease."
Using a mouse model, Dr. Frenette and colleagues found that the path to VOE begins in the brain. Stress triggers the secretion of glucocorticoid hormones in the brain, which make their way to the gut and increase its permeability. This greater permeability allows segmented filamentous bacteria (SFB)--a type of beneficial gut bacteria in mice--to interact with Th17 helper immune cells in the lining of the gut. The SFB stimulate those immune cells to produce pro-inflammatory molecules, which enter the circulation and promote the aging and accumulation of neutrophils, a type of white blood cell. In an earlier study, the Frenette laboratory had found that these aged neutrophils are inflammation-inducing cells that drive the VOE.

This chain of events was observed in both SCD mice and healthy mice that were subjected to psychological stress. However, lethal VOE occurred only in the sickle-cell disease mice. "Healthy mice don't have sickled blood cells and therefore don't suffer the ill effects caused by the buildup of aged neutrophils," Dr. Frenette noted.

"Importantly, we found we could markedly reduce stress-induced VOE in mice through several different interventions: inhibiting the synthesis of glucocorticoids, depleting SFB, or blocking the inflammatory molecules induced by these bacteria," Dr. Frenette said. "Each of those actions could potentially limit the impact of psychological stress on people with SCD."

While SFB are found only in rodents, some evidence indicates that similar beneficial bacteria in the human gut can also induce Th17 immune cells to produce inflammatory molecules. "We hope to learn whether there is any correlation between the abundance of these bacteria in patients with sickle-cell disease and the frequency or severity of VOEs that affect them," Dr. Frenette said.