



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Wednesday 20220216

## कोरोना

कोरोना के दैनिक मामले लगातार दे रहे राहत की खबर, देश में 4 लाख से कम एक्टिव केस  
(Hindustan: 20220216)

<https://www.livehindustan.com/national/story-coronavirus-data-updates-daily-cases-of-corona-are-giving-news-of-relief-less-than-4-lakh-active-cases-in-the-country-5827535.html>

भारत में कोरोना की तीसरी लहर अब अंतिम कगार पर है। लगातार दैनिक मामले तो कम हो ही रहे हैं, साथ ही रिकवरी के आंकड़े भी राहत देने वाले हैं। बीते 24 घंटे में 30 हजार के करीब नए मामले सामने आए हैं। वहीं, 83 हजार के लगभग लोगों ने इस महामारी को मात दी है। आपको यह भी बता दें कि इस दौरान 12.5 लाख से अधिक सैंपल की जांच की गई है।

केंद्रीय स्वास्थ्य मंत्रालय द्वारा जारी आंकड़ों के मुताबिक, बीते 24 घंटे में 30,615 नए मामलों की पुष्टि हुई है। अब एक्टिव मामले चार लाख से भी कम हो गए हैं। देश में फिलहाल कोरोना के 3,70,240 मरीज हैं, जो कि महज 0.87 प्रतिशत है। बीते 24 घंटे में 82,988 लोग स्वस्थ हुए हैं। इसके साथ ही देश में रिकवरी का कुल आंकड़ा 4,18,43,446 को पार कर गया है। रिकवरी रेट की बात करें तो यह 97.94 प्रतिशत है।

दिल्ली में मंगलवार को कोरोना वायरस के 756 नए मरीजों की पुष्टि हुई और पांच संक्रमितों ने दम तोड़ दिया। राष्ट्रीय राजधानी में संक्रमण दर 1.52 फीसदी हो गई है। स्वास्थ्य बुलेटिन के मुताबिक, दिल्ली में कोविड के कुल मामले बढ़कर 18,52,662 हो गए हैं जबकि 26,081 लोगों की जान जा चुकी

है। उसमें बताया गया है कि एक दिन पहले 49,792 नमूनों का परीक्षण किया गया था। सोमवार को 586 मामले मिले थे, चार लोगों की जान गई थी और संक्रमण दर 1.37 प्रतिशत थी। दिल्ली में संक्रमण के दैनिक मामलों में गिरावट आई है। 13 जनवरी को सबसे ज्यादा 28,867 मामले आए थे। शहर में 14 जनवरी को 30.6 फीसदी संक्रमण दर रिकॉर्ड की गई थी जो महामारी की मौजूदा लहर में सबसे ज्यादा है।

**Covid-19: India records slight spike in daily tally with 30,615 new cases, positivity rate at 2.45% (Hindustan Times: 20220216)**

<https://www.hindustantimes.com/india-news/covid19-india-records-slight-spike-in-daily-tally-with-30-615-new-cases-positivity-rate-at-245-101644982200891.html>

India Covid-19 cases: Active cases in the country fell by 52,887 in the last 24 hours, the health ministry data showed, taking the active count to 0.87 per cent of the total infections.

India registered a marginal spike in its tally of fresh cases of coronavirus disease (Covid-19) that again pushed the daily numbers above the 30,000-mark. With 30,615 new cases, the country's cumulative positive cases touched 42,723,558, according to the Union health ministry bulletin shared on Wednesday.

A total of 514 fatalities were recorded in the last 24 hours, taking the countrywide death toll to 5,09,872. Kerala alone recorded 304 deaths in the last 24 hours, including 130 backlogs.

Active cases in the country now stood at 3,70,240, with a reduction of 52,887 cases in the last 24 hours, the health ministry data showed.

India's active count further dropped to 0.87 per cent of the total infections. Meanwhile, the day-to-day positivity rate was recorded at 2.45 per cent and the weekly positivity rate stood at 3.32 per cent.

As many as 82,988 people recovered from the viral infection in the past one day, taking the total recoveries to 4,18,43,446. The recovery rate now stood at 97.94 per cent.

The government said under the nationwide vaccination drive, India has administered more than 1.73 billion vaccine doses so far, including more than four million doses in the last 24

hours. Of these, precautionary or booster doses were recorded at 3,20,158, while another 13,75,027 vaccine doses were administered to the 15-18 age group.

## **अटल आयुष्मान योजना**

**उत्तराखंड अटल आयुष्मान योजना में बहाल हुई रेफरल व्यवस्था, इस वजह से किया गया था समाप्त (Dainik Jagran: 20220216)**

<https://www.jagran.com/uttarakhand/dehradun-city-referral-system-started-again-in-uttarakhand-ayushman-yojana-22471309.html>

उत्तराखंड अटल आयुष्मान योजना में बहाल हुई रेफरल व्यवस्था।

Uttarakhand Atal Ayushman Scheme उत्तराखंड में अटल आयुष्मान योजना के अंतर्गत सूचीबद्ध निजी अस्पतालों में हटाई गई रेफरल व्यवस्था को बहाल कर दिया गया है। कोरोना के मामलों में गिरावट को देखते हुए राज्य स्वास्थ्य प्राधिकरण ने यह निर्णय लिया है।

जागरण संवाददाता, देहरादून। Uttarakhand Ayushman Scheme प्रधानमंत्री जन आरोग्य योजना और अटल आयुष्मान उत्तराखंड योजना के अंतर्गत सूचीबद्ध निजी अस्पतालों में हटाई गई रेफरल व्यवस्था बहाल कर दी गई है। कोरोना संक्रमण के मामलों में गिरावट को देखते हुए राज्य स्वास्थ्य प्राधिकरण ने यह निर्णय लिया है।

पूर्व की भांति सूचीबद्ध निजी अस्पतालों में लाभार्थियों को उपचार के लिए सरकारी सूचीबद्ध अस्पताल का रेफरल अनिवार्य है। हालांकि, सभी सूचीबद्ध एनएबीएच अस्पताल, मेडिकल कालेज और पर्वतीय क्षेत्र के जिला अस्पतालों में आयुष्मान कार्ड धारक सीधे जाकर अपना इलाज करवा सकता है। यहां पर रेफरल की आवश्यकता नहीं है। योजना के अंतर्गत सरकारी सूचीबद्ध अस्पतालों से निजी अस्पतालों के लिए रेफरल की व्यवस्था पूर्व में दी गई थी, लेकिन कोरोना महामारी की गंभीरता को देखते हुए रेफरल व्यवस्था को समाप्त कर दिया गया था। क्योंकि, अब संक्रमण की स्थिति काफी हद तक नियंत्रण में है, तो महामारी की इमरजेंसी में रोकी गई रेफरल की व्यवस्था को फिर जारी कर दिया गया है। योजना

में पारदर्शिता के लिए पुनः बायोमेट्रिक व्यवस्था भी बहाल कर दी गई है। कोरोना संक्रमण के फैलाव को देखते हुए बायोमेट्रिक व्यवस्था हटाई गई थी।

राज्य स्वास्थ्य प्राधिकरण के मुख्य कार्यकारी अधिकारी अरुणेंद्र चौहान ने बताया कि आयुष्मान योजना के तहत पूर्व में रोकी गई रेफरल व्यवस्था बहाल कर दी गई है। नई व्यवस्था के लिए सभी संबंधित अस्पतालों को निर्देश जारी कर दिए हैं। आयुष्मान कार्ड धारकों की सुविधा के लिए भी विभिन्न माध्यम से सूचनाएं भेजी जा रही हैं।

दून अस्पताल में आपरेशन, सामान्य ओपीडी शुरू

कोरोना की तीसरी लहर कमजोर पड़ने के बाद अब दून मेडिकल कालेज चिकित्सालय में भी तमाम सेवाएं बहाल होने लगी हैं। इमरजेंसी आपरेशन के बाद अब अस्पताल में सामान्य आपरेशन भी शुरू हो गए हैं। इसके अलावा ओपीडी के माध्यम से सामान्य मरीजों को भर्ती करना भी शुरू कर दिया गया है। बता दें कि दून अस्पताल को कोविड अस्पताल बनाया गया है। कोरोना संक्रमण की तीसरी लहर के चलते डेढ़ माह पहले अस्पताल में सभी प्रकार प्रकार के आपरेशन बंद कर दिए गए थे।

ओपीडी को भी सीमित कर दिया गया था। अब संक्रमण का फैलाव कम होने से अस्पताल में व्यवस्थाएं बहाल होने लगी हैं। अस्पताल के उप चिकित्सा अधीक्षक डा. एनएस खत्री ने बताया कि सर्जरी, हड्डी रोग, नेत्र रोग व ईएनटी विभाग में आपरेशन शुरू हो गए हैं। ओपीडी में आने वाले जिन मरीजों को भर्ती की जरूरत पड़ रही है उन्हें भी भर्ती करना शुरू कर दिया गया है। मरीजों को किसी प्रकार की दिक्कत न हो इसकी पूरी व्यवस्थाएं अस्पताल में की गई हैं।

## साइकोसोमेटिक डिसऑर्डर

क्या है साइकोसोमेटिक डिसऑर्डर और कैसे करें इस समस्या का समाधान, जानें यहां (Dainik Jagran: 20220216)

<https://www.jagran.com/lifestyle/health-what-is-psychosomatic-disorder-and-how-to-solve-this-problem-know-here-22471222.html>

साइकोसोमेटिक डिसऑर्डर एक ऐसी स्थिति है जिसमें व्यक्ति का मानसिक कष्ट किसी तरह के शारीरिक लक्षण में तब्दील होने लगता है। वे किसी न किसी तरह के एंगजाइटी का शिकार होते हैं जिसका परिणाम इस तरह के दर्द के रूप में निकलता है।

ऐसी बहुत ही बीमारियां या दुर्घटनाएं होती हैं, जिनके कारण अकसर व्यक्ति जीवन के लंबे समय तक या जीवनपर्यंत पीड़ा से गुजरता है। उनके मन में आसपास के सामान्य लोगों की तरह दैनिक जीवन न जी पाने का अफसोस घर कर जाता है और उसकी यही मानसिक स्थिति किसी अन्य शारीरिक कष्ट को भी जन्म दे देती है।

यह एक ऐसी स्थिति है, जिसमें व्यक्ति का मानसिक कष्ट किसी तरह के शारीरिक लक्षण में तब्दील होने लगता है। इसका व्यापक असर आज की युवा पीढ़ी पर भी देखने को मिल रहा है। वे किसी न किसी तरह के एंगजाइटी का शिकार होते हैं, जिसका परिणाम इस तरह के दर्द के रूप में निकलता है।

- व्यक्ति के मन में भावना, असुरक्षा का भाव विकसित होना।
- ओवरथिंक करना यानी जरूरत से ज्यादा सोचना (अधिकतर नकारात्मक)
- कमतरी के अहसास के कारण चिंता और अत्यधिक चिंता के कारण डिप्रेशन
- लगातार दर्द के कारण प्रोफेशनल लाइफ और दैनिक जीवन में असंतोषजनक प्रदर्शन के कारण चिंता और गंभीर स्थिति में एंगजाइटी
- दर्द से डिस्ट्रैक्शन या भटकाव के गलत तरीकों में समाधान खोजना, जैसे- अत्यधिक कैफीन की लत, धूम्रपान या नशे की लत आदि। ये भटकाव दरअसल शौक में अपनाए जानेवाले एडिक्शन से अलग होते हैं, क्योंकि अक्सर मरीज नासमझी में दर्द से ध्यान हटाने के लिए इस ओर आकर्षित होते हैं।

कैसे करें दर्द के साथ मानसिक कष्ट का समाधान

- सबसे पहले अपने दर्द से संबंधित दवाएं व डॉक्टर से परामर्श नियमित लें।
- उचित पोषण व नींद के चक्र पर विशेष ध्यान दें, यदि दर्द के कारण नींद का चक्र प्रभावित है तो संबंधित डॉक्टर से इस विषय में जरूर सलाह लें।
- अगर दर्द के कारण प्रोफेशनल लाइफ पर असर पड़ रहा है, तो तुरंत मनोचिकित्सक से सलाह लें।
- उन्हीं कामों में दिलचस्पी ना लेना, जिनमें पहले रुचि होती थी, नींद न आने की हद तक चिंताओं का आक्रमण होना, छोटी-छोटी या सामान्य बातों पर बेहद गुस्से में प्रतिक्रिया देना आदि ऐसे लक्षण हैं, जिनके नजर आने पर व्यक्ति को तुरंत मनोचिकित्सक की सलाह लेनी चाहिए।
- अपनी जानकारी के स्रोत सही और सीमित रखें, इंटरनेट पर अपनी समस्या से संबंधित जानकारी से प्रभावित होने से बचें।
- नशे की लत, भटकाव के तरीकों को अपनाने के बजाय मनोचिकित्सक से सलाह लें।

उपरोक्त के अलावा परिजनों का सहयोग रोगी के लिए बहुत जरूरी है, लेकिन बहुत से मामलों में खासकर महिलाओं के संदर्भ में बहुत जगहों पर ऐसा नहीं देखा जाता। इसलिए जरूरी है कि परिवार के लोग सहयोग करें।

## **नींद की समस्या**

**सावधान: 'जानलेवा' हो सकती है नींद पूरी न होने की समस्या, इन बीमारियों का भी बढ़ जाता है खतरा (Amar Ujala: 20220216)**

<https://www.amarujala.com/photo-gallery/lifestyle/fitness/lack-of-sleep-affects-health-bad-sleep-causes-anxiety-and-skin-problems>

शरीर के बेहतर स्वास्थ्य के लिए पौष्टिक आहार और नियमित व्यायाम के साथ अच्छी नींद लेना बहुत आवश्यक माना जाता है। आमतौर पर हम आहार और व्यायाम पर तो ध्यान देते हैं लेकिन

अच्छी नींद की आवश्यकताओं को नजरअंदाज कर देते हैं। स्वास्थ्य विशेषज्ञ कहते हैं, शरीर के कामकाज को बेहतर बनाए रखने के लिए रात के समय नींद पूरी होना बहुत आवश्यक माना जाता है। नींद पूरी न होने से मूड संबंधित तमाम तरह की समस्याओं के साथ कई गंभीर बीमारियों का जोखिम भी बढ़ जाता है।

अध्ययनों से पता चलता है कि नींद की कमी के कारण तनाव-चिंता, चिड़चिड़ापन, घबराहट जैसी समस्याएं बढ़ जाती हैं। मानसिक स्वास्थ्य के साथ-साथ नींद पूरी न हो पाने के कारण लोगों के ऊर्जा के स्तर में भी कमी बनी रहती है। हर तीन में से एक व्यक्ति खराब नींद से पीड़ित है। आइए आगे की स्लाइडों में जानते हैं कि रोजाना बनी रहने वाली यह समस्या सेहत के लिए कितनी नुकसानदायक हो सकती है?

बढ़ जाता है मृत्यु का खतरा

ब्रिटिश शोधकर्ताओं ने अध्ययनों के दौरान पाया कि जिन लोगों की नींद का पैटर्न अनियमित होता है या जिन लोगों की नींद रोज रात को पूरी नहीं होती है, उनमें अन्य लोगों की तुलना में मृत्यु का जोखिम अधिक होता है। विशेष रूप से, नींद की कमी के कारण हृदय रोग विकसित होने की आशंका बढ़ जाती है, जिसे दुनियाभर में मृत्यु का दूसरा सबसे बड़ा कारण माना जाता है। यही कारण है कि सभी लोगों को रोज रात में कम से कम 6-8 घंटे की अच्छी नींद जरूर लेनी चाहिए।

इन बीमारियों का जोखिम

नींद की लगातार कमी बने रहने के कारण कई तरह की क्रोनिक बीमारियों का जोखिम बढ़ जाता है। विशेषज्ञों के मुताबिक अनिद्रा से पीड़ित 90 प्रतिशत लोग किसी न किसी क्रोनिक स्वास्थ्य समस्या के शिकार हो सकते हैं। नींद की कमी के साथ कुछ बीमारियों का खतरा बढ़ जाता है।

मधुमेह

स्ट्रोक

दिल की बीमारी

दिल का दौरा

दिल के धड़कन की अनियमितता

उच्च रक्त चाप

नींद की कमी का त्वचा पर असर

स्वास्थ्य विशेषज्ञ कहते हैं, सिर्फ एक रात की नींद पूरी न होने से आंखें सूज जाती हैं और त्वचा रूखी हो सकती है। यदि कोई व्यक्ति निरंतर इस समस्या का शिकार है तो उसको त्वचा से संबंधित कई स्थायी दिक्कतें भी हो सकती हैं। ऐसे लोगों में आंखों के नीचे काले घेरे, रूखी त्वचा और चेहरे पर महीन रेखाएं हो सकती हैं। समय के साथ त्वचा की चमक भी कम हो जाती है।

स्वास्थ्य विशेषज्ञों के मुताबित रात में अच्छी नींद के लिए सबसे आवश्यक है मन का शांत रहना। इसके अलावा डिनर में हल्का भोजन करें और भोजन के बाद टहलें। अमेरिकन जर्नल ऑफ क्लिनिकल न्यूट्रिशन में प्रकाशित अध्ययन में वैज्ञानिकों ने तेजी से नींद प्राप्त करने का सबसे आसान तरीका बताया है। अध्ययनकर्ताओं ने बताया कि सोने से लगभग चार घंटे पहले कार्ब्स वाली चीजों का सेवन करना इसमें आपके लिए मदद कर सकती है।

## एनीमिया

**थका-थका सा शरीर... कहीं खून की कमी तो नहीं (Dainik Tribune: 20220216)**

<https://www.dainiktribuneonline.com/news/features/tired-body-is-there-any-lack-of-blood-85819>

एनीमिया के लक्षणों को पहचानिए और कीजिए उचित इलाज

आंखों में पीलापन, सांस फूलना, सिर दर्द रहना और हाथ-पैरों का ठंडा होना-उन लक्षणों में से कुछ हैं जिनकी वजह एनीमिया है। एनीमिया की यह परेशानी सामान्यतः महिलाओं में ज्यादा देखने को मिलती है। इसके कारणों और बचाव के उपायों की बात करने से पहले आइये जानते हैं असल में एनीमिया है क्या?

शरीर में खून की कमी को एनीमिया कहा जाता है। यानी शरीर में जब रेड ब्लड सेल्स (आरबीसी) यानी लाल रक्त कोशिकाओं की कमी हो जाती है तो वही एनीमिया है। इन लाल रक्त कोशिकाओं का निर्माण उस आयरन से होता है जो हमें अपने भोजन से मिलता है। आयरन से लाल रक्त कोशिकाएं



हीमोग्लोबीन बनाने का काम करती हैं। जब आयरन की कमी होगी तो शरीर में हीमोग्लोबीन की कमी होगी और इससे शरीर में ऑक्सीजन की कमी होने लगती है क्योंकि हीमोग्लोबीन ही फेफड़ों से ऑक्सीजन लेकर रक्त में पहुंचाता है।

जब भी शरीर में खून की कमी होती है तो उसके लिए एक टेस्ट कराया जाता है जिसे सीबीसी यानी कंप्लीट ब्लड काउंट कहा जाता है। इसी से पता चलता है कि शरीर में हीमोग्लोबीन जरूरी मात्रा से कितना कम है। जैसा कि यहां पहले जिक्र है कि एनीमिया की दिक्कत सामान्यतः महिलाओं में ज्यादा होती है। तो महिलाओं में अगर हीमोग्लोबीन की बात करें तो इसकी मानक मात्रा 12 ग्राम है। यानी अगर हीमोग्लोबीन इससे कम हो तो वह एनीमिया की श्रेणी में है। पुरुषों में यही मात्रा 13.5 या 14 तक है। अगर मात्रा इससे कम है तो एनीमिया है।

### खून की कमी के लक्षण और कारण

हमें कब अहसास होता है कि शरीर में खून की कमी है। इसके मुख्य लक्षण हैं- आंखें पीली हो जाना, चक्कर आना, कमजोरी और थकावट महसूस करना, छाती में दर्द और सीने में ऐंठन होना, त्वचा एवं नाखूनों का पीला होना, सोकर उठने पर आंखों के आगे अंधेरा छाना, सांस फूलना एवं सिर में दर्द रहना। इसके अलावा हाथ-पैरों का ठंडा होना, हृदय की गति या तो तेज होना या असामान्य होना आदि एनीमिया के लक्षण हैं। खून की कमी की वजहों में से मुख्य हैं पौष्टिक भोजन की कमी, कुछ बीमारियां जैसे कि गैस्ट्रोइंटेस्टाइनल अल्सर, कोलन कैंसर आदि। महिलाओं में माहवारी में अत्यधिक रक्तस्राव के कारण भी एनीमिया की दिक्कत हो जाती है। कभी-कभी किसी चोट या घाव में ज्यादा खून निकलने से भी खून की कमी हो सकती है। एनीमिया के अन्य कारणों में से शरीर में विटामिन बी-12 की कमी, दवाओं का रिएक्शन, थायराइड की समस्या, कैंसर, लीवर की बीमारी, टीबी, थैलेसीमिया आदि भी शामिल हैं।

### कैसे हो बचाव

अब सवाल उठता है कि आखिर एनीमिया से बचाव हो कैसे? तो सबसे बेहतरीन उपाय है कि हम हमेशा पौष्टिक भोजन ही लें। इसके लिए खाने में हरी सब्जियां जैसे पालक, पत्ता गोभी, शकरकंदी, मेथी, चुकंदर, टमाटर, शलगम, फल और सलाद का खूब इस्तेमाल करें। इस तरह की चीजें खाने से एक तो वजन नियंत्रित रहता है और दूसरे शरीर में खून की कमी भी नहीं होती। पालक में भरपूर मात्रा में लौह तथा विटामिन बी-12 होता है। पालक का सूप या पालक का साग रोज खाने में शामिल करना चाहिए। इसके अलावा ड्राई फ्रूट्स जैसे बादाम, किशमिश, खजूर का सेवन करना चाहिए। मौसमी फलों जैसे तरबूज, सेब, अंगूर, अनार आदि का भी समय के हिसाब से इस्तेमाल करते रहना चाहिए। शहद भी

लौह और विटामिन बी-12 का अच्छा स्रोत है। शहद को फलों में मिलाकर, दूध में उबालकर या चीनी की जगह इस्तेमाल करके खून की कमी को पूरा किया जा सकता है। इसके अलावा आयरन की गोलियां, ग्लूकोज के इंजेक्शन एवं विटामिन बी-12 की गोलियों से भी इसकी भरपाई की जाती है, लेकिन इनका इस्तेमाल डॉक्टर की सलाह पर ही करना चाहिए। इन सबके साथ ही जरूरी है कि जब भी आपको शरीर में कुछ अलग-अलग सा लगे या महसूस हो कि खून की कमी हो रही है तो अपने डॉक्टर से संपर्क कर उचित इलाज कराये ताकि समय रहते स्थिति सुधर जाये।

### Omicron (Hindustan: 20220216)

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

## The world's Omicron wave finally recedes

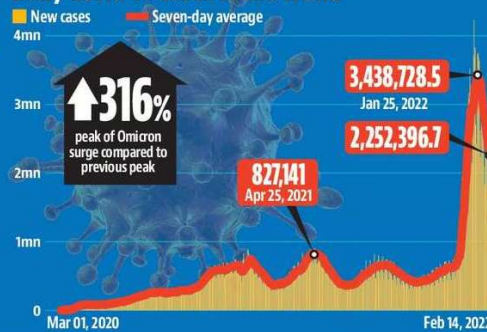
The global Omicron wave has finally started receding, with cases seeing a steady drop for three consecutive weeks now and deaths starting to contract in the past week. This gives us the unique chance to compare the Omicron surge to the previous Covid waves in the world.

### Cases have been now falling for 3 straight weeks

As the Omicron surge started at the end of 2021, it became apparent very quickly to scientists across the world that this wave was going to be unlike anything seen so far. Within days, the highly transmissible variant of Sars-Cov-2 became the dominating strain in nearly every region. Soon enough it caused new cases soar to several times the volume witnessed in previous waves. By the time it peaked, the seven-day average of daily cases in the world had touched nearly 3.5 million new infections a day for the week ended January 25, 2022. For context as to how high this number is, in all previous surges, this number had peaked at 827,141 for the week ended April 25, 2021 (during the Delta wave). This means that the Omicron wave saw a 316% of jump in daily cases over what was witnessed during previous peaks.

But the interesting characteristic is how fast cases are receding. For the week ended Tuesday, there was an average of 2,252,397 new cases recorded across the world - that's a 34% drop from the Omicron peak in exactly three weeks. When we look at the Delta wave, in three weeks, the surge had contracted less than half this value (only 16% contraction).

#### Daily Covid-19 cases in the world



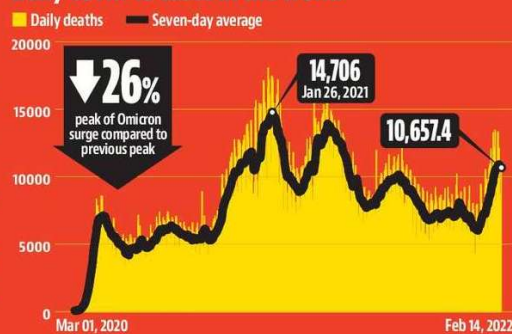
### Deaths finally decline, without crossing Delta peak

While the wave of new cases had been declining for three weeks now, the surge in rate of deaths finally appears to have flipped earlier this week. For the week ended February 10, there was an average of 10,902 deaths reported. For the week ended February 14, this number had fallen to 10,657. To be sure, the drop in deaths is considerably smaller compared to the contraction seen in cases because, generally, the trend in deaths reflects a two-week lag in rise or drop seen in cases.

But what's interesting is that the peak in deaths appears to have not even come close to the surge in cases. Despite cases in Omicron soaring more 3 times what was seen in Delta, fatalities never even surpassed Delta levels, data shows.

This favourable deviation in deaths can be explained by three factors - vaccination, lethality of Omicron, and expertise. During the peak of Delta wave at the end of April 2021, less than 3% of the world's population had been fully vaccinated - this numbers is 55% today. Second, scientists have repeatedly stressed that the Omicron variant causes relatively milder disease compared to other variants in the past. And finally, as time has progressed, doctors have honed the treatment for the disease, and have got better at saving lives.

#### Daily Covid-19 cases in the world



## **Covid-19 vaccine**

### **Covid-19 vaccine taken by mothers during pregnancy may protect babies after birth: Study (Hindustan Times: 20220216)**

<https://www.hindustantimes.com/lifestyle/health/covid19-vaccine-taken-by-mothers-during-pregnancy-may-protect-babies-after-birth-study-101644978869190.html>

The study is the first to show potential benefits to infants born to people who received two doses of Pfizer or Moderna vaccines during pregnancy, Centres for Disease Control and Prevention researchers said during a briefing.

Covid-19 vaccines during pregnancy can protect babies after they're born and lead to fewer hospitalized infants, a US government study released Tuesday suggested.

The study is the first to show potential benefits to infants born to people who received two doses of Pfizer or Moderna vaccines during pregnancy, Centres for Disease Control and Prevention researchers said during a briefing.

It was already known that antibodies developed by Covid-19 vaccines transfer to the fetus through the umbilical cord. How that might affect infants after birth was uncertain.

“Until this study, we have not yet had data to demonstrate whether these antibodies might provide protection for the baby against Covid-19,” said Dr Dana Meaney-Delman, an obstetrician and CDC researcher.

Infants in the study were treated at 20 hospitals in 17 states from July 2021 through mid-January, during surges involving the delta and omicron variants.

The researchers didn't examine infection rates in infants. Instead, they looked at data on 176 children under 6 months who were hospitalized with Covid-19 and 203 in the hospital for some other condition. They also looked at the vaccination status of all the babies' mothers.

Vaccination rates were much lower among mothers of the Covid-19 infants than among those whose infants were hospitalized with something else — 16% compared with 32%.

The results offer yet another reason for pregnant people to get vaccinated, the researchers said.

About two-thirds of pregnant people in the United States are fully vaccinated; most got the shots before pregnancy, CDC data show.

The study provides “another important piece of the puzzle,” said Dr Denise Jamieson, OB-GYN chair at Emory University, who called it important news for babies who are too young

to receive Covid-19 vaccinations. While shots are being studied for older infants and toddlers, none are on the horizon for infants younger than 6 months.

“It’s not surprising, but very reassuring,” Jamieson said.

## **Ophthalmology**

### **Patients complaining of glare and double vision due to LED lights on the rise, say ophthalmologists (The Hindu: 20220216)**

<https://www.thehindu.com/news/cities/chennai/patients-complaining-of-glare-and-double-vision-due-to-led-lights-on-the-rise-say-ophthalmologists/article65052725.ece?homepage=true>

‘Those with cataract and fitted with multifocal lens most-affected’

Increasingly, ophthalmologists are getting complaints from patients about glare from LED (light emitting diode) bulbs commonly being used as headlights in vehicles.

The glare makes it difficult for people to drive and causes unnecessary accidents, say doctors. K. Vasantha, former director of the Regional Institute of Ophthalmology in Egmore said, “We frequently get patients complaining about the bright lights, especially the LEDs, blinding them while driving in the night. I tell them to avoid looking directly at the light,” she said. “I feel LED lights must be banned and all headlights must have the black strip in the centre. This rule used to exist but no one follows it now I think,” she added.

Amar Agarwal, chairman of Dr. Agarwal’s Eye Hospitals group, said he too had been receiving complaints from patients. He attributed it to people with cataract delaying treatment. Persons with cataract would not be able to see the light clearly and instead would see a halo around the light. Some of them would also suffer double vision, he said.

The fear of COVID-19 pandemic had prevented people from seeking treatment immediately, he said.

“When the rays of lights get diffracted differently the person will start seeing halos around the light or in worse cases double vision,” he said, adding: “Patients have to wake up to the fact that they should not delay treatment. It could result in accidents.” Drivers must also use dimmers and be considerate to fellow road users, he said.

Unlike normal lights the LED emits light in one direction. As light scatters it causes a glare effect for the driver in the oncoming vehicle, explained ophthalmologist Mohan Rajan. While using LEDs in indoor settings care is taken to provide acrylic covers that cuts the intensity of the light and thus reduces the glare too, he said. Persons who have cataract and those who have been fitted with multifocal lens post-cataract are the most affected, he said.

In developed countries where the lane division is clearer the driver does not face a problem with LED lights hurting the eye, he said.

LED emits blue light which alters the Circadian rhythm and disturbs the sleep pattern, Dr. Mohan, chairman and medical director of Rajan Eye Care hospital explained. “This is why we recommend blue filters on the computer,” he added.

## **SARS-CoV-2 virus**

### **Human challenge study finds high viral shedding in asymptomatic people (The Hindu: 20220216)**

<https://www.thehindu.com/sci-tech/science/human-challenge-study-finds-high-viral-shedding-in-asymptomatic-people/article38419945.ece?homepage=true>

The study first detected the virus in the throat and the nose two days before peak symptoms showed up

The Imperial College London has concluded the first study on 36 participants aged 18–29 years who were deliberately exposed to low dose of SARS-CoV-2 virus through the nose, and the various facets of infection were studied. All the volunteers had no previous infection or vaccination. In all, only 18 of 36 participants became infected, and the viral load in these people increased steeply before peaking on day five post-exposure.

Virus was first detected in the throat but the viral load increased to significantly higher levels in the nose than in the throat. Viral shedding began within two days of infection and the viral load increased to high levels and remained detectable for as long as 12 days after exposure to the virus. The results are posted as a preprint server Research Square. Preprints are yet to be peer-reviewed.

“This paper is the first of a series of deep analyses that this unprecedented consortium will produce. The manufacture of a Delta challenge agent is nearly complete,” immunologist Dr. Christopher Chiu from the Imperial College of London who led the team tweeted.

The study did not find any quantitative correlation between viral load and symptoms; high viral load and high viral shedding were seen even among participants who were asymptomatic. This suggests how wrong it is to consider asymptomatic people as less likely to infect others as such people are believed to have low viral load.

#### Before symptoms

While it is estimated that the incubation period is about five days post-exposure before symptoms show up, the human challenge study found that symptoms were found to be associated with viral shedding within two–four days of inoculation. Importantly, virus was first detected in the throat and then the nose about two days before peak symptoms showed up. Viral load in the throat and nose increased steeply to achieve a sustained peak, in many cases before peak symptoms were reached. This corresponds to many modelling studies that indicated up to 44% of transmissions occur before symptoms show up.

“With virus present at significantly higher titres in the nose than the throat, these data provide clear evidence that emphasises the critical importance of wearing face coverings [masks] over the nose as well as mouth,” they write.

#### Small steps

Mild-to-moderate symptoms were reported by 16 (89%) infected participants. The symptoms began two–four days after being deliberately exposed to the virus. Loss of smell developed “more gradually” in 12 volunteers. “In this first SARS-CoV-2 human challenge study, no serious safety signals were detected,” they write.

Since this is the first time a human challenge study is undertaken using the SARS-CoV-2 virus, and with incomplete understanding of long-term effects following COVID-19 disease, the study progressed in small steps. The investigators from the Imperial College of London undertook maximum risk reduction at the beginning and proceeded by adding more participants once clinical features of the disease were collected from the earlier sets of people who were deliberately exposed to the virus.

Initially three participants were enrolled followed by seven. All the 10 participants were given remdesivir pre-emptively once nose or throat swabs showed quantifiable SARS-CoV-2 virus. The purpose behind this was to mitigate any risk of progression to severe disease. External experts found that pre-emptive remdesivir treatment was unnecessary.

Of the first 10 participants who received pre-emptive remdesivir on PCR-confirmed infection, six became infected. There was no difference between the viral load between those who received pre-emptive remdesivir and those who did not. Among the six remdesivir-treated individuals, there was an apparent trend towards lower viral load in the nose during treatment and peaking of viral load was also delayed. But no such difference was observed in the throat. Hence pre-emptive remdesivir treatment was discontinued in other volunteers who were enrolled later.



“This study was not designed nor powered to assess the efficacy of early treatment with remdesivir so this remains to be tested,” they write.

### Monoclonal antibodies

Once pre-emptive remdesivir was no longer used, clinical severity criteria based on certain symptoms such as persistent fever, persistent severe cough, greater than mild CT imaging changes were used for providing treatment with monoclonal antibodies (Regeneron), but no such treatment was ultimately required, they write.

In the 18 infected individuals, viral shedding was detected from the throat 40 hours after deliberate introduction. Viral shedding from the throat was detected earlier than in the nose. This is because viral load peaked in the throat earlier than in the nose. Viral load peaked in the throat 112 hours (about 4.7 days) after inoculation, while viral load peaked in the nose 148 hours (about 6.2 days) after the virus was introduced into the nose of participants. “However, at its peak, viral load was significantly higher in nasal samples,” they write.

Since some participants continued to shed infectious virus even 12 days after virus introduction, and, on average, viable virus was detectable 10 days post-inoculation (up to eight days after symptom onset). “These data therefore support the isolation periods of 10 days post-symptom onset advocated in many guidelines to minimise onward transmission,” they note.

Neutralising antibodies were generated in all infected participants 14 days post inoculation and further increased at 28 days.

## **Obesity**

### **How to maintain weight after a bariatric or weight loss surgery (The Indian Express: 20220216)**

<https://indianexpress.com/article/lifestyle/health/maintain-weight-after-bariatric-weight-loss-surgery-7746216/>

According to a doctor, every surgery demands a recovery process, and for the long-term success of weight-loss surgery, one needs to follow specific instructions.

Being overweight is one of the major causes of concern for people around the world — one that also impacts their self-esteem and affects their overall health. While there are many options and ways available to lose weight, some people remain immune to healthy diets and exercises; for them, obesity becomes a way of life.

Weight loss or bariatric surgeries can help improve their life and make them lose stubborn belly fat, says Dr Sukhvinder Singh Saggi, Department of GI, Minimal Access & Bariatric Surgery, CK Birla Hospital, Delhi.

According to the doctor, although weight loss surgeries are effective, the surgical procedure comes with a few risks and limitations.

“Permanent diet changes and regular exercises can ensure maximum benefits and long-term success of weight loss surgery. Bariatric or weight-loss surgeries are helpful for people with excessive weight, cardiovascular diseases (stroke), fatty liver, type 2 diabetes, sleep disorder, PCOD, infertility and other weight-related health issues,” he explains.

The doctor adds that every surgery demands a recovery process, and for the long-term success of weight-loss surgery, one needs to follow specific instructions, along with regular checkups, laboratory tests, and a few restrictions.

Dr Saggi makes the following suggestions on how one can maintain weight after a bariatric surgery; read on.

1. **Healthy and mindful eating:** Continuous eating can be a habit that people develop unwillingly. The purpose of your surgery is to stay in shape and stay healthy. Eating unnecessary food can put all the hard work and surgical process in vain.
2. **Exercises:** To maintain a healthy weight, you need to burn those extra calories more often and longer.
3. **Follow a plan:** Maintain a regular food pattern. Fix a specific time for all three meals. Note what you must eat or shop for your meal. This will help in avoiding unhealthy food, and you can save money.
4. **Food journals:** Keeping a written account of everything about your diet can make you more responsible about your body. Note your exercise routine, vitamins, calories consumed.
5. **Like-minded people:** Weight-loss surgery is a big procedure that changes your body for the better. Finding support from a close person will motivate during the after-surgery period.
6. **Steady lifestyle:** Managing a regular schedule for all necessary activities like sleep, meals, exercises will change your life drastically. If you have trouble adjusting, reach out to your healthcare expert or seek help from a support group.
7. **Don't be embarrassed:** Losing or gaining weight is a lifelong procedure and varies for every individual. If you are gaining weight after surgery even after following the instructions, seek professional health. Don't skip your follow-up appointments and take medications on time.



## Antiviral drug

**Antiviral drug combo may be effective against COVID-19 (Medical News Today: 20220216)**

<https://www.medicalnewstoday.com/articles/antiviral-drug-combo-may-be-effective-against-covid-19>

Researchers from the University of Pennsylvania identified a combination of antiviral drugs they believe to be effective against the SARS-CoV-2 virus.

The combination includes the experimental drug brequinar with either the approved drug remdesivir or the approved drug molnupiravir.

The research group has so far only tested the drug combination in human respiratory cells and mice.

Scientists plan for further research exploring other drug combinations and testing through clinical trials.

After almost 2 years, the COVID-19 pandemic continues to be an issue around the world. To date, there have been more than 414 million confirmed cases worldwide, and the illness has caused more than 5.8 million deaths.

There are currently a number of different drugs at different stages of research evaluation to test their effectiveness against SARS-CoV-2, the virus that causes COVID-19.

Part of these efforts is a research group from the University of Pennsylvania that has identified a combination of antiviral drugs to treat COVID-19. The blend includes an experimental drug called brequinar with the drugs remdesivir or molnupiravir.

Thus far, researchers have tested this combination on both human respiratory cells and in mice. They believe the results they have seen show the drug combination has the potential to become a promising treatment for COVID-19.

The results from this study appear in the scientific journal Nature Trusted Source.

Stay informed with live updates on the current COVID-19 outbreak and visit our coronavirus hub for more advice on prevention and treatment.

What are antiviral drugs?

As the name suggests, an antiviral drug combats viruses that get into the human body. Antiviral drugs can enter cells infected with a virus and make it harder for the virus to bind with those cells. Additionally, some antiviral drugs can stop a virus from genetically

replicating itself. Antiviral drugs also boost the body's natural immune system, giving it an edge in fighting off a viral infection.

Because the SARS-CoV-2 virus causes COVID-19, there are currently a number of ongoing research studies around the use of different antiviral drugs to combat the disease.

For example, a new study found a combination of two specific antivirals may help fight off SARS-CoV-2 infection. Pharmaceutical company Pfizer also released data for a new antiviral medication that received approval for use in the United Kingdom in October 2021.

In October 2020, the Food and Drug Administration (FDA) approved the antiviral drug remdesivir <sup>Trusted Source</sup> as the first treatment for COVID-19 for adults and children over the age of 12. The FDA originally granted an emergency use authorization (EUA) for the drug in May 2020.

Results from three clinical trials found people hospitalized with COVID-19 who received remdesivir had higher rates of symptom improvement compared with receiving a placebo or only standard of care. In January 2022, the FDA expanded the use <sup>Trusted Source</sup> of remdesivir to certain nonhospitalized people with COVID-19 to treat mild-to-moderate symptoms.

#### Identifying antiviral drug candidates

Remdesivir is one of the potential drug candidates researchers from the University of Pennsylvania found during their initial screening of about 18,000 drugs.

Researchers examined the drugs for antiviral activity against live SARS-CoV-2 virus inside human epithelial respiratory cells. Using this method, scientists narrowed the field down to 122 drugs that “showed antiviral activity and selectivity” against SARS-CoV-2.

According to principal investigator Dr. Sara Cherry, professor of pathology and laboratory medicine and director of the program for chemogenomic discovery at the University of Pennsylvania, the goal was to identify drugs with antiviral activity against SARS-CoV-2 that are active in respiratory cells. “We identified a number of drugs, including a group of nucleoside analogs, which are the largest group of approved antivirals,” Dr. Cherry told MNT.

“Importantly, we identified the two drugs approved for COVID-19 —remdesivir and molnupiravir, which is under EUA.”

A nucleoside analog <sup>Trusted Source</sup> is a type of antiviral drug that imitates a human's natural nucleoside. A nucleoside is an organic molecule in the body comprised of a nitrogenous base and sugar. When used to deliver an antiviral medication, a nucleoside analog enters the body and is able to enter cells where there is a virus. Certain compounds within the nucleoside analog activate, causing it to become a nucleotide. Nucleotides are building blocks of the body's genetic DNA and RNA code.

“Finding nucleoside analogs, which are mimics of our nucleosides and inhibitors of our enzymes that make nucleosides, led us to the hypothesis that the combination may be more than the sum of their parts, [which] is synergistic,” Dr. Cherry explained. “Synergy is difficult to find, and our discovery may lead to the use of these combinations in treatments.”

Additionally, Dr. Cherry said the researchers found a number of other drugs that fall into diverse classes, including drugs that inhibit a human’s nucleoside biosynthesis enzymes. The nucleoside biosynthesis inhibitor Dr. Cherry refers to is the experimental drug brequinar.

According to the study, a nucleoside biosynthesis inhibitor like brequinar stops the body from producing nucleosides. “This made sense because the [SARS-CoV-2] virus uses the nucleoside building blocks created by our cells to produce the viral RNA Trusted Source,” she added. Ultimately, brequinar helps prevent the SARS-CoV-2 virus from spreading in a person’s body through the use of their RNA.

### Testing the drug combination

Once Dr. Cherry and her team identified the antiviral drug combination they felt would be most effective — brequinar plus remdesivir or molnupiravir — they tested the mix on both plated human epithelial lung cells and in mice.

Within both models, scientists observed the drug combination of a nucleoside biosynthesis inhibitor with a nucleoside analog led to a “significant reduction in viral replication” of the SARS-CoV-2 virus.

The research team also found adding an additional antiviral called Paxlovid to the mix could provide an extra boost against the SARS-CoV-2 virus. The FDA approved Paxlovid Trusted Source in December 2021 as the first oral treatment for mild-to-moderate COVID-19 in children and adults over the age of 12 at a high risk of developing severe illness.

For this study, the research team focused on testing these antiviral drug combinations in cells from a human’s lower respiratory tract, such as the lungs.

“We found that the combination is active in a respiratory cell line, as well as in air-liquid interface cultures derived from the nasal epithelium [and] from bronchial cells,” Dr. Cherry said when asked if she felt this drug therapy would also be effective in the upper respiratory tract. “Therefore, we think that this will be active in the upper respiratory tract in humans.”

Dr. Cherry also believes this antiviral drug combination could potentially be effective against new variants of SARS-CoV-2. “Given that these drugs target RNA replication of the virus, which does not evolve rapidly, and not the Spike protein, it is likely that this combination will be active against emerging variants,” she explained. “Indeed, we found that the combination showed synergy against all of the variants we tested. And we are currently testing Omicron.”

### Moving to clinical trials

As for the next steps for this research, Dr. Cherry said they are currently continuing to explore the use of these drug combinations, as well as other drugs the research team

identified in the screening to determine how they impact SARS-CoV-2 and if they could treat COVID-19.

Researchers also mentioned that the next step in testing these drug combinations would include testing in clinical trials.

That is of interest to Dr. Fady Youssef, a board certified pulmonologist, internist, and critical care specialist at MemorialCare Long Beach Medical Center. Dr. Youssef spoke to MNT about this study and said it is encouraging to see possibilities within combinations of these antiviral drugs.

“The biggest question we have is how to identify and treat patients early in their disease state before the virus progresses and causes pneumonia,” he explained. “Many of the interventions we have don’t perform as well when the disease has progressed, including antivirals. The most opportune time to quell a fire is the earliest time you can.”

Another big question, Dr. Youssef continued, “is going to be: How does this perform when applied in [humans]? This is a good precursor that there’s a signal there that’s worth testing. How it’s going to perform in [humans] is unknown and how much activity it’s going to have in the upper respiratory tract versus lower tract is going to depend on how it performs in human trials.”