



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Monday 20190422

Genetic isolation - infertility

Genetic isolation, endogamy cause of infertility in Indian men: Study (The Tribune: 20190422)

<https://www.tribuneindia.com/news/health/genetic-isolation-endogamy-cause-of-infertility-in-indian-men-study/761715.html>

Genetic isolation and endogamy, which is widespread among the Indian population, could be a major cause of infertility in the country's men, a study by the city-based Centre for Cellular and Molecular Biology (CCMB) said.

According to CCMB, approximately one out of every seven couples is infertile worldwide, of which the male factors account for about 50 per cent of the cases.

Several factors are known to cause male infertility including complete absence of sperm, low sperm production and motility, blockages that prevent sperm delivery due to illnesses and injuries, chronic health problems, lifestyle choices while genetic factors play a major role in most of these cases.

A team of scientists at CCMB led by Chief Scientist K Thangaraj has been studying the genetic causes of male infertility for the last two decades, a release from the Centre said.

"Y chromosome consists of several genes that are responsible for production of sperms, i.e., spermatogenesis.

Deletions of such genes are the most common causes of severe diseases of testes and spermatogenic defects leading to male infertility.

We have earlier identified that the large deletion of Y chromosome, which consists of several genes, is responsible for male infertility in 8.5 per cent of the cases," Thangaraj noted.

“In the present study, we have studied the micro to macro deletions on the Y chromosome and the molecular mechanisms behind the deletion events,” said Thangaraj, who is the senior author of the finding, which was published online on April 18 in ‘Scientific Reports.’

According to CCMB scientists, the study, conducted recently, highlights that genetic isolation and endogamy, which is widespread in Indian populations, can play a major role in introducing novel causal variations.

“Hence, the authors undertook the study and found various deletion events of AFZ regions on the Y chromosome in the diverse Indian population and their association with male infertility,” the release said.

AZoospermia Factor (AZF) regions consist of three genetic domains in the long arm of the human Y chromosome referred to as AZFa, AZFb and AZFc, and they are home to genes required for spermatogenesis.

Thangaraj further said these findings have potential applications in the infertility clinic.

“The sperm carrying Y chromosome deletion often leads to failure in assisted reproduction. So, it can be worthwhile to check for the deletion to screen infertile men prior to adapting any assisted reproductive methods,” he added. PTI

Anxiety 'epidemic'

Anxiety 'epidemic' brewing in colleges: Study (The Tribune: 20190422)

<https://www.tribuneindia.com/news/health/anxiety-epidemic-brewing-in-colleges-study/761692.html>

Rates of anxiety disorder grew at higher rates for students who identified as transgender, Latinx and black, and they increased the closer all students got to graduation. Photo credit: Thinkstock.

The number of 18-to-26-year-old students who report suffering from anxiety disorder has doubled since 2008, possibly due to rising financial stress and increased time spent on digital devices, a study has found.

The percentage of all students nationally who reported being diagnosed with or treated for anxiety disorder climbed from 10 per cent in 2008 to 20 per cent in 2018, according to researchers from University of California - Berkeley in the US.

Rates of anxiety disorder grew at higher rates for students who identified as transgender, Latinx and black, and they increased the closer all students got to graduation.

"It is what I am calling a 'new epidemic,' and that the data supports using that term, on college campuses. We need a heightened national awareness of this very serious epidemic," said Richard Scheffler, a professor at UC Berkeley.

The team examined nine years of data from nationwide examinations of student well-being. The group also conducted 45-minute interviews with 30 UC Berkeley students who identified as suffering from anxiety.

While Scheffler said he cannot firmly establish the causes for the rise in anxiety, he found strong correlations between anxiety disorder and financial instability, the amount of leisure time spent on digital devices and the level of education attained by a young adult's mother.

"The correlations and the data are pretty powerful," he said.

Young adults who come from families that have trouble paying bills are 2.7 times more likely to have anxiety than students who come from families that have no difficulty paying bills, researchers said.

Those who spend more than 20 hours of leisure time per week on digital devices were 53 per cent more likely to have anxiety than young adults who spend fewer than five hours a week on digital devices.

Young adults with mothers who had at least an undergraduate degree had a 45 per cent greater chance of having anxiety than young adults whose mothers had less than a college degree.

Scheffler also found that anxiety is associated with other serious problems beyond the overwhelming feelings of worry or nervousness associated with the disorder.

A student with anxiety is 3.2 times more likely to abuse alcohol or drugs, the findings show. Other negative outcomes correlated with anxiety included increased probability of having been sexually assaulted or attempting suicide.

All factors being equal, Scheffler also found that between 2008 and 2014, young adults with anxiety earned 11 per cent less than those without anxiety. — PTI

Liver

Your liver can get fat, too (The Tribune: 20190422)

<https://www.tribuneindia.com/news/health/your-liver-can-get-fat-too/760787.html>

Non-alcoholic fatty liver disease is increasing rapidly, especially among those having diabetes, high cholesterol, hypertension and are obese

The term non-alcoholic fatty liver disease (NAFLD), also known as hepatic steatosis (hepatic = liver, steatosis = fat), comprises a range of liver conditions where there is excess of fat in liver but without history of significant alcohol intake.

When hepatic steatosis is associated with inflammation, it is called steatohepatitis (NASH). While steatosis is considered to be a mild problem and does not progress into serious disease, steatohepatitis is more likely to develop into complications of fibrosis and cirrhosis which can be serious, even fatal.

Non-alcoholic fatty liver disease is quite common and its incidence is increasing globally. It is commonly associated with those having metabolic syndrome and are possibly insulin resistant. These patients usually have type 2 diabetes, dyslipidemia (abnormal amount of lipids such as triglycerides, cholesterol and/or fat phospholipids in the blood) and hypertension and are obese. As India is the world capital of diabetes, NASH is also being seen in high proportion and is increasing every day. This has become a major reason behind liver cirrhosis in our country.

Non-alcoholic fatty liver disease can occur in any age but those in their forties and fifties are at more risk of having it. These are the people who are also in high-risk zone of having heart disease because of risk factors such as obesity and type 2 diabetes.

Symptoms

Usually, there are not many signs and symptoms of non-alcoholic fatty liver disease. The ones that are usually seen include:

Enlarged liver

Fatigue

Pain in the upper right abdomen which is more like a dull ache

Complications

Cirrhosis of the liver can be a major complication associated non-alcoholic fatty liver disease and non-alcoholic steatohepatitis. It is the late-stage scarring (fibrosis) in the liver. Cirrhosis can be outcome of a liver injury such as the inflammation in case of non-alcoholic steatohepatitis. As the liver fights to prevent this inflammation, it produces areas of scarring (fibrosis). If the inflammation continues, fibrosis or this scarring spreads in the organ and replaces more and more tissue in the liver. Without timely interruption, cirrhosis can lead to:

Buildup of fluid in the abdomen

Veins in the oesophagus (oesophageal varices), can swell with possible risk of rupture and bleeding

Confusion, drowsiness and slurred speech

Liver cancer

Liver failure, which means complete closing of the liver functioning

About 20 per cent of people with non-alcoholic steatohepatitis will end up getting cirrhosis of the liver.

Causes

What actually initiates this excess fat storage in liver is not clear. But many associations with this disease are well known such as:

Overweight or obesity

Insulin resistance which is usually associated with high blood sugar

Presence of high levels of fats, particularly triglycerides, in the blood

These, combined with other health problems, appear to promote the deposit of fat in the liver. This excess fat acts as a toxin to liver cells for some people, causing liver inflammation and which may lead to a build-up of scar tissue (fibrosis) in the liver.

Prevention

There are certain preventive measures which can reduce the risk of non-alcoholic fatty liver disease. These include:

Healthy diet: Opt for a nutritious and balanced plant-based diet that's rich in fruits, vegetables, whole grains and healthy fats.

Healthy weight: Maintain a healthy weight by consuming the number of calories you eat each day as per your weight and get more exercise. Work to maintain a healthy weight according to your height, age and gender by choosing a healthy diet and exercise daily.

Exercise: Get as much exercise as you can throughout the week. Consult with your doctor first for an adequate amount of work out according to your current health.

Six foods to avoid if you have a fatty liver

If you have fatty liver disease, there are some foods which you should definitely avoid or consume in a limit. These foods generally contribute to weight gain and increasing blood sugar which can be disadvantageous for you.

Alcohol: Alcohol is an enemy of liver and a major cause of fatty liver disease as well as other liver diseases.

Sugar: Foods such as cookies, sodas, juices, etc. should be avoided. High blood sugar can increase fat buildup in the liver.

Salt: Excessive salt intake can make the body hold on to excess water. Salt should be limited to less than 1,500 milligrams per day.

Fried foods: These are high in fat and calories without much nutritive value.

Maida/refined flour: Avoid white bread, rice, and pasta. Most processed foods use refined flour which can raise blood sugar due to lack of fibre.

Red meat: Red meat such as beef and deli meats are high in saturated fat.

— The writer is chairman & HoD, institute for digestive & liver diseases, BLK Super Speciality Hospital, New Delhi

Cow's milk

Cow's milk can be allergic (The Tribune: 20190422)

Symptoms of this allergy and lactose intolerance are quite similar and it is easy to mistake one for another

CMPA can affect skin and the digestive and respiratory systems. Even newborns can be affected by this allergy

Dr Nandan Joshi

Food is our biggest ally in the quest for good health. Its effect on health and wellbeing is proverbial but it becomes a downside when an individual develops allergy towards a food. The onset of food allergies is surging as people experience adverse reaction(s) after consuming certain food items like peanuts, finned fish, shellfish, milk, egg, wheat, soy and seeds. Some children are especially allergic to foods like milk, egg, wheat, and soy. One common food allergy which children in the age group of zero to three years can be affected with is cow's milk protein allergy (CMPA).

CMPA explained

Cow milk allergy is an adverse response by the body's immune system to a protein present in cow's milk or milk products. In India, cow milk is quite popular, as it is perceived to be lighter than buffalo milk that has more fat content than cow milk. Because of this reason, people think it is more easily digestible than buffalo milk.

Hence, it is perceived safe for newborn babies and is introduced either as part of mother's diet when she is breastfeeding the baby or as a complementary food when it is initiated. Globally, around 2 to 3 per cent of the babies are affected by this allergy. It manifests itself as an overreaction of our immune system. Our body's immune system mistakes the common proteins present in this milk as "dangerous". The immune system initiates response mechanism to counterbalance the "dangerous protein". The body's misplaced response is the cause of the symptoms felt by a individual when he or she consumes milk. If a baby is allergic to cow milk protein then it is very likely that the baby will react to buffalo, goat or sheep milk as well.

Mistaken for lactose intolerance

The symptoms of cow milk allergy and lactose intolerance are quite similar and it is easy to mistake one for another. However, these two are very different conditions. Lactose intolerance is the body's inability to digest a sugar present in the milk called lactose. Lactose intolerant people can't process lactose because of lack of an enzyme, lactase. The immune system is not involved so there is no allergy symptom triggered by the body.

Lactose intolerance symptoms include bloating, abdominal pain, flatulence, or diarrhoea as these are the initial markers for lactose intolerance. The skin or the respiratory tract is not impacted by it.

The main difference between cow milk allergy and lactose intolerance is that in cow milk allergy, our immune system overreacts to one or more proteins in cow's milk while in lactose intolerance our body cannot digest lactose which is the sugar component present in milk.

Impact on newborns

The burden of cow milk protein allergy is long term as it influences the baby during her/his first 1,000 days, which is a critical window for the overall growth and development of a baby. The first 1,000 days is the term coined to denote the period of rapid growth and development of the baby, both in the womb as well as after birth. It is the time when there is expansion in growth and fast-tracked development of the brain, digestive and immune system. It is crucial to that every child has access to best nutrition during the first 1,000 days to ensure her/her long term health. The symptoms experienced by a baby due to CMPA like diarrhoea and vomiting for a long period, coupled with delayed diagnosis, lead to loss of weight among babies. Sometimes they present with failure to thrive.

Management of allergy

Eliminating cow's milk and milk products from the baby's diet, who is on complementary feeding, and eliminating the same from the mother's diet for babies who are on exclusive breastfeeding is the first step in management of CMPA. However, elimination of cow's milk needs to be compensated by giving right nutrition at this point otherwise the babies do end up losing weight and fall below their growth curve. There is availability of extensively hydrolysed

and amino acid formulas in the Indian market which have proteins which are easier for babies to digest who are allergic to cow's milk.

Symptoms

CMPA typically affects these systems — skin, digestive and respiratory. Skin symptoms include rashes, hives or puffiness near the areas of lips, mouth or eyes. Digestive symptoms can be vomiting, pain in abdomen, diarrhoea, colic pain, constipation and blood in stool. Symptoms of respiratory system being affected are wheezing, chronic coughing and runny nose. Diagnosis can be difficult since the symptoms don't follow straightaway all the time. The body may or may not respond immediately to the protein present in the cow's milk. In certain situations, allergic reactions are delayed making the diagnosis difficult. An immediate reaction could be vomiting, wheezing or a skin rash which can present within 2 hours of ingestion of food. And delayed reaction could be diarrhoea or constipation or colic which may take few days to present.

— The writer is head, nutrition science & medical affairs, Danone India

Prostate cancer

New AI system may help detect prostate cancer (The Tribune: 20190422)

<https://www.tribuneindia.com/news/health/new-ai-system-may-help-detect-prostate-cancer/760224.html>

Researchers have developed a new artificial intelligence (AI) system to help radiologists improve their ability to diagnose prostate cancer.

The system, called FocalNet, helps identify and predict the aggressiveness of the disease evaluating magnetic resonance imaging, or MRI, scans.

It does so with nearly the same level of accuracy as experienced radiologists, said researchers at the University of California, Los Angeles (UCLA) in the US.

In tests, FocalNet was 80.5 per cent accurate in reading MRIs, while radiologists with at least 10 years of experience were 83.9 percent accurate, according to the study published in the journal IEEE Transactions on Medical Imaging.

Radiologists use MRI to detect and assess the aggressiveness of malignant prostate tumours.

However, it typically takes practicing on thousands of scans to learn how to accurately determine whether a tumour is cancerous or benign and to accurately estimate the grade of the cancer.

In addition, many hospitals do not have the resources to implement the highly specialised training required for detecting cancer from MRIs.

FocalNet is an artificial neural network that uses an algorithm that comprises more than a million trainable variables.

The team trained the system by having it analyse MRI scans of 417 men with prostate cancer.

Scans were fed into the system so that it could learn to assess and classify tumours in a consistent way and have it compare the results to the actual pathology specimen.

Researchers compared the AI system's results with readings by radiologists who had more than 10 years of experience.

The research suggests that an AI system could save time and potentially provide diagnostic guidance to less-experienced radiologists. PTI

Health Apps (The Asian Age: 20190422)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12855955>

Health apps share data without any disclosure

■ Study highlights risks of entrusting health info to our phones

Washington, April 21: With people growing more conscious about their health, both Google and Apple have seen a flurry of free health apps pop up on their respective stores that help people on a wide array of topics.

According to a recent report, such free apps, which hemorrhage sensitive user data to third parties, often don't admit it in their privacy policies.

Highlighting the potential risk of entrusting sensitive health information to our phones, researchers, who used the keywords "depression" and "smoking cessation" in their search for apps, revealed that 33 of the 36 apps shared information that could give advertisers or data analytics firms insights into people's digital behavior.

Some apps even shared information, like health diary entries, self reports about substance use, and usernames.

Citing an expert, *The Verge*, which was first to report on the study, in its report said, "These details, plus the name or type of app, could give third parties information about someone's mental health that the user might want to keep private."

The expert added, "Even knowing that a user has a mental health or smoking cessation app downloaded on their phone is valuable 'health-related' data."

Meanwhile, co-author of the study, John Torous, was worried that people didn't know what kind of

NO DATA PROTECTION



- According to the researchers, part of the problem is the business model. "Since insurance might not pay for an app that helps users quit smoking, for example, the only ways for free app developer to stay afloat is to either sell subscriptions or sell data."

- One way to protect people who want to use such apps could be to form a group that can give a stamp of approval to responsible mental health apps.

- Despite the huge potential of such apps, researchers recommend caution before sharing sensitive information with an app.

data these apps are sharing with third-party advertisers such as Facebook and Google.

However, neither Facebook nor Google responded to *The Verge's* request for comment.

According to the study, researchers, by intercepting the data transmissions, discovered that 92 per cent of the 36 apps shared the data with at least one third party — mostly Facebook- and Google-run services that

help with marketing, advertising, or data analytics.

The also discovered that about half of those apps didn't disclose that third-party data sharing, for a few different reasons: nine apps didn't have a privacy policy at all; five apps did but didn't say the data would be shared this way; and three apps actively said that this kind of data sharing wouldn't happen.

— Agencies

PRIVATE DATA OF PATIENTS EXPOSED, SAYS EMCARE

Washington, April 21: Nationwide physician-staffing company EmCare says a breach exposed personal data for about 31,000 patients, including in some cases their Social Security numbers and clinical information.

EmCare said on April 20, that an unauthorised third party gained access to the information through employee email accounts. The company said that it learned Feb. 19 that the breach exposed names, dates of birth and Social Security and driver-license numbers for some patients, employees and contractors.

Company representative Aliese Polk said the breached employee email accounts contained personal information on fewer than 60,000 people, including about 31,000 patients.

The company, based in Plantation, Florida, says it doesn't know if the personal information was taken, and there's no indication it was used for fraud or identity theft.

EmCare said it began notifying affected people on April 19. It said it is taking additional security steps to prevent another breach, including giving employees more training about email security.

— AP

Large public hospitals

Large public hospitals far more cost-effective: Govt (Hindustan Times: 20190422)

<http://paper.hindustantimes.com/epaper/viewer.aspx>

NEWDELHI: Large and busy public hospitals in Delhi are among the most cost-effective, with the average cost of treating a patient at the state government's busiest hospitals — Lok Nayak and Guru Teg Bahadur (GTB) — being a fraction of what is spent by superspeciality centres such as Delhi government's Institute of Liver and Biliary Sciences (ILBS).

In 2018, the average cost of treating one patient at the 1,837-bed Lok Nayak hospital was ₹2,234, and ₹1,188 at the 1,512-bed GTB, reveals Delhi government's outcome budget data.

“₹2,000 cost per patient is not much. If you go to the private sector, just the consultation fee can come up to ₹5,000. And, the revenue costs of the government and the private sector are incomparable; here there are rules for everything, we have to employ a certain number of people, we cannot ask them to do anything other than what they were hired for, we need to pay them according to the scale, and we cannot stretch their shifts unlike the private hospitals. The costs are offset by the number of patients we treat,” said Dr Kishore Singh, medical director of Delhi government's biggest, Lok Nayak Hospital.

At ILBS, which focuses in liver and kidney diseases, the average per patient treatment cost for the government was ₹16,118, the report states. The cost to taxpayer for the treatment of the patients at Delhi's only superspeciality public hospital, GB Pant, is ₹3,470. The referral hospital has an absolute budget of ₹364 crore and does complicated brain, heart and gastrointestinal surgeries.

“The government's policy is that of a welfare one, so we have huge budgets to ensure that all patients receive all treatment, tests and medicines and surgeries for free,” Dr Singh said.

The least cost-effective hospital is the 300-bed historical Ayurveda and Naturopathy Tibbia College in Karol Bagh, where the per patient expenditure was ₹12,117 in 2017 and the target for 2018 was ₹14,055. The final costs for 2018 were not submitted by the hospital, according to the government's Outcome Budget.

“The high cost per patient is because the hospital receives fewer patients than our other allopathic and multispeciality hospitals while the overhead costs of maintaining the hospital and staffing remain,” said Dr Sanjeev Khirwar, secretary, department for health, Delhi.

With a budget of close to ₹40 crore, Tibbia Hospital treats 1,000 patients in its out-patient department every day. Normal deliveries are done in its maternity block, C-section deliveries are referred to Kalawati Saran Hospital, which is 3.5 km away.

Medication

Study finds improved medication for treating epileptic seizures in children (New Kerala: 20190422)

<https://www.newkerala.com/news/read/131050/study-finds-improved-medication-for-treating-epileptic-seizures-in-children.html>

Researchers have recently found that prescribing two medications -benzodiazepines and phenytoin - one after the other, could help treat epileptic seizures in children.

The study, published in the journal The Lancet, shows that giving said medications halved the number of children sent to intensive care.

Prolonged epileptic seizures are the most common neurological emergencies in children seen by hospitals. The seizures are potentially fatal up to five per cent of affected children die, and a third suffer long-term complications from brain damage.

In severe seizures, the first line of treatment (benzodiazepines) only stops the seizures in 40 to 60 per cent of patients. Before this study, the second line treatment was the anticonvulsant drug phenytoin, but until now this practice had never been scrutinised in a robust major randomised controlled trial. Also, phenytoin was known to have a number of serious complications.

In this study, researchers compared phenytoin with newer anti-convulsant levetiracetam for second line treatment of seizures.

Levetiracetam is used routinely as a daily medication to prevent seizures but has not been properly tested against phenytoin for treatment of severe prolonged seizures.

The research involved 233 child patients aged between three months and 16 years. Researchers found that when given individually, the drugs are as good as each other both had a moderate success rate (50-60 per cent) at stopping a prolonged seizure.

But strikingly, treatment with one drug and then the other increased the success rate of stopping a seizure to approximately 75 per cent.

Previously, children who continued seizing after phenytoin then needed to be intubated, sedated and placed on a ventilator in intensive care.

"This study has now given us robust evidence to manage children with prolonged seizures without reverting to intubation and intensive care," said Dr. Dalziel, lead researcher.

"By controlling seizures in the emergency department we will increase the chance of these children recovering more quickly and returning back to their normal lives," he added.

"This study is going to profoundly improve treatment for children who are critically ill with epilepsy around the world," said Professor Franz Babl, co-researcher.

Mental health program

Mental health program for mood and anxiety disorders improve patient outcomes: Study (New Kerala: 20190422)

<https://www.newkerala.com/news/read/130956/mental-health-program-for-mood-and-anxiety-disorders-improve-patient-outcomes-study.html>

In a recent study, researchers found that treatment at 'First Episode Mood and Anxiety Program' (FEMAP), a mental health program for youth with mood and anxiety disorders, led to improved patient outcomes.

The study was published in the Journal of Early Intervention in Psychiatry

FEMAP provides treatment to emerging adults, ages 16 to 25, with emotional concerns that fall into the categories of mood and anxiety symptoms. The treatment takes a patient-centred approach in a youth-friendly setting where patients receive care from a multidisciplinary team.

"FEMAP helped me to understand that there wasn't something wrong with me and that I wasn't alone in the way that I felt. I learned to cope and deal with things in more constructive ways that made things so much easier. Before entering the program, I had trouble finishing school, no job prospects and couldn't hold down a relationship. Now, three years out of the program, I have a great job, am married and own a house, which are things I never thought would be possible," said research participant, Kirstie Leedham.

The study included 370 youth. Before beginning treatment, they were, on average, experiencing moderate depression, moderate anxiety and low satisfaction with their quality of health.

Of 370 youth eligible for treatment, 322 attended a clinical assessment. The research team found that those who disengaged early had less severe symptoms than those who stayed engaged.

Follow-up questionnaires were completed by 174 youth approximately six months into treatment. The research team discovered significant improvements in patient outcomes, including a reduction in mood and anxiety symptoms, improved functioning and a higher quality of health satisfaction.

"These results demonstrate the effectiveness of early intervention programs offering personalized treatment that adjusts to patient's needs and wishes. The data suggests our model is successful in helping patients manage their mood and anxiety disorders," said Dr Elizabeth Osuch, Clinician-Scientist.

"Our results suggest FEMAP provides access to mental health care in the most appropriate settings by preventing ED visits, demonstrating the health system potential of this novel treatment program," notes Dr Kelly Anderson, Associate Scientist.

Opioid overdose

Opioid overdose linked to varying dosage, claims study(New Kerala: 20190422)

<https://www.newkerala.com/news/read/130919/opioid-overdose-linked-to-varying-dosage-claims-study.html>

A study has claimed that patients who were prescribed opioid pain medications but kept changing the dosage over time were prone three times more to overdose than those taking a stable opioid medication.

"Our study suggests that safely managing long-term opioid therapy is complex," said Ingrid Binswanger, co-author of the study which is published in the journal 'JAMA Network Open'.

The study also found that the patients, who stopped their opioid medication for three months or more, were at half the risk of an overdose.

"This study suggests going up and down on opioid doses -- also called dose variability -- could present an increased risk of overdose. Through this study, we also found eventually discontinuing opioid therapy may prevent overdoses," said Ingrid.

She further said, "With continued studies, we hope to find out how care providers can help patients with their pain without putting them at unnecessary risk due to rapid changes in their dose."

The study followed a period of 12 years and included 14,000 people who were prescribed with long-term opioid medication.

Researchers used electronic health records to track the history of patients to see if they had dose changes and overdoses from opioid pain medications and other opioid drugs.

"Our goal is to help identify the safest and effective approaches for managing long-term opioid therapy. We want to be able to minimize patients' pain and reduce their risk for overdose," explained Jason Glanz, who co-authored the study.

Oral immunotherapy

Oral immunotherapy safe for children allergic to peanuts, confirms study (New Kerala: 20190422)

<https://www.newkerala.com/news/read/130906/oral-immunotherapy-safe-for-children-allergic-to-peanuts-confirms-study.html>

A recent study has claimed that oral immunotherapy given as routine treatment is safe for preschoolers allergic to peanuts.

Oral immunotherapy (OIT) is a treatment protocol in which a patient consumes small amounts of the allergenic food.

"Although there have been many clinical trials of peanut oral immunotherapy in older children and one trial in preschoolers, there has been a lack of real-world data due to safety concerns of offering this treatment to preschoolers outside of a research setting," said Lianne Soller, the lead author of the study which was published in Journal of Allergy and Clinical Immunology.

Children were seen by a pediatric allergist every two weeks, where they were fed a peanut dose that gradually increases in every visit.

Parents also gave children the same daily dose at home, between clinic visits, until they reached a maintenance dose of 300 mg of peanut protein.

Symptoms and treatment of allergic reactions at clinic visits and at home, including epinephrine use, were recorded in the patient's medical chart.

Parents were given instructions on how to manage at-home allergic reactions, when to administer epinephrine, and when to hold off on an OIT dose, such as during severe cold or flu.

"The goal of our project was to confirm the safety of preschool peanut OIT in a much larger sample of patients in the real world," said Dr. Edmond Chan, senior author.

The researchers found that 243 children (90 per cent) reached the maintenance stage successfully, while 27 children, or 10 per cent, dropped out.

It took an average duration of 22 weeks of oral immunotherapy for patients to reach the maintenance stage.

"Many allergists do not believe OIT should be offered outside of research settings, and have not routinely offered it as a therapy for peanut allergy in their clinics due to safety concerns. We hope that our data demonstrates that the treatment is safe in preschoolers, and could be offered to families of preschool children with peanut allergy who ask for it. There appears to be a big difference in outcomes in preschoolers compared to older children," he said.

The group now hopes to investigate the long-term safety and efficacy of peanut OIT desensitisation and sustained unresponsiveness for patients who choose to stop daily peanut OIT.

"He hopes the findings provide guidance to health-care practitioners treating preschool children in their clinics," said Chan.

Smoking

Quit smoking to lower risk of premature birth (New Kerala: 20190422)

<https://www.newkerala.com/news/read/130756/quit-smoking-to-lower-risk-of-premature-birth.html>

Expecting mothers, take note. As smoking during pregnancy is linked with negative health outcomes, a team of researchers has found that smoking cessation during pregnancy may reduce the risk of pre-term birth.

The findings, published in the JAMA Network Open journal, showed that the probability of pre-term birth decreased with earlier smoking cessation in pregnancy -- up to a 20 per cent relative decrease if cessation occurred at the beginning of pregnancy.

"Of concern, though, given the substantial benefits of smoking cessation during pregnancy is that the proportion of pre-pregnancy smokers who quit smoking during pregnancy has remained essentially stagnant since 2011," said lead author Samir Soneji from The Dartmouth Institute for Health Policy and Clinical Practice in the US.

For the study, the researchers conducted a cross-sectional study of more than 25 million pregnant women who gave birth to live neonates during a six-year period -- measuring their smoking frequency three months prior to pregnancy and for each trimester during pregnancy.

The negative health impacts of cigarette smoking during pregnancy, including low birth weight, delayed intrauterine development, pre-term birth, infant mortality, and long-term developmental delays, are well known.

But the good news is that the proportion of women who start their pregnancy as smokers has been declining in recent years, the researchers said.

However, the study also found that only about 25 per cent of women who smoked prior to pregnancy were able to quit throughout their pregnancy, and approximately 50 per cent of women who smoked during their pregnancy did so with high frequency (more than 10 cigarettes per day).

The researcher plans to look at quit rates and smoking intensity and their impact on the risk of infant mortality.

"Thankfully most premature babies end up doing well," he said.

"But premature birth is strongly linked to infant mortality. If we determine quitting, and quitting early, reduces the risk of infant mortality, then that may speak to mothers even more saliently about the importance of smoking cessation," he added.

Autoimmune diseases

Study finds why women get autoimmune diseases far more often than men (New Kerala: 20190422)

<https://www.newkerala.com/news/read/130747/study-finds-why-women-get-autoimmune-diseases-far-more-often-than-men.html>

A research conducted on mice discovered that having too much molecular switch called VGLL3, which regulates immune response genes in skin cells, lead to autoimmune diseases.

The study published in 'JCI Insight' pointed a key role for VGLL3. Three years ago, a team of University of Michigan researchers showed that women have more VGLL3 in their skin cells than men.

"VGLL3 appears to regulate immune response genes that have been implicated as important to autoimmune diseases that are more common in women, but that doesn't appear to be regulated by sex hormones," said Johann Gudjonsson, the lead author.

"Now, we have shown that over-expression of VGLL3 in the skin of transgenic mice is by itself sufficient to drive a phenotype that has striking similarities to systemic lupus erythematosus, including skin rash, and kidney injury," added Gudjonsson.

Now, working in mice, researchers have discovered that having too much VGLL3 in skin cells pushes the immune system into overdrive, leading to a 'self-attacking' autoimmune response. Surprisingly, this response extends beyond the skin, attacking internal organs too.

The team described how VGLL3 appears to set off a series of events in the skin that trigger the immune system to come running - even when there is nothing to defend against

The researchers found that extra VGLL3 in skin cells changed expression levels of a number of genes, important to the immune system. Expression of many of the same genes is altered in autoimmune diseases like lupus.

The gene expression changes caused by excess VGLL3 wreaked havoc in the mice. Their skin becomes scaly and raw. Immune cells abound, filling the skin and lymph nodes. The mice also produce antibodies against their own tissues, including the same antibodies that can destroy the kidneys of lupus patients.

The researchers don't yet know what causes female skin cells to have more VGLL3. It may be that, over evolutionary time, females have developed stronger immune systems to fight off infections - but at the cost of increased risk for autoimmune disease if the body mistakes itself for an invader.

The researchers also don't know what triggers might set off extra VGLL3 activity. But they do know that in men with lupus, the same VGLL3 pathway seen in women with lupus is activated.

Many of the current therapies for lupus, like steroids, come with unwanted side effects, from increased infection risk to cancer. Finding the key factors downstream of VGLL3 may identify targets for new, and potentially safer, therapies that could benefit patients of both sexes.

Light physical activity

Light physical activity could keep brain young and healthy: Study (New Kerala: 20190422)

<https://www.newkerala.com/news/read/130745/light-physical-activity-could-keep-brain-young-and-healthy-study.html>

New research established that indulging in light physical activities during the day is associated with larger brain volume and reduces brain ageing.

Using data from the Framingham Heart Study, the researchers found that for each additional hour spent in light-intensity physical activity was equivalent to approximately 1.1 years less brain ageing.

According to the researchers, these results suggest that the threshold of the favourable association for physical activity with brain ageing may be at a lower.

"Every additional hour of light intensity physical activity was associated with higher brain volumes, even among individuals not meeting current physical activity -guidelines. These data are consistent with the notion that potential benefits of physical activity on brain ageing may accrue at a lower, more achievable level of intensity or volume," explained Nicole Spartano, the lead author.

"We have just begun to uncover the relationship between physical activity and brain health," she added.

Spartano emphasised the need to explore the impact of physical inactivity on brain ageing in different race, ethnic, and socio-economic groups. She is leading a team to investigate these patterns at multiple sites all over the country.

Considerable evidence suggests that engaging in regular physical activity may prevent cognitive decline and dementia. However, the specific activity levels optimal for dementia prevention have remained unclear.

Active individuals have lower metabolic and vascular risk factors and these risk factors may explain their propensity for healthy brain ageing.

The new 2018 physical activity guidelines for Americans suggest that some physical activity is better than none, but achieving greater than 150 minutes of moderate-to-vigorous (MV) physical activity per week is recommended for substantial health benefits.

Like This Article?

Light physical activity could keep brain young and healthy: Study

Delhi Air Pollution

Delhi Air Pollution: Try these effective breathing exercises for strong lungs (The Indian Express: 20190422)

<https://indianexpress.com/article/lifestyle/fitness/delhi-air-pollution-effective-breathing-exercises-detox-healthy-lungs-5426729/>

Alarming, 14 of the 20 most polluted cities are in India. To minimise the harmful effects of air pollution, you can opt for some breathing exercises to keep our lungs strong, healthy and clean.

According to a Greenpeace report, as many as 1.2 million people die every year in India due to air pollution. (Source: File Photo)

Delhi and the NCR is grappling with high levels of air pollution, yet again. Just last week, the World Health Organisation (WHO) released a report pointing out that every day, 98% of children globally, under the age of 15, breathe toxic air, putting them at severe health risk. Alarming, 14 of the 20 most polluted cities are in India, the report said, based on its study in 2016.

Breathing in such conditions is considered to be harmful to the body. It is like smoking 20 cigarettes a day, and this includes newborns too.

To minimise the harmful effects of air pollution in our body, we can opt for some breathing exercises to keep our lungs strong, healthy and clean.

The popular breathing exercise has several health benefits – right from purifying the respiratory system to reducing belly fat. Just sit right up and take a deep breath and then exhale rapidly. Repeat this at least 15 times.

Anulom-Vilom

It is mainly done to improve the performance of our lungs and clean its airways to obtain more oxygen. It is basically a slow version of alternate nostril breathing.

Pursed lips breathing is a breathing technique that consists of exhaling through tightly pressed (pursed) lips and inhaling through the nose with the mouth closed. It helps in strengthening the functioning of the lungs.

Vyaghrasana Pranayama, also known as tiger breathing, is a great breathing exercise which helps in opening up the lungs and expanding the breathing capacity. It is good for breathing ailments.

For this asana, stand straight, bend your knees slightly and fold your torso over your legs. Now hold your right elbow with your left hand and vice versa, forming a square with your arms and let your head and neck hang freely. Relax and breathe deeply in this posture. It is a highly effective way to avoid pollution related infections, especially sinus-related ones.

Are you going to incorporate these breathing exercises in your daily routine? Let us know in the comments below.

Brest Cancer (Hindustan: 20190422)

http://epaper.livehindustan.com/imageview_49776_92096292_4_1_22-04-2019_i_6.pagezoomsinwindows.php

महिलाएं 25 साल की उम्र के बाद हर साल जांच कराएं, बीमारी के लक्षणों को नजरअंदाज करने पर गंभीर परिणाम मुगतने पड़ सकते हैं

समय पर पता चले तो 76 फीसदी स्तन कैंसर पीड़िताओं का इलाज आसान

लापरवाही

नई दिल्ली | चरिष्ठ संवाददाता

स्तन कैंसर का देरी से पता लगने का वजह से 76 फीसदी महिलाओं को मेस्टेक्टॉमी कराकर स्तन हटवाना पड़ा है। डॉक्टरों का कहना है कि समय से पता चलने पर इस बीमारी का इलाज आसान है।

अगर इसका प्राथमिक स्तर पर पता चल जाए तो स्तन हटाए बिना ही

इलाज हो सकता है। एम्स में स्तन कैंसर के इलाज के लिए आई महिलाओं के आंकड़ों पर जारी रिपोर्ट में यह खुलासा हुआ है।

अस्पताल में आने वाले मरीजों में सिर्फ चार फीसदी महिलाओं को पहली स्टेज में स्तन कैंसर का पता चल पाता है। एम्स के रेडियो डायग्नोसिस विभाग की प्रोफेसर डॉक्टर स्मृति हरि ने बताया कि इसके लक्षणों की आसानी से पहचान हो सकती है। इन्हें नजरअंदाज नहीं करना चाहिए।

ये हैं बीमारी के लक्षण

- स्तन या बाहों के नीचे गांठ, इसके आकार में अचानक बदलाव
- स्तन का लाल हो जाना या खून जैसे द्रव का बहना
- त्वचा का ज्यादा समय तक सूख

रहना। इसके अलावा त्वचा पर कुछ अलग दिखना या अनुभव होना

- स्तन की त्वचा के नीचे कहीं सूखत अनुभव होना

18 फीसदी को अंतिम स्टेज में पता चलता है: एम्स में स्तन कैंसर से पीड़ित 550 मरीजों पर हुए अध्ययन के मुताबिक, 33 फीसदी मरीजों को

दूसरी स्टेज, 44 फीसदी महिलाओं को तीसरी और 18 फीसदी को अंतिम स्टेज में स्तन कैंसर से पीड़ित होने का पता चला। देरी से पता चलने

25 के बाद मेमोग्राफी जरूरी

डॉक्टरों का कहना है कि 25 साल की उम्र के बाद महिलाओं को साल में कम से कम एक बार मेमोग्राफी करानी चाहिए। एम्स में यह जांच मुफ्त में उपलब्ध है। निजी अस्पतालों में 800 से 3000 रुपये में यह जांच होती है।

के कारण स्तन हटाने पर भी कैंसर के उभरने की आशंका रहती है।

शहरी महिलाओं में अधिक मामले: डॉक्टर स्मृति के मुताबिक,

शहरी महिलाओं को गांवों के मुकाबले स्तन कैंसर के मामले लगभग तीन गुना अधिक देखे जाते हैं। जीवनशैली और खानपान की वजह से ये मामले बढ़ रहे हैं। तंबाकू और शराब का सेवन भी इसके लिए जिम्मेदार हो सकता है। दिल्ली और चंडीगढ़ में सबसे अधिक मामले देखे जाते हैं। वहीं, दयूमर का आकार एक सेंटीमीटर तक है तो उसे आसानी से ठीक किया जा सकता है। पांच सेंटीमीटर या इससे बड़े दयूमर का पूरी तरह इलाज की संभावना कम है।

Child Health (Hindustan: 20190422)

http://epaper.livehindustan.com/imageview_49814_65422822_4_1_22-04-2019_i_16.pagezoomsinwindows.php

जन्म से पहले ही मीठा स्वाद सबसे पसंद होता है बच्चों को, मां का दूध भी होता है मीठा

गर्भ में ही स्वाद पहचान लेता है बच्चा

खुलासा

नई दिल्ली | हिंदी

एक शोध की मानें तो बच्चों को जन्म से पहले ही मीठे का स्वाद सबसे ज्यादा पसंद होता है। जन्म के बाद बच्चों को मां का दूध पीने को मिलता है जो मीठा होता है। ऐसे में बच्चों को लगता है कि कड़वी चीजें खराब होती हैं और वह कड़वी चीजों खाकर सब्जियों को खाने से कतराते हैं।

जन्म से पहले स्वाद का एहसास :

स्विट्जरलैंड की न्यूट्रिशन साइंटिस्ट क्रिस्टीन ब्रोमबाख के अनुसार स्वाद का एहसास करना एक ऐसी प्रक्रिया है जिसकी शुरुआत जन्म से पहले ही शुरू हो जाती है। दरअसल भ्रूण को स्वाद की समझ एमनियोटिक फ्लुइड पीने के कारण होती है। मां जो भी खाती है उसके स्वाद का असर एमनियोटिक द्रव पर पड़ता है। इस तरह से पैदा होने से पहले ही बच्चे को कई चीजों का स्वाद पता होता है लेकिन उसकी बारीकियों की समझ नहीं होती।

क्रिस्टीन बताती हैं, एमनियोटिक द्रव के कारण जन्म से पहले ही बच्चे को स्वाद का अनुभव हो जाता है और



स्वाद की समझ नहीं होती

जन्म के समय हमारे पास स्वाद की कम समझ होती है। बस इतना पता होता है कि मीठे को प्राथमिकता देनी है और कड़वे को खराब मानकर खाने से मना करना है।

फिर वह मां का दूध पीता है जिसका स्वाद हर दिन थोड़ा अलग होता है। यह किसी पेंटिंग के रंगों की तरह है, जो वक्त के साथ और अच्छी तरह उभरते रहते हैं।

कड़वी चीजें खाने से मना करते हैं:

नवजात बच्चे कड़वी चीजों को खाने से मना कर देते हैं क्योंकि ये एक संकेत जैसे होता है कि वो चीज जहरीली है। उन्हें मीठी चीजें पसंद आती हैं क्योंकि उनमें ज्यादा ऊर्जा होती है। मां का दूध भी थोड़ा बहुत मीठा ही होता है।

क्रिस्टीन के अनुसार, जन्म के समय हमारे पास स्वाद की कम समझ

05

अंश सब्जी खानी चाहिए बच्चों को प्रतिदिन

04

से 8 साल के बच्चों को 2 कप सब्जी रोज खानी चाहिये।

माहौल पर भी निर्भर करती है बच्चों के खानपान की आदत

बच्चों की खाने के प्रति रुचि आसपास के माहौल पर भी निर्भर करता है। मिसाल के तौर पर जर्मनी में बच्चे चीज, सॉसेज और ब्रेड खाकर बड़े होते हैं। जबकि इटली में पिज्जा, पास्ता और टमाटर को ज्यादा तरजीह दी जाती है। इसी तरह भारत में बचपन से ही मसालों की आदत लग जाती है। दूसरे शब्दों में कहें तो हम वही पसंद करते हैं, जिसकी हमें आदत होती है और यह आदत तो कोख में मां के खाने के साथ ही लग जाती है।

आनंद लेना भी सीखते हैं।

कड़वे स्वाद के प्रति संवेदनशील :

कुछ लोगों के पास कड़वे स्वाद की पहचान करने वाले ज्यादा टेस्ट रिसेप्टर होते हैं। वे कड़वे स्वाद के प्रति ज्यादा संवेदनशील होते हैं। बच्चों में भी यह ज्यादा होते हैं, लेकिन उम्र के साथ ये कम होते रहते हैं। इसलिए बच्चे कड़वेपन के प्रति ज्यादा संवेदनशील होते हैं और वे हरी सब्जियों की जगह कैंटी खाना ज्यादा पसंद करते हैं। बच्चों का कुछ चीजों को नापसंद करना उनके विकास की प्रक्रिया का एक सामान्य हिस्सा है।

होती है। बस इतना पता होता है कि मीठे को प्राथमिकता देनी है और कड़वे को खराब मानकर उसे खाने से मना करना है। जहां तक खट्टी और नमकीन चीजों की बात है तो उनका स्वाद बाद में समझ में आता है।

लोगों को देखकर सीखते हैं : बच्चे अपने आसपास के लोगों को देखकर अलग-अलग तरह का खाना खाना सीखते हैं। इससे उन्हें अपनी पसंद और नापसंद पता चलती है। जैसे-जैसे उम्र बढ़ती है बच्चे देखते हैं कि माता पिता और भाई-बहन क्या खा रहे हैं। इस तरह से वे अलग-अलग तरह के स्वाद का