



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Thursday 20201126

Diet plan'

When you think of fitness, think of a 'diet plan' (The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/when-you-think-of-fitness-think-of-a-diet-plan-176021>

We often come across this statement 'I am on diet' or 'I am dieting' these days. Now what does it mean exactly? Do you really know the difference between being 'on diet' and 'on a diet plan'? When you are dieting, you are restricting your diet, starving yourself or skipping meals. Why did you start it? Probably you felt that you were gaining inches or you were getting overweight and did not have the time to hit the gym. So, this was an easy escape. If this is the case, then let me foretell your fitness future.

1. You are slowing down your BMR (Basal Metabolic Rate), instead of boosting it. You are not giving any task to your system but expecting it to work.
2. By dieting, you can see some temporary results but cannot achieve a sustainable fit body. These temporary results do not come alone in life. They come along with problems like low-energy level, headache, mood swings, irritating behaviour and digestion problems.
3. You will also devoid yourself of some very important nutrients by avoiding many food items. So you will end up ageing, being lethargic, untoned and unfit.
4. By dieting you are losing not only fat but muscles also. So, from where will you get your body strength? Looking fit and being fit are two different things.

Path to wellness

You need a complete wellness plan. A wellness plan includes a nutrient rich diet that is planned considering your medical condition, physical data and many other factors. It includes a suitable workout regime and lifestyle modifications. Burning out in the gym is good, however, restricting your diet for a few months is not a sustainable solution.

Things to do

1. Alter your lifestyle by focusing on your breathing pattern, your posture, your daily movements and also your thought process.
2. Include a workout regime suitable for your body and medical conditions.
3. Be disciplined in your approach when it comes to 'fuel your body'. Focus on clean, home-cooked, unprocessed and local food.

This will surely lead to:

- 1) Change your internal body composition which is the healthiest way of losing weight.
- 2) Increase your BMR which implies sustainable fitness.
- 3) Make your system stronger and increase your immunity.
- 4) Replenish all the required nutrients by improving their absorption and circulation to each and every cell of the body.

This ultimately will help you achieve holistic wellness by achieving a stress-free mind and a fit body. So next time you think of fitness, go for a "diet plan" and not just 'dieting'.

Child Health

A child or young person newly infected with HIV every 100 seconds last year: UNICEF

The report added that 150,000 children aged 0-9 years were newly infected with HIV (The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/a-child-or-young-person-newly-infected-with-hiv-every-100-seconds-last-year-unicef-175760>

A child or young person newly infected with HIV every 100 seconds last year: UNICEF
Photo for representation.

A child or young person under the age of 20 was newly infected with HIV approximately every minute and 40 seconds last year, bringing the total number of children living with HIV globally to 2.8 million, the UNICEF said.

The UNICEF report "Reimagining a resilient HIV response for children, adolescents and pregnant women living with HIV", said that nearly 320,000 children and adolescents were

newly infected with Human Immunodeficiency Virus (HIV) and 110,000 children died of Acquired Immune Deficiency Syndrome (AIDS) last year. Of these children, 79,000 were aged 0-9 years and 34,000 aged 10-19.

Warning that children are being left behind in the fight against HIV, it said that prevention efforts and treatment for children remain some of the lowest amongst key affected populations.

In 2019, a little more than half of children worldwide had access to life-saving treatment, significantly lagging behind coverage for both mothers (85 per cent) and all adults living with HIV (62 per cent).

Despite some progress in the decades-long fight against HIV and AIDS, deep regional disparities persist among all populations, especially for children, the report says.

Paediatric coverage of antiretroviral treatment is highest in the Middle East and North Africa, at 81 per cent, followed by South Asia (76 per cent), Eastern and Southern Africa (58 per cent), East Asia and the Pacific (50 per cent), Latin America and the Caribbean (46 per cent) and West and Central Africa (32 per cent).

“Even as the world struggles in the midst of an ongoing global pandemic, hundreds of thousands of children continue to suffer the ravages of the HIV epidemic,” UNICEF Executive Director Henrietta Fore said.

“There is still no HIV vaccine. Children are still getting infected at alarming rates, and they are still dying from AIDS. This was even before COVID-19 interrupted vital HIV treatment and prevention services putting countless more lives at risk,” Fore said.

The report added that 150,000 children aged 0-9 years were newly infected with HIV, bringing the total number of children in this age group living with HIV to 1.1 million.

About 170,000 adolescents aged 10-19 were newly infected with HIV, bringing the total number of adolescents living with HIV to 1.7 million. The report added that 130,000 adolescent girls were newly infected with HIV in 2019, compared with 44,000 adolescent boys.

The number of pregnant women living with HIV was 1.3 million; an estimated 82,000 children under the age of five were infected during pregnancy or birth and 68,000 were infected during breast feeding.

The report calls on all governments to protect, sustain and accelerate progress in fighting childhood HIV by maintaining essential health services and strengthening health systems.

The COVID-19 crisis has further exacerbated inequities in access to life-saving HIV services for children, adolescents and pregnant mothers everywhere.

In a recent UNICEF survey of 29 HIV priority countries, one third responded that service coverage for children, adolescents and women living with and vulnerable to HIV is lower by 10 per cent or more compared with pre-pandemic numbers.

UNAIDS' HIV service disruption data, cited in the report, further illustrate the impact of necessary control measures, supply chain disruptions, lack of personal protective equipment, and the redeployment of healthcare workers on HIV services.

The report said in the months of April and May, coinciding with partial and full lockdowns, paediatric HIV treatment and viral load testing in children in some countries declined between 50 to 70 per cent, and new treatment initiation fell by 25 to 50 per cent.

Similarly, health facility deliveries and maternal treatment were also reported to have reduced by 20 to 60 per cent, maternal HIV testing and ART initiation declined by 25 to 50 per cent, and infant testing services declined by approximately 10 per cent.

Though the easing of control measures and the strategic targeting of children and pregnant mothers have successfully led to a rebound of services in recent months, challenges remain, and the world is still far from achieving the global 2020 paediatric HIV targets. PTI

Mutations

Mutations not making coronavirus able to spread more rapidly: Study In a study using a global dataset of virus genomes from 46,723 people with COVID-19 from 99 countries, researchers identified more than 12,700 mutations (The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/mutations-not-making-coronavirus-able-to-spread-more-rapidly-study-175676>

Mutations not making coronavirus able to spread more rapidly: Study

In a study using a global dataset of virus genomes from 46,723 people with COVID-19 from 99 countries, researchers identified more than 12,700 mutations. Reuters photo.

The COVID-19-causing coronavirus is mutating as it spreads around the world in the pandemic, but none of the mutations currently documented appears to be making it able to spread more rapidly, scientists said on Wednesday.

In a study using a global dataset of virus genomes from 46,723 people with COVID-19 from 99 countries, researchers identified more than 12,700 mutations, or changes, in the SARS-CoV-2 virus.

"Fortunately, we found that none of these mutations are making COVID-19 spread more rapidly," said Lucy van Dorp, a professor at University College London's Genetics Institute and one of the co-lead researchers on the study.

She added, however: "We need to remain vigilant and continue monitoring new mutations, particularly as vaccines get rolled out."

Viruses are known to mutate all the time, and some - such as flu viruses - change more frequently than others.

Most mutations are neutral, but some can be either advantageous or detrimental to the virus, and some can make vaccines against them less effective. When viruses change like this, vaccines against them have to be adapted regularly to ensure they are hitting the right target.

With the SARS-CoV-2 virus, the first vaccines to show efficacy against the disease it causes could get regulatory approval and begin to be used to immunise people before the end of the year.

Francois Balloux, a UCL professor who also worked on the study, said that its findings, for now, posed no threat to COVID-19 vaccine efficacy, but cautioned that the imminent introduction of vaccines could exert new selective pressures on the virus to mutate to try to evade the human immune system.

"The news on the vaccine front looks great," he said. "The virus may well acquire vaccine-escape mutations in the future, but we're confident we'll be able to flag them up promptly, which would allow updating the vaccines in time if required."

The mutation study, preliminary findings of which were originally made public in May as a pre-print before being reviewed by other scientists, was published in full on Wednesday in the peer-reviewed journal Nature Communications.

The research team from Britain's UCL and Oxford University, and from France's Cirad and Université de la Réunion, analysed virus genomes from 46,723 people with COVID-19 from 99 countries, collected up until the end of July 2020.

Among more than 12,706 mutations identified, some 398 appeared to have occurred repeatedly and independently, the researchers said.

Of those, the scientists focused in on 185 mutations which they found had occurred at least three times independently during the course of the pandemic.

The researchers found no evidence that any of the common mutations are increasing the virus's transmissibility. Instead, they said, most common mutations are neutral for the virus.—Reuters

COVID-19 pandemic

COVID-19 pandemic could be stopped if at least 70 pc public wore face masks consistently: Study(The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/covid-19-pandemic-could-be-stopped-if-at-least-70-pc-public-wore-face-masks-consistently-study-175633>

The highly efficacious facemask, such as surgical masks with an estimated efficacy of around 70 per cent, could lead to the eradication of the pandemic

COVID-19 pandemic could be stopped if at least 70 pc public wore face masks consistently:
Study

The COVID-19 pandemic could be stopped if at least 70 per cent of the public wore face masks consistently. Image: PTI

The COVID-19 pandemic could be stopped if at least 70 per cent of the public wore face masks consistently, according to a review of studies which suggests that the type of material used and the duration of mask use play key roles in their effectiveness.

The research, published in the journal *Physics of Fluids*, assessed studies on face masks and reviewed epidemiological reports on whether they reduce the number of people an infected person spreads the pathogen to -- the reproduction number of the virus.

"The highly efficacious facemask, such as surgical masks with an estimated efficacy of around 70 per cent, could lead to the eradication of the pandemic if at least 70 per cent of the residents use such masks in public consistently," the scientists, including Sanjay Kumar from the National University of Singapore, wrote in the study.

"Even less efficient cloth masks could also slow the spread if worn consistently," Kumar added.

According to the scientists, one key aspect of face mask function involves the size of fluid droplets expelled from the nose and mouth when a person talks, sings, sneezes, coughs, or even simply breathes.

They said larger droplets, with sizes around 5-10 microns, are the most common, adding that smaller droplets below 5 microns are possibly more dangerous.

In comparison, the scientists said the human hair is about 70 microns in diameter.

Among the many types of facemasks in use, such as cloth masks, surgical masks, and N95 masks, they said only the latter can filter out aerosol-sized droplets.

The performance of face masks worn for many hours, such as by health care or other essential workers, impact how effective overall mask-wearing can be, the researchers added.

They found that face masks made of hybrid polymer materials could filter particles at high efficiency while simultaneously cooling the face since the fibres used in these allow heat to escape from beneath the mask.

"There could be some relation between breathing resistance and the flow resistance of the face mask which will need to be studied for a face mask-wearing interval," said Heow Pueh Lee, another co-author of the study.

"Also, the environmental condition in the compartmental space within the face mask will need to be more accurately quantified using miniaturised sensors and the development of human replicas for such studies," Lee said.

Based on the analysis, the researchers underscored the importance of consistent use of efficient facemasks, such as surgical masks. PTI

COVID-19 pandemic could be stopped if at least 70 pc public wore face masks consistently: Study

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The COVID-19 pandemic could be stopped if at least 70 per cent of the public wore face masks consistently. Image: PTI

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COVID-19 virus

COVID-19 virus survives on surfaces within thin films: IIT B study The ability to predict the survival of the novel coronavirus on different surfaces can help prevent and contain the spread of COVID-19(The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/covid-19-virus-survives-on-surfaces-within-thin-films-iit-b-study-175630>

COVID-19 virus survives on surfaces within thin films: IIT B study
Photo for representation only. Source: iStock.

The COVID-19 virus survives on surfaces by clinging to thin liquid films, according to a study by researchers at IIT-Bombay which provides insights into how the novel coronavirus sustains for hours or days on solid surfaces under ambient conditions.

The study, published in the journal Physics of Fluids, attributes the long survival time of the novel coronavirus on a surface to the slow evaporation of a thin nanometre liquid film remaining after the evaporation of the bulk droplet.

The ability to predict the survival of the novel coronavirus on different surfaces can help prevent and contain the spread of COVID-19, the researchers said.

While the typical respiratory droplets dry within seconds, the survival time of the SARS-CoV-2 virus on different surfaces within recent experiments has been found to be on the order of hours, they said.

This discrepancy suggests an orders of magnitude difference in the time between droplet drying and the survival time of the COVID-19 virus on surfaces, according to the researchers.

The researchers described how a nanometres-thick liquid film clings to the surface, due to London-van der Waals forces, which allows the COVID-19 virus to survive for hours.

Van der Waals forces include attraction and repulsions between atoms, molecules, and surfaces, as well as other intermolecular forces.

"Our model for the thin film transport shows that survival or drying time of a thin liquid film on a surface is on the order of hours and days, similar to what has been observed in measurements of the virus titer," said Amit Agrawal, professor at Indian Institute of Technology (IIT) Bombay.

"It captures the relatively longer survival time on plastic and glass compared to metals," Agrawal said.

A titer is the lowest concentration of virus that still infects cells.

The nanometric film is assumed to be like a pancake deposited onto a surface. The researchers briefly examined changes in drying time as a function of contact angle and surface type.

"Our biggest surprise was that the drying time of this nanometric film is on the order of hours," said Rajneesh Bhardwaj, a professor at IIT Bombay.

"It suggests the surface isn't completely dry, and the slowly evaporating nanometric film is providing the medium required for the survival of the coronavirus," Bhardwaj said.

Since a longer survival time of the virus corresponds to increased chances of being infected, the researchers said it is desirable to disinfect frequently touched surfaces, such as door handles or hand-held devices, and within hospitals and other areas prone to outbreaks.

"We also recommend heating surfaces, because even short duration high temperatures, at which the surface is at a higher temperature than the ambient, can help evaporate the nanometric film and destroy the virus," Bhardwaj added. PTI

UNICEF

UNICEF gearing up for 'mammoth operation' to deliver COVID-19 vaccines globally

Discusses with airlines ways to transport 2 billion doses in 2021(The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/unicef-gearing-up-for-mammoth-operation-to-deliver-covid-19-vaccines-globally-175233>

UNICEF gearing up for 'mammoth operation' to deliver COVID-19 vaccines globally
A research scientist works inside a laboratory of India's Serum Institute, the world's largest maker of vaccines, which is working on vaccines against COVID-19 in Pune. PTI file

The UN Children's Fund (UNICEF) is working with more than 350 global partners, including major airlines, shipping lines and logistics associations to deliver billions of COVID-19

vaccines around the world as soon as doses become available, in what is anticipated to be the largest and fastest operation ever undertaken of vaccine procurement and distribution.

In order to kickstart preparations for delivering COVID-19 vaccines to over 92 countries, UNICEF together with the Pan American Health Organisation (PAHO) and the International Air Transport Association (IATA), briefed major global airlines last week on the expected capacity requirements and discussed ways to transport close to two billion doses of COVID-19 vaccines in 2021.

This is in addition to the 1 billion syringes that need to be transported by sea-freight.

More than 350 logistics partners, including air freight operators, shipping lines and global logistics associations participated in the virtual discussion last week, the agency said.

“As work continues to develop COVID-19 vaccines, UNICEF is stepping-up efforts with airlines, freight operators, shipping lines and other logistics associations to deliver life-saving vaccines as quickly and safely as possible,” Director of UNICEF’s Supply Division Etleva Kadilli said.

“This invaluable collaboration will go a long way to ensure that enough transport capacity is in place for this historic and mammoth operation. We need all hands on deck as we get ready to deliver COVID-19 vaccine doses, syringes and more personal protective equipment to protect front line workers around the globe. By protecting these workers, we are ultimately protecting the millions of children who depend on their critical services.”

In the coming weeks, UNICEF is also assessing existing transport capacity to identify gaps and future requirements.

The procurement, delivery and distribution of COVID-19 vaccines is anticipated to be the largest and fastest such operation ever undertaken.

UNICEF is leading efforts to procure and deliver vaccines from manufacturers that have agreements with the COVAX Facility.

In collaboration with PAHO, UNICEF will coordinate the purchase and delivery for 92 low- and lower middle-income economies as quickly and securely as possible.

UNICEF said these efforts build on UNICEF’s longstanding efforts with the logistics industry to transport supplies around the world despite restrictions related to the pandemic.

Since January, UNICEF has delivered more than USD190 million worth of COVID-19 supplies such as masks, gowns, oxygen concentrators and diagnostic test kits in support of countries as they respond to the pandemic.

Last week, global drugmaker Pfizer and BioNTech said their COVID19 vaccine candidate is 95 per cent effective, including in adults over 65 years of age.

Based on current projections, the companies expect to produce globally up to 50 million vaccine doses in 2020 and up to 1.3 billion doses by the end of 2021.

The major announcement came just days after Moderna said its virus vaccine has an efficacy rate of 94.5 per cent.

As the largest single vaccine buyer in the world, UNICEF normally procures more than 2 billion doses of vaccines annually for routine immunisation and outbreak response on behalf of nearly 100 countries.

This unparalleled expertise includes the coordination of thousands of shipments with various cold chain requirements, making UNICEF an expert in supply chain management of temperature-controlled products, which is especially needed during this historic undertaking.

To minimise disruptions to routine immunisation programmes due to the operations related to the COVID-19 vaccines and syringes, UNICEF and partners will continue to coordinate closely with logistics operators for timely delivery around the world, it said.

“The support of governments, partners and the private sector will be paramount to transport vaccines for deadly diseases such as measles, diphtheria and tetanus, as well as for COVID-19, as efficiently as possible,” Kadilli said.

Last month, UNICEF began a process to stockpile more than 1 billion syringes by 2021 to guarantee initial supply and pre-position in advance of COVID-19 vaccines. — PTI

Green Mediterranean die

Green Mediterranean diet better for heart health: Study The first group received guidance on boosting physical activity and basic guidelines for achieving a healthy diet (The Tribune: 20201126)

<https://www.tribuneindia.com/news/health/green-mediterranean-diet-better-for-heart-health-study-175156>

A green Mediterranean diet, containing even more plant matter and very little red meat or poultry, maybe even better for cardiovascular and metabolic health than the traditional version—at least in men, say researchers.

The Mediterranean diet, rich in plant-based foods, is linked to a lower risk of heart disease, stroke, and diabetes and currently forms the backbone of dietary guidelines to stave off coronary heart disease.

It's thought that its impact is related to higher dietary intake of polyphenols, 'healthy' fats and fibre and lower animal protein intake.

The researchers wanted to find out whether a greener version of this diet, higher in green plant food sources and even lower in red meat intake, might be even better for health.

They randomly assigned 294 sedentary and moderately obese people (BMI of 31) with an average age of 51 into three dietary groups.

The first group received guidance on boosting physical activity and basic guidelines for achieving a healthy diet.

The second received the same physical activity guidance plus advice on following a calorie-restricted (1500-1800 kcal/day for men and 1200-1400 kcal/ day for women) traditional Mediterranean diet.

This was low in simple carbohydrates, rich in vegetables, with poultry and fish replacing red meat. It included 28 g/day of walnuts.

The third group received physical activity guidance plus advice on following a similar calorie-restricted green version of the Mediterranean diet ('green Med').

After six months, the effect of each of the diets on weight loss and on cardiovascular and metabolic risk factors was assessed.

Those on both types of Mediterranean diet lost more weight: green Med 6.2 kg; Mediterranean 5.4 kg; healthy diet 1.5 kg.

Waist circumference--an indicator of a potentially harmful midriff bulge--shrank by an average of 8.6 cm among those on the green Med diet compared with 6.8 cm for those on the Mediterranean diet and 4.3 cm for those on the healthy diet.

The green Med diet group achieved larger falls in 'bad' low-density cholesterol, a reduction of nearly four per cent.

Similarly, other cardiovascular and metabolic risk factors improved more among those on the green Med diet, including falls in diastolic blood pressure, insulin resistance, and an important marker of inflammation, C-reactive protein, which has a key role in artery hardening.

"Our findings suggest that additional restriction of meat intake with a parallel increase in plant-based, protein-rich foods, may further reduce cardiovascular risk, beyond the known beneficial effects of the traditional Mediterranean diet," the authors wrote. IANS

Covid-19: What you need to know today (Hindustan Times: 20201126)

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

Next week is an important one for India in its fight against the coronavirus disease. There are clear signs of a second wave — there have been, for some time — but the week starting November 30 will decide how rapidly this gathers momentum. For, this is when we will know whether the crowded markets seen just ahead of Diwali (November 14), and the Diwali celebrations themselves — they were muted this year, but there were some gatherings and family get-togethers, and some people did travel to be with their families — have resulted in a spike in cases. If there is one, it will actually start showing up in the numbers by the end of this week.

That's because anecdotal evidence — from Labour Day weekend in the US to crowding in a vegetable market in Chennai in May — suggests that cases peak two weeks after such events. And that's because science suggests that superspreaders and also superspreader events play an important role in the transmission of the disease.

If there's any chance at all that India will dodge this spike, it comes from the fact that Diwali came at a time that was either the end of the first wave, or the beginning of the second in India. It is possible, and also probable that the country's second wave will, much like the first, gather momentum slowly, rather than being turbocharged right at its beginning by a sharp rise in case numbers.

In this, India is fortunate.

This week, the US celebrates one of its biggest holidays, Thanksgiving (on November 26) — one that usually sees a lot of people traveling to be with their families. In each of the past two weeks, the country, now seeing its third wave of the coronavirus disease, has added at least a million cases. And although the country's Centers for Disease Control and Prevention recommended that people avoid travelling, over the weekend, US airports saw their busiest period since March, with three million people passing through them, according to data from the Transport Security Administration. That's still around 40% lower than the number of people who travelled by air ahead of Thanksgiving last year, but media reports suggest that many people believe that travelling to be with family on Thanksgiving is worth the risk of contracting Covid-19, and also that there is a surge in travel. That's bad news for a country that is doing around 175,000 cases a day on average, where cases are high and rising in almost every state, and where hospitals are being overwhelmed by a growing number of hospitalisations. Experts fear that a Thanksgiving spike could push several states and their public health systems over the edge.

It isn't clear why the nature of waves across countries is as different as it is — the second wave seems to have peaked in much of Europe, which would mean that both waves in most European countries have lasted for less time than corresponding waves in the US (and also India).

India's first wave lasted for months, gathering momentum slowly, peaking in mid-September, and then falling. Geographical and population size could explain this — it is one thing in common to both India and the US, and also Brazil (it has seen the third highest number of cases), which is also seeing a second wave, although that country's numbers are far too patchy to be taken seriously.

In the US and elsewhere, the fact that four vaccines have now shown high efficacy in protecting people from Covid-19 could well be encouraging people to take risks they otherwise would not — the New York Times reported, citing data from a travel search engine, that travel bookings increased after Pfizer/BioNTech's announcement in early November that their vaccine was effective in protecting people from the coronavirus disease.

This behaviour, stemming from the belief that the worst is over— it doesn't have a name yet, but I am sure one will be coined soon — is just as bad as Covid- or pandemic-fatigue.

Sure, at one level, the success of four vaccines has changed everything.

New Cases (The Asian Age: 20201126)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=15245321>

5,246 new Covid cases in 24 hrs, tally now at 5.45L

Kejri seeks experts' help to reduce deaths, L-G for strict action on violators

AGE CORRESPONDENT
NEW DELHI, NOV. 25

Delhi recorded 5,246 fresh Covid-19 cases in a day as the positivity rate declined 8.49 per cent, while 99 more fatalities pushed the city's death toll to 8,720 on Wednesday, authorities said. It was after five days that the national capital recorded a single-day death toll below 100. As many as 61,778 tests, including 26,080 RT-PCR ones, were conducted on Tuesday for the detection of Covid-19, according to a bulletin by the Delhi health department on Wednesday.

In the last 13 days, at least seven times the daily number of deaths had crossed the 100-mark. Authorities reported 109 deaths on Tuesday, 121 on Monday and Sunday, 111 on Saturday, 118 on Friday, 131 on November 18 — the



highest till date — and 104 fatalities on November 12. According to the bulletin, the total number of cases climbed to 5,45,787 on Wednesday, of which 4,98,780 have recovered.

The tally of active cases in Delhi was 38,287 down from 38,501 on Tuesday. The number of Covid-19 containment zones in Delhi rose to 4,980 on Wednesday from 4,708 the previous day.

Meanwhile, chief minister Arvind Kejriwal on Tuesday asked expert

groups to audit virus death cases and suggest measures to reduce fatalities, while lieutenant-governor Anil Baijal directed authorities to take exemplary and deterrent action for violation of SOPs, especially in crowded markets.

At a meeting of Delhi Disaster Management Authority (DDMA), Mr Baijal directed officials to ensure timely hospitalisation of Covid-19 patients under home isolation in case of emergency to reduce the mortality rate in the national capital which has recorded over 100 daily deaths in seven of the last 13 days.

Sources said the lieutenant-governor also asked the officials to ensure strict monitoring of Covid-19 patients under home isolation, amid instances of some people not following isolation

norms.

An official said that while discussion on vaccine distribution was on the agenda of the DDMA meeting on Wednesday, it did not happen.

"At the DDMA meeting, the chief minister asked experts to audit death cases and suggest measures which could reduce deaths in the national capital," a source said.

This comes against the backdrop of Delhi's three BJP-led municipal corporations alleging inconsistencies in the official death count vis-a-vis the number of deaths projected by funerals at the crematoria and burial grounds.

According to the Delhi government data, the total number of Covid-19 deaths as on November 23 was 8,512, while the civic bodies claimed to have carried out 10,318 funerals.

Pollution (The Asian Age: 20201126)

Pollution up, air quality deteriorates to 'severe'

AGE CORRESPONDENT
NEW DELHI, NOV. 25

After 10 days, Delhi's air quality deteriorated to the "severe" category on Wednesday due to slow winds, government agencies said. Stubble burning accounted for two per cent of Delhi's PM 2.5 pollution on Wednesday.

According to the Central Pollution Control Board (CPCB) mobile app, Sameer, the city's air quality index (AQI) was recorded at 401 on Wednesday morning and deteriorated to 415 in the evening. It was 388 on Tuesday.

It was 302 on Monday, 274 on Sunday, 251 on Saturday, 296 on Friday and 283 on Thursday.

The capital's AQI was in the "severe" category on November 15, a day after Diwali, but later improved and remained in either "poor" or "moderate" category until November 22.

According to ministry of earth sciences' monitoring system Safar, stubble



Cyclists ride through fog on a cold morning at Vijay Chowk in New Delhi on Wednesday.

— PTI

fire counts were quite low at 63 on Tuesday with its share in PM 2.5 in Delhi's air at two per cent on Wednesday.

"Effective stubble fire counts with sufficient potential as estimated from Safar-multi-satellite products are low (around 63). Hence, the stubble burning share in PM2.5 in Delhi's air is estimated as two per cent for on Wednesday, it said.

It forecasted winds to pick up and improve the ventilation condition by Thursday.

The AQI is forecasted to improve towards "very poor" category by tomorrow and likely stay in the lower end of very poor on November 27 and 28, Safar said.

Stubble burning accounted for five per cent of Delhi's PM 2.5 pollution on Tuesday.

Diabetes

More than half of 20-year-olds in India's metros likely to develop diabetes in lifetime: Study (The Hindu: 20201126)

As urban centres continue to grow rapidly across India, decreasing diet quality, and decreased levels of physical activity are all contributing to this hidden epidemic.

More than half of men, and nearly two thirds of women currently aged 20 years in India could develop diabetes in their life time, with most of those cases likely to be type 2 diabetes, according to a new study.

The research, published in the journal *Diabetologia*, estimated the probability of a metropolitan Indian of any age or body mass index (BMI) developing diabetes in their lifetime.

According to the scientists, including those from the Centre for Chronic Disease Control (CCDC) in New Delhi, the country already has a significant health burden caused by diabetes with more than 77 million adults currently afflicted by the condition, and the number expected to almost double to 134 million by 2045.

As urban centres continue to grow rapidly across India, they said decreasing diet quality, and decreased levels of physical activity are all contributing to this hidden epidemic.

In the study, the researchers assessed age-, sex- and BMI-specific incidence rates of diabetes in urban India based on data from the Centre for Cardiometabolic Risk Reduction in South Asia (2010-2018).

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Obsession with losing weight potential threat to developing diabetes: expert

They also analysed the age-, sex- and urban-specific rates of mortality from period lifetables reported by the Government of India (2014), and the prevalence of diabetes reported by the Indian Council for Medical Research India DIABetes study (2008-2015).

Based on the analysis, the scientists said the lifetime risk of developing diabetes in 20-year-old men and women free of diabetes today is 56% and 65%, respectively. Women generally had a higher lifetime risk across the lifespan, the study noted.

According to the researchers, for those currently aged 60 years and currently free of diabetes, around 38% of women and 28% of men would go on to develop diabetes.

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They cautioned that obesity had a substantial impact on these projections, with the lifetime risk highest among obese metropolitan Indians — 86% among 20-year-old women, and 87% among men.

People with lower BMI had considerably higher diabetes-free life expectancy and obese 20-year-olds were estimated to have around half of their remaining life years free from diabetes. However, those with normal or underweight BMI were projected to live out most of their remaining years diabetes-free, the scientists said.

“The remarkably high lifetime risk of developing diabetes and the low diabetes-free life expectancy in India’s metropolitan cities, especially for individuals with high BMI, implies that interventions targeting the incidence of diabetes may be of paramount importance moving forward,” the researchers noted in the study.

Urban obesogenic environments

They noted that metropolitan Indians at every age and BMI have an alarmingly high probability of developing diabetes compared with results from high income countries, and that proactive efforts to prevent diabetes in cities are urgently needed.

According to the scientists, this is particularly needed given the rapid increase in “urban obesogenic environments” across the country.

In addition to these risk factors, the scientists said Indians already have a relatively high predisposition to developing the condition at both lower ages and lower BMIs when compared with white European populations. “Such high probabilities of developing diabetes will have severely negative implications for India’s already strained health system and also out-of-pocket expenditure on diabetes treatment by patients, unless diabetes is immediately acknowledged for what it is,” said study co-author Shammi Luhar from the University of Cambridge in the U.K.

“Despite these very high predicted lifetime risks of diabetes, it is possible to prevent or postpone diabetes by effective lifestyle modification, such as following a healthy diet, by increasing physical activity and reducing body weight in those who are obese or overweight,” added Viswanathan Mohan, another co-author of the research from the Madras Diabetes Research Foundation in Chennai.

The scientists believe the need of the hour is policy and investment with clearly spelt out targets and commitments to meet by 2030. “Perhaps an aspirational target of ‘90-90-90’ (90% of people with diabetes detected, 90% of those detected treated, and 90% of those treated controlled), is imminently needed,” said study co-author Nikhil Tandon from the Department of Endocrinology and Metabolism, All India Institute of Medical Sciences (AIIMS) in New Delhi. “Such a target could operate in the same way as the 90-90-90 targets introduced some years ago for HIV, which has since been replaced by even more ambitious 95-95-95 targets.”

Fatal complications

Ignoring mild Covid symptoms can lead to fatal complications (New Kerala: 20201126)

The latest flock of patients at Sir Ganga Ram Hospital is a case study in itself which reveals the repercussions of ignorance about one of the deadliest diseases of our times -- Covid-19.

Of late, the hospital has been receiving patients exhibiting serious medical conditions, mainly because of ignoring testing when the Covid symptoms first appeared.

The hospital said that it has been receiving patients with high grade fever, severe body and muscle ache, stroke, leg thrombosis, lung fibrosis and cardiac involvement, the classic manifestations of Covid-19.

The clinical investigation of thirty such patients revealed that they never underwent the test to detect the virus despite developing mild symptoms of the disease thinking that the symptoms would go away on their own.

"However, these patients rushed to the hospital when their mild complications started progressing to moderate and major ones of Covid," said Dr Atul Kakar, vice-chairperson, department of internal medicine, Sir Ganga Ram Hospital. The complications included high grade fever, severe body and muscle aches, stroke, leg thrombosis, lung fibrosis and cardiac involvement, he informed.

"In the last month alone, we have treated close to 30 patients of Covid induced moderate to major complications with no test of Covid being done. Covid antibody tests in all these patients were found to be positive. These patients came with involvement of Lungs, Nervous system, Heart and Blood vessels. Many patients who had lung involvement required oxygen term supplementation and a few special medications," Dr Kakar added.

As per the doctors, such patients could have averted severe stage of the illness if they had opted for early testing and the treatment of the disease.

"People with any of the mild symptoms of Covid should not take it lightly. They should get tested immediately and should be under medical supervision. Any persistence or deterioration should be reported on urgent basis," Kakar cautioned.

"While Covid remains a self-limiting disease in majority of the cases, testing and supervision still remain essential in all kinds of patients, especially elderly and immune-compromised or having underlying medical conditions such as diabetes, cancers, lung or kidney diseases. It affects different people in different ways. Most of the infected people will develop mild to moderate illness and recover with home isolation," he added.

The most common symptoms of Covid are fever, dry cough, and tiredness. Other symptoms include aches and pains, sore throat, diarrhoea, conjunctivitis, headache, loss of taste or smell, a rash on the skin or discolouration of fingers or toes.

Pregnancy

Stress in pregnancy may influence baby's brain development (New Kerala: 20201126)

Researchers have revealed that infants' brains may be shaped by levels of stress their mothers experience during pregnancy.

The study, published in the journal eLife, suggests that stress levels in mothers - measured by a hormone linked to anxiety and other health problems - is related to changes in areas of the infant brain associated with emotional development.

"The findings highlight the urgent need for women to be better supported with their mental and physical health before and during pregnancy, and could help them spot mums and babies who need help," said study authors from the University of Edinburgh in the UK.

The experts add that pregnant women who feel stressed or unwell should seek help from their midwife or consultant and that with support, most health issues can be well managed in pregnancy.

Maternal stress is known to influence the development of the child's behaviour and ability to regulate its emotions as it grows. This is usually measured by questionnaires, which are not always reliable.

The new study is the first time that scientists have used an objective measure - levels of the hormone cortisol - in the mother to study links with baby brain development.

Cortisol is involved in the body's response to stress - with higher levels indicating higher stress - and also plays a role in foetal growth.

The research team showed that levels of cortisol are linked to the development of the baby's amygdala, an area of the brain known to be involved in emotional and social development in childhood.

For the study, scientists took hair samples from 78 pregnant women to determine the women's levels of cortisol in the previous three months.

The women's babies underwent a series of brain scans using Magnetic Resonance Imaging, or MRI, a non-invasive scan that took place whilst the baby slept.

The researchers found that higher levels of cortisol in the mother's hair were linked to structural changes in the infants' amygdala as well as differences in brain connections.

They said this could explain why children whose mothers experienced high levels of stress during pregnancy may be more likely to have emotional issues in later life.

"Our findings are a call to action to detect and support pregnant women who need extra help during pregnancy as this could be an effective way of promoting healthy brain development in their babies," said study author James Boardman.

Steam inhalation therapy

Steam inhalation therapy: An effective remedy to manage seasonal flu (New Kerala: 20201126)

With the monsoon winding down and winter moving in, colder weather will arrive soon, making us more prone to catching the flu or common cold. Given the sudden change in weather from damp to cold air, it is a good practice to manage one's respiratory health effectively. Re-emphasizing the importance of health measures, you can take during this time, the Ministry of AYUSH recommends a list of self-care guidelines to boost immunity, with special reference to respiratory health.

These include practicing steam inhalation with fresh Pudina (Mint) leaves or Ajwain (Caraway seeds) to provide the body with much-needed warmth and help in soothing the system. It also highlights how consuming antioxidant-rich Haldi milk, and practicing Yoga can help balance overall health.

During winters, many people suffer from breathing difficulty, body ache, cough, blocked nose, headache and muscular stiffness. With doctor visits moving online given the limited access, opting for expert-approved measures will help as the first line of treatment to provide faster relief from cough and blocked nose.

Speaking on the subject, Dr. Kunal Manek, Ayurveda Consultant, and Panchakarma Physician, said, "Winter season is approaching, and for the next few months, with the temperature drop, the cold dry winds air can make us more susceptible to cold and flu. Strengthening our body's natural defence against constant change in temperatures is the best way to manage our health. Steam inhalation, as a practice not only provides warmth but also clears the nasal passage and helps you manage cold and cough symptoms common during cold climate conditions. Regular steam inhalation with ayurvedic ingredients like Pudina (Mint) leaves and Ajwain (Caraway seeds), will aid in soothing dry cough and blocked nose. You can also use a medicated rub, which contains Pudina, Ajwain, Kapoor iamp; Nilgiri to help relieve cough and cold symptoms."

Viral infections, cold, cough and flu are always at a peak with the fall in temperatures; these measures can ease symptoms like blocked nose, cold and cough. For effective steam inhalation, add one/two teaspoons of a medicated rub in a bowl of hot water (not boiling), place a towel over your head, and inhale the vapours. These rubs are readily available at chemist shops and grocery stores. For pain related symptoms apply directly on the affected area. Always read the label. Use only as directed. Don't add the medicated Rub into boiling water. Don't heat or reheat the Rub together with water. If symptoms persist, see your doctor.

Bariatric surgery

Bariatric surgery may reduce Covid severity in obese patients (New Kerala: 20201126)

<https://www.newkerala.com/news/2020/204736.htm>

Researchers have found that among patients who have obesity and tested positive for Covid-19, a past history of bariatric surgery was significantly linked to a lower risk of hospital and intensive care unit (ICU) admission.

Bariatric surgery is an operation that helps you lose weight by making changes to your digestive system.

In the past months, researchers worldwide have identified obesity as a risk factor for developing a severe form of Covid-19, which may require hospital admission, need for intensive care and use of ventilator support.

Obesity is a complex disease caused by multiple factors that weaken the immune system.

According to the study, published in the journal of Surgery for Obesity and Related Diseases, obesity creates a chronic inflammatory state that causes excessive production of cytokines, which are small proteins involved in the immune response.

"Infection with the coronavirus also triggers the immune system to release cytokines, which may lead to excessive cytokine production that damages organs," said study author Ali Aminian from the Cleveland Clinic in the US.

"That may partly explain the severity of infection in patients with obesity," says Aminian added.

In addition, obesity increases the risk for cardiovascular disease, hypertension, diabetes, kidney disease and blood clot formation.

Those conditions can lead to poor outcomes after an infection with SARS-CoV-2, which is the virus that causes Covid-19. Obesity may also affect the respiratory system.

Many patients with obesity have underlying lung conditions, such as sleep apnea and obesity hypoventilation syndrome, that can worsen the outcomes of Covid-19 pneumonia.

The study provides further evidence of the important link between obesity and poor outcomes from coronavirus infection.

It shows for the first time that substantial weight loss via bariatric surgery may actually reduce the risk from severe illness in these patients.

Looking at 4,365 patients who tested positive for SARS-CoV-2, researchers identified 33 patients who had a prior history of weight-loss surgery.

This matched cohort study of 363 patients showed that sustained weight loss and improvement of diabetes and hypertension in the bariatric surgical group prior to contracting Covid-19 was associated with a much lower rate of hospital and ICU admission.

"Patients after bariatric surgery become significantly healthier and can fight the virus better," the authors noted.

Gut hormone

Gut hormone that regulates fat found abnormal in obesity (New Kerala: 20201126)

<https://www.newkerala.com/news/2020/204658.htm>

One key gut hormone, released a few hours after eating, turns off fat production by regulating gene expression in the liver and this regulation is abnormal in obesity, according to a new study.

The researchers from University of Illinois (UI) found that the gut hormone FGF15 in mice and its human counterpart FGF19 turn off fat-producing genes in the liver.

The hormones are released a few hours after eating, when the body transitions from feeding to fasting.

FGF15/19 activates regulatory molecules to enter the nucleus, the centre of the cell where DNA is stored, and inhibits gene expression, reports Xinhua news agency.

"This gut hormone actually acts as a breaker of insulin action, and specifically inhibits lipogenesis in the liver so that it is tightly regulated," said UI molecular and integrative physiology Professor Jongsook Kim Kemper in the study published in the journal Nature Communications.

"For example, with the holidays coming up, if you eat some cookies, the body will release insulin, which promotes lipogenesis. If lipogenesis is not reduced later when the body enters the fasting state, excess fat will accumulate in the liver, so the FGF19 hormone puts the brakes on fat production."

Furthermore, in experiments involving mice with obesity and human patients with nonalcoholic fatty liver disease, the researchers found that the pathway for turning off fat production was dysregulated.

The genes that the gut hormone regulates were highly active, the FGF15/19-activated regulatory molecules did not even enter the cell's nucleus and the suppression markers were not added to the genes.

"This study could be very important for understanding this pathway and investigating how it is abnormal in obesity and nonalcoholic fatty liver disease," Kemper said.

"It adds to our understanding of obesity, nonalcoholic fatty liver disease and other metabolic disorders. It also could have implications for other diseases such as diabetes or certain cancers, for which obesity is a risk factor.

"Based on this study, we potentially could search for therapeutic treatment options to target this pathway and increase regulatory function."

Pollution (Hindustan: 20201126)

https://epaper.livehindustan.com/imageview_474226_86764596_4_1_26-11-2020_6_i_1_sf.html

फिर से गंभीर श्रेणी में पहुंची दिल्ली की हवा



नई दिल्ली | प्रमुख संवाददाता

राजधानी की हवा बुधवार को गंभीर श्रेणी में पहुंच गई। केंद्रीय प्रदूषण नियंत्रण बोर्ड के मुताबिक दिल्ली का औसत वायु गुणवत्ता सूचकांक बुधवार को 413 के अंक पर रहा। दिल्ली की हवा में इस समय प्रदूषण कणों की मात्रा चार गुने से भी ज्यादा है।

हवा की गति थमने के चलते मंगलवार को ही दिल्ली की हवा बेहद खराब श्रेणी में पहुंच गई थी। बुधवार को इसमें तेजी से इजाफा हुआ। दिल्ली के आसमान पर दिनभर ऊंचाई वाले बादल छाए रहे। जबकि, वातावरण के निचले हिस्से में प्रदूषण की मोटी परत बन गई। इससे दृश्यता का स्तर भी प्रभावित हुआ। सफदरजंग मौसम केंद्र में सुबह साढ़े आठ बजे दृश्यता का स्तर 800 मीटर रहा। जबकि, सामान्य तौर पर इसे दो हजार मीटर से ज्यादा होना चाहिए। प्रदूषण के चलते दिल्ली के लोगों को

24 घंटे में सुधार की संभावना

सफर का अनुमान है कि पश्चिमी विक्षोभ के प्रभाव से होने वाली हल्की बूदाबादी और हवा की रफ्तार में आने वाली तेजी के चलते अगले 24 घंटों में हवा की गुणवत्ता में सुधार आएगा। हालांकि, अभी यह बेहद खराब श्रेणी में ही रहने की संभावना है।

दिन भर घुटनभरी हवा में सांस लेनी पड़ी। दिन का औसत वायु गुणवत्ता सूचकांक 413 के अंक पर रहा। चौबीस घंटे के भीतर ही इसमें 34 अंकों की बढ़ोतरी हुई है। शाम 5 बजे दिल्ली की हवा में प्रदूषक कण पीएम 10 की मात्रा 411 व पीएम 2.5 की मात्रा 240 माइक्रोग्राम प्रति घन मीटर के स्तर पर रही।

क्या है सही मात्रा : पता हो कि हवा में पीएम 10 की मात्रा 100 व पीएम 2.5 की मात्रा 60 से नीचे होने पर ही उसे स्वास्थ्य के लिए अच्छा माना जाता है। दिल्ली के 22 निगरानी केन्द्रों में बुधवार के दिन वायु गुणवत्ता सूचकांक 400 के अंक के पार यानी गंभीर श्रेणी में रहा।