



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Wednesday 20190904

एक्सरसाइज़

बस कुछ मिनट की एक्सरसाइज़ से पाएं फिट बॉडी के साथ कई तरह की बीमारियों से भी छुटकारा
(Dainik Jagran: 20190904)

<https://www.jagran.com/lifestyle/health-exercise-keeps-you-fit-and-good-health-19546324.html>

घर-परिवार और ऑफिस के बीच बैलेंस करते हुए खुद के लिए मुश्किल से ही वक्त निकाल पाती हैं लेडीज़। ऐसे में सही सेहत के साथ बेहतर नींद के लिए एक्सरसाइज़ है बहुत जरूरी।

दिनचर्या में एक नियमित वर्कआउट प्लान को फॉलो करना आपको लाइफस्टाइल से जुड़ी कई तरह की समस्याएं जैसे डायबिटीज, हाइपरटेंशन, दिल की बीमारियों आदि से बचाकर रखता है। रोजाना किया गया वर्कआउट आपके स्टेमिना और क्षमता को नियमित तौर पर बढ़ाता है। तो वहीं यह ऊर्जा के स्तर को बढ़ाकर आपको और भी क्रियाशील बना देता है।

घटाएं वजन आसानी से

वजन कम करने और इसे कंट्रोल करने के लिए एक्सरसाइज़ सबसे बेस्ट होता है। लगातार फिजिकल एक्टिविटी मेटाबॉलिज्म को तो बढ़ाती ही है साथ ही तेजी से कैलोरी बर्न करने में भी सहायक होती है।

कम करे पीएमएस की तकलीफ

तमाम शोध बताते हैं कि रोजाना एक्सरसाइज की आदत महिलाओं में पीएमएस व मासिक धर्म से जुड़ी समस्याओं को कम करने में काफी लाभदायी साबित होती है।

मानसिक सेहत में लाए सुधार

शारीरिक के साथ ही मानसिक सेहत को बरकरार रखने में नियमित एक्सरसाइज खूब मददगार होती है। दरअसल, नियमित एक्सरसाइज करने से शरीर में एंडोमॉर्फिन नामक हार्मोन रिलीज होता है। दिमाग को बेहतर महसूस करवाने वाला यह हार्मोन महिलाओं की मानसिक सेहत को दुरुस्त रखने में सहायक होता है।

इन फायदों को हासिल करने के लिए आप कार्डियो, योग, मेडिटेशन, जंपिंग, स्ट्रेचिंग जैसी सरल मगर लाभदायी एक्सरसाइज दिनचर्या में शामिल कर सकती हैं। हालांकि इस बात का भी ध्यान रखें कि एक्सरसाइज करने के दौरान आप पर्याप्त मात्रा में हाइड्रेट रहें। सप्ताह में एक-दो दिन के लिए वर्कआउट से शरीर को रेस्ट भी दें। हर वर्कआउट के बाद हल्की एक्सरसाइज भी करें ताकि किसी तरह की इंजरी से बचा जा सके। वर्कआउट के बारे में अपने डॉक्टर से संपर्क जरूर करें, जिससे आप अपनी सेहत से जुड़ी सुरक्षित एक्सरसाइज ही दिनचर्या में शामिल कर सकें।

एक्सडीआर टीबी

XDR Tuberculosis: क्यों है सबसे घातक और कैसे इसकी चपेट में आते हैं लोग (Dainik Jagran: 20190904)

<https://www.jagran.com/news/national-extensively-drug-resistant-tb-xdr-tb-is-a-rare-type-of-multidrug-resistant-tuberculosis-jagran-special-19543322.html>

WHO की रिपोर्ट के अनुसार एक्सडीआर टीबी के मामले अन्य टीबी की अपेक्षा कम होते हैं लेकिन 2017 तक 117 देशों में एक्सडीआर टीबी के 10800 मामले सामने आए हैं।

नई दिल्ली [जागरण स्पेशल]। 'मल्टी ड्रग रजिस्टेंट टीबी' (एमडीआर टीबी) के सबसे विकराल रूप को एक्सटेंसिवली ड्रग रजिस्टेंट टीबी (एक्सडीआर टीबी) के नाम से जाना जाता है। यह टीबी बड़े पैमाने पर

दवा प्रतिरोधी होती है। ज्यादातर दवाओं का इस पर कोई असर नहीं होता है। टीबी का यह स्तर मरीजों के लिए बहुत ही खतरनाक होता है। इस स्तर पर ज्यादातर टीबी रोधी दवाएं अपना असर नहीं दिखा पाती हैं। दुनियाभर में कई लोग इसकी वजह से अपनी जान गंवा देते हैं। हाल ही में एक बड़ी खोज करते हुए अमेरिकी खाद्य और औषधि प्रशासन ने एक्सडीआर टीबी के लिए तीन दवाओं का कोर्स तैयार किया है।

इसके इलाज के लिए अमेरिका में हाल ही में नई दवाओं का परीक्षण किया गया है। इस परीक्षण में एक्सडीआर टीबी के 109 मरीजों को शामिल किया गया और पाया गया कि नई दवाओं से उनमें से 90 प्रतिशत का इलाज सफल हुआ। विश्व स्वास्थ्य संगठन (डब्ल्यूएचओ) की रिपोर्ट के अनुसार एक्सडीआर टीबी के मामले अन्य टीबी की अपेक्षा कम होते हैं, लेकिन 2017 तक 117 देशों में एक्सडीआर टीबी के 10,800 मामले सामने आए हैं। इसमें भारत में ही 2,650 मामले हैं, जो कुल मामलों के लगभग एक चौथाई हैं।

डब्ल्यूएचओ के अनुसार एक्सडीआर टीबी के दो तिहाई मामले भारत, चीन और रूस में हैं। इन देशों में अन्य प्रकार की टीबी जैसे- एमडीआर/आरआर टीबी के मामले भी दुनियाभर के मामलों का 47 फीसद तक होते हैं। वैश्विक स्तर पर एक्सडीआर टीबी के इलाज में सफलता की दर मात्र 34 फीसद है। यानी इस बीमारी से ग्रसित दुनियाभर के केवल 34 फीसद मामलों में मरीज सही हो पाता है।

क्या है टीबी

टीबी यानी ट्यूबरकलोसिस को कई नामों से जाना जाता है जैसे इस क्षय रोग, तपेदिक, राजयक्ष्मा, दण्डाणु इत्यादि नामों से भी जाना जाता है। टीबी एक संक्रामक बीमारी है और इससे ग्रसित व्यक्ति में शारीरिक कमजोरी आ जाती है और इसके साथ ही उसे कई गंभीर बीमारियां होने का भी खतरा रहता है। टीबी सिर्फ फेफड़ों का ही रोग नहीं है, बल्कि शरीर के अन्य हिस्सों को भी यह प्रभावित करता है।

कैसे हो जाता है एक्सडीआर टीबी

एक्सडीआर टीबी केवल दो कारणों से पनपता है। इसमें पहला कारण यह है कि जब कोई टीबी का रोगी उपचार करा रहा होता है और वह एंटी टीबी दवाओं का दुरुपयोग करता है तो एक्सडीआर टीबी पनपता है। दूसरा कारण यह है कि जब कोई ऐसे व्यक्ति के संपर्क में आता है जिसे पहले से ही एक्सडीआर टीबी है तो दूसरा व्यक्ति भी संक्रमित हो जाता है। एक्सडीआर टीबी भी अन्य टीबी की तरह ही फैलता है। अक्सर निम्न-मध्यम आय वाले देशों में बुनियादी स्वास्थ्य सुविधाओं की कमी से एक्सडीआर टीबी का पता नहीं चल पाता है।

एड्स से ज्यादा घातक

दुनियाभर में एचआइवी-एड्स से ज्यादा लोग टीबी की वजह से जान गंवाते हैं। 2017 में दुनियाभर में करीब 13 लाख लोगों ने इस बीमारी की वजह से अपनी जान गंवाई है।

टीबी के लक्षण

भूख न लगना, कम लगना और वजन अचानक कम हो जाना।

बेचैनी एवं सुस्ती छाई रहना, सीने में दर्द का एहसास होना, थकावट रहना व रात में पसीना आना।

हलका बुखार रहना, हारारत रहना।

खांसी आते रहना, खांसी में बलगम आना तथा बलगम में खून आना। कभी-कभी जोर से अचानक खांसी में खून आ जाना।

ये हैं टीबी से बचने के आसान उपाय

दो हफ्तों से अधिक समय तक खांसी रहती है, तो डॉक्टर को दिखाएं और बलगम की जांच करवाएं

बीमार व्यक्ति से दूरी बनाए रखें।

रोगी से मिलने जा रहे हों तो मास्क पहनें।

समय पर खाना खाएं।

आपके आस-पास कोई बहुत देर तक खांस रहा है, तो उससे दूर रहें।

किसी बीमार व्यक्ति से मिलने के बाद अपने हाथों को जरूर धो लें।

पौष्टिक आहार लें जिसमें पर्याप्त मात्रा में विटामिन, मिनरल, कैल्शियम, प्रोटीन और फाइबर हों, क्योंकि पौष्टिक आहार हमारी प्रतिरक्षा प्रणाली को मजबूत बनाता है।

राष्ट्रीय चिकित्सा आयोग के गठन का काम शुरू

अमलीजामा

नई दिल्ली | स्कन्द विवेक धर

बीते संसद सत्र में नेशनल मेडिकल कमीशन विधेयक को पारित कराने के बाद स्वास्थ्य मंत्रालय ने इसे अमलीजामा पहनाने पर काम शुरू कर दिया है।

मंत्रालय ने एनएमसी अधिनियम की उन 12 धाराओं को अलग से अधिसूचित कर दिया है, जिनके माध्यम से एनएमसी का गठन का होना है। इनमें एनएमसी, चार स्वायत्त बोर्ड, नियम और नियमन बनाने संबंधी प्रावधान भी शामिल हैं। केंद्रीय स्वास्थ्य एवं परिवार कल्याण मंत्रालय की ओर से राजपत्रित अधिसूचना में कहा गया है कि एनएमसी अधिनियम की धारा 3, 4, 5, 6, 8, 11, 16, 17, 18, 19, 56 और 57 को दो सितंबर से लागू किया जाता है।

स्वास्थ्य मंत्रालय के एक उच्च पदस्थ अधिकारी ने कहा, हम पूरे एनएमसी अधिनियम को एक साथ अधिसूचित नहीं कर सकते थे। क्योंकि

छह माह में पूरा होगा काम

स्वास्थ्य मंत्रालय के एक अधिकारी ने कहा कि ये सारा काम छह महीने से पहले पूरा करने का लक्ष्य बनाया गया है। काम पूरा होने के बाद शेष अधिनियम को एक साथ लागू कर दिया जाएगा।

ऐसा करने से मेडिकल काउंसिल ऑफ इंडिया भी तत्काल प्रभाव से भंग हो जाती और हमारे पास उसका कोई वैकल्पिक माध्यम नहीं होता। इसलिए उन धाराओं को पहले अधिसूचित किया है, जिसके माध्यम से एनएमसी का गठन होना है।

अधिकारी ने कहा कि मंत्रालय अब सबसे पहले नियम तैयार करेगा और इसके बाद एनएमसी के नियमन निर्धारित किए जाएंगे। इसके बाद एनएमसी, इसकी एडवाइजरी बॉडी, अधिनियम के तहत प्रस्तावित यूजी मेडिकल एजुकेशन बोर्ड, पीजी मेडिकल एजुकेशन बोर्ड, मेडिकल असेसमेंट एंड रेटिंग बोर्ड और एथिक्स एंड मेडिकल रजिस्ट्रेशन बोर्ड का गठन किया जाएगा।

Cancer

Cancer is now the 'leading cause of death' in rich countries (Hindustan Times: 20190904)

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

Paris : Cancer has become the leading cause of death in rich nations, overtaking heart disease, according to the results of two landmark, decade-long global surveys of health trends released Tuesday.

Heart disease remains the leading cause of mortality among middle-aged adults globally, accounting for more than 40% of deaths, the data showed. It was thought to have been responsible for around 17.7 million deaths in 2017.

But in richer countries, cancer now kills more people than heart disease, according to the twin studies published in The Lancet medical journal. “The world is witnessing a new epidemiologic transition among the different categories of non-communicable diseases, with cardiovascular disease no longer the leading cause of death in high-income countries,” said Gilles Deganaï, emeritus professor at Laval University, in Quebec. He said his team’s study showed that cancer was the second most common cause of death globally in 2017, accounting for just over a quarter (26%) of all deaths. Deganaï said that as heart disease rates fell globally, cancer could become the leading cause of death worldwide “within just a few decades”.

The study followed more than 160,000 adults, in high-, middle-, and low-income countries over the course of decade. It determined that people in poorer nations were on average 2.5 times more likely to die from heart disease than those in richer ones.

It conversely found that non-infectious diseases such as cancer and pneumonia were less common in low-income states than in richer ones. A second study, also by researchers in Canada, and looking at data from patients in the same 21 countries, found that so-called “modifiable risk factors” accounted for 70 percent of heart disease cases globally. AFP

Cancer now a bigger killer than heart diseases in rich nations: Study (The Times of India: 20190904)

https://www.business-standard.com/article/current-affairs/cancer-now-a-bigger-killer-than-heart-diseases-in-rich-nations-study-119090300740_1.html

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These included diet, behavioural and socioeconomic factors, they said.

Metabolic risk factors -- high cholesterol, obesity or diabetes -- caused more than 40 percent of all heart disease, and were by far the biggest determinant of disease in richer nations.

But there was also a strong link between heart disease in developing countries and household air pollution, poor diet and low education levels.

"A change in tack is required to alleviate the disproportionately high impact of cardiovascular disease in low- and middle-income countries," said Salim Yusuf, professor of medicine at McMaster University.

"Governments in these countries need to start investing a greater portion of their gross domestic product in preventing and managing non-communicable diseases including cardiovascular disease, rather than focusing largely on infectious diseases." (AFP)

Cardiovascular disease

India faces higher mortality from cardiovascular diseases (The Hindu: 20190904)

<https://www.thehindu.com/sci-tech/health/india-faces-higher-mortality-from-cardiovascular-diseases/article29325522.ece>

Despite lower risk factors, low income countries report higher deaths with indoor pollution emerging as a major threat.

Cardiovascular disease (CVD) continues to be the leading cause of death across the world, but there are significant variations between rich and poor nations. While in high income countries, death from cancer is twice that of CVD, in low income countries, including India, death from cardiac disease was three times that of cancer. Additionally, indoor or household air pollution has been identified as a key cause of CVD, research papers published in the Lancet, on Tuesday, have shown.

The PURE study, which was also presented at the European Society of Cardiology Congress, tracked over 1,62,000 individuals, aged 35-70 years, living in 21 countries across five continents, over about 9.5 years. The mortality was highest in the Low Income Countries (LIC) despite lower risk factors, and lowest in the High Income Countries (HIC).

"The high mortality in poorer countries is not due to a higher burden of risk factors, but likely other factors including lower quality and less health care," said Salim Yusuf, principal

investigator of the study and executive director of Population Health Research Institute (PHRI) of McMaster University and Hamilton Health Sciences, Canada.

“The fact that cancer deaths are now twice as frequent as CVD deaths in HIC indicates a transition in the predominant causes of death in middle age,” he said.

“The study establishes that though risk factors are lower in low income countries, factors such as access to quality health care and lack of insurance have a play, leading to the mortality,” explained V. Mohan, one of the co-authors of the study, and president, Madras Diabetes Research Foundation, Chennai. With better insurance and improving hospital standards, it is possible for LIC to head towards similar outcomes, he said.

The HIC in the study were Canada, Saudi Arabia, Sweden and United Arab Emirates. The middle-income countries (MIC) were Argentina, Brazil, Chile, China, Columbia, Iran, Malaysia, Palestine, Philippines, Poland, Turkey and South Africa. The LIC were Bangladesh, India, Pakistan, Tanzania and Zimbabwe. Dr. Yusuf added that the results are likely to be applicable to other countries with similar economic and social characteristics and health care. Five Indian research institutes also participated in the study.

In another paper, also published in the Lancet on Tuesday, on ‘Modifiable risk factors, cardiovascular disease, and mortality’, researchers established indoor air pollution as an emerging source of risk for cardiovascular disease in LIC and MIC.

“This is a worrisome fact — the identification of indoor air pollution or household pollution as a risk factor for CVD. So far we have looked at upper respiratory diseases as a consequence, but this does not sound good, and we must take measures to modify this particular risk factor,” Dr. Mohan added.

Registered deaths

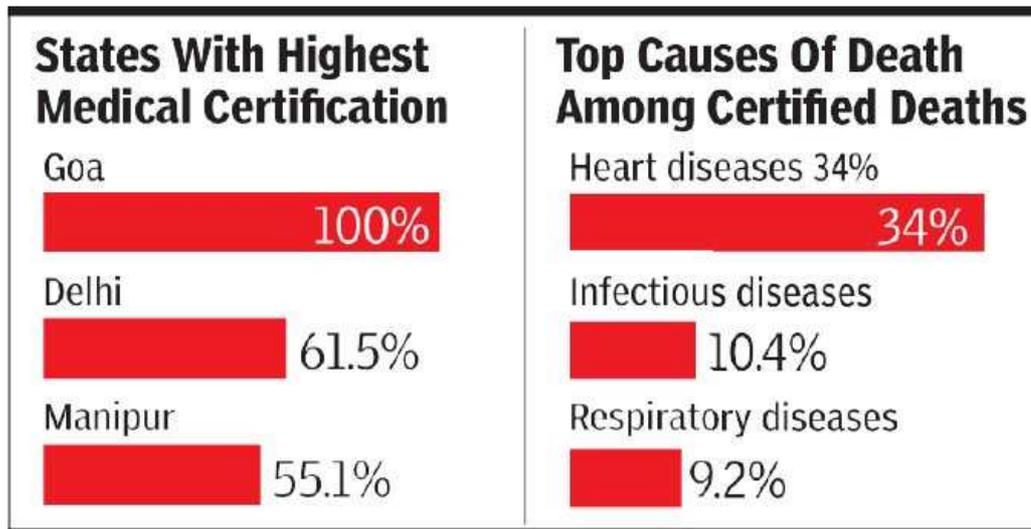
Only 22% deaths in India medically certified; below 10% in some states (The Times of India: 20190904)

<https://timesofindia.indiatimes.com/india/only-22-deaths-in-india-medically-certified-below-10-in-some-states/articleshow/70968981.cms>

Only 22% of the registered deaths in the country are medically certified, with the proportion dipping below 10% even in some states generally regarded as developed.

Among those medically certified, diseases of the circulatory system are not only the biggest killers but the fastest growing. Deaths caused by complications due to diabetes are also emerging as a significant chunk, shows data on causes of death released by the office of the Registrar General of India.

Interestingly, more male deaths are medically certified, accounting for 61.9% of all medically certified deaths in the country.



Med certification of deaths up from 13% to 22% in 27 yrs

It seems more males are admitted to hospital during the last moments of life as compared to females, notes the report on medical certification of cause of death (MCCD). This could be because of property being mostly in the name of men and death certificates being crucial for inheritance.

According to the report, progress in the implementation of medical certification of deaths has been slow, rising from 12.7% to 22% over the last 27 years. It has so far been implemented in only certain hospitals, generally in urban areas which are selected by the Chief Registrar of Births & Deaths and the coverage is not uniform across states.

Out of an estimated 70 lakh deaths in 2017, over 60 lakh were registered, but just over 14.1 lakh were medically certified. Amongst bigger states, the highest level of medical certification of cause of death was in Tamil Nadu (43.3%) followed by Maharashtra (38.9%) and Karnataka (30.4%).

Of those medically certified, deaths due to diseases of the circulatory system have seen the highest jump of 9.7 percentage points and this category of diseases now accounts for over 34% of deaths. The data reveals that, since 2000, diseases of the circulatory system such as heart diseases have not only been the top-most killer, but their share in total deaths has been steadily increasing. Ischemic heart disease alone accounted for over 10% of all medically certified deaths. Similarly, while endocrine, nutritional and metabolic diseases were the

seventh leading cause of deaths (5.3%), diabetes mellitus alone under this category constituted 4.6% of medically certified deaths.

Too much to expect in a country with poor health dispensation.

Within infectious and parasitic diseases, which were the second leading cause of death (10.4%), septicemia alone accounted for 4.6%. The category on infectious diseases is followed by respiratory diseases accounting for 9.2% of deaths and cancers accounting for 6.4%. Death of infants during birth accounts for 5.8%, including those due to slow fetal growth and fetal malnutrition.

Given the low level of certification, it is possible that the data may not accurately mirror the actual picture of how many die from which disease, but the broad patterns are unlikely to be significantly different.

Malnutrition

‘Midday meal has limitations, protein and micro-nutrient content could be improved without a large increase in cost’ (The Times of India: 20190904)

<https://timesofindia.indiatimes.com/blogs/the-interviews-blog/midday-meal-has-limitations-protein-and-micro-nutrient-content-could-be-improved-without-a-large-increase-in-cost/>

Malnutrition continues to stunt the potential of millions of children in India. Sumantra Ray, founding chair and executive director of the NNEdPro Global Centre for Nutrition and Health, Cambridge (UK), speaks to Sanjeev Verma about the way forward:

India has over one-third of the world’s malnourished children. What can be done to change this?

Malnutrition has three sides to it and often they coexist. It could be over-nutrition which is often obesity with Type-II diabetes. It may be under-nutrition which is usually due to lack of proteins among other things. Or it could be due to deficiency in multiple nutrients which means minerals. We often have low birth weight children being born into an environment where energy is scarce. Unfortunately, they are born into an environment where they may not be getting enough minerals, proteins, carbohydrates and fat in their diets. So, it is a double-edged sword. We are no longer dealing with only a single problem. I think improving maternal nutrition is extremely important because if we have children with higher birth weight, they are likely to maintain a healthier nutritional trajectory during their lifecycle.

We have to have policies and also prevention and treatment in place which is able to tailor the requirement of the changing needs of children and individuals. It requires a lot of knowhow and most importantly this requires change in the mindset because we have become so used to these problems existing.

India's midday meal scheme is the world's biggest school nutrition programme. Have you analysed it?

We are aware of nutritional content of the midday meal, but it has its limitations because it has to be delivered on such a large scale. There is quite a variation at the point of delivery. The protein content of the midday meal as well as micro-nutrient content could be improved potentially without a large increase in cost if there is more sensitivity to locally-sourced food. If there is some monitoring and evaluation at the point of delivery, with research tools we would be able to measure the impact of the midday meal programme as an intervention, directly attributing it to nutrition and health status of children who are receiving it.

Right now, we are lacking this type of harmonisation or evaluation and it is challenging because India is a country of more than a billion people. But I think this can be achieved by research groups coming together with policy makers. But most importantly we have to involve people on the ground including teachers and staff in the school who are responsible, and we have to involve the families of the beneficiary children of this programme.

Where do you think the Indian government is lacking in preventing malnourishment among children as well as pregnant women?

Doctors and policy makers should understand that nutrition is part of medicine but in the past few decades, it has become divorced. We need to bring it back. It requires adequate knowledge and training besides mindset about prevention because we cannot treat every illness. If we do not think about prevention now, the future is not going to be easy.

What about the link between malnourishment and water quality?

There is a very close relationship and we are involved in another project on safe water in India which is all about providing clean water in a sustainable way, and the clean water should be supplemented through nutritious food. Clean water [is] not only the problem from the microbiological point of view but also from the point of view of contamination of having heavy metals and chemicals which sometimes enter the water source. So having good nutrition sources without clean water could be meaningless and we have to think about these two things together.

Farmers in India are growing cash crops instead of high nutrient indigenous crops like millets. What is your view on this?

Obviously, the sale of these crops is dependent on demand and demand creates supply. There is a need to educate members of the public and also policy makers and health professionals. For example, millets are much easier to grow than many other crops, much less resource

intensive and yet provide more nutritional value. So that can reignite the demand which can have an impact on supply.

We also need to have that awareness education in corporate industry because they are often driving economic agenda and advocacy that we can undertake around nutritional habits. At the end of the day, the economics of the region is determined by its domestic players. We need to have intelligent conversations with corporate industry, food industry in particular. But also, with those involved in advertising and those who are creating the food environment through the supply chain so that they are aware of the downstream impact on nutritional health.

Rabies vaccines

Manufacturers told to rush rabies vaccines to areas facing shortage (The Hindu: 20190904)

<https://www.thehindu.com/news/cities/Delhi/manufacturers-told-to-rush-rabies-vaccines-to-areas-facing-shortage/article29326664.ece>

‘Lack of firm orders from govts. and late payments led to crisis’

The shortage of anti-rabies vaccine in certain parts of the country has prompted the National Pharmaceutical Pricing Authority (NPPA) to step-in. Manufacturers and marketers have been asked by the Health Ministry to rush stocks to the areas where the shortage has been reported.

“Taking cognisance of shortage of vaccine, NPPA has held repeated stakeholder consultations. Manufacturers and marketers have informed that lack of firm orders by State governments and late payments led to the shortage,” said a senior NPPA official.

He added that the matter was referred to Health Ministry which has advised State governments to issue quantity based tenders and place long-term firm orders with specific quantity and supply schedule.

Deaths in India

India accounts for more than one-third of the world’s rabies deaths. Each year, as many as 20,000 people die due to the vaccine-preventable fatality. India has a population of 30 million stray dogs which cause 96% of rabies in humans.

According to the Health Ministry's data, India is the hotbed of human rabies. "However, the disease is 100% preventable by timely post-exposure prophylaxis (PEP) and correct use of rabies vaccines and immunoglobulins," said a senior health official.

Rabies is caused by RNA virus that is present in the saliva of rabid animal. It is invariably transmitted following a bite of a rabid animal that leads to deposition of the saliva and the virus in the wound. The death invariably occurs in four days to two weeks due to cardio-respiratory failure. The time interval between the bite and occurrence of symptoms/signs of rabies i.e. incubation period varies from four days to two years or rarely even more.

Once, the virus enters the nervous system it becomes inaccessible to rabies vaccines and death is inevitable. Thus, it is important to remove the virus from the wound as early as possible by immediately washing the wound with water and soap followed by application of virucidal antiseptics that reduce / eliminate chances of nerve infection.

Meanwhile, a Health Ministry official confirmed that they had previously held talks with manufacturers of rabies vaccine, which include Bharat Biotech, India Immunologicals and the Serum Institute of India, asking them to ensure that the domestic needs are catered to before exporting it.

Air Pollution

Explained: Air pollution in Indian homes key heart risk factor, The Lancet finds (The Indian Express: 20190904)

<https://indianexpress.com/article/explained/air-pollution-in-indian-homes-key-heart-risk-factor-the-lancet-5963256/>

In the report that looked at risk factors for CVD, researchers enrolled 1,55,722 participants between January 2005 and December 2016. These included 35,793 from five low-income countries, including India.

At least 65% of homes in India use biomass fuel for cooking and heating. (Representational Image)

Household air pollution has emerged as one of the key causes of cardiovascular diseases (CVDs), and 12% of all CVDs in low-income countries are attributable to it, a new report has said. Hypertension is the largest risk factor for CVD in low-income countries (which include India), followed by high non-HDL cholesterol and household air pollution.

The report is one of two from a study by the Prospective Urban and Rural Epidemiologic (PURE), both published online in The Lancet on Tuesday and presented at the European Society of Cardiology 2019. One report looks at common diseases, hospitalisation and death; the other at CVD risk factors in middle-aged adults in 21 countries.

What it means for India

In the report that looked at risk factors for CVD, researchers enrolled 1,55,722 participants between January 2005 and December 2016. These included 35,793 from five low-income countries, including India.

Household air pollution is a greater risk factor for CVD in India than diabetes, tobacco use, low physical activity and poor diet. An earlier report from a PURE study (Lancet Respiratory Medicine 2014) showed that Indians had the lowest lung function among the 21 countries studied.

Top 10 risk factors for cardiovascular disease in low-income countries, by population-attributable fractions

Hypertension		14.3
High non-HDL cholesterol		14.2
Household air pollution		12.0
Diabetes		10.4
Poor diet		10.0
Abdominal obesity		7.0
Low education		6.0
Tobacco use		4.5
Low physical activity		2.2
Excess alcohol		2.0

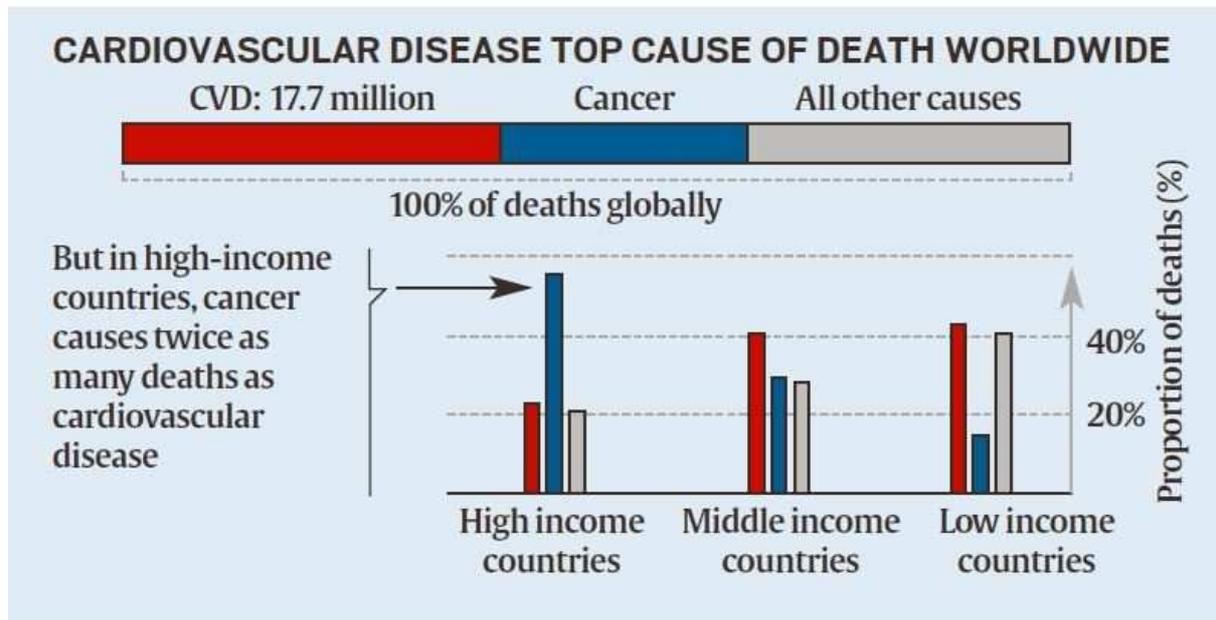
Top 10 risk factors for death in low-income countries, by population-attributable fractions

Poor diet		19.2
Low education		13.7
Low grip strength		10.9
Household air pollution		9.0
Tobacco use		7.6
Diabetes		6.7
Hypertension		5.6
Low physical activity		2.7
Depression		1.9
Excess alcohol		1.8

The report is one of two from a study by the Prospective Urban and Rural Epidemiologic (PURE), both published online in The Lancet on Tuesday and presented at the European Society of Cardiology 2019.

At least 65% of homes in India use biomass fuel for cooking and heating. In urban areas, the use of mosquito coils, dhoop sticks and agarbattis contribute to high household air pollution.

Dr V Mohan, Director of Madras Diabetes Research Foundation and one of the study authors, told The Indian Express that household air pollution is becoming an important cause of overall and cardiovascular mortality in low-income countries. “This is actually a window of opportunity... because if the household air pollution can be controlled, we can see significant decrease in mortality including due to cardiovascular disease in India,” Dr Mohan said.



(Source: The Lancet)

Dr Sundeep Salvi, Director, Chest Research Foundation, and an expert on the national steering committee to prevent air pollution, said the study has highlighted for the first time that household air pollution is also a leading risk factor for heart disease and deaths in India. “The major focus has been ambient air pollution that is pollution rising from motor vehicles and industries. It is now time to wake up and realise that the pollution we generate in our house is also responsible for significant adverse effects,” Dr Salvi said.

CVD and cancer

The other report, which followed 1,62,534 middle-aged adults in the 21 countries, found that CVD remains the leading cause of mortality among middle aged adults globally, but this is no longer the case in high-income countries, where cancer is now responsible for twice as many deaths as CVD. It was estimated that 55 million deaths occurred in the world in 2017, of which approximately 17.7 million were due to CVD. Dr Mohan explained that in high-income countries, people have started living longer, so deaths due to CVD have reduced, and more are now dying due to cancers.

National Medical Commission

The healing touch (The Indian Express: 20190904)

<https://indianexpress.com/article/opinion/editorials/national-medical-council-medical-ethics-between-doctor-patient-5963205/>

A new law will not remove trust deficit between doctors and patients. National Medical Commission must evolve protocols

The medical school doesn't equip a young doctor with the communication skills to convey bad news to patients' relatives with empathy.

Three days after a mob beat a doctor to death at a tea-estate hospital in Assam, the Union Ministry of Health and Family Welfare has placed in the public domain a draft bill "to address the issue of violence faced by healthcare professionals". The provisions of the draft law, uploaded on the ministry's website on Monday, are stringent — they deal with mental and physical abuse targeting doctors, and cover not just hospitals and a radius of 50 metres around them, but also ambulances and home visits by healthcare professionals. The draft proposes a maximum imprisonment of 10 years and a fine of Rs 10 lakh for assaulting doctors, para-medical staff, medical students and diagnostic service providers in healthcare facilities.

It addresses a long-standing demand of doctors for a Central law to curb violence against healthcare professionals. Cleaning the unholy mess involving doctors, patients and hospitals will, however, require much more than punitive measures.

The debate on medical ethics in the country has largely been framed by the doctor-patient binary. This has not only come in the way of a satisfactory resolution of the complex problems pertaining to the rights of patients and doctors but has also resulted in doctors becoming the face of the failure of the country's healthcare system.

At one government doctor for 10,000 people, India's doctor-patient ratio is far lower than the World Health Organisation's recommended ratio of 1:1,000. Moreover, the atmosphere in most public and several private hospitals is hardly congenial for those suffering serious illness. Tempers often run high when patients have to contend with unhygienic and overcrowded facilities, the waiting time to consult a specialist is painfully long and there are queues for even routine diagnostic tests. With most hospitals lacking grievance redressal mechanisms, patients often vent their frustration on healthcare professionals.

A study published in The Lancet in 2017 noted that nearly 75 per cent Indian doctors have faced some form of hostility during their career.

The rising incidents of violence against doctors point to an aspect of healthcare that hasn't received much attention in policy circles: There is hardly any meaningful communication between doctors and patients. The doctor-patient relationship in India is largely paternalistic. A doctor rarely communicates to patients — or their relatives — the complexities of the ailment in jargon-free language or prepares them for long-drawn therapy.

The medical school doesn't equip a young doctor with the communication skills to convey bad news to patients' relatives with empathy. Violence in any setting is reprehensible. But the hostility against doctors points to a trust deficit between them and patients. A law against such violence will address, at best, the symptoms of the problem. The new regulator of the medical profession in the country, the National Medical Commission, must evolve protocols to heal the doctor-patient relationship.

Diabetes

Type 2 diabetes, obesity: Weight loss surgery may lower death risk (Medical News Today: 20190904)

<https://www.medicalnewstoday.com/articles/326229.php>

New research finds significant health benefits associated with weight loss surgery in people with obesity.

Weight loss surgery may have a host of beneficial effects in people with obesity.

More than 1 in 3 adults in the United States are overweight or have obesity, according to data from 2013–2014.

Type 2 diabetes, high blood pressure, heart disease, and stroke are only some of the complications associated with obesity.

New research presented at the European Society of Cardiology Congress, which takes place, this year, in Paris, France, suggests that bariatric, or weight loss, surgery can reduce the risk of premature mortality and cardiovascular problems more than standard medical care.

Dr. Steven Nissen, Chief Academic Officer of the Heart & Vascular Institute at the Cleveland Clinic, in Ohio, is the senior author of the study, which also appears in the Journal of the American Medical Association.

A 40% lower risk of cardiovascular events

Dr. Nissen and the team looked at data from 13,722 participants, 2,287 of whom had obesity and type 2 diabetes and had undergone weight loss surgery. The researchers compared data from this group with information from 11,435 matched controls who had only received standard medical care.

Of the 2,287 participants who underwent weight loss surgery, 75% had a body mass index (BMI) of 40 or above, which constitutes "extreme obesity." The minimum BMI in the group was 30, which is the lower threshold for obesity.

Is surgery better than dieting for weight loss outcomes?

New research finds a lower mortality risk for people who have undergone weight loss surgery.

The participants in the surgery group had each undergone one of four types of weight loss, or metabolic, procedure: gastric bypass, sleeve gastrectomy, adjustable gastric banding, or duodenal switch.

The main outcomes that the researchers looked for were death, coronary artery events, cerebrovascular events, heart failure, atrial fibrillation, and kidney disease. These are the main complications of obesity and type 2 diabetes.

The research revealed that the people who had undergone weight loss surgery had a 40% lower risk of any of these events over an 8-year follow-up period. The risk of death, specifically, was 41% lower.

Furthermore, people who had undergone metabolic surgery lost 15% more weight, on average, and had 15% lower blood sugar levels.

Dr. Ali Aminian, a bariatric surgeon at the Cleveland Clinic and the first author of the paper, comments on the findings. He says, "The striking results that we saw after metabolic surgery may be related to the patients' substantial and sustained weight loss."

"However, there is a growing body of evidence to suggest that there are beneficial metabolic and hormonal changes after these surgical procedures that are independent of weight loss."

"Cardiovascular complications from obesity and diabetes can be devastating," adds Dr. Nissen.

"Now that we've seen these remarkable results, a well-designed randomized controlled trial is needed to definitively determine whether metabolic surgery can reduce the incidence of major heart problems in patients with type 2 diabetes and obesity."

Dr. Steven Nissen

The authors acknowledge that there were some limitations to their study. First, its observational nature cannot prove causality.

Secondly, misdiagnoses in the Cleveland Clinic's electronic health records — the database from which the researchers took their information — may have biased the results.

Thirdly, "To assess status of diabetes and cardiovascular medications in follow-up, the study assessed prescription orders for medications, which does not necessarily equate to actual medication use," write the researchers.

Furthermore, the authors did not compare the results of the different types of weight loss surgery, and fewer than 10% of the participants in the control group had taken drugs that have significant cardiovascular benefits.

However, the sensitivity of the analyses that the researchers carried out guarantee the robustness of the findings, reassure the authors.

Breast Cancer

Breast cancer: Hormone therapy may only put some cells to 'sleep' (Medical News Today: 20190904)

<https://www.medicalnewstoday.com/articles/326226.php>

Why does breast cancer sometimes recur after treatment? A new study suggests that in part, the answer may lie in the effect of adjuvant hormone therapy on some cancer cells.

Scientists delve deeper into the effects of hormone therapy on cancer cells, hoping to find out more about what drives recurrence.

"For a long time scientists have debated whether hormone therapies — which are a very effective treatment and save millions of lives — work by killing breast cancer cells, or whether the drugs flip them into a dormant 'sleeper' state," says Luca Magnani, who is a principal research fellow in the Faculty of Medicine at Imperial College London in the United Kingdom.

"This is an important question as hormone treatments are used on the majority of breast cancers," he notes.

Magnani and colleagues from Imperial College London, the University of Milan in Italy, and Yonsei University College of Medicine in Seoul, South Korea — among other academic institutions — have recently delved into this debate, studying approximately 50,000 single cells of human breast cancer.

In their study, the researchers looked at the effect of adjuvant endocrine therapy — a type of hormone therapy — on these different breast cancer cells.

"Our findings suggest the drugs may actually kill some cells and switch others into this sleeper state. If we can unlock the secrets of these dormant cells, we may be able to find a way of preventing cancer coming back, either by holding the cells in permanent sleep mode or by waking them up and killing them," explains Magnani.

The researchers' findings now appear in the journal *Nature Communications*.

Findings give rise to more questions

Doctors usually recommend hormone therapies for the treatment of estrogen receptor-positive breast cancers, in which the cancer cells grow and spread by interacting with a hormone called estrogen.

The American Cancer Society note that these make up the majority — about two-thirds — of breast cancer cases.

Typically, a course of hormone therapy follows surgery for tumor removal, and while this strategy is successful in many cases, some people experience a relapse. This can lead to metastasis — a state in which cancer cells spread throughout the body, making it more difficult for doctors to spot and treat.

"This strategy significantly delays clinical relapse but does not abrogate it completely, as about 3% of the patients each year come back with overt relapse, inevitably leading to further metastatic development," the researchers write in their study paper.

In the study, Magnani and colleagues found that while adjuvant hormone therapy did indeed kill most of the cancer cells they exposed to it, it only sent some cancer cells into a dormant state.

This state can be temporary, meaning that there is a possibility these cancer cells will later "awaken," leading to the formation of new tumors.

"These sleeper cells seem to be an intermediate stage to the cells becoming resistant to the cancer drugs," hypothesizes study co-author Dr. Iros Barozzi. "The findings also suggest the drugs actually trigger the cancer cells to enter this sleeper state," Dr. Barozzi adds.

The power of electromagnetic energy on breast cancer cells

Is electromagnetic energy the way forward in breast cancer treatment?

Moreover, the researchers' "experiments suggest these sleeper cells are more likely to travel around the body," according to another study co-author, Dr. Sung Pil Hong. Yet how and why some cancer cells become dormant, and what factors may contribute to their awakening remain a mystery.

"They [the sleeper cells] could then 'awaken' once in other organs of the body and cause secondary cancers. However, we still don't know how these cells switch themselves into sleep mode — and what would cause them to wake up. These are questions that need to be addressed with further research."

Dr. Sung Pil Hong

Despite these preliminary findings, the researchers emphasize that hormone therapies are a very effective strategy against breast cancer. To better understand the mechanics at play, possible dangers, and how to address them, the investigators advise that further research is needed.

Dr. Rachel Shaw, who is research information manager at Cancer Research UK — a cancer research and awareness charity that partly funded the recent study — also explains that the current findings suggest a new route for cancer research.

"Although treatments for breast cancer are usually successful, cancer returns for some women, often bringing with it a poorer prognosis. Figuring out why breast cancer sometimes comes back is essential to help us develop better treatments and prevent this from happening," notes Dr. Shaw.

"This study highlights a key route researchers can now explore to tackle 'sleeping' cancer cells that can wake up years after treatment, which could potentially save the lives of many more women with the disease," she explains.

Diet/ Nutrition

Alternate-day fasting has health benefits for healthy people (Medical News Today: 20190904)

<https://www.medicalnewstoday.com/articles/326213.php>

A new study shows that strict alternate-day fasting may be a valid alternative to counting calories and may have similar results, while also benefitting various biological processes.

Fasting may have benefits for healthy people, new research suggests, although there are some caveats.

People often alter their diets — in order to lose weight, improve their cardiovascular health, and become healthier overall. There are many different ways to do so.

A recent study looked into alternate-day fasting (ADF) to see whether it is a viable alternative to other methods, such as intermittent fasting or caloric restriction.

The researchers found that a number of health benefits accompanied weight loss in participants who practiced ADF.

The results of their investigation appear in the journal *Cell Metabolism*.

ADF as an option

Researchers — many from the Medical University of Graz, in Austria — conducted a randomized controlled trial. They enrolled 60 participants in a 4-week trial and randomly assigned them to either an ADF group or a control group.

The control group participants could eat whatever they wanted whenever they wanted, and the ADF group alternated between a 36-hour, no-calorie fast and 12 hours of unlimited eating.

Intermittent fasting: How I got started

My biggest challenges and some tips for those who want to try it.

The researchers followed the ADF group with continuous glucose monitoring to ensure that they did not consume any calories during their fasting periods. The participants also kept diaries during their fasting days.

The team also worked with 30 people who had been on a strict ADF diet for the last 6 months or more, in order to assess the long term safety of the practice.

All of the participants had a healthy weight and good overall health.

Unexpected biological benefits

While those in the ADF group often compensated for some of their lost calories when they were allowed to eat, they did not compensate for them all. Overall, they experienced a mean caloric restriction of around 35% and lost an average of 7.7 pounds during the 4-week trial.

There were health benefits, as well. The participants in the ADF group had reduced levels of soluble intercellular adhesion molecule-1, a marker linked to inflammation and age-related disease.

They also had lower levels of the thyroid hormone triiodothyronine, without experiencing any problems with thyroid function. Previous research has associated lowered levels of this hormone with longevity.

Additionally, the ADF group had lower levels of cholesterol and reduced trunk, or belly, fat. They also had some restriction in amino acids, which research in rodents suggests may extend the lifespan.

Furthermore, the ADF group experienced an upregulation in ketone bodies, which researchers consider a health benefit, on both the fasting days and non-fasting days.

"Why, exactly, calorie restriction and fasting induce so many beneficial effects is not fully clear, yet," says Dr. Thomas Pieber, the Director of Endocrinology at the Medical University of Graz.

"The elegant thing about strict ADF is that it doesn't require participants to count their meals and calories: They just don't eat anything for 1 day."

Dr. Thomas Pieber

Prior studies have indicated that long term adherents of ADF could experience malnutrition and an impaired immune function. However, the researchers found no immune function problems in the present cohort who had practiced ADF for 6 months or more.

Future applications of ADF

While this study uncovered benefits of ADF, the authors do not recommend it as something everybody should practice. They caution of other caveats, as well.

"We feel that it is a good regime, for some months, for obese people to cut weight, or it might even be a useful clinical intervention in diseases driven by inflammation," says Prof. Frank Madeo, of the Institute of Molecular Biosciences at the University of Graz.

"However, further research is needed before it can be applied in daily practice."

The researchers also warn against fasting while experiencing a viral infection. They recommend consulting a physician before undertaking a new diet, particularly one that is as strict as ADF.