Deep, peaceful sleep early in life may help prevent Alzheimer's: Study (The Tribune: 2020908)

Deep, peaceful sleep early in life may help prevent Alzheimer's: Study
Photo for representational purpose only.

Deep sleep early in life, and plenty of it, may defend you against Alzheimer's that is a progressive brain disease and for which no treatment currently exists.

The brain washes itself during deep sleep, so there may be the chance to turn back the clock by getting deeper, restorative sleep earlier in life, say researchers from the University of California-Berkeley in the US.

"We have found that the sleep you're having right now is almost like a crystal ball telling you when and how fast Alzheimer's pathology will develop in your brain," said neuroscientist Matthew Walker, professor of psychology and neuroscience at UC Berkeley.

"The silver lining here is that there's something we can do about it," he added in a paper published in the journal Current Biology.

To reach this conclusion, Walker and fellow researchers matched the overnight sleep quality of 32 healthy older adults (in their 60s, 70s and 80s) against the build-up in their brains of the toxic plaque known as beta-amyloid – a key player in the onset and progression of Alzheimer's.

The beta-amyloid destroys memory pathways and other brain functions and afflicts more than 40 million people worldwide.

Each participant spent an eight-hour night of sleep in Walker's lab while undergoing polysomnography, a battery of tests that record brain waves, heart rate, blood-oxygen levels and other physiological measures of sleep quality.
The findings showed that the participants who started out experiencing more fragmented sleep and less non-rapid eye movement (NREM) slow-wave sleep were most likely to show an increase in beta-amyloid over the course of the study.

Typically, sleep begins with a NREM sleep stage, cycles through the three NREM stages, and is followed by a REM period. Each phase of sleep is important, but REM sleep is especially fascinating because it increases brain activity, promotes learning and creates dreams, according to previous studies.

The researchers were able to forecast the increase in beta-amyloid plaques, which are thought to mark the beginning of Alzheimer's.

"Rather than waiting for someone to develop dementia many years down the road, we are able to assess how sleep quality predicts changes in beta-amyloid plaques across multiple time points," said Joseph Winer, the study's lead author.

Although genetic testing can predict one's inherent susceptibility to Alzheimer's, and blood tests offer a diagnostic tool, neither offers the potential for a lifestyle therapeutic intervention that sleep does, the researchers pointed out.

"If deep, restorative sleep can slow down this disease, we should be making it a major priority," Winer said.

"We know there's a connection between people's sleep quality and what's going on in the brain, in terms of Alzheimer's disease. But what hasn't been tested before is whether your sleep right now predicts what's going to happen to you years later," Winer said.

The researchers got their answer.

"Measuring sleep effectively helps us travel into the future and estimate where your amyloid buildup will be," Walker noted.

Walker and Winer are now looking at how they can take study participants who are at high risk of contracting Alzheimer's and implement methods that might boost the quality of their sleep.

"Indeed, if we can bend the arrow of Alzheimer's risk downward by improving sleep, it would be a significant and hopeful advance," Walker said. IANS

Healthy gut microbes

Healthy gut microbe’s key for space travellers to reach Mars (The Tribune: 2020908)


The microgravity environment can result in muscle breakdown and reduced bone mass.
Healthy gut microbes key for space travellers to reach Mars
The microgravity environment can result in muscle breakdown and reduced bone mass.

Gut microbes have an immense benefit and now, new research reports that promoting a healthy gut microbiome could protect travellers from the rigours of long space travel.

If humans are to ever walk on Mars, they will need to endure a long space flight, but space travel can have negative impacts on health, potentially limiting how far we can go.

The microgravity environment can result in muscle breakdown and reduced bone mass.

It can cause nausea, meaning that sometimes space travellers struggle to eat enough (space food isn't all that nice either). The change in diet aboard a spaceship can disrupt the gut microbiome, leading to further health issues.

"Changes in the microbiome are likely to lead to the breakdown of the balanced and complex relationship between microbes and their human host, with potentially severe repercussions on the functionality of body systems," said Professor Silvia Turroni from the University of Bologna.

The review, published in the open-access journal Frontiers in Physiology, discussed a variety of studies suggesting that disruptions in the gut microbiome occur during space travel.

For instance, one study found that the microbiomes of space travellers on the same mission became more similar to each other during the journey.

There was also an increase in bacteria associated with intestinal inflammation and a decrease in those with anti-inflammatory properties.

However, the research review revealed that manipulating the gut microbiome may be a powerful way to maintain health onboard a spacecraft.

"The literature suggests that nutritional countermeasures based on prebiotics and probiotics hold great promise to protect space travellers," said Turroni.

What would these microbial treatments involve?

They may be as simple as nutritionally balanced meals, with lots of fibre to kickstart microbial metabolism in the gut.

Other options could be more targeted, including microbial supplements, such as bacteria that secrete immune-boosting substances, or those that synthesize vitamins required for bone growth.
"The well-being of the gut microbiome of space travellers should be among the primary goals of long-duration exploratory missions," said Professor Martina Heer of the University of Bonn.

"To ensure the success of the mission, we must not overlook the myriad of microorganisms that reside in our gastrointestinal tract and make sure they are in balance." While future missions to Mars will undoubtedly look for evidence of microbial life on the red planet, this review suggests that it may be our homegrown microbes that get us there, the authors wrote.

**Oral health**

**Binging on junk, unavailability of dental services affecting oral health (The Tribune: 2020908)**


Binging on junk, unavailability of dental services affecting oral health
For representation only.

According to the National Oral Health Policy draft in 2018, oral disorders have remained the most prevalent disease group for over three decades in India, making it a silent epidemic. Now, with the pandemic-induced lockdown, the oral health situation has only worsened, opine doctors.

The doctors observed that erratic changes in work routine, binge eating and stress ensued during the lockdown have deteriorated dental health to a great extent. Staying at home led people to snack more often between meals, leaving the mouth susceptible to tooth decay, erosion, and other dental problems.

Dr. Surbhi Wadhwani, Oral Pathologist and Implantologist at DocVita said that despite the unavailability of eatery joints and restaurants, the consumption of junk increased during the lockdown.

“Due to the lockdown, people started consuming home-made junk food, which contributed to the deterioration of their oral health. They resorted to binge-eating while spending maximum time on the internet watching web shows and series. The mandatory hygiene practices took a backseat. Many people developed cavities and tooth pain, leading to an increase in root canal treatments. Since people could not visit us in person for these problems, we resorted to online video consultations and helped them with home remedies and, if needed, prescribed antibiotics to get relief from tooth-related problems.” She also said that the increase in cigarette and tobacco consumption during Covid-19 increased, amplifying the oral issues. “Covid-19 has not only affected one’s mental health, but also caused changes in their eating habits and the oral care routine. This stress has also led to increased tobacco chewing and cigarette smoking habits. Due to this, people suffered from oral health problems such as the sensitivity of teeth, and bleeding of gums,” Dr. Wadhwani added.
Dr. Danny Dutta, a dental surgeon, based in Guwahati, Assam, said that he is observing a hundred per cent increase in patients coming with gum disorders. “Gum disease, like Periodontitis, is increasing in patients. “Before Covid, 25 per cent of my patients would be about coming with the swelling problem, and right now, the cases have been doubled to 50 per cent,” he informed.

Dr. Dutta also observed that the dearth of dental services elevated such oral health issues. “In the last three months, the dental clinics were closed, and people could not take proper dental care like treating cavities or cleaning of teeth. Even now, dentists cannot treat half of their patients despite the resumption in services as fear of Covid-19 reigns. One more reason is that most government hospital doctors are in Covid-19 duty due to which people are not getting access to the dental care, and the oral problems are getting compounded,” he added.

The rise of Covid-19 had stalled many essential health services. The major fatality of this crisis was borne by dentistry as it requires working in close proximity with the aerosols generating elements.

Dr. Garima Yadav, Senior Consultant, Dental and Maxillofacial Surgery, Medeor Hospital, New Delhi, said that the follow-ups to the patients of corrective surgeries had completely stopped creating oral health issues to them.

“Our exclusive patients related to teeth correction and aesthetics are entirely avoiding a visit to us. The follow-ups to surgical patients have been stopped as they moved to their native places during the lockdown. This situation has delayed the overall treatment. The procedures like braces in children usually take about a year and have been further delayed by five to six months, at least. It is becoming a serious problem because I’m receiving complaints of the gum-swelling as the braces get loose, leaving space for the food, which is stuck in the gap and leads to swelling.

Dr. Rahul Kumar Singh, a dentist at the Government Institute of Medical Sciences in Noida, said that with dentists across the country postponing elective procedures and carrying out only emergency interventions, the onus is on the individuals to care for their oral health. “Majority of Indians are poor in practicing oral hygiene. They do not even care to brush twice, which is mandatory to maintain critical oral health. However, it is high time that they start practicing,” he suggested. IANS

**Covid-19**

**Lung, heart damage in Covid-19 patients improve with time: Study (The Tribune: 2020908)**


Lung, heart damage in Covid-19 patients improve with time: Study
The bad news is that people show lung impairment from Covid-19 weeks after discharge. The good news, however, is that the impairment tends to ameliorate over time which suggests that the lungs have a mechanism for repairing themselves, researchers said on Monday.

The first follow-up of 86 patients infected with the coronavirus in the 'hot spot' Tyrolean region of Austria, presented at the European Respiratory Society International Congress, showed that the Covid-19 patients can suffer long-term lung and heart damage but, for many, this tends to improve over time.

The patients were scheduled to return for evaluation six, 12 and 24 weeks after their discharge from hospital.

At the time of their first visit, more than half of the patients had at least one persistent symptom, predominantly breathlessness and coughing, and CT scans still showed lung damage in 88 per cent of patients.

However, by the time of their next visit 12 weeks after discharge, the symptoms had improved and lung damage was reduced to 56 per cent.

The average age of the 86 patients included in this presentation was 61 and 65 per cent of them were male.

"The findings show the importance of implementing structured follow-up care for patients with severe Covid-19 infection. Importantly, CT unveiled lung damage in this patient group that was not identified by lung function tests," said Sabina Sahanic, a clinical PhD student at the University Clinic in Innsbruck, Austria.

"Knowing how patients have been affected long-term by the coronavirus might enable symptoms and lung damage to be treated much earlier and might have a significant impact on further medical recommendations and advice," she added.

Nearly half of the 86 patients were current or former smokers and 65 per cent of hospitalised patients were overweight or obese.

Damage from inflammation and fluid in the lungs caused by the coronavirus, which shows up on CT scans as white patches known as 'ground glass', also improved.

It was present in 74 patients (88 per cent) at six weeks and 48 patients (56 per cent) at 12 weeks.

At the six-week visit, the echocardiograms showed that 48 patients (58.5 per cent) had dysfunction of the left ventricle of the heart at the point when it is relaxing and dilating (diastole).

Biological indicators of heart damage, blood clots and inflammation were all significantly elevated.

"We do not believe left ventricular diastolic dysfunction is specific to Covid-19, but more a sign of severity of the disease in general," Sahanic said.
"Fortunately, in the Innsbruck cohort, we did not observe any severe coronavirus-associated heart dysfunction in the post-acute phase. The diastolic dysfunction that we observed also tended to improve with time." In a second presentation at the event, Yara Al Chikhanie, a PhD student at the Grenoble Alpes University, France, said that the sooner Covid-19 patients started a pulmonary rehabilitation programme after coming off ventilators, the better and faster their recovery.

"How soon they can start rehabilitation depends on the patients being judged medically stable by their doctors. Despite the significant improvement, the average period of three weeks in rehabilitation wasn't enough for them to recover completely," Chikhanie said.

**Covid-19 most active in the country**

**Where is Covid-19 most active in the country?** *(Hindustan Times: 2020908)*

[https://epaper.hindustantimes.com/Home/ArticleView](https://epaper.hindustantimes.com/Home/ArticleView)

Where is Covid-19 most active in the country? As total active cases of Covid-19 in India approach the million mark, here is one of the most important statistics of the disease’s run through the country: around half of India’s 880,790 active cases as of Sunday night were located in just three states, and more than a quarter of these were in just 10 cities. A look at five charts that best capture the rise in India’s active cases:
APPROACHING A MILLION ACTIVE CASES

880,790
Active cases across India as on September 6

4,196,703
Total cases across India

3,315,913
Closed cases

HOW ACTIVE CASES ARE GROWING

In what may be one of the most alarming trends that this pandemic has created, the number of active cases in the country has been nearly consistently rising i.e. the number of new cases are heavily outstripping the number of recoveries (and deaths) and are now approaching the million mark.

For the week ended August 22, India added 4,034 active cases per day on average, the lowest this has hit in recent months. In the past week though, this has jumped to 14,273 active cases added every day. If this increase continues at this pace, then India may be heading towards a million active cases as early as Sept 15.

THE SPREAD OF INDIA’S ACTIVE CASES

BY STATE

49.4% of all active cases in the country are in just three states – Maharashtra, Andhra Pradesh and Karnataka.

Just 10 states account for 3 out of every 4 active case in India as of Sunday night. Maharashtra, the state with the highest active cases, alone accounts for more than a quarter (26.8%) of such cases.
One, what is India’s Infection Fatality Rate for Covid-19?

This is different from the case fatality rate, which is simply the number of deaths represented as a proportion of the number of cases. The infection fatality rate, or IFR, is the number of deaths represented as a proportion of the number of infected. Caveat: Death numbers everywhere in the world, directly because of the coronavirus disease, or indirectly caused by it, are being undercounted, but in the absence of accurate death data and records, it is pointless to try and guess by how much.

IFR is an important metric because it accurately measures the possible fatalities arising from a disease — and also the chances of dying from it. Measuring it, though, requires knowing the denominator — the number of infected people in a population.

This is why sero surveys, blood tests that look for Sars-CoV-2 antibodies (in this case), are important. Such surveys measure the prevalence of a disease in a population — or the infection rate. Since Covid-19 deaths are anyway recorded, it is then possible to calculate IFR.
There have been around 20 sero surveys in various parts of India covering close to 110,000 people. I decided to pick four of these, excluding ones with smaller samples. These four surveys, two in Delhi, and one each in Chennai and Ahmedabad, together covered around 78,000 people. The Ahmedabad survey showed that 17.6% of those studied had been exposed to the virus; the Chennai one 21.5%, and the two Delhi surveys 23% and 29.1%. The Ahmedabad and Chennai surveys were conducted in July; and the two Delhi ones in late June/early July and early August. Delhi’s third sero survey is nearing completion, and the results are expected next week. Based on these numbers, it can be assumed that at least 20% the population in large cities has been exposed to the disease.

What does that make Delhi’s IFR? There have been 4,567 deaths on account of Covid-19 in Delhi till Sunday night. A 20% infection rate in the population would mean four million infections. That translates into an infection fatality rate of 0.11%. This compares with a case fatality rate of 2.4% in Delhi. In Ahmedabad, the IFR is again 0.11. And in Chennai it is 0.13. All numbers are based on current population and the total number of deaths in these cities till Sunday night. Three cities in different parts of the countries, all boasting similar IFRs, is interesting, but also expected. Pandemics respect math (it’s also the reason I have repeatedly called out states pretending all is well on the basis of positivity rates that have not followed the trajectory of such rates around the world).

The second question, how common is a Covid-19 reinfection?

This is prompted by media reports that claim India’s first case of coronavirus reinfection has been identified in a Bengaluru hospital. There have been 27 million coronavirus infections around the world — but only two known and established instances of reinfection (both in late August). There are probably more, but establishing a reinfection requires sequencing the viral genome of the first infection in the patient, and then sequencing the viral genome of the second infection in the patient, and proving that the two are different. Doctors and scientists established this in the case of a Hong Kong man whose second infection was asymptomatic (it was detected because he was travelling) and a US woman whose second infection resulted in severe symptoms.

This doesn’t seem to have been done in the case of the Bengaluru patient — which doesn’t rule out a reinfection, but which also doesn’t rule out a residual infection or tests throwing up false negatives.

Scientists are very interested in reinfections because these have a bearing on vaccine development. If there are significant reinfections (two in 27 million aren’t) and if the immune system in these patients did work the way it is supposed to, then it makes the vaccine development process a bit more complex — it is always easier to develop vaccines for diseases where an infection results in lifelong immunity (or at least immunity for a significant period of time).

**IFR IN CITIES**

Based on the sero survey results, a 20% infection rate in the population would mean four million infections in Delhi. That translates into an infection fatality rate of 0.11%. Similarly, in Ahmedabad, the IFR would be 0.11% and in Chennai, 0.13%. Three cities in different parts of the countries, all boasting similar IFRs, is interesting, but also expected.

**THE QUESTION OF REINFECTION**

There have been 27 million coronavirus infections around the world — but only two known and established instances of reinfection. Scientists are very interested in reinfections because
these have a bearing on vaccine development. If there are significant reinfections and if the immune system in these patients did work the way it is supposed to, then it makes the vaccine development process a bit more complex.

National Education Policy (The Asian Age: 20200908)
'National Education Policy lacks roadmap for implementation'

AGE CORRESPONDENT
NEW DELHI, SEPT. 7

Delhi deputy chief minister Manish Sisodia said on Monday the new National Education Policy (NEP) lacks the roadmap for implementation and needs proper planning so that it is not reduced to just a wonderful idea.

Sisodia, who also holds the education portfolio, made the comments at the ‘Governors’ Conference on the Role of NEP in Transforming Higher Education’.

“The new national education policy lacks the action plan to implement it. The implementation of this policy should be carefully planned so that it is not limited to just a wonderful idea. It is necessary to put national education policy into practice rather than restricting it to only wishful thinking,” he said.

“This policy talks about spending 6 per cent of GDP on education. It has been said in the 1966 policy but never implemented. Thus, a law should be made so that successive governments are bound by it and necessary resources needed for effective implementation of the policy can be guaranteed,” Sisodia added.

The NEP approved by the Union Cabinet in July replaces the 34-year-old National Policy on Education framed in 1986 and is aimed at paving the way for transformational reforms in school and higher education systems to make India a global knowledge superpower.

“The National Education Policy talks about vocational education. At present, about 80 per cent of the youth having a degree are not considered employable. This needs our attention. Even after completing 20 years of education, if our students are not employable then where does the fault lies?” Sisodia posed.

“It is inappropriate to treat vocational degree differently from an undergraduate degree in any other subject. These courses should be given equal importance, then only we will be able to reap their benefits,” he added.
Childhood obesity

Probiotics may help manage childhood obesity (New Kerala: 2020908)


Probiotics may help children and adolescents with obesity lose weight when taken alongside a calorie-controlled diet, according to a recent study.

The study was presented at e-ECE 2020 and found that obese children who were put on a calorie-restricted diet and given probiotics Bifidobacterium breve BR03 and Bifidobacterium breve B632, lost more weight and had improved insulin sensitivity compared with children on a diet only.

These findings suggest that probiotic supplements and a calorie-controlled diet may help manage obesity in the younger population and reduce future health risks, such as heart disease and diabetes.

Obesity is a global health concern and can lead to a number of life-threatening conditions, such as diabetes and heart disease. Treatment and prevention is a serious public health challenge, especially in children and adolescents.

Bifidobacteria are a group of probiotic bacteria that are part of the natural gut microbiome and help with preventing infection from other bacteria, such as E.coli, and digestion of carbohydrates and dietary fibre.

During digestion, they release chemicals called short-chain fatty acids, which play an important role in gut health and controlling hunger. Low numbers of Bifodobacteria may impair digestion, affect food intake and energy expenditure, leading to body weight gain and obesity.

Previous studies suggested that probiotic supplementation with Bifidobacteria could help restore the composition of the gut microbiome, which may aid weight loss and could be a potential approach for obesity management. However, current research uses mixtures of different strains of probiotics and does not examine the effects of administering Bifidobacteria alone.

Dr Flavia Prodam and her team at the University of Piemonte Orientale, aimed to assess the impact of Bifidobacteria probiotic treatment in children and adolescents with obesity on a controlled diet, on weight loss, and gut microbiota composition.

100 obese children and adolescents (6-18 years) were put on a calorie-controlled diet and randomly given either probiotics Bifidobacterium breve BR03 and Bifidobacterium breve B632, or a placebo for 8 weeks. Clinical, biochemical, and stool sample analyses were carried out to determine the effect of probiotic supplementation on weight gain, gut microbiota, and metabolism.
The results suggested that children who had taken probiotics had a reduction in waist circumference, BMI, insulin resistance, and E.coli in their gut. These beneficial effects demonstrate the potential of probiotics in helping to treat obesity in children and adolescents when undergoing dietary restrictions.

"Probiotic supplements are frequently given to people without proper evidence data. These findings start to give evidence of the efficacy and safety of two probiotic strains in treating obesity in a younger population," Dr Prodam said

The study suggests that supplementation with probiotics could modify the gut microbiome environment and beneficially affect metabolism, helping obese children or adolescents who are also undergoing a restricted diet to lose weight. However, larger studies over a longer period of time are needed to investigate this.

"The next step for our research is to identify patients that could benefit from this probiotic treatment, with a view to creating a more personalised weight-loss strategy. We also want to decipher more clearly the role of diet and probiotics on microbiome composition. This could help us to understand how the microbiota is different in young people with obesity," Dr Prodam said.

**Thyroid**

**People with thyroid problems at greater risk of anxiety (New Kerala: 2020908)**


People with autoimmune inflammation of their thyroid may be at a higher risk of developing anxiety, says a new study.

Anxiety can have a severe impact on people's quality of life and ability to work and socialise, and anti-anxiety medication does not always have a lasting effect.

Current examinations for anxiety disorders usually focus on dysfunction of the nervous system and do not take into account the role of the endocrine system.

The results presented at the European Society of Endocrinology's e-ECE 2020 Conference being held from September 5 to 9 showed that thyroid inflammation should be investigated as an underlying factor in psychiatric disorders such as anxiety.

"These findings indicate that the endocrine system may play an important role in anxiety. Doctors should also consider the thyroid gland and the rest of the endocrine system as well as the nervous system when examining patients with anxiety," said Juliya Onofriichuk from Kyiv City Clinical hospital in Ukraine.
The thyroid gland produces hormones thyroxine (T4) and triiodothyronine (T3) that are essential for regulating heart, muscle and digestive function, brain development and bone maintenance.

Autoimmune inflammation in the thyroid occurs when our bodies wrongly produce antibodies that attack the gland and cause damage.

Onofriichuk investigated thyroid function in 29 men (average age 33.9) and 27 women (average age 31.7) with diagnosed anxiety who were experiencing panic attacks.

Ultrasounds of their thyroid glands assessed thyroid function and levels of thyroid hormones were measured.

The patients with anxiety showed signs of inflammation of their thyroid glands but their function was not affected with thyroid hormone levels all within the normal range, although slightly elevated.

They also tested positive for antibodies directed against the thyroid. Treatment for 14 days with ibuprofen and thyroxine reduced thyroid inflammation, normalised thyroid hormone levels and reduced their anxiety scores, said the study.

Onofriichuk now plans to conduct further research that examines the levels of thyroid, sex and adrenal hormones -- cortisol, progesterone, prolactin, oestrogen and testosterone -- in patients with dysfunctional thyroid glands and anxiety disorders.

**Epidemics,**

**Unrest often follows epidemics, warn researchers (New Kerala: 2020908)**


Even though several protest movements in different parts of the world appear to be weakened at the moment, global protest may return more aggressively once the pandemic is over, researchers have warned.

A sharp increase in social instability in the aftermath of the epidemic should be expected even though incumbent governments tend to consolidate, said the study published in the journal Peace Economics, Peace Science and Public Policy.

"The social and psychological unrest arising from the epidemic tends to crowd-out the conflicts of the pre-epidemic period, but, at the same time it constitutes the fertile ground on which global protest may return more aggressively once the epidemic is over," wrote Massimo Morelli, Professor of Political Science at Bocconi University in Milan.

According to a Freedom House annual report, out of the 20 protest movements active worldwide in December 2019 only two or three are still active.
For example, the "Liberate Hong-Kong", the environmental activism of Greta Thunberg, the "Gilets Jaunes" in France or the "Sardine" movement in Italy appear greatly weakened since the outbreak of the epidemic.

For the study, Morelli and Roberto Censolo of University of Ferrara in Italy looked at the great plagues of the past.

They analyse 57 epidemic episodes between the Black Death (1346-1353) and the Spanish Flu (1919-1920).

The researchers found that revolts not evidently connected with the disease are infrequent within an epidemic period, but epidemics can sow other seeds of conflict.

Government conspiracy, "the filth of the poor", foreigners and immigrants have often been singled out as the cause of an epidemic.

"Overall, the historical evidence shows that the epidemics display a potential disarranging effect on civil society along three dimensions," the authors wrote.

"First, the policy measures tend to conflict with the interest of people, generating a dangerous friction between society and institutions. Second, to the extent that an epidemic impacts differently on society in terms of mortality and economic welfare, it may exacerbate inequality.

"Third, the psychological shock can induce irrational narratives on the causes and the spread of the disease, which may result in social or racial discrimination and even xenophobia," the study authors wrote.

Focusing on five cholera epidemics, Morelli and Censolo counted 39 rebellions in the 10 years preceding an epidemic and 71 rebellions in the 10 years following it.

On the other hand, the authors noted that, in the short-term, the necessary restrictions of freedom during an epidemic may be strategically exploited by governments to reinforce power.

**Anxiety disorders**

**Study finds thyroid inflammation linked to anxiety disorders (New Kerala: 2020908)**


Patients with autoimmune inflammation of their thyroid may be at greater risk of developing anxiety, according to a study being presented at e-ECE 2020.

The study found that people with anxiety may also have inflammation in their thyroid gland that can be reduced by taking the non-steroidal anti-inflammatory, ibuprofen. These findings suggest that thyroid function may play an important role in the development of anxiety
disorders and that thyroid inflammation should be investigated as an underlying factor in psychiatric disorders, such as anxiety.

At present, up to 35% of the young population (25-60 years) in developed countries have an anxiety disorder. Anxiety can have a severe impact on people's quality of life and ability to work and socialise, and anti-anxiety medication does not always have a lasting effect. Current examinations for anxiety disorders usually focus on the dysfunction of the nervous system and do not take into account the role of the endocrine system.

The thyroid gland produces the hormones thyroxine (T4) and triiodothyronine (T3) that are essential for regulating heart, muscle and digestive function, brain development and bone maintenance. Autoimmune inflammation in the thyroid occurs when our bodies wrongly produce antibodies that attack the gland and causes damage. Recent studies indicate that anxiety disorders can be associated with the dysfunction of the thyroid gland. Therefore, it is important to understand how this may contribute to anxiety so that patients can be treated more effectively.

Dr Juliya Onofriichuk from Kyiv City Clinical Hospital investigated thyroid function in 29 men (average age 33.9) and 27 women (average age 31.7) with diagnosed anxiety, who were experiencing panic attacks. Ultrasounds of their thyroid glands assessed thyroid function and levels of thyroid hormones were measured. The patients with anxiety showed signs of inflammation of their thyroid glands but their function was not affected, with thyroid hormone levels all within the normal range, although slightly elevated. They also tested positive for antibodies directed against the thyroid. Treatment for 14 days with ibuprofen and thyroxine reduced thyroid inflammation, normalised thyroid hormone levels and reduced their anxiety scores.

"These findings indicate that the endocrine system may play an important role in anxiety. Doctors should also consider the thyroid gland and the rest of the endocrine system, as well as the nervous system when examining patients with anxiety," Dr Onofriichuk explains.

This knowledge could help patients with anxiety receive more effective treatment that improves thyroid function and could have a long-term positive effect on their mental health. However, sex and adrenal gland hormones were not taken into account in this study, and these can also have a serious effect on anxiety.

Dr Onofriichuk now plans to conduct further research that examines the levels of thyroid, sex and adrenal hormones (cortisol, progesterone, prolactin, oestrogen and testosterone) in patients with dysfunctional thyroid glands and anxiety disorders. This research aims to help understand more clearly the role of the endocrine system in the development of anxiety and could lead to better management of anxiety disorders.

**Nutrition**

**Nutrition for men in their 40’s (New Kerala: 2020908)**

The 40s are filled with vitality and stress in equal amounts. Health can either be at its best in one's 40s or it can be the start for many lifestyle diseases.

Work, family and financial stress together can compound health issues at this age, so it becomes even more necessary to stay healthier than ever before. Mid-life health issues if addressed early can lead to very healthy 50s, 60s and 70s. The most common health problems seen in this age group are high cholesterol levels, Pre-diabetes, Obesity, metabolic syndrome, Hypertension or high blood pressure. Along with this a lot of back pain and joint pain issues are also part in parcel of ageing says Abhilasha V, Senior Clinical Nutritionist - Cloudnine group of Hospitals. Also frequently seen are fertility issues and prostrate related issues, she adds.

The expert explains the precautions which can be taken, what food to have and what to avoid for men in their 40's.

WHAT KIND OF NUTRITION DO MEN NEED IN THEIR 40s?

Men need well balanced nutrition in their 40s, especially one that focusses on strength, stamina, and an antioxidant rich diet to slow down ageing. The main areas of nutrition to focus on are the heart health, reproductive health and also muscle health. Since the metabolism slows down every decade, extra care must be also taken to manage one's weight and physique well. A diet should primarily focus on inclusion of good protein, healthy fats, whole grains, adequate fiber, plenty of antioxidant rich veggies and fruit and also good fluid intake. In this, special focus can be placed on ensuring well structured meal times and balance in all meals for better health.

WHAT PRECAUTIONS CAN BE TAKEN?

In addition to good nutrition, it is important to have adequate sleep, hydration, and regular physical exercise, good stress management, cutting down on caffeine and to quit smoking and drinking (or at least cutting it down drastically) Weight management can prevent many health disorders too. Focussing on regular complete health checks are important to prevent lifestyle diseases. Periodic health checks can ward off many problems and help address issues from compounding.

WHAT FOODS TO HAVE?

Foods to consume should largely focus on good protein, whole grains, good fats, fiber and fluid.

Good protein Protein from plant sources, lean meat, eggs, omega-3 rich fatty fish, nuts, low fat dairy can have lot of benefits in this age group. Care must be taken to consume 1gram per kg body weight of protein daily and not to overdo it.

Whole grains Foods like oats, broken wheat, millets, red rice can give sustained energy to function throughout the day. They are good for heart health due to their Vitamin B complex content and also ensures good bowel health.
कोरोना से 32 लोगों की मौत, 2077 नए मरीज

रिपोर्ट

• दिल्ली में कोरोना से अब तक 4599 लोगों की मौत हो चुकी है
• 2411 स्वस्थ हो चुके लोगों को सोमवार को छुट्टी दी गई

दिल्ली में अब तक 1,68,384 लोग कोरोना से जंग जीतने चुके हैं, जहाँ 4599 मरीजों ने कोरोना के कारण दम तोड़ दिया। दिल्ली में कोरोना के कुल 20,543 सक्रिय मरीज हैं। इनमें से 5218 मरीज दिल्ली के विभिन्न अस्पतालों में भर्ती हैं, जबकि होम आइसोलेशन में 11613 मरीज हैं।

जरूरी दिल्ली | वरिष्ठ सांवादिक

दिल्ली में सोमवार को कोरोना संक्रमित 2077 नए मरीजों की पुष्टि हुई, जबकि इस बीमारी से पीड़ित 32 लोगों ने दम तोड़ दिया। लंबे समय के बाद दिल्ली में एक दिन में 32 लोगों की कोरोना संक्रमण से मौत हुई है।

दिल्ली स्वास्थ्य विभाग के अनुसार सोमवार को संक्रमितों का आंकड़ा 1,93,526 हो गया। इनमें से 2411 मरीजों को सोमवार को छुट्टी दी गई।