



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
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Covid virus

Covid virus could evolve in animals, spawn variants that can jump back to humans: Scientists
While there is no consensus about the origins of SARS-CoV-2 virus, many scientists believe it likely jumped from bats to humans (The Tribune:20220429)

<https://www.tribuneindia.com/news/health/covid-virus-could-evolve-in-animals-spawn-variants-that-can-jump-back-to-humans-scientists-390154>

Covid virus could evolve in animals, spawn variants that can jump back to humans: Scientists
Photo for representational purpose only. iStock

The role of “animal reservoirs” in the spread of Covid is still being studied but evidence of zoonosis, or the virus jumping from animals to humans, is growing and scientists are concerned this new frontier could potentially spawn dangerous and difficult to monitor mutants.

While there is no consensus about the origins of the SARS-CoV-2 virus, many scientists believe it likely jumped from bats to humans, either directly or through another species being sold live in a market in Wuhan, China.

Some experts also forward the theory that the highly mutated Omicron variant, which caused a deluge of cases globally, including in India, emerged from animals, potentially rodents, rather than an immune compromised human.

“As the virus multiplies in infected hosts, it can mutate slightly, and the worry is that over time, minor genomic tweaks in hundreds or thousands, if not millions, of animals, could eventually add up to changes that make the virus more contagious or deadlier in people, or able to evade treatments and vaccines,” US-based public health expert Amita Gupta told PTI in an email interview.

Smaller mutations of SARS-CoV-2 in animals may add up to make the virus more contagious or deadlier in people, said the chief of the Division of Infectious Disease, and professor of medicine at Johns Hopkins University School of Medicine.

The role of wildlife in the global epidemiology of SARS-CoV-2 may currently be insignificant but the Covid pandemic is a stark reminder of the close connect between human and animal health. Although the number of people infected with coronavirus variants evolved in animals has not been quantified yet, the evidence of zoonosis is growing.

Last week, the Centers for Disease Control and Prevention (CDC) confirmed that at least four people in Michigan, US, were infected with a version of the coronavirus observed mostly in minks during the first year of the pandemic.

Farmed minks and pet hamsters have been shown to be capable of infecting humans with the virus and a potential case of transmission between white-tailed deer and a human in Canada is currently under review.

Fungal infections

As mercury levels shoot up, health experts warn of rise in heat-related ailments
Heat waves could lead to sunburn and fungal infections (The Tribune:20220429)

<https://www.tribuneindia.com/news/health/as-mercury-levels-shoot-up-health-experts-warn-of-rise-in-heat-related-ailments-390175>

As mercury levels shoot up, health experts warn of rise in heat-related ailments
A woman uses her bag to protect herself from the sun, on a hot summer day, in New Delhi, April 27, 2022. Reuters

From minor side-effects like heat syncope, cramps, fatigue to heat strokes, which could be sometimes fatal, experts on Thursday flagged the health issues related to rising mercury levels as several parts of the country are experiencing oppressive temperatures.

Heatwave set to get worse across NW India; parts of Punjab, Haryana may see 46 degrees Celsius over next few days

Experts also said heat waves could lead to sunburn and fungal infections.

Dr Dileep Mavalankar, Director of Indian Institute of Public Health, Gandhinagar, said the side-effects of heat waves could be minor as well as major, which may sometimes result in deaths or even permanent neurological damage.

With regards to minor side-effects, Mavalankar said extreme heat can cause dehydration, for especially those who venture outdoors. It can also lead to heat cramps, fatigue. Extreme heat can also lead to heat syncope (fainting or dizziness).

“As several parts of the country are reeling under an intense heat wave, there could be more admissions in hospitals,” he told PTI.

Heat stroke is the common heat-related ailment, which could result in death, he said.

“With the heat stroke, the blood temperature also rises and proteins in the brain curdle. This could lead to neurological damages and sometime even to death,” Mavalankar, whose institute prepared Heat Action Plan for Ahmedabad along with the local civic body, said.

He also pointed out that indirect heat stroke stressing that elderly and those with co-morbidities are prone to it.

Intense heat puts more stress on organs like heart and lungs as they function beyond their capacity which could be hazardous, “One can be affected by indirect heatstroke without actually venturing out,” he said.

Dr Sanket Jain, consultant pulmonologist with Masina Hospital, Mumbai, said due to increase in heat since last two weeks, many patients have complained of their inability to eat food as they felt having a bloated stomach. Many also complained of unsound sleep due to waking up in nights due to dryness of mouth.

Dr Banani Choudhury, consultant dermatologist, Sir H N Reliance Foundation Hospital, also highlighted the problem of fungal infection due to excessive heat.

The fungal infection acquired due to perspiration or profuse sweating isn't acquired from someone else, it is due to the fungal flora that remains in our body, due to sweating they increase in number and cause infection, Choudhury said.

“These infections can be in under arms, groins and then spread to other parts of the body. They are very contagious and spread through the body quickly and can also infect other people in vicinity like family members,” Choudhury added.

Dr Harish Chafle, senior consultant - Pulmonology and Critical Care at Global Hospital, Parel Mumbai, said those at high risks must be monitor those at high risk and little extra attention needs to be paid to infants and young children, people 65 years of age or older, obese, those with heart disease or high blood pressure, or who take certain medications, such as for depression, insomnia, or poor circulation.

He said one should avoid outdoor activity in the afternoon and wear sunscreen to avoid sub burn and tanning.

Chafle suggested drinking plenty of fluids and staying away from very sugary or alcoholic drinks as it could lead to body losing more body fluid.

“Excessive sweating removes salt and minerals from the body that need to be replaced. You can replace the salt and minerals you lose through sweat with a sports drink. If you are struggling with diabetes, high blood pressure, or some other medical condition, please concern your doctor before you drink a sports beverage or consume salt tablets,” he said.

Shweta Mahadik, Clinical Dietitian, Fortis Hospital, Kalyan, said rising temperature increases likeness for drinks as a response to the water content getting removed from the body in the form of sweat.

While having plain water is good, adding varieties to it is even better. Natural cooling drinks carry organic ingredients that help us keep going in this sweltering heat and maintain good health, she said.

Mahadik suggested lemon juice, kokam juice, jeera coriander seeds water, fennel seeds juice helps in lowering the body temperature.

Infectious diseases:

Climate change may increase risk of new infectious diseases: Study African and Asian nations face the greatest threat of increased virus exposure, says expert (The Tribune:20220429)

<https://www.tribuneindia.com/news/health/climate-change-may-increase-risk-of-new-infectious-diseases-study-390151>

Climate change may increase risk of new infectious diseases: Study
Photo for representation only. Thinkstock

Climate change will result in thousands of new viruses spread among animal species by 2070 — and that's likely to increase the risk of emerging infectious diseases jumping from animals to humans, according to a new study.

This is especially true for Africa and Asia, continents that have been hotspots for deadly disease spread from humans to animals or vice versa over the last several decades, including the flu, HIV, Ebola and coronavirus.

Researchers, who published their findings on Thursday in the journal Nature, used a model to examine how over 3,000 mammal species might migrate and share viruses over the next 50 years if the world warms by 2 degrees Celsius, which recent research shows is possible.

They found that cross-species virus spread will happen over 4,000 times among mammals alone. Birds and marine animals weren't included in the study.

Researchers said not all viruses will spread to humans or become pandemics the scale of the coronavirus but the number of cross-species viruses increases the risk of spread to humans.

The study highlights two global crises — climate change and infectious disease spread — as the world grapples with what to do about both.

“We don't talk about climate a lot in the context of zoonoses” — diseases that can spread from animals to people, said study co-author Colin Carlson, an assistant professor of biology at Georgetown University.

Daniel R. Brooks, a biologist at University of Nebraska State Museum and co-author of the book “The Stockholm Paradigm: Climate Change and Emerging Disease”, said the study acknowledges the threat posed by climate change in terms of increasing risk of infectious diseases.

Jaron Browne, organising director of the climate justice group Grassroots Global Justice Alliance, said the study highlights climate injustices experienced by people living in African and Asian nations.

“African and Asian nations face the greatest threat of increased virus exposure, once again illustrating how those on the frontlines of the crisis have very often done the least to create climate change,” Browne said.

World Immunisation Week 2022

World Immunisation Week 2022: Why childhood vaccination is important; expert lists essential vaccines

**"It is the only mode which prevents dreadful diseases and is given in early childhood," Dr Meena J, Consultant, Paediatrics and Neonatology, Aakash Healthcare, Dwarka said
(The Indian Express :20220429)**

<https://indianexpress.com/article/lifestyle/health/world-immunisation-week-2022-childhood-vaccination-importance-essential-vaccines-children-7887967/>

childhood vaccination, world immunisation week Only 65 per cent of children in India receive full immunization during the first year of their life (Source: Getty Images/Thinkstock)

World Immunisation Week is observed in the last week of April, every year, with an aim to highlight the collective action required to promote the use of vaccines to protect people of all ages against diseases. According to the World Health Organisation (WHO), which is observing the day with the theme ‘Long Life for All’ this year, “The ultimate goal of World Immunisation Week is for more people – and their communities – to be protected from vaccine-preventable diseases.”

It is widely known that timely vaccination is of utmost importance to prevent many diseases and infections. During the ongoing Covid-19 pandemic, the need for getting vaccinated has only multiplied. Apart from Covid-19 vaccines, there has been a stress on getting children immunised to protect them from deadly diseases such as polio, tetanus, hepatitis and diphtheria among others.

ALSO READ | Drive to vaccinate the world against Covid is losing steam

“Only 65 per cent of children in India receive full immunisation during the first year of their life. Despite clear evidence around the power of vaccines to save lives and control disease, millions of young children around the world are missing out, putting them and their

communities at risk of disease and deadly outbreaks,” United Nations International Children’s Emergency Fund (UNICEF) noted.

Explaining the significance of vaccination during childhood, Dr Meena J, Consultant, Paediatrics and Neonatology, Aakash Healthcare, Dwarka said that it is the only mode which prevents dreadful diseases and is given in early childhood. “History has also taught us that vaccination is very important as it helps in eradicating a lot of dangerous diseases like smallpox and polio,” she said.

childhood vaccination Some important childhood vaccines include the BCG (Bacille Calmette-Guerin) vaccine for tuberculosis, oral polio vaccine and hepatitis B vaccine (File photo)

Dr Meena highlighted that childhood vaccines help children fight diseases later on in life too. “The current pandemic has shown us the importance of vaccines and children are being immunised since childhood for long. Due to vaccination, their immunity gets more activated and they can fight against dreadful diseases.”

Some essential childhood vaccines

Further, the expert listed some of the most essential vaccines for children.

ALSO READ |Vaccinated and never infected with Covid-19: Third dose can boost your immunity

*BCG (Bacille Calmette-Guerin) vaccine for tuberculosis, oral polio vaccine, and hepatitis B vaccine.

*Other vaccine-preventable diseases include diphtheria, tetanus, rotavirus, pertussis and pneumococcal.

*In infancy, children are given missals, rubella vaccines and typhoid vaccines.

*In some endemic areas, children are vaccinated for Japanese encephalitis and meningitis.

*There are special vaccines for conditions such as influenza, meningococcal and rabies.

Prostate cancer

Prostate cancer linked to bacteria, raising hope of new test and treatment
Current tests for prostate cancer, such as the PSA test and a biopsy, are not always able to predict which cancers will be harmful. We hope that a new test that looks for the ABBS group of bacteria will be better able to detect and screen for potentially aggressive prostate cancer. (The Indian Express :20220429)

<https://indianexpress.com/article/lifestyle/health/prostate-cancer-linked-to-bacteria-raising-hope-of-new-test-and-treatment-7882214/>

Prostate cancer Prostate cancer treatment and test. (Source: Getty Images/Thinkstock)

Every year, around 12,000 men in the UK die from prostate cancer, but many more die with prostate cancer than from it. So knowing whether the disease is going to advance rapidly or not is important for knowing who to treat.

Our latest study, published in European Urology Oncology, sheds some light on understanding which cancers will progress rapidly and aggressively and which won't. Part of the answer lies with five types of bacteria.

Prostate cancer: Expert addresses some common misconceptions |Prostate cancer: Expert addresses some common misconceptions

For some years, we have known that pathogens (bacteria and viruses) can cause cancer. We know, for example, that *Helicobacter pylori* is associated with stomach cancer and that the human papillomavirus (HPV) can cause cervical cancer. There is also growing evidence that the bacteria *Fusobacterium nucleatum* is associated with colorectal cancer.

Here at Norwich Medical School, along with our colleagues at the Norfolk and Norwich University Hospital, the Quadram Institute, and others, we have identified five types (genera) of bacteria linked to aggressive prostate cancer. These are *Anaerococcus*, *Peptoniphilus*, *Porphyromonas*, *Fenollaria* and *Fusobacterium*. We call these the 'anaerobic bacteria biomarkers set', or ABBS.

Bacteria genera are further subdivided into 'species'. And here we found four entirely new species of bacteria, three of which are linked to the genera associated with aggressive prostate cancer.

We named two of the new bacteria species after two of the study's funders: *Porphyromonas bobii*, after the Bob Champion Cancer Trust and *Varibaculum prostatecancerukia*, after Prostate Cancer UK.

Nutrition

Soaked raisins or fresh grapes: Nutritionist explains which is healthier and why

Nutritionist Bhuvan Rastogi shared that "dried fruits, in general, are a convenient source of nutrients in harsh weather conditions"(The Indian Express :20220429)

<https://indianexpress.com/article/lifestyle/health/are-soaked-raisins-healthier-than-fresh-grapes-nutritionist-explains-busts-myth-7876494/>

RaisinsThere is no major benefit of rehydrating raisins, according to the nutritionist. (Source: Getty Images/Thinkstock)

Soaked dry fruits – such as almonds, walnuts and raisins – are known to have several health benefits and experts often suggest starting the day with a handful of nuts. Raisins or dried grapes, especially, come packed with several benefits including aiding digestion, boosting iron levels, and keeping the bones strong.

According to nutritionist Bhuvan Rastogi, raisins are healthy and retain more antioxidants than most other dried fruits like apricots and plums. “They are moderate in iron and high in potassium. Dried fruits, in general, are a convenient source of nutrients in harsh weather conditions,” he added.

ALSO READ |From cashews to moong lentil: 5 nutrient-dense foods you must consume
However, many believe that soaked raisins are ‘superfoods’ and have greater nutritional value than fresh grapes. The nutritionist took to Instagram to bust this commonly-believed myth. “There is no major benefit of rehydrating raisins. I was unable to find proper research on the topic. All articles about the benefits of soaked raisins or raisin water talk about the benefits of raisins, not the added advantage of soaking. If there is, it’s nothing more than the usual better absorption of nutrients (same as soaking nuts),” he added.

Rastogi explained that “raisins are inferior to grapes as when grapes are dehydrated, they lose vitamins”. Comparing the USDA (United States Department of Agriculture) nutrition database for raisins and grapes, he observed, “Grapes have 15 times more vitamin K, six times more vitamin E and C, and two times more vitamin B1 and B2 than raisins.”

ALSO READ |If you want to start seed cycling, here’s the guide you need
This, according to the nutritionist, explains that having raisins or soaked raisins over grapes makes no sense. “So, do have raisins when grapes are unavailable but when fresh grapes are in season, always pick them. Don’t treat raisins as some overcharged superfoods but just another dried fruit, which should be taken when fresh is not available,” he suggested.

Vaccination

In haste: On vaccinating children against COVID-19(The Hindu:20220429)

<https://www.thehindu.com/opinion/editorial/in-haste-the-hindu-editorial-on-vaccinating-children-against-covid-19/article65363396.ece>

India could have waited for evidence of benefit of vaccinating all children

The emergency use authorisation (EUA) granted on April 26 to two COVID-19 vaccines — Corbevax for children 5-11 years, and Covaxin for children 6-11 years — is one more instance where the Indian drug regulator has acted in haste. Even if the EUA granted to Covaxin in January 2021 despite no safety and efficacy data of the phase-3 trial is condoned as a desperate measure in ensuring greater vaccine availability, the regulator clearly has no fig leaf to defend the greenlighting of the vaccines for children at this stage. Evidence from across the world after the deadly Delta variant and the extremely transmissible Omicron variant has shown that unlike adults, children in general, and little children in particular, do not suffer from severe disease. The ICMR’s fourth seroprevalence survey (June-July 2021) soon after the second wave peaked nationally found that 57.2% of children (6-9 years) and 61.6% of children (10-17 years) were infected by SARS-CoV-2 virus; seroprevalence among adults was 66.7%. Since vaccination of adolescents began only in early January 2022, the antibodies detected in children in mid-2021

were only from infection by the virus. The extremely infectious Omicron variant would have infected an even larger percentage of children. Yet, the number of severe cases and deaths in children 5-11 years has been very low. True, with schools reopening, children could be at greater risk of contracting infection. But with natural infection found to offer protection across age groups, India could have waited for validation of the available evidence on the vaccines for children.

Unlike in January 2021 when approving vaccines for adults as soon as possible was the highest priority, and hence the EUA based on fewer cases and short

H5 bird flu

U.S. reports its first human case of H5 bird flu (The Hindu:20220429)

<https://www.thehindu.com/news/international/us-reports-its-first-human-case-of-h5-bird-flu/article65366102.ece>

The person was involved in the culling of poultry presumed to have had H5N1 bird flu, the CDC said in a statement.

The first known human case of H5 bird flu in the United States has appeared in a person in Colorado, the Centers for Disease Control and Prevention (CDC) said on Thursday., April 28, 2022.

The person tested positive for avian influenza A(H5) virus and was involved in the culling of poultry presumed to have had H5N1 bird flu, the CDC said in a statement.

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Please write complete sentences. Do not type comments in all capital letters, or in all lower case letters, or using abbreviat

Fresh Cases

After 46 days, India reports over 3,000 fresh COVID-19 cases (The Hindu:20220429)

<https://www.thehindu.com/news/national/after-46-days-india-reports-over-3000-fresh-covid-19-cases-on-april-28-2022/article65364587.ece>

Health Ministry says 39 fatalities registered in last 24 hours.

India on Thursday witnessed an uptick in the number of COVID-19 cases, reporting 3,303 fresh cases in the last 24 hours, said the Union Health Ministry. This is the first time in the last 46

days when more than 3,000 daily cases have been reported in the country. With these fresh cases, the case tally stood at 4,30,68,799.

The country reported 39 fatalities over the same period. On Wednesday 2,927 cases were reported.