कोरोना वैक्सीन

देश में तीसरी लहर के दौरान वैक्सीन से बची लोगों की जान, व्यापक टीकाकरण के चलते भारत में दुनिया की तुलना में कम रहा प्रभाव, चौथी लहर की आशंकाएं खारिज (Dainik Jagran:20220304)


ओमिक्रोन के कारण आई कोरोना की तीसरी लहर में वैक्सीन ने लोगों की जान बचाई। बड़े पैमाने पर टीकाकरण के कारण संक्रमितों और मरने वालों की संख्या दुनिया के अन्य देशों की तुलना में कम रही। जिन लोगों की मौत भी हुई उनमें वैक्सीन की कमी सामने आई है।

नई दिल्ली, जागरण ब्यूरो: ओमिक्रोन के कारण आई कोरोना की तीसरी लहर में वैक्सीन ने लोगों की जान बचाई। बड़े पैमाने पर टीकाकरण के कारण संक्रमितों और मरने वालों की संख्या दुनिया के अन्य देशों की तुलना में कम रही। जिन लोगों की मौत भी हुई, उनमें वैक्सीन नहीं लगाने या एक ही डोज लेने वालों की संख्या ज्यादा रही। स्वास्थ्य मंत्रालय के संयुक्त सचिव लव अग्रवाल ने ओमिक्रोन के कारण आई लहर से प्रभावित अन्य देशों के साथ भारत की तुलना करते हुए बताया कि पूरी दुनिया में इसके कारण एक दिन में सर्वाधिक 42,34,712 मामले दर्ज किए गए थे। जो पिछली लहर की पीक 9,04,253 से 4.68 गुना अधिक है।

भारत की तुलना में जर्मनी में ज्यादा मामले दर्ज
लव अग्रवाल ने बताया कि जर्मनी में पिछली पीक की तुलना में इस बार 8.86 गुना अधिक मामले दर्ज किये गए। लेकिन भारत में ओमिक्रोन के कारण एक दिन में सर्वाधिक 3,47,254 नए मामले दर्ज किए गए, जो पिछली पीक 4,14,188 से काफी कम है। तीसरी लहर से होने वाली मौतों के मामले में भी भारत की स्थिति दुनिया के अन्य देशों से बेहतर रही है। लव अग्रवाल के अनुसार ओमिक्रोन के कारण दो से आठ फरवरी के सप्ताह में प्रतिदिन औसतन सर्वाधिक 10,787 मौतें हुई और पिछले हफ्ते भी यह संख्या 8,330 रही। वहीं भारत में उसी हफ्ते प्रतिदिन औसतन 615 लोगों की सर्वाधिक मौत दर्ज की गई, जो पिछले हफ्ते मिलकर 144 रह गई।

कोरोना संक्रमण के कारण होने वाली मौतों पर नजर

आईएसीएमआर के महानिदेशक डॉक्टर बलराम भार्गव ने बताया कि कोरोना से होने वाली मौतों और उनमें टीका लेने वालों की संख्या पर लगातार नजर रखी जा रही है। इससे साफ हुआ है कि वैक्सीन की एक डोज भी मौत रोकने में 98.9 फीसद और दोनों डोज 99.3 फीसद तक कामयाब हैं। लव अग्रवाल ने बताया कि देश में 18 साल से अधिक उम्र के 97 फीसद लोग एक डोज और 76.66 फीसद दोनों डोज ले चुके हैं। इसी तरह से 15 से 18 साल की उम्र के 74 फीसद लियों एक डोज और 39 फीसद दोनों डोज ले चुके हैं।

चौथी लहर के दावों को किया खारिज

नीति आयोग के सदस्य और कोरोना टीकाकरण पर गठित टास्क फोर्स के प्रमुख डॉक्टर वीरेंद्र पाल ने जून में कोरोना की चौथी लहर शुरू होने के आईआईटी कानपुर के दावे को खारिज कर दिया। उन्होंने कहा कि कई विशेषज्ञ इस गणितीय गणना से असहमित जता चुके हैं। उनके अनुसार अभी चौथी लहर की भविष्यवाणी करना सही नहीं होगा और इसके लिए और इंतजार करना होगा। स्वास्थ्य मंत्रालय के एक वरिष्ठ अधिकारी ने नाम न छापने की शर्त पर कहा कि अभी तक संक्रमण के आंकड़े के आधार पर चौथी लहर की आशंका बहुत कम नजर आती है।

तीसरी लहर से भारत काफी हद तक बाहर

ध्यान देने की बात है कि तीसरी लहर से भारत काफी हद तक बाहर निकल चुका है और अब केवल 29 जिले ऐसे बचे हैं, जिनमें संक्रमण की दर 10 फीसद से अधिक है और उनमें भी गिरावट का रख है। वहीं पांच फीसद से कम संक्रमण दर वाले जिलों की संख्या 671 पहुंच गई है। तीसरी लहर के दौरान पहली बार देश में साप्ताहिक औसत संक्रमण दर भी एक फीसद से नीचे पहुंच गई है।

यूक्रेन से लोटे छात्रों को टीका लगवाने का निर्देश
92% of COVID-19 deaths in 2022 have been among unvaccinated: ICMR (The Hindu: 20220304)

COVID-19 vaccination in progress at a centre at Daryaganj, in New Delhi on Thursday

The cumulative COVID-19 vaccine doses administered in the country crossed 178.26 crore on Thursday, the Union Health Ministry said

In 2022, 92% of COVID deaths have been in unvaccinated individuals, Director General of the Indian Council of Medical Research (ICMR) Dr. Balram Bhargava said on Thursday. He added that it’s evident that vaccines and the wide vaccination coverage have played a very important role in protecting hundreds of lives.

SOUTH KOREA

South Korea eases distancing despite record virus deaths

South Korean officials announced an easing of social distancing restrictions even as the country saw its deadliest day of the pandemic on Friday, reflecting reduced political capacity to deal with a fast-developing omicron surge in the face of a growing economic toll and a presidential election next week.

Jeon Hae-cheol, minister of the interior and safety, said the curfew at restaurants, bars, movie theatres and other indoor businesses will be extended by an hour from 10 p.m. to 11 p.m.
starting Saturday. He cited people’s fatigue and frustration with extended restrictions and the damage to livelihoods. -AP

NATIONAL

Active COVID-19 cases in country dip to 69,897

With 6,396 people testing positive for coronavirus infection in a day, India’s total tally of COVID-19 cases rose to 4,29,51,556, while the active cases dipped to 69,897, according to the Union Health Ministry data updated on Friday. The death toll climbed to 5,14,589 with 201 fresh fatalities, the data updated at 8 am stated. The daily COVID-19 cases have remained less than one lakh for 26 consecutive days.

The active cases comprise 0.16% of the total infections, while the national COVID-19 recovery rate has further improved to 98.64%, the ministry said. A reduction of 7,255 cases has been recorded in the active COVID-19 caseload in a span of 24 hours.

The daily positivity rate was recorded as 0.69% and the weekly positivity rate as 0.90%, according to the ministry. -PTI

FRANCE

France to drop vaccine pass as Covid situation improves: PM

Object previewFrance will this month end most Covid-19 restrictions and scrap its vaccine pass for eating out or attending cultural events, the prime minister said on Friday.

After the surge in cases caused by the Omicron variant, the health situation has improved over the last weeks with less pressure on hospitals, Prime Minister Jean Castex said in a statement.

He said that from March 14 the vaccine pass -- proving that someone has been triple vaccinated against Covid-19 -- will no longer be needed. - AFP
मोटापा

जानिए किस उद्देश्य के साथ मनाया जाता है यह दिन और क्या है इस साल की थीम (Dainik Jagran: 20220304)


World Obesity Day 2022 लोगों को मोटापे की गंभीरता बताने के उद्देश्य से यह दिन मनाया जाता है। मोटापा कई बीमारियों की जड़ है। तो कैसे हुई इस दिन को मनाने की शुरुआत और किस थीम के साथ मनाया जा रहा है यह दिन इस बार जानें यहां।

नई दिल्ली, लाइफटाइल डे World Obesity Day 2022: शरीर में फैट की बहुत ज्यादा मात्रा मोटापे की सबसे बड़ी वजह है। इसके अलावा खराब लाइफटाइल, एक्सरसाइज़ न करना, बहुत ज्यादा जंक और फास्ट फूड का सेवन, लंबे वक्त तक एक ही जगह पर बैठे रहना भी इसमें अपना योगदान देते हैं। मोटापे से परेशान लोग तरह-तरह की शारीरिक परेशानियों से तो जूझते ही हैं साथ ही इन्हें सामाजिक भेदभाव भी झेलना पड़ता है। तो आज यानी 4 मार्च का दिन विश्व मोटापा दिवस के रूप में मनाया जाता है। आइए जानते हैं इस दिन से जुड़ी कुछ जरूरी बातें...

ऐसे हुई इस दिन को मनाने की शुरुआत

विश्व मोटापा दिवस (World Obesity Day) हर साल 4 मार्च को मनाया जाता है। साल 2020 से पहले यह 11 अक्टूबर को मनाया जाता था लेकिन साल 2020 से इसे 4 मार्च को मनाया जाने लगा। दुनिया भर में फैले इस भयावह बीमारी को खत्म करने और इसके कारण समाधानों को बढ़ावा देने के मुख्य से 4 मार्च को पूरी दुनिया मोटापा दिवस मनाती है।

विश्व मोटापा दिवस मनाने का उद्देश्य

जैसा कि हम सभी जानते हैं मोटापा कई गंभीर बीमारियों की शुरुआत है जिसे कंट्रोल कर डायबिटीज, हाई बीपी, हृदय रोग, कैंसर और स्ट्रेस जैसी बीमारियों की संभावनाओं को कम किया जा सकता है। तो इस दिन को मनाने का खास उद्देश्य यही है कि मोटापे से ग्रस्त लोगों को इन चीजों से अवगत कराना और मोटापे के कारण लोगों के साथ हो रहे सामाजिक भेदभाव को मिटाने का प्रयास करना।

ऐसे पता करें आप मोटे हैं या नहीं
बॉडी मास इंडेक्स के जरिए पता लगा सकते हैं कि आप मोटापे की केटेगरी में हैं या नहीं। ये है इसका तरीका:-

वजन को किलोग्राम में माप कर उसे लंबाई के मीटर वर्ग से विभाजित करके पता किया जाता है बीएमआई।

- अगर आपका बीएमआई 25 से 29 के बीच है, तो आपका वजन अधिक है।
- अगर आपका बीएमआई 30 से 40 के बीच है, तो आपका मोटापे की केटेगरी में आएंगे।
- अगर आपका बीएमआई 40 से ज्यादा है तो आपको बहुत ज्यादा मोटापे की केटेगरी में आते हैं जो बिल्कुल भी सही नहीं।

कान में इंफेक्शन

जानें कान में होने वाले इंफेक्शन और उन्हें रोकने के उपायों के बारे में (Dainik Jagran: 20220304)


कान की देखरेख भी शरीर के बाकी अंगों जितनी ही जरूरी है। वरना इसमें वायरल और बैक्टीरियल इंफेक्शन होने की बहुत ज्यादा संभावना बनी रहती है। तो इन इंफेक्शन से बचे रहने और इसे रोकने के लिए करें ये उपाय।

ज्यादातर लोग कानों का उस तरीके से केयर नहीं करते जितना शरीर के बाकी हिस्सों का, तो वही कुछ लोग हर वक्त ही कानों की ईयरब्लूड यूं से सफाई करते रहते हैं ये दोनों ही स्थितियां खराब हैं। सफाई न करने से भी और बहुत ज्यादा करने से भी कानों में कई तरह की समस्याएं हो सकती है। आंकड़ों के अनुसार, भारत में 23-25 फीसद लोग कान की किसी न किसी समस्या से शिकार हैं। जिसमें कान दर्द, कम सुनाई देना, किसी तरह का दबाव महसूस होना, सूजन, कान बहना और इंफेक्शन खासतौर से शामिल है। तो आज हम कान में होने वाले इंफेक्शन के बारे में बात करेंगे। जो मुख्यतः दो प्रकार के होते हैं।
1. फंगल इंफेक्शन

फंगल इंफेक्शन की सबसे बड़ी और मुख्य वजह होती है बहुत ज्यादा नमी। गीली और नम जगहें फंगस के पनपने के एकदम अनुकूल होती हैं। फंगल इंफेक्शन कान की नलिका के बाहर भाग में होता है। संक्रमण की वजह एसपरिगिल्स व कैंडिडा नामक जीवाणु होते हैं।

फंगल इंफेक्शन रोकने के उपाय

- कान को हमेशा साफ और सूखे रख। खासतौर से अगर आप तैराकी करते हैं तो।

- कान में होने वाली खुजली को ईयरब्स से शांत करने की गलती न करें।

- समय-समय पर कान की सफाई कराते रहें। इससे मैल नहीं जमता जिससे खुजली और इंफेक्शन की संभावनाएं काफी हद तक कम हो जाती हैं।

- नहाते या बाल धोते वक्त कान में पानी चला जाए तो उसे सूखे कपड़े से पीछे।

- हेडफोन या ब्लूटूथ जिस किसी का भी इस्तेमाल आप बात करने या म्यूज़िक सुनने के लिए करते हैं उसे भी साफ करना बहुत जरूरी है।

2. बैक्टीरियल इंफेक्शन

कानों में होने वाला बैक्टीरियल इंफेक्शन ज्यादातर बारिश के मौसम में ही देखने को मिलता है। बारिश, ठंड या हवा से गले में सबसे पहले संक्रमण होता है। गले का संक्रमण यूस्टाचियन ट्यूब में फैलता है, यह ट्यूब हमारे कान और गले को जोड़ती है। इसी ट्यूब के जरिए कान भी संक्रमित हो जाता है।

बैक्टीरियल इंफेक्शन रोकने के उपायों

- क्योंकि यह गले से फैलने वाला संक्रमण है। तो कोशिश होनी चाहिए गले को हर तरह के इंफेक्शन से बचाए रखने की। जिससे ये कानों तक पहुंच ही न पाए।

- ठंड और बारिश में बहुत ज्यादा ठंडी चीजों के सेवन से बचे और अगर फिर भी गले में इंफेक्शन हो गया है तो गर्म चीजों के सेवन से इसे जल्द से जल्द ठीक करने का प्रयास करें।

- बैक्टीरियल इंफेक्शन को रोकने का एक बहुत ही कारगर उपाय है नमक के पानी से गरारा करना।
कोरोना

कोरोना की चौथी लहर डेल्टा जैसी हो सकती है खतरनाक? वैज्ञानिक ने दिया जवाब (Hindustan: 20220304)


कोरोना की तीसरी ओमिक्रॉन लहर धीमी पड़ती जा रही है। ऑफिस और स्कूल खुलने लगे हैं। लोग पहले की तरह बेफिक्र दिख रहे हैं। इसके साथ ही चौथी लहर से जुड़ा जो प्रिडिक्शन है वह थोड़ा चिता पैदा करने वाला है। वर्ल्ड हेल्थ ऑर्गनाइजेशन पहले ही चेता चुका है कि ओमिक्रॉन आखिरी वैरियंट नहीं है। इसके बाद होने वाले म्यूटेशन और ज्यादा खतरनाक हो सकते हैं। अब एक्सपर्ट ने बताया है कि चौथी लहर कितनी खतरनाक हो सकती है। कोविड की अगली वेव अल्फा या डेल्टा जैसी वैरियंट हो सकती है। इससे पहले IIT Kanpur के वैज्ञानिक फैलकुलेशन निकाल चुके हैं कि कोरोना की अगली लहर दुनिया मई से जून के बीच आएगी।

डेल्टा फैमिली का हो सकता है अगला वैरियंट

वैज्ञानिक पहले भी कह चुके हैं कि कोरोना हमारे बीच ही है। इसके वैरियंट्स आते रहेंगे। अब यूनिवर्सिटी ऑफ एडिनबर्ग से वायरस के इवॉल्यूशन की पढ़ाई करने वाले वैज्ञानिक Andrew Rambaut ने जर्नल Nature को बताया कि बहुत संभव है कि चौथी लहर में कोरोना डेल्टा या अल्फा लीनिएज़ (वेंशावली) का हो। उन्होंने बताया कि इसमें इन्फ़्यूज़न सिस्टेम को भेदन की पर्याप्त क्षमता हो सकती है ताकि ओमिक्रॉन को पछाड़ सके।

मास्क और वैक्सीन बचने के उपाय

वहीं कुछ वैज्ञानिक यह उम्मीद भी जताते हैं कि साल 2022 के आखिर तक कोरोना धीरे-धीरे सामान्य वायरस की तरह सीजनल वायरल में बदल जाए। वहीं एक्सपर्ट्स का मानना है कि चौथी लहर कितनी खतरनाक होगी यह बात वैरियंट के टाइप, यह कितनी तेजी से मल्टिप्लाइड हो रहा है और कितने लोग वैक्सीन लगवाये चुके हैं, इस पर भी निर्भर करेगी। डॉक्टर्स का कहना है कि जिन्होंने सेंडेक्ट डोज नहीं लगवाई, उन्हें लगवा लेनी चाहिए। वहीं हेल्थ वर्कर्स, सीमियर सिटीजन्स और जिन्हें बीमारी
Mental Health in India: Community-based interventions as the answer to India’s mental health burden (The Indian Express: 20220304)


As a community comes together to address the unique stressors they experience, in conjunction with linkages and referrals to public health and welfare systems - these provide context based, accessible care.

Addressing healthcare challenges in a country as diverse and vast as India is a difficult feat as it is, leaving aside the stigma, and social and structural barriers that prevent people experiencing mental health problems from seeking care. The National Mental Health Survey (2015-16) estimated that close to 150 million Indians require mental health interventions and there exists a treatment gap of 70 to 92%. Considering that the overall impact is not just on the person, but also on those around them (hidden burden), the actual affected population may be much higher. This burden has been aggravated by the Covid-19 pandemic due to the rise in uncertainty and anxiety, and is now becoming increasingly critical to address.

India has only 0.75 psychiatrists per lakh population largely concentrated in urban areas even though nearly 70% of the country’s population resides in rural areas, against the desirable 3 per lakh population- a deficit that would take at least 42 years to meet given the current pace of psychiatric education in the country. Despite this reality, most conversations on mental health either look at breaking the stigma (which will increase the demand for services) or improving quality service delivery through psychiatrists (who are in limited numbers). This article therefore looks at bridging the care gap with the use of psychosocial interventions, through community-led models, to leverage non-formal caregivers and para-professionals, rather than relying only on qualified mental health professionals.

This paradigm shift would cultivate a rights-based approach to mental healthcare which is accessible, affordable, inclusive, and fosters help-seeking behavior at the community level. As a community comes together to address the unique stressors they experience, in
conjunction with linkages and referrals to public health and welfare systems – these provide context based, accessible care. This may prevent deterioration of the individual’s mental wellbeing thereby reducing the medical intervention required. Community based care would enable early screening for mental health issues, along with better uptake of a range of services. Being from the same community, having the cultural understanding a more contextual intervention can also be undertaken by community volunteers, to address the specific needs of different individuals. These may include trauma resulting from gender-based violence or caste-based discrimination, anxiety and substance dependency faced by adolescents, particularly due to the pandemic and social media.

Following the ‘Look-Listen-Link’ (3L) Model, this care community could undertake need-based interventions that allow non-formal, trained community workers to look into the particular mental health challenges of the community. The trained workers could listen to what they say, identify if they have symptoms of any common medical disorders (‘CMD’) such as depression, anxiety and suicide ideation — that can be addressed at the community level, provide basic counselling and link them to referral institutes where necessary.

An efficient and robust community-integrated model will have the ability to build a response system of cadres of community volunteers and leaders to create ‘safe spaces’. They would build upon locally established peer support networks such as Self-Help Groups (‘SHGs’), activity-based groups, and civil society organizations to provide care. It is important that any community-based mental health program provides access to institutional social care benefits by building strategic partnerships with the local governments, panchayats, educational institutions and other stakeholders to enable referrals and access to existing social benefit schemes.

The success of the ‘Atmiyata Project’ run by the Centre for Mental Health Law and Policy in Mehsana, Gujarat and funded by the Mariwala Health Initiative (‘MHI’) is noteworthy in this regard. The program is led by community volunteers who identify persons in distress, and who can benefit from informal care. The volunteers provide them with counseling sessions. It also addresses barriers of language, age and disability, by making use of videos to generate awareness about mental health. Two other partner organisations of MHI must also be mentioned in this regard. The ‘Janamanas’ program run by Anjali, a NGO based in Kolkata, focuses specifically on addressing the differential mental health concerns of women, by creating safe community spaces for other women, in the community to come, assess and discuss their issues. Likewise, the SEHER program by Bapu Trust works in the urban bastis in Pune, and initiates conversations on mental health at street corners.

The triumph of community participation in other public health challenges such as tuberculosis where ‘TB Champions’ who are survivors of the disease as well as ‘ASHAs’ who assist in the last mile connectivity of maternal and child health in the country, must also be paid heed. These programs reduced the stigma associated with seeking help, enabled access at the village level, and established outreach and support chains that are functioning even in the midst of the pandemic.
To conclude, a diverse collaboration with the community can humanize the existing public health institutions by reducing hesitancy and building awareness about mental health. It also allows for early screening, assistance mechanisms and preventive measures to be built and decentralize the delivery of mental health services to make way for personalized solutions that are contextual thereby bridging the healthcare gap and making a significant contribution towards the amelioration of mental health.

**Nutrition**

**Some dos and don’ts to follow for a healthy gut (The Indian Express: 20220304)**


What can you do to ensure fewer visits to the doctor, and to keep your gut happy and healthy? Find out

Maintaining gut health is important, because it can boost your overall immunity and also influence your mood. While the diet you follow is important, how you eat the food, the frequency of meals and exercising and getting rest are also key factors for the smooth functioning of the body.

Nutritionist Bhakti Kapoor took to Instagram to write that a healthy gut means “you have a stronger immune system, a better mood, effective digestion that’s free of discomfort and a healthy brain and heart”. “Anxiety and depression also affect your gut health. Finding ways to manage your mental health and stress levels may help reduce uncomfortable GI symptoms and get your body back in balance,” she explained in a long post.

According to the expert, one can tell if they are having health problems. “Bloating, gas, diarrhea, stomach pain or nausea are all pretty direct signs that something in the gut isn’t working as it should.”

As such, what can you personally do to ensure fewer visits to the doctor, and to keep your gut happy and healthy? Here’s what Kapoor recommended:

Dos:

* Eat a variety of plant-based foods.

* Have a diet rich in pre and probiotics.
* Stay hydrated.
* Chew your food and slow down while eating.
* Get good quality sleep every night and move your body daily.
* Cook food in olive oil, avocado oil, flax or walnut oil.

Don’ts:
* Eat the same food every day.
* Have a diet that comprises processed food.
* Consume drinks with added sugars and artificial sweeteners.
* Prioritise work over physical and mental health.
* Eat on the go.
* Load up on vegetable oils like canola, peanut, sunflower, etc.

Pregnancy

Top reasons behind miscarriages, from an expert (The Indian Express: 20220304)


"The good news is that most miscarriages do not repeat, so one must not panic. However, if it is recurrent, medical opinion must be sought", said Dr Kaberi Banerjee, MD, Advance Fertility and Gynaecology Centre.

A miscarriage is an unwanted pregnancy loss. It occurs when a fertilised egg does not implant into the uterine wall. Many miscarriages happen very early in the pregnancy and go unnoticed by the woman.

A miscarriage occurs most often during the first trimester of pregnancy, usually before 20 weeks. What are the elements that increase the chances of a miscarriage? It is caused by a number of circumstances, including:
Age of the mother. According to studies, the chance of miscarriage is 12 percent to 15 percent for women in their twenties and jumps to around 25 percent for women in their forties. The rising chromosomal abnormalities add to the increased risk of miscarriage as people become older.

What are the reasons for miscarriage?

Miscarriages can also be caused by several reasons, both known and unknown, such as:

- Increased age of the mother
- Infection
- Chromosomal anomalies
- Coagulation disorders
- Exposure to dangers in the environment and at work, such as excessive quantities of radiation or poisonous agents
- Hormonal imbalances are a common occurrence.
- Smoking, consuming alcohol, and taking illegal substances are all examples of lifestyle influences.
- Immune system disorders, such as lupus.
- Severe kidney disease.
- Congenital heart disease (CHD) is a kind of congenital cardiac defect
- Diabetes that hasn’t been managed well.
- Thyroid illness is a condition affecting the thyroid gland.
- Radiation.

Miscarriage symptoms

These include:

- Bleeding
- Cramps
- Pain in the abdomen
- Lower back pain, which can be minor to severe
- Pain in the stomach
- Weakness
Fever accompanied by any of these symptoms

After a miscarriage, the mother may experience spotting and some pain. If you experience any of the following symptoms like severe bleeding, a fever, chills, or discomfort, see your doctor right away since these might indicate an infection.

Diagnosis of a miscarriage

They’ll examine your cervix to determine if it’s begun to dilate. An ultrasound examination using sound waves is used to look for a baby’s heartbeat.

Your doctor uses blood tests to check for pregnancy hormones in your blood and compare them to previous levels.

If tissue from your miscarriage has left your body, your doctor may send it to a lab for confirmation. It can also help rule out the possibility that your symptoms are due to something else.

If you’ve had two or more miscarriages, your doctor may order these tests to check your genes or those of your partner.

The loss of a baby before the 20th week of pregnancy is a miscarriage. Spontaneous abortion is the medical term for a miscarriage. However, it is not an abortion in the traditional sense of the word.

Miscarriages occur in up to half of all pregnancies, most commonly before a woman misses her period or even realises she’s pregnant. A miscarriage occurs in 15 percent to 25 percent of all recognised pregnancies.

The good news is that most miscarriages do not repeat, so one must not panic. However, if it is recurrent, medical opinion must be sought.
Covid Drug

Study analyses if medicines affect body's response to infections like COVID-19 (Hindustan Times: 20220304)


Although research into these drugs has focused on their effects on pain and fever management, until now, their impact on the treatment of infectious diseases specifically was unclear.

A new clinical review of immune responses to paracetamol, non-steroidal anti-inflammatory drugs (NSAIDs) and opioid analgesics, with a focus on infectious diseases, has provided insights into the unintended impacts of these commonly used medicines.

The findings highlight the potential for some of these medicines to join the fight against old and new infectious diseases.

The study was published in the journal, 'British Journal of Clinical Pharmacology'.

Although research into these drugs has focused on their effects on pain and fever management, until now, their impact on the treatment of infectious diseases specifically was unclear. The findings highlight the need for more studies in this under-recognised area of research, with wide-reaching implications.

Key findings of the clinical review:

1. For pain: Morphine suppresses key cells of the immune system and increases the risk of infection, particularly after cancer surgery.

2. For fever: Antipyretics - e.g. Paracetamol, Ibuprofen, Aspirin - can reduce the desirable immune response when taken for vaccination.

3. Aspirin could be an affordable and accessible therapeutic option for tuberculosis - which mainly afflicts poor countries, with beneficial results shown in animals and humans.

4. Anti-inflammatory medicine indomethacin may reduce viral replication in Covid-19 but large-scale human trials are needed.

Researchers led by the University of Sydney's Faculty of Medicine and Health opted for a 'clinical' review in order to have a broader scope to synthesise the available evidence, noting the importance of further research and trials regarding infectious disease responses.

The research was unplanned and the findings unexpected, with lead author Christina Abdel-Shaheed. She said that they initially were interested in studying possible impacts of
paracetamol (acetaminophen) during the pandemic, when people hoarded the drug in the first months of COVID-19.

"We decided to study painkillers and fever medications generally and were amazed by what we found," she said.

"In 14 years of studying pain, this is the most important research I have been involved in," she added.

Pain researcher Dr Christina Abdel-Shaheed, from Sydney Musculoskeletal Health, said the relationships uncovered with infectious diseases highlighted the need for rigorous clinical trials.

"Our review shows some of the common pain and fever medications may work with the immune system to fight infection, whereas others work against it and increase the risk of contracting or responding badly to infectious diseases," Dr Abdel-Shaheed said.

"Taking paracetamol or ibuprofen before or immediately after vaccination - for example for COVID-19 - to try to prevent mild fever or headache is not recommended, because this could reduce the body's desirable immune response to the vaccine," she continued.

"For chickenpox, use of ibuprofen is not recommended as it might increase the risk of secondary bacterial skin infections," she added.

Dr Justin Beardsley, infectious disease specialist at Westmead Hospital and researcher with Sydney Institute for Infectious Diseases, said an important finding of this review during the pandemic was that: "morphine - one of the most commonly used opioid analgesics in post-surgical and critical care - suppresses key innate immunity cells, thereby increasing the risk of infection".

He highlighted: "This is particularly the case with cancer patients, who are already vulnerable to COVID-19."

"Efforts are needed to achieve adequate analgesia whilst avoiding immune-suppression in the immediate postoperative period caused by opioids such as morphine -- both for people undergoing cancer surgery as well as for the immunocompromised generally," said Dr Beardsley, who also works with the Westmead Institute for Medical Research.

Professor Andrew McLachlan said on the positive side, the findings provide new insights for further research to evaluate these commonly used medicines, which could be repurposed to improve outcomes for people undergoing treatment for infectious diseases.

"With the urgent need for new treatments for COVID-19 and the declining efficacy of some antimicrobial agents due to resistance, now more than ever we need medicines which can maintain or enhance the efficacy of anti-infective drug treatments," said Professor McLachlan, the Head of School and Dean of Pharmacy at the University of Sydney.
"The results of this review suggest that commonly used medicines for pain and fever should be further explored as inexpensive and effective adjunctive treatments which influence immune and inflammation pathways for people undergoing treatment for infection," he added.

Co-author Professor Ric Day from UNSW and St Vincent's Hospital said research was still catching up in this new area of study.

"One of the problems is that widely used medicines -such as paracetamol, nonsteroidal anti-inflammatory drugs like ibuprofen, and corticosteroids such as prednisone - have been around for decades and in the past we didn't tend to consider their impacts on the immune system because it has been an under-recognised area," he said.

"From community use to hospital and acute care, these classes of pain and fever medications are among the most popular drugs worldwide but we need to consider the significant impact these can have on our immune system and our response to infectious diseases, including COVID-19," he added.

**Immune system**

**Vitamin D3, but not D2, linked to improved immunity (Medical News Today: 20220304)**

[https://www.medicalnewstoday.com/articles/vitamin-d3-but-not-d2-linked-to-improved-immunity](https://www.medicalnewstoday.com/articles/vitamin-d3-but-not-d2-linked-to-improved-immunity)

According to a recent study, D2 and D3 may have different effects on the body.

Researchers recently investigated the genetic effects of the two forms of vitamin D: D2 and D3.

They found that vitamin D3 is linked to enhanced immune function but that its effects differ among ethnic groups.

They say that further research with a larger sample size is necessary to confirm their results.

Vitamin D is crucial for maintaining bone health and immune function.

Multiple studies show that low vitamin D levels are linked to an increased risk of fractures, as well as the development of some cancers, cardiovascular diseases, and inflammatory diseases.
Of the two kinds of vitamin D, vitamin D2, or ergocalciferol, occurs naturally in plants and fungi, whereas D3, or cholecalciferol, occurs in animal products.

Unlike vitamin D2, the body can produce vitamin D3 in the skin when it gets exposure to UVB radiation from sunlight.

Whether vitamin D2 and vitamin D3 have the same effect on human physiology remains unknown. Although some studies suggest that long-term vitamin D2 and D3 supplementation have similar effects on vitamin D blood concentrations, others report that D3 supplements lead to higher concentrations than D2 supplements.

Meanwhile, one study found that vitamin D3 supplements are linked to reduced cancer mortality compared with vitamin D2 supplements. Another study found that D2 and D3 supplements have different effects on depression.

The research on how vitamin D2 and D3 supplements affect gene expression in people is limited. Investigating underlying gene expression following supplementation with these variants could improve the understanding of how they affect the body. This knowledge could improve supplement recommendations.

In a recent study, researchers investigated gene expression following vitamin D supplementation. They used data from a previously conducted study — the D2-D3 Study — that found that vitamin D3 increased overall vitamin D levels more than vitamin D2.

Following a genetic analysis, the researchers found that vitamin D3 and vitamin D2 affect different ethnic groups in distinct ways. They also found that vitamin D3 is linked to an improved immune system in white individuals, whereas vitamin D2 is not.

The study appears in Frontiers in Immunology.

D2-D3 Study

The D2-D3 Study included 335 women of South Asian or European descent. The researchers randomized these individuals into three intervention groups for 12 weeks. The groups received 15 micrograms of either vitamin D2, vitamin D3, or a placebo each day.

The team selected 97 of the participants for genetic analysis, including 67 white participants and 30 of South Asian origin. The researchers conducted a genetic analysis at baseline and again 12 weeks after supplementation began.

At the end of the study, the researchers noted that vitamin D levels in the vitamin D3 treatment group increased by 59% and 166% among those of white ethnicity and South Asian descent, respectively.

Meanwhile, vitamin D3 levels dropped by 23% and 29% among those in the placebo group and by 52% and 53% among those who took vitamin D2.
From the genetic analysis, the researchers found that vitamin D2 and D3 supplementation downregulated 13% of the same genes and uniquely downregulated 28% and 59%, respectively.

They also found that different types of vitamin D supplementation had different effects on different ethnicities.

While vitamin D3 supplementation stimulated type I and type 2 interferon signaling in white people, the opposite was true for those of South Asian descent. Type 1 interferon signaling is crucial for the antiviral immune response, whereas type 2 interferon signaling is responsible for adaptive immunity and inflammatory regulation.

In contrast, vitamin D3 supplementation led to increased heme iron metabolism in those from South Asia, while the opposite effect occurred in white participants.

Nevertheless, the researchers found that in both white and South Asian individuals, vitamin D2 reduced interferon type 1 and 2 signaling.

Different molecules

Dr. Micheal Snyder, Ph.D., chair of the Department of Genetics at Stanford University, who was not involved in the study, told Medical News Today:

“Although similar, they are indeed different molecules, and it is likely that they either bind slightly different targets or the same targets with different efficiencies. They are also metabolized differently.”

The researchers note that the stark difference in results among ethnicities might be partially due to the small sample sizes and relatively lower vitamin D levels at baseline for those of South Asian descent.

However, they say that their results highlight the emerging evidence on how ethnicity, skin tone, vitamin D status, and susceptibility to contracting a virus such as SARS-CoV-2 may influence the effects of supplementation.

The researchers conclude that vitamin D2 and D3 may have different physiological effects and that these may vary among different ethnicities.

They also note some limitations to their research. Dr. Colin Smith, lead author of the study, told MNT that a larger sample size of around 2,400 is necessary to verify the findings and that it should include people of different ethnic groups. He added that future studies should also take changes in blood cell composition into account.

Taking supplements

When we asked him how these results could influence how people take supplements, Dr. Snyder said that people should start looking into the exact molecules that they take, as even
though different molecules may look similar, they will have different effects. He also noted that different supplements will affect individuals in varying ways.

Dr. Smith said: “We think that health policy should change. The food industry should only add vitamin D3 to its products, avoiding vitamin D2. Health policy should be specific about the type of vitamin D that should be used in supplements and fortified foods: vitamin D3.”

He added that vegans, vegetarians, and some religious groups who may use vitamin D2 supplements because D3 supplements are often sourced from animal products should switch to using vegan-friendly sources of vitamin D3.

**Cardiovascular**

**Muscle-strengthening exercises may lower risk of death (Medical News Today: 20220304)**


Can weight-strengthening exercises reduce mortality risk?

The authors of a new meta-analysis of prior studies wanted to determine how much time adults should spend doing muscle-strengthening exercises each week.

They conclude that doing 30–60 minutes of these exercises each week lowers the risk of all-cause death, cardiovascular disease, and cancer.

They also report that up to 1 hour of muscle-strengthening exercises a week reduces the risk of developing diabetes.

However, limitations in the data mean that more research is necessary to clarify the results.

Although the health benefits of aerobic exercise are well-established, there has been less research into the health benefits of muscle-strengthening exercises.

Recently, a group of researchers from Japan set out to investigate.

The study, which appears in the British Journal of Sports Medicine, took data from existing studies to learn more about how these exercises affect health.
The findings showed that adults who do 30–60 minutes of muscle-strengthening exercises each week have a 10–20% reduction in mortality risk, alongside a reduced risk of other health conditions.

Exercise recommendations

Being physically active is important for maintaining good physical and mental health.

The Department of Health and Human Services (HHS) recommends that adults participate in 150–300 minutes of moderate intensity or 75–150 minutes of vigorous intensity aerobic physical activity each week to ensure “substantial health benefits.”

Aerobic exercises improve heart health. Some examples include swimming, cycling, walking, and rowing.

Additionally, the HHS recommends that adults do muscle-strengthening exercises on 2 days of each week. Some types of exercises that strengthen the muscles include weightlifting, using resistance bands, and doing bodyweight exercises, such as pushups, situps, and squats.

The HHS notes that “nearly 80% of adults are not meeting the key guidelines for both aerobic and muscle-strengthening activity.”

Muscle-strengthening exercise study

The goal of this study was to use previously published research to determine how much time adults should spend per week doing muscle-strengthening exercises to improve overall health.

The researchers used data from 16 relevant observational studies published between 2012 and 2020 to determine the health benefits of these exercises. They focused on studies with participants who did not have any major health issues.

Each study that the authors reviewed had data from thousands of participants, and one of the studies included data from almost 480,000 people. The included studies followed the participants for a minimum of 2 years.

According to the authors, “All studies focused on muscle-strengthening exercises such as resistance/strength/weight training and calisthenics, but not on muscle-strengthening activities such as carrying heavy loads and heavy gardening.”

After analyzing the data, the authors determined that muscle-strengthening activities were associated with a 10–17% lower risk of all-cause mortality. There was also a similar risk reduction for cardiovascular disease, diabetes, total cancer, and lung cancer.

While there were reductions in overall cancer and lung cancer cases, the researchers did not find a risk reduction for other cancers, such as colon, kidney, bladder, and pancreatic cancer.
Dr. Anton Bilchik spoke with Medical News Today about the study findings. Dr. Bilchik is a surgical oncologist, professor of surgery, chief of medicine, and director of the gastrointestinal research program at Saint John’s Cancer Institute in Santa Monica, CA.

“This study is important because it is a meta-analysis of 16 prospective cohort studies that demonstrates that muscle-strengthening activity reduces the risk of developing cardiovascular disease, cancer, and diabetes,” said Dr. Bilchik.

“The maximum risk reduction was 10–20% if 60 minutes [each] week of muscle-strengthening was performed. There was, however, no association with specific cancers, such as colon, kidney, bladder, and pancreas.”

Dr. Bilchik also explained why muscle-strengthening exercises can be so beneficial:

“The authors suggest that muscle strengthening is associated with preservation of skeletal muscle mass, which then plays an important role in glucose metabolism. Abnormal glucose metabolism has been associated with an increase in cardiovascular disease and cancer.”

Although the authors found that doing 30–60 minutes of muscle-strengthening exercises each week provided health benefits, they did not find evidence that going beyond 60 minutes provided additional benefits.

Study limitations

Even though the researchers had access to additional studies, they do acknowledge the need for more research.

“Given that the available data are limited, further studies — such as studies focusing on a more diverse population — are needed to increase the certainty of the evidence,” write the authors.

Dr. Steve VasilevTrusted Source also spoke with MNT about the study. Dr. Vasilev is a quadruple board certified integrative gynecologic oncologist and medical director of integrative gynecologic oncology at Providence Saint John’s Health Center. He is also a professor at Saint John’s Cancer Institute.

“As this systematic review states, muscle-strengthening exercise’s influence on noncommunicable diseases such as cancer and heart disease has been studied less than the influence of aerobic exercise on the same groups,” commented Dr. Vasilev.

“While there were a few highlights that suggest a favorable effect, especially when combined with aerobic exercise, the relative risk reduction of incidence and mortality was generally small, and the quality of evidence for all of these papers combined was noted to be low to very low,” Dr. Vasilev continued.

“This functionally makes this data almost uninterpretable. Having said that, I applaud the effort in trying to show that lifestyle modification can favorably influence prevention and the course of diseases such as cancer and heart disease.”