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LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

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वायु प्रदूषण

दिल्ली-NCR में बिगड़ी आबोहवा से लोगों की सांसों पर संकट, सभी जगह 'गंभीर' श्रेणी में पहुंचा AQI (Hindustan: 20201106)

https://www.livehindustan.com/ncr/story-delhi-ncr-aqi-pollution-stubble-burning-parali-delhi-ncr-air-quality-in-severe-category-3613158.html

दिल्ली-एनसीआर में भारी प्रदूषण और घनी धुंध ने यहां की आबोहवा खराब कर दी है। इसके साथ ही लगातार बिगड़ रही वायु गुणवत्ता ने शुक्रवार को एक्यूआई को भी 'गंभीर' श्रेणी में पहुंचा दिया।

प्रदूषण पर नजर रखने वाले सिस्टम ऑफ एयर क्वालिटी एंड वेदर फोरकास्टिंग एंड रिसर्च (SAFAR) के अनुसार, शुक्रवार को सुबह दिल्ली में हवा की औसत गुणवत्ता 486 दर्ज की गई।

केंद्रीय प्रदूषण नियंत्रण बोर्ड (CPCB) के अनुसार, आनंद विहार में जहां AQI 422 दर्ज किया गया, वहीं RK पुरम में 407, द्वारका के सेक्टर-8 में 421 और बवाना में 430 रहा। सभी जगह यह 'गंभीर' श्रेणी में ही बना हुआ था। सीपीसीबी के अनुसार, हरियाणा के गुरुग्राम में सुबह के समय हवा की गुणवत्ता 'बहुत खराब' श्रेणी में दर्ज की गई।

गुरुग्राम के एक स्थानीय निवासी ने कहा कि लोगों ने दिवाली के त्योहार से पहले पटाखे फोड़ना शुरू कर दिया है, इसके चलते हमें सांस लेने में समस्या हो रही है।

गुरुग्राम में ही एक अन्य स्थानीय व्यक्ति ने कहा कि प्रदूषण दिन-प्रतिदिन बढ़ता जा रहा है, कल स्थिति वास्तव में गंभीर थी और लोग कचरा जला रहे हैं और पटाखे फोड़ रहे हैं।

गाजियाबाद में भी आज सुबह से वायु की गुणवत्ता कल की तरह 'गंभीर' श्रेणी में ही बनी हुई है। हालांकि कल की तुलना में आज मामूली सुधार है। शुक्रवाह को सुबह 9 बजे शहर का एक्यूआई 424 दर्ज किया गया है।

वहीं, नोएडा-ग्रेटर नोएडा में भी प्रदूषण की स्थिति 'गंभीर' श्रेणी में रही। शुक्रवार सुबह 8 बजे नोएडा में वायु गुणवत्ता सूचकांक 408 और ग्रेटर नोएडा में 417 दर्ज किया गया और पीएम 2.5 और पीएम 10 का औसतन स्तर 400 माइक्रोग्राम/मीटर क्यूब के पार रहा।

उल्लेखनीय है कि 0 और 50 के बीच एक्यूआई को 'अच्छा', 51 और 100 के बीच 'संतोषजनक', 101 और 200 के बीच 'मध्यम', 201 और 300 के बीच 'खराब', 301 और 400 के बीच 'बेहद खराब' और 401 से 500 के बीच 'गंभीर' माना जाता है। विशेषज्ञों के अनुसार, वायु गुवत्ता की गंभीर श्रेणी लोगों के स्वास्थ्य को प्रभावित करती है और मौजूदा बीमारियों से गंभीर रूप से प्रभावित होती है।

सरकारी और निजी ऑफिसों से वाहनों का इस्तेमाल घटाने की सलाह

दिल्ली में वायु की गुणवत्ता के 'गंभीर' स्थिति में पहुंचने के मद्देनजर सीपीसीबी के कार्यबल ने गुरुवार को सरकारी और निजी कार्यालयों तथा अन्य प्रतिष्ठानों को कम से कम 30 प्रतिशत गाड़ियों का इस्तेमाल घटाने का सुझाव दिया है।

केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) के सदस्य सचिव प्रशांत गर्गवा ने एक समीक्षा बैठक में कहा कि वायु की गुणवत्ता के बुधवार को 'बहुत खराब' श्रेणी में रहने के संभावना थी, लेकिन हवा की रफ्तार कम होने से वायु गुणवत्ता 'गंभीर श्रेणी में चली गई।

मौसम विभाग के पर्यावरण अनुसंधान केंद्र के प्रमुख वी.के. सोनी ने कहा कि हवा की गति में अचानक आने वाला बदलाव पूर्वानुमान के मॉडल में दर्ज नहीं हो पाता है। कार्यबल ने सुझाव दिया कि सरकारी और निजी कार्यालयों और अन्य प्रतिष्ठानों को सलाह दी जाती है कि वाहनों का इस्तेमाल कम से कम 30 प्रतिशत घटाएं।

कोरोना

देश में एक बार फिर से 50 हजार से कम नए मामले, एक्टिव केस घटे (Dainik Jagran: 20201106)

https://www.jagran.com/news/national-india-coronavirus-updates-less-than-50-thousand-new-cases-again-active-cases-decreases-in-the-country-21031844.html?itm_source=website&itm_medium=homepage&itm_campaign=p1_component

केंद्रीय स्वास्थ्य मंत्रालय के ताजा आंकड़ों के मुताबिक देश में बीते 24 घंटों में कोरोना के 47638 नए मामले सामने आए हैं। इस दौरान देश में कोरोना से 670 लोगों की मौत हो चुकी है।

नई दिल्ली, एएनआइ। India Coronavirus Updates, देश में कोरोना की स्थिति में लगातार सुधार हो रहा है। भारत में एक बार फिर से कोरोना के 50 हजार से कम नए मामले सामने आए हैं। इसके साथ ही देश में एक्टिव केस लगातार कम हो रहे हैं। भारत में कोरोना से ठीक होने वाले मरीजों की संख्या भी बढ़ रही है। अब तक देश में 92 फीसद से ज्यादा लोग ठीक हो चुके हैं। केंद्रीय स्वास्थ्य मंत्रालय के ताजा आंकड़ों के मुताबिक, देश में बीते 24 घंटों में कोरोना के 47,638 नए मामले सामने आए हैं। इस दौरान देश में कोरोना से 670 लोगों की मौत हो चुकी है।

देश में कोरोना का आंकड़ा 84 लाख के पार चला गया है। स्वास्थ्य मंत्रालय के ताजा आंकड़ों के मुताबिक, देश में कोरोना के अब तक कुल 84 लाख 11 हजार 724 मामले सामने आए हैं। इसमें से 77 लाख 65 हजार 966 लोग कोरोना से ठीक हो चुके हैं। देश में सक्रिय मामलों की संख्या में लगातार गिरावट आ रही है। देश में फिलहाल 5 लाख 20 हजार 773 सक्रिय मामले हैं। भारत में कोरोना से मौतों की संख्या बढ़कर 1 लाख 24 हजार 985 हो गई है।

सक्रिय मामले घटे

भारत में कोरोना के सक्रिय मामलों की संख्या लगातार घट रही है। बीते 24 घंटों में देश में कोरोना के 7,189 एक्टिव केस कम हुए हैं। इससे एक्टिव केस की दर 6.19% है। देश में कोरोना से ठीक होने वाले मरीजों की संख्या बढ़ी है। पिछले 24 घंटों में कोरोना से 54,157 लोग ठीक हुए हैं। इससे रिकवरी दर 92.32% हो गई है। देश में कोरोना की मृत्यु दर 1.49% है।

देश में अब तक साढ़े 11 करोड़ से ज्यादा टेस्ट

देश में अब तक साढ़े 11 करोड़ से ज्यादा सैंपलों की कोरोना जांच की जा चुकी है। भारतीय चिकित्सा अनुसंधान परिषद (Indian Council of Medical Research, ICMR) की तरफ से जारी आंकड़ों के मुताबिक, देश में गुरुवार तक 11,54,29,095 सैंपलों की जांच हो चुकी है, जिनमें से 12,20,711 टेस्ट कल किए गए हैं।

प्रदूषण व बाजारों में नियमों की अवहेलना के चलते बढ़ा कोरोना संक्रमण का खतरा (Dainik Jagran: 20201106)

https://www.jagran.com/delhi/new-delhi-city-pollution-and-disregard-of-regulations-in-the-markets-increase-the-risk-of-corona-infection-jagran-special-21028651.html

आमतौर पर प्रदूषण स्तर बढ़ने के कारण अस्पताल में अस्थमा के मरीजों की संख्या बढ़ जाती है पर चिकित्सकों की माने इस बार कोरोना संक्रमण के डर के कारण लोग घर पर रहकर ही अपना इलाज करने पर अधिक जोर दे रहे है।

नई दिल्ली, मनीषा गर्ग। प्रदूषण स्तर बढ़ने के कारण अस्थमा के मरीजों के साथ-साथ कोरोना संक्रमितों और कोरोना संक्रमण से स्वस्थ हो चुके दोनों ही तरह के मरीजों की भी परेशानी काफी बढ़ गई है। दूसरी तरफ बाजारों में नियमों की अवहेलना व बढ़े प्रदूषण स्तर के कारण कोरोना संक्रमितों की संख्या में एकाएक काफी उछाल दर्ज किया जा रहा है। आलम यह है कि कोरोना संक्रमितों की संख्या में हुई बढ़ते के कारण क्षेत्र के सरकारी अस्पतालों की ओपीडी में आने वाले मरीजों की संख्या कम हो गई है।

आमतौर पर प्रदूषण स्तर बढ़ने के कारण अस्पताल में अस्थमा के मरीजों की संख्या बढ़ जाती है, पर चिकित्सकों की माने इस बार कोरोना संक्रमण के डर के कारण लोग घर पर रहकर ही अपना इलाज करने पर अधिक जोर दे रहे है। इसका सबसे बड़ा कारण ये है कि ओपीडी में इलाज से पूर्व कोरोना जांच जरूरी है, रिपोर्ट पॉजीटिव आने के डर से लोग घर पर ही रहना उचित समझ रहे हैं। घर में ही अधिकांश लोगों ने पल्स ऑक्सीमीटर व नेबुलाइजर की व्यवस्था कर ली है।

द्वारका सेक्टर-6 स्थित मनीपाल अस्पताल में श्वसन रोग विशेषज्ञ डॉ. पुनीत खन्ना बताते हैं कोरोना संक्रमण से जूझ रहे या ठीक हो चुके लोगों के फेफड़े पहले ही काफी कमजाेर होते हैं, जिसके कारण उन्हें सांस फूलने की समस्या से जूझना पड़ रहा है। प्रदूषण के कारण फेफड़ों को और नुकसान पहुंचता है, जिसके कारण फेफड़ों की कार्यक्षमता प्रभावित हो जाती है।

इसका पहला लक्षण है मरीजों को सांस लेने में काफी तकलीफ होने लगती है और ऑक्सीजन की मांग बढ़ जाती है। असल में धूल व प्रदूषण के संपर्क में आने से फेफड़े जकड़ जाते हैं। फेफड़ों की नसेंं प्रभावित होती है, जिसके कारण सांस लेने में तकलीफ होने लगती है। इस कारण शरीर को उचित मात्रा में ऑक्सीजन नहीं मिल पाता है और शरीर में कार्बन डाईऑक्साइड की मात्रा बढ़ने लगती है। ऐसी स्थिति में व्यक्ति को हार्ट अटैक पड़ सकता है। दमे के मरीज समय-समय पर इनहेलर लेते रहें। विशेषकर रात के समय परेशानी कई गुना बढ़ जाती है। बलगम वाली खांसी और छींक इसके प्रमुख लक्षण है। मधुमेह व उच्च रक्तचाप की समस्या से जूझ रहे मरीजों के लिए भी प्रदूषण परेशानियों को बढ़ा देता है।

अभी कुछ दिन मौसम साफ ही रहेगा।

डॉ. पुनीत खन्ना बताते हैं कि ऐसे लोग जो चार घंटे से अधिक समय तक बाहर रहते हैं, उनके लिए प्रदूषण ज्यादा अधिक खतरनाक है। विशेषकर यातायात पुलिस, सिविल डिफेंस वॉलेंटियर, रेहड़ी-पटरी वाले, मजदूरों को विशेष सतर्कता बरतने की जरूरत है। काेरोना संक्रमण के डर से अधिकांश लोग कपड़े वाला मास्क का प्रयोग करते हैं, लेकिन ये प्रदूषण से बचाव में ज्यादा मददगार नहीं है। ऐसे में जरूरी है कि जो लोग चार घंटे से अधिक समय तक घर के बाहर रहते हैं वे एन-95 मास्क का प्रयोग करें। दूसरा घर में लोग खिड़कियों को बंद रखें। कार चालक भी खिड़कियों काे खोलकर कार चलाने से बचें। लोग कोशिश करें कि ज्यादा समय तक बाहर न रहें।

The Covid-19 pandemic has made dealing with cancer much harder (The Indian Express: 20201106)

https://indianexpress.com/article/opinion/columns/covid-19-pandemic-cancer-6967017/

Healthcare providers must note that the present diversion of healthcare facilities and resources to COVID-19 has increased anxiety and confusion among people with cancer.

There is no stopping the rampage of the emperor of all maladies despite the presence of a new deadly disease.

Ever since the outbreak of the COVID-19 pandemic, dealing with cancer has got much harder. Visiting a hospital is fraught with consequences if you have cancer. Not only have treatments been interrupted, operations postponed, but cancer screening programmes, so vital for picking up cancer early in order to save lives, have ground to a halt. Those on clinical trials, which are often the last resort for those with advanced and recurrent cancers, have also found themselves abandoned midstream.

The fear generated by the novel coronavirus has been so extreme, that even now, when people with cancer or those who are suspected to have cancer are invited back, many are reluctant to go. This is because of low immunity, often aggravated by treatments, as well as existing co-morbidities since cancer, by and large, is a disease of older people. They would rather remain at a safe distance from their health providers.

The only one undeterred is cancer itself. There is no stopping the rampage of the emperor of all maladies despite the presence of a new deadly disease. According to the Cancer Atlas, in 2018, there were approximately 43.8 million cancer survivors diagnosed within the previous five years, the highest number recorded so far. Cancer survivorship owes its rising numbers largely to advances in early detection and treatment. Awareness also matters. Being aware of your risk, because you consume tobacco or liquor regularly, or are exposed to cancer-causing chemicals at home or your workplace, or because a number of people in your family have had the same type of cancer, can also arm you against cancer.

Unfortunately, the majority of people who come for treatment to a cancer centre in India come with advanced disease. The figure is nearly 70 per cent. What follows thereafter, for many, is a journey of escalating suffering as the side-effects of toxic treatments take their toll.

Cancer continues to be framed in the language of combat. It is described as a fight to the finish against a ruthless enemy. Those who have it are urged, like good soldiers, to keep on fighting bravely till the end. Oncologists come armed with an arsenal intended to shock and awe — surgery, radiotherapy and chemotherapy. If that doesn't work, there are smart bombs (targeted therapies) waiting to be deployed. Those who finally emerge are not called survivors for nothing.

Almost three decades ago, the American sociologist Susan Sontag had alluded to the effect this has on the way cancer patients are regarded and treated. While it leads oncologists to prescribe more rounds of toxic and expensive treatments of limited value, it also leads patients to take decisions against their self-interest. No one wants to let the side down or leave the battlefield feeling vanquished.

Consequently, opting for palliative care, which focuses on ameliorating the suffering associated with the physical, psycho-social and spiritual aspects of a life-limiting illness like cancer is seen as throwing in the towel. Nothing could be farther from the truth. Palliative care seeks to hand back control to patients so that they can make choices based on their own values and preferences and their right to continue to live with dignity. We cannot justify taking all this away from people in the name of destroying "that last cell".

To reduce the human toll of the disease — mental, physical, as well as financial — we must find ways to prevent cancer, screen those at heightened risk and mitigate the adverse effects of treatment by making palliative care a part of cancer treatments from the beginning. It must find mention in public health policy and be integrated into clinical care from the primary health care level upwards.

Healthcare providers must also note that the present diversion of healthcare facilities and resources to COVID-19 has increased anxiety and confusion among people with cancer. Now, more than ever, they need individualised care and reassurance that they are not forgotten. This may well be an opportunity to also be more truthful in the way we communicate news about cancer. To accept that while the final outcome may not be in our hands, planning for a life with cancer that allows us to live and die on our terms is possible and desirable.

Smaller cough droplets may travel over 6 metres: study (The Hindu: 20201106)

https://www.thehindu.com/sci-tech/science/smaller-cough-droplets-may-travel-over-6-metres-study/article33021701.ece?homepage=true

These findings are also greatly dependent on the environmental conditions, such as wind speed, humidity levels, and ambient air temperature

Scientists have analysed the dispersion of coughs using air flow simulation and found that some smaller droplets, which are easily carried by the wind, travel up to 6.6 metres and even further under dry air conditions.

The COVID-19 pandemic has led many researchers to study airborne droplet transmission in different conditions and environments.

Scientists from A-STAR's Institute of High Performance Computing in Singapore conducted a numerical study on droplet dispersion using high fidelity air flow simulation.

The research, published in the journal Physics of Fluids, found that a single 100-micrometre cough droplet under wind speed of 2 metres per second can travel up to 6.6 metres and even further under dry air conditions due to droplet evaporation.

"In addition to wearing a mask, we found social distancing to be generally effective, as droplet deposition is shown to be reduced on a person who is at least 1 meter from the cough," said study author Fong Yew Leong.

The researchers used computational tools to solve complex mathematical formulations representing air flow and the airborne cough droplets around human bodies at various wind speeds and when impacted by other environmental factors.

They also assessed the deposition profile on a person at a certain proximity. A typical cough emits thousands of droplets across a wide size range. The scientists found large droplets settled on the ground quickly due to gravity but could be projected 1 metre by the cough jet even without wind.

Medium-sized droplets could evaporate into smaller droplets, which are lighter and more easily borne by the wind, and these travelled further, they said.

The researchers offer a more detailed picture of droplet dispersion as they incorporated the biological considerations of the virus, such as the non-volatile content in droplet evaporation, into the modelling of the airborne dispersion of droplets.

"An evaporating droplet retains the non-volatile viral content, so the viral loading is effectively increased," said study author Hongying Li. "This means that evaporated droplets that become aerosols are more susceptible to be inhaled deep into the lung, which causes infection lower down the respiratory tract, than larger unevaporated droplets."

These findings are also greatly dependent on the environmental conditions, such as wind speed, humidity levels, and ambient air temperature, and based on assumptions made from existing scientific literature on the viability of the COVID-19 virus, the researchers said.

The findings could be applied to designing environments that optimise comfort and safety, such as hospital rooms that account for indoor airflow and airborne pathogen transmission.

Diwali, winter can lead to second Covid surge in region (The Tribune: 20201106)

https://www.tribuneindia.com/news/coronavirus/diwali-winter-can-lead-to-second-covid-surge-in-region-166252

A majority of population here still remains susceptible to Covid-19 exposure, and the Diwali festival and winter could push up transmission, leading to a second surge in the region.

According to experts, the two reasons that will contribute to the second surge of Covid cases in winter will be gatherings of people in the lower-income group and the tendency of a virus to survive for a longer period in a colder climate.

Besides, the Diwali festival can work in favour of the second surge, as air pollution caused by crackers will help aerosols of the virus produced by an infected person to remain afloat in the air for longer than 10-20 minutes, resulting in increased transmission of Covid-19.

"The burning of firecrackers releases gaseous pollutants SO2, NO2 and huge amounts of ambient particulate into the atmosphere that generate dense clouds of smoke. These air pollutants stimulate the ACE-2 receptors on respiratory nasal cells, thus increasing permeability of the SARS-COV-2 virus to easily enter these cells and establish infection in the nose, throat and lungs," said the UT Director of Health Services, Dr Amandeep Kaur Kang.

'25 per cent residents may have been infected'

Dr Rajesh Kumar, former Head of School of Public Health and Community Medicine, PGI, says around 2.5 lakh to 3.5 lakh people in Chandigarh may have been infected, which comprises 25-35 per cent population. The estimation is based on the hypothesis that for every Covid positive case, there will be 20-30 undetected cases.

"Since this virus is novel, not many people have antibodies against it and still, a vast majority of the population is susceptible to the exposure. The virus does not have a free run when at least 60 per cent of the population has been infected, which, in turn, acts as a barrier for transmission. At the onset of winter, people belonging to the lower-income group tend to stay indoors in public spaces with less ventilation. A virus once introduced may remain for a longer period of time and circulate among a large number of people. There is no definite trend for the Covid-19 virus but most flu viruses tend to survive longer in cooler climate," said Dr Kumar.

Need to overcome mobility, mask fatigue

Dr Rajesh Kumar, former Head of School of Public Health and Community Medicine, PGI, said: "If barriers of transmission such as the use of mask are adopted by people without any

fatigue, the second surge may not be of a greater degree than the first one. The more people will mix with each other, the more will the virus spread."

UT's appeal to residents

Dr Amandeep Kaur Kang, Director of Health Services, UT, says: "People should stay indoors and desist from bursting firecrackers this Diwali so that we can protect elderly persons and patients with co-morbidities. If we add smoke to the air by bursting firecrackers, then it could turn out to be a recipe for disaster. Even those who have recovered from the Covid-19 virus will become vulnerable if we do not restrain ourselves during Diwali."

अस्थमा

प्रदूषण भरे माहौल से अस्थमा के मरीज रहें खास सावधान, बचाव एवं उपचार के लिए अपनाएं ये तौर-तरीके (Dainik Jagran: 20201106)

https://www.jagran.com/lifestyle/health-be-careful-of-asthma-patients-due-to-pollution-filled-environment-adopt-these-methods-for-careful-prevention-and-treatment-21031742.html

अस्थमा की मरीज इनहेलर का इस्तेमाल करती हुई

अस्थमा श्वसन तंत्र से जुड़ी ऐसी समस्या है जिसकी वजह से सांस की नलियों में सूजन आ जाती है जिससे वे सिकुड़ कर संकरी हो जाती है और व्यक्ति को सांस लेने में कठिनाई होती है। जानेंगे इसके बचाव और उपचार के तरीके।

शरीर को स्वस्थ बनाए रखने के लिए यह बहुत जरूरी है कि फेफड़े सही ढंग से काम करते रहें। क्योंकि फेफड़े हमारे शरीर में फिल्टर का काम करते हैं। बदलते मौसम में लोगों को श्वसन तंत्र से संबंधित कई समस्याएं परेशान करने लगती हैं जिसमें से एक है अस्थमा। तो जानते हैं इस समस्या के बारे में, साथ ही इसके कारण, लक्षण, बचाव व उपचार के बारे में...

अस्थमा से रहें एलर्ट

यह श्वसन तंत्र से जुड़ी ऐसी समस्या है जिसकी वजह से सांस की नलियों में सूजन आ जाती है, जिससे वे सिकुड़ कर संकरी हो जाती है और व्यक्ति को सांस लेने में कठिनाई होती है। वैसे तो किसी को भी एस्थमा हो सकता है, लेकिन ज्यादातर बच्चों और बुजुर्गों में इसके लक्षण नज़र आते हैं क्योंकि उनकी रोग-प्रतिरोधक क्षमता कमजोरी होती है।

कारण

चूंकि यह एक तरह की एलर्जी है इसलिए धूलकण, धुआं, फूलों के पराण-कण, किसी तरह की तेज गंध जैसे परफ्यूम, अगरबत्ती, मसालों की छौंक आदि की वजह से ऐसी समस्या हो सकती है। पालतू पशुओं घर पर लगाए जाने वाले पेंट आदि से भी यह समस्या बढ़ जाती है।

लक्षण

खांसी, सांस लेने में तकलीफ, घुटन, बेचैनी, अनिद्रा, भोजन में अरुचि, आदि इसके प्रमुख लक्षण हैं। रात के समय अकसर यह समस्या बढ़ जाती है क्योंकि वातावरण में ऑक्सीज़न का लेवल कम हो जाता है और लेटने पर फेफड़ों तक सही ढंग से ऑक्सीजन नहीं पहुंच पाता, इसलिए सांस लेने में तकलीफ़ बढ़ जाती है।

बचाव एवं उपचार

- अपने घर को हमेशा साफ-सुथरा रखें।

- किचन में चिमनी या एग्जॉस्ट फैन की व्यवस्था होनी चाहिए।

- प्रदूषण इसकी सबसे बड़ी वजह है, इसलिए घर से बाहर निकलते समय मास्क पहनना न भूलें।

- जंक फूड में मौजूद प्रिजर्वेटिव्स एस्थमा की एलर्जी को बढ़ा देते हैं, इसलिए ऐसी चीज़ों से दूर रहें।

- बदलते मौसम में बच्चों और बुजुर्गों का विशेष रूप से ध्यान रखें।

- उन वस्तुओं से दूर रहें, जो एस्थमा की एलर्जी को बढ़ा देती हैं।

6-पैक एब्स की है चाहत तो आज से ही शुरू करें ये 3 वर्कआउट्स

- जब भी कोई लक्षण दिखाई दे तो डॉक्टर से सलाह लें और सभी निर्देशों का पालन करें।

- आमतौर पर दवाओं से इस समस्या को नियंत्रित किया जा सकता है।

- बच्चों में एस्थमा के लक्षण कुछ सालों बाद अपने आप दूर हो जाते हैं क्योंकि उम्र के साथ बच्चों की इम्यूनिटी भी बढ़ती है, जिससे उनका शरीर इस बीमारी से लड़ने में सक्षम हो जाता है।

- इनहेलर का इस्तेमाल ज्यादा असरकारी होता है क्योंकि इससे दवा सीधे लंग्स तक पहुंचती है।

स्ट्रेच मार्क्स को लेंस से हाइलाइट करते हुए

इन नेचुरल तरीकों से कुछ ही हफ्तों में पाएं जिद्दी स्ट्रेच मार्क्स से छुटकारा

यह भी पढ़ें

- गंभीर रूप से पीड़ित लोगों को हमेशा अपने साथ दवा और इनहेलर रखने की सलाह दी जाती है।

Mouth Cancer

Artificial intelligence helps better predict mouth cancer risk (The Hindu: 20201106)

https://www.thehindu.com/sci-tech/health/artificial-intelligence-helps-better-predict-mouth-cancer-risk/article33028342.ece?homepage=true

Oral cancer is often detected late which means that the patient survival rates are poor.

Artificial intelligence (AI) may help doctors better predict the risk of patients developing oral cancer by ensuring accuracy, consistency and objectivity, according to researchers from the University of Sheffield in the U.K.

The researchers are examining the use of AI and machine learning — the study of computer algorithms that improve automatically through experience — to assist pathologists and improve the early detection of oral cancer.

The rate of people being diagnosed with oral cancers including mouth, tongue, tonsil and oropharyngeal cancer, has increased by almost 60% in the last 10 years, the researchers said in a statement.

Evidence suggests tobacco and alcohol consumption, viruses, old age as well as not eating enough fruit and vegetables can increase the risk of developing the disease, they said.

Oral cancer is often detected late which means that the patient survival rates are poor.

Currently, doctors must predict the likelihood of pre-cancerous changes, known as oral epithelial dysplasia (OED), developing into cancer by assessing a patient's biopsy on 15 different criteria to establish a score. This score then determines whether action is needed and what treatment pathway should be taken. However, this score is subjective, which means there are often huge variations in how patients with similar biopsy results are treated.

For example, one patient may be advised to undergo surgery and intensive treatment, while another patient may be monitored for further changes.

The precise grading of OED is a huge diagnostic challenge, even for experienced pathologists, as it is so subjective, said Dr. Ali Khurram, Senior Clinical Lecturer at the University of Sheffield's School of Clinical Dentistry.

"At the moment, a biopsy may be graded differently by different pathologists. The same pathologist may even grade the same biopsy differently on a different day, Khurram noted. He said correct grading is vital in early oral cancer detection to inform treatment decisions, enabling a surgeon to determine whether a lesion should be monitored or surgically removed.

"Machine learning and AI can aid tissue diagnostics by removing subjectivity, using automation and quantification to guide diagnosis and treatment," Khurram said. "Until now this hasn't been investigated, but AI has the potential to revolutionise oral cancer diagnosis and management by ensuring accuracy, consistency and objectivity."

Samples of archived OED tissue samples with at least five years of follow up data will be used in order to train AI algorithms and learn the statistical correlations between certain classifiers and survival rates. These algorithms will aid pathologists in their assessment of biopsies helping them to make a more informed and unbiased decision about the grading of the cells and the patient's treatment pathway.

The proposed algorithms have a strong translational angle and a potential to be rapidly deployed as an aid to clinical and diagnostic practice worldwide.

"People often feel threatened by AI, however rather than replacing a doctor's expertise, exceptionally high-level of training and experience, the technology can help to assist their decision-making and compliment their skills," said Khurram. "This will help them to give a more accurate assessment and enable them to recommend the most beneficial treatment pathway for individual patients which we hope will help to improve survival rates."

According to Professor Nasir Rajpoot, from the University of Warwick in the U.K., the pilot project will pave the way towards the development of a tool that can help identify pre-malignant changes in oral dysplasia, which is crucial for the early detection of oral cancer.

"Successful completion of this project carries significant potential for saving lives and improving patient healthcare provision, said Rajpoot, one of the researchers.

Alzheimer's disease

Could hard physical labor increase dementia risk? (Medical News Today: 20201106)

https://www.medicalnewstoday.com/articles/could-hard-physical-labor-increase-dementia-risk#Strengths-and-weaknesses

The rate of dementia in men who once had jobs that involved tough physical work is almost one and a half times greater than in those whose work was sedentary, a study has found.

Dementia affects memory, thinking, behavior, and the ability to perform everyday activities.

According to the World Health Organization (WHO), around 50 million people worldwide are living with dementia, and the estimates suggest that the number will triple by 2050.

There is some evidence that physical exercise during leisure time, such as working out, cycling, jogging, and competitive sports, may protect against dementia in later life.

However, the latest research suggests that hard physical labor, such as construction work or house removals, has the opposite effect.

The explanation may lie in the different physiological effects of the two kinds of physical activity.

The scientists, led by the University of Copenhagen in Denmark, say physically demanding work often involves standing for long periods, maintaining "static" postures, lifting heavy objects, and working in repetitive or physically awkward conditions.

This kind of work may involve almost continuous exertion — for example, moving heavy loads or wielding power tools — with insufficient time between bouts for the body to recover.

By contrast, physical exercise during leisure time is often of high intensity but short duration, with plenty of recovery time. It also tends to involve more "dynamic" postures, like those involved in competitive sports, such as squash or basketball.

Cardiovascular fitness

There is ample evidence that recreational exercise improves cardiovascular fitness and reduces inflammation around the body, the scientists write. By improving blood flow to the brain, boosting nerve growth, and preserving the hippocampus — the brain region where memories are encoded — this may help stave off dementia.

Sustained and repetitive physical labor, on the other hand, may impair cardiovascular fitness and increase inflammation. Previous research has found an association between high levels of physical labor and a higher risk of cardiovascular disease and mortality.

For people whose work involves a lot of physical exertion, poor cardiovascular function may also increase the likelihood that they will develop dementia.

“[This] is something other studies have tried to prove, but ours is the first to connect the two things convincingly,” says Kirsten Nabe-Nielsen, who led the research in collaboration with Denmark’s National Research Centre for the Working Environment and Bispebjerg and Frederiksberg Hospital in Copenhagen.

In public health advice on preventing dementia, agencies such as the WHO recommend physical activity without differentiating between the different types, says Nabe-Nielsen.

“But our study suggests that it must be a ‘good’ form of physical activity, which hard physical work is not,” she says. “Guides from the health authorities should therefore differentiate between physical activity in your spare time and physical activity at work, as there is reason to believe that the two forms of physical activity have opposite effects.”

The research has been published in the Scandinavian Journal of Medicine & Science in Sports.

Copenhagen Male Study

For their analysis, the scientists drew upon data from the Copenhagen Male Study. This was a longitudinal study that began in 1970-71 and in which male employees of 14 large public and private companies filled out questionnaires about their work and lifestyle.

The participants were 40–59 years old at the start of the study. A total of 4,721 men were each followed up from when they turned 60 years of age until 2016.

The researchers used national registers to identify a total of 697 cases of dementia among the participants in the course of the study.

For their analysis, the researchers took into account other factors that could contribute to the risk of dementia, such as the participants’ age, socioeconomic status, marital status, and psychological stress. They also made adjustments for whether the participants smoked, how much alcohol they drank, and what their body mass index and blood pressure were.

Even after accounting for these factors, by the end of the study, the participants who reported high levels of physical labor had almost 1.5 times the rate of dementia than people who said their work was sedentary.

Strengths and weaknesses

The authors note that one of the strengths of their study was its very long follow-up period. This is important, because pathological changes associated with dementia can start decades before the condition becomes apparent.

They also note several limitations. In particular, the amount of physical activity at work was reported only at one point in time, so the scientists' analysis could not account for any changes in occupation either before or during the course of the study.

In addition, their analysis relied upon the dementia diagnoses given on death certificates. They write that even today Danish registers substantially underreport dementia.

This tendency to underreport dementia may have biased the results if it was more likely to occur in one study group than the other.

The lack of female participants is another major limitation. Physical labor and recreational exercise may not affect the sexes equally.

Diet/ Nutrition

How is red meat linked to cancer? (Medical News Today: 20201106)

https://www.medicalnewstoday.com/articles/how-is-red-meat-linked-to-cancer#Diet-and-Neu5Gc

Over the years, scientists have demonstrated an association between red and processed meats and cancer. However, they are still unpicking the mechanisms that drive this relationship.

The authors of a recent study, which appears in BMC Medicine, argue that at least part of the answer might lie in an immune interaction.

Nutrition and dietary habits play pivotal roles in a wide range of health conditions, including type 2 diabetes, obesity, cancer, hypertension, and cardiovascular disease.

Red meats and processed meats have each received a fair amount of attention in this regard. Both have been implicated in cancer risk, but how they exert their influence is up for debate. As the authors of the latest study explain:

"Although various mechanistic explanations have been proposed, [such as a] high energy/fat diet, N-nitroso, nitrates, nitrites, heme iron, [and] compounds produced by gut microbiome or during cooking, none seems to be specific to red meat or dairy."

A role for antibodies?

The authors point to tentative evidence that N-glycolylneuraminic acid (Neu5Gc) might be a risk factor for colorectal cancer.

Neu5Gc is a carbohydrate, or sugar, present in foods derived from mammals, and it is abundant in red meat and dairy. It occurs at low levels in some fish but is absent from poultry.

Humans cannot synthesize Neu5Gc, but when we consume it, small amounts accumulate on cell surfaces. When immune cells encounter this nonhuman material, it triggers the production of anti-Neu5Gc antibodies. Studies have shown that humans have a wide range of these antibodies.

Scientists have also found evidence that long-term exposure to these antibodies promotes inflammation and cancer in animal models. However, they have yet to identify any clear effect of eating mammalian products on levels of these antibodies.

As these anti-Neu5Gc antibodies travel around the body, they bump into Neu5Gc on cell surfaces, sparking inflammation. Experts believe that this, in turn, exacerbates cancer, because cancer cells tend to have higher levels of Neu5Gc on their surfaces.

In one study, researchers demonstrated an association between levels of circulating Neu5Gc antibodies and colorectal cancer risk. However, the level of antibodies was not associated with red meat intake.

Now, the latest study has set out to unpick the relationship between a person's diet and their levels of Neu5Gc once and for all.

Diet and Neu5Gc

In the study, a group of scientists — most from Tel Aviv University, in Israel, or the Sorbonne Paris Cité Epidemiology and Statistics Research Center, in Bobigny, France — took data from the NutriNet-Santé survey. This extensive survey conducted in France aims to investigate the complex relationships between nutrition and health.

The authors of the present study took data from 16,149 adults, all of whom had registered a minimum of six dietary records.

Meanwhile, the researchers calculated the amount of Neu5Gc in a wide range of common foods. Using this data, they constructed what they refer to as the "Gcemic index," which ranks food according to levels of Neu5Gc —specifically, the Neu5Gc content in each food relative to the amount measured in beef.

Next, the researchers analyzed blood samples from 120 participants with at least eighteen 24-hour dietary records; they noted the levels of anti-Neu5Gc antibodies in the serum.

"We found a significant correlation between high consumption of Neu5Gc from red meat and cheeses and increased development of those antibodies that heighten the risk of cancer," explains corresponding author Dr. Veder Padler-Karavani, of Tel Aviv University.

“For years, there have been efforts to find such a connection, but no one did. Here, for the first time, we were able to find a molecular link thanks to the accuracy of the methods used to measure the antibodies in the blood and the detailed data from the French diet questionnaires.”

Now, combining earlier knowledge and the data provided by the new study, the theory becomes more solid: Consuming mammal products, such as red meat and dairy increases the amount of Neu5Gc on cell surfaces. In turn, this increases the level of circulating anti-Neu5Gc antibodies.

With an increase in these antibodies comes an increase in inflammation, which might raise the risk of exacerbating certain medical conditions, such as cancer.

It is worth noting that the immune response described above is unlikely to be the only link between red meat and cancer.

The authors also mention other factors, including the high fat content in meat and mutagens — chemical compounds that cause irreversible changes in cellular genetic material — such as heterocyclic amine, which is produced when meat is cooked at high temperatures.

In the future, the researchers hope that their Gcemic index will become a tool to assess the amount of Neu5Gc in a person’s diet. This might help design personalized recommendations for at-risk individuals.