



INDIAN COUNCIL OF MEDICAL RESEARCH

Department of Health Research – Ministry of Health & Family Welfare
Government of India

Media report (22 June to 5 July 2019)
(Health News)

(Syed Adil Shamim Andrabi)
Information Interface Officer

High iron levels may help lower cholesterol: Study

June, 2019/The Indian Express

Longer work hours may raise stroke risk, says study

June 22, 2019/The Indian Express

Anti-malaria drug may prevent hereditary hearing loss: Study

June 22, 2019/The Indian Express

Yoga can help cope with mental illness

June 22, 2019/The Tribune

ILS develops antibodies against Chikungunya infection

June 23, 2019/The Hindu

Do you have diabetes? These are a few skin conditions you should know about

June 23, 2019/The Indian Express

If you have THIS mark on your nail, get tested for skin cancer

June 24, 2019/The Times of India

Drinking coffee may help fight obesity: study

June 24, 2019/The Hindu

After Bihar, Encephalitis hits Bengal: 3 cases from three districts

June 25, 2019/The Indian Express

Air pollution linked to heart disease, stroke risk: Study

June 25, 2019/The Indian Express

Drugs for epilepsy and depression may cause long-term side effects in brain

June 25, 2019/The Indian Express

Gut microbes prevent food allergies

June 26, 2019/The Asian Age

Chemicals in everyday products can up risk of osteoporosis

June 26, 2019/The Asian Age

[Air pollution in India linked to increased hypertension risk in women: Study](#)

June 27, 2019/The Indian Express

[New AI-enabled tool may help detect heart attacks](#)

June 28, 2019/The Indian Express

[Climate warming may increase malaria risk in colder regions](#)

June 28, 2019/The Indian Express

[Commonly prescribed drugs may up dementia risk: Study](#)

June 29, 2019/The Indian Express

[High uptake of HPV vaccine can lead to elimination of cervical cancer: Study](#)

June 30, 2019/The Indian Express

[Use of statins reduces mortality, stroke risk in dementia patients: Study](#)

July 2, 2019/The Indian Express

[Vitamin D deficiency from birth linked to high blood pressure in later life](#)

July 3, 2019/The Indian Express

[Panic over Zika has died down, but researchers say virus is still spreading](#)

July 3, 2019/The Indian Express

[Poor quality sleep in 50s, 60s increases risk of Alzheimer's disease: Study](#)

July 3, 2019/The Indian Express

[Scientists eliminate HIV from animal's genome for the first time; indicate possible cure for HIV](#)

July 3, 2019/The Indian Express

[Early risers may have lower breast cancer risk](#)

July 4, 2019/The Tribune

[Researchers identify new gene linked to schizophrenia](#)

July 5, 2019/The Indian Express

High iron levels may help lower cholesterol: Study

June, 2019/The Indian Express

People with high iron levels are not only protected against anaemia but are also less likely to have high cholesterol, according to a global study. The researchers from Imperial College London in the UK also found that too much iron in the body may increase the risk of bacterial skin infections, such as cellulitis and abscesses. The study, published in the journal PLOS Medicine, looked at the role that iron plays in 900 diseases, uncovering the impact of both low and high iron levels. Researchers used data from nearly 500,000 people in the UK Biobank, looking at the role of iron status and its impact on health. Iron deficiency is well documented, with about 1.2 billion people worldwide living with anaemia, leading to serious health problems if left untreated, researchers said. Around 25 to 65 per cent of differences between individuals in iron levels are due to genetic factors, according to Beben Benyamin, from Imperial College London. “We used a statistical method, called Mendelian randomisation that employs genetic data to better estimate the causal effect of iron status on 900 diseases and conditions. Through this, we found a link between excess iron and a reduced risk of high cholesterol,” Benyamin said. “This could be significant given that raised cholesterol is a major factor in cardiovascular disease and stroke, causing around 2.6 million deaths each year according to the World Health Organization,” said Benyamin.

Longer work hours may raise stroke risk, says study

June 22, 2019/The Indian Express

People who work for more than 10 hours a day may have a significant risk of stroke, a study warns. Researchers reviewed data from a French population-based study group started in 2012, on 143,592 participants. Cardiovascular risk factors and previous stroke occurrences were noted from separate medical interviews. The study, published in the journal Stroke, found that overall 1,224 of the participants suffered strokes while 29 per cent or 42,542 reported working long hours. As many as 10 per cent or 14,481 reported working long hours for 10 years or more. The participants working long hours had a 29 per cent greater risk of stroke, and those working long hours for 10 years or more had a 45 per cent greater risk of stroke. Long work hours were defined as working more than 10 hours for at least 50 days per year. Part-time workers and those who suffered strokes before working long hours were excluded from the study. “The association between 10 years of long work hours and stroke seemed stronger for people under the age of 50,” said Alexis Descatha, a researcher at Paris Hospital and Angers University in France. “This was unexpected. Further research is needed to explore this finding,” Descatha said. “I would also emphasise that many healthcare providers work much more than the definition of long working hours and may also be at higher risk of stroke,” said Descatha, also associated with the French National Institute of Health and Medical Research (Inserm). Previous studies noted a smaller effect of long work hours among business owners, CEOs, farmers, professionals and managers. Researchers noted that it might be because those groups generally have greater decision latitude than other workers.

Other studies have suggested that irregular shifts, night work and job strain may be responsible for unhealthy work conditions.



Anti-malaria drug may prevent hereditary hearing loss: Study

June 22, 2019/The Indian Express

A widely-used anti-malaria drug may help prevent hearing loss caused by heredity and genetic disorders, a study has found. Researchers from Case Western Reserve University in the US conducted a study on zebrafish with a commonly used anti-malarial drug called artemisinin. They found that the drug can help sensory cells of the inner ear recognise and transport an essential protein to specialised membrane using established pathways within the cell, which will help improve and restore hearing. The ability to hear depends on these proteins reaching the outer membrane of the sensory cells in the inner ear which may be hindered due to certain types of mutations in the protein due to hereditary disorders, which prevent it from reaching those membranes. The sensory cells of the inner ear are covered by hair-like projections, called hair cells, on the surface. These hair cells convert vibrations from sounds and movement into electrical signals that are conveyed through the nerves and translated in the brain into information for hearing and balance. The genetic mutation of the protein — *clarin1* — makes hair cells unable to recognise and transport the signals to the membrane and gets trapped inside the hair cells where they are harmful to the cells. This faulty secretion of *clarin1* most commonly occurs in the Usher syndrome, which causes hearing and vision loss. The study, published in the Proceedings of the National Academy of Sciences (PNAS), found that artemisinin restores cell function of the inner ear — and thus hearing and balance — in genetically engineered zebrafish that have human versions of the essential hearing protein.

Yoga can help cope with mental illness

June 22, 2019/The Tribune

Mental illness in city dwellers has emerged as a major problem. It can be mitigated to an extent through yoga, say experts. “Stress is one of the major factors that leads to depression. One can deal with stress through yoga. One can learn to calm one’s responses by extending the reaction time, thereby having better control on emotional reactivity,” says mental health expert Prakriti Poddar. Yoga asanas like surya namaskar, warrior pose, tadasana, trikonasana and pranayam could help a person cope with depression and stress. “Depression is one of the major diseases of the developed world. It is triggered off by one’s inability to cope with stress — emotional and physical. Yoga helps you to calm your nerves, increase your mental strength and help you deal with situations,” she adds. Migration of work force from rural to urban areas can also trigger depression. “Often situational stress assists it, as people move from a robust support system to a limited one. Loneliness steps in as the sense of belonging depletes. Yoga has huge benefits as it lowers stress levels, relaxes the mind, makes the body flexible and invites an overall feeling of well-being,” she further says. Breast cancer raises heart disease risk Researchers have found that postmenopausal women with breast cancer are at greater risk of developing cardiovascular disease. Heart disease appears more commonly in women treated for breast cancer because of the toxicities of chemotherapy, radiation therapy and use of aromatase inhibitors, which lower estrogen, say experts.

ILS develops antibodies against Chikungunya infection

June 23, 2019/The Hindu



The Institute of Life Sciences (ILS), which functions under the Department of Biotechnology, has entered into a non-exclusive license for product commercialisation after having successfully developed antibodies against the Chikungunya viral (CHIKV) infection. The antibodies were developed following decade-long research on the CHIKV infection at the ILS laboratory headed by Dr. Soma Chattopadhyay, a senior molecular virologist. In fact, Dr. Chattopadhyay has been selected for the Biotech Product, Process Development and Commercialisation Award 2019 by the Department of Biotechnology.

Significant impact

“Generation of antibodies has had significant impact on the progress of CHIKV-based research. It will help researchers unravel myriad aspects of virus pathogenesis. Moreover, with greater light shed upon the CHIKV infection biology using these antibodies, research communities are now a step closer to developing efficacious antivirals and other control strategies against the Chikungunya virus,” said Dr. Chattopadhyay. “With no prior antibodies reported against CHIKV, Dr. Chattopadhyay’s group was the first to develop and characterize novel, highly sensitive and specific polyclonal antibodies against the non-structural proteins - nsP1, nsP3 and nsP4 of CHIKV. Furthermore, her laboratory has also developed and characterized a monoclonal antibody against nsP2 of CHIKV,” said ILS in a statement.

Lack of information

The molecular virologist, who has 20 years of experience in the field, and her team, started working on this aspect as there was hardly any information on the basic mechanisms underlying CHIKV virus infection and pathogenesis.

“These CHIKV proteins were chosen as targets specifically for their critical role in virus survival as they largely govern the overall process of replication and infection in host cells. Development of these antibodies [nsP2 monoclonal, nsP1, nsP3 and nsP4 polyclonals] was therefore crucial to perform experiments pertaining to CHIKV infection, and thereby advance our basic knowledge ” said the scientist.

ILS sources said the antibodies against CHIKV were receiving a tremendous response, and were being purchased by research laboratories across world.

Do you have diabetes? These are a few skin conditions you should know about



June 23, 2019/The Indian Express

Diabetes is one of the most common disease in India, in which the body's ability to process the blood glucose or blood sugar levels is affected. According to the World Health Organisation, diabetes is a growing challenge in India with estimated 8.7 per cent diabetic population in the age group of 20 and 70 years. However, the condition also causes some skin problems that a person suffering from diabetes should be aware of. Dr Anup Dhir, senior consultant Apollo Hospital; cosmetic & plastic surgeon and andrologist, Image Medical Centre shares a few skin related problems faced by diabetics: *Acanthosis nigricans is a skin disease that usually happens to people who are suffering from obesity or diabetes. The disease is characterised by darkening and thickening of the skin in the neck, armpits and groin areas. Children with this condition are at a higher risk of developing type-2 diabetes. There is no specific treatment for this disease but losing weight can improve the condition of the skin. One should consult a doctor if they notice any difference and changes in their skin. Yeast is one of the most naturally found microscopic fungus in the human body, which can cause fungal infection in the body if it overgrows. Any person who is suffering from diabetes is at a higher risk of developing such fungal infections. A person should visit a doctor immediately if they develop the condition, for them to identify the kind of infection to begin the treatment. However, it is mostly treated with various kinds of antibiotics.

If you have THIS mark on your nail, get tested for skin cancer

June 24, 2019/The Times of India

If you have ever had white lines or dots on your nails, you may already know that it is either because of mineral deficiency (like calcium and zinc) or due to an injury at the base of the nail. A lot of times these white lines are a result of allergic reactions or damage to the nail bed, which often won't show up for weeks. Apart from the above-mentioned factors, manicures and using acrylic or gel nails very frequently can also cause a significant amount of damage to your nails. In the rarest of rare cases, it may also signify deep-rooted cardiovascular problems and bad health.

The 'mark' of cancer

It is important to note that one should never brush off any kind of changes in fingernails, as more often than not, a person's nails can actually tell a lot about his/her physical health. Apart from checking for inflammation, injuries and white spots, if you notice a blackish-brown stripe down the length of your nail bed, you may need to get it checked by a trained medical professional.

Also known as subungual melanoma, some of the other symptoms of this sneaky disease is as follows:

1. Brittle and weak nails
2. Bleeding around nails
3. Blackish-brownish mark which seems to be expanding
4. Change in colour of the skin around the nail
5. Pus in the pigmented part of the nail

If left untreated, subungual melanoma can spread to the other parts of the body pretty fast.



Drinking coffee may help fight obesity: study

June 24, 2019/The Hindu

Drinking coffee may stimulate the body's own fat-fighting defences, which could be the key to tackling obesity and diabetes, says a study published in the journal Scientific Reports. The study is one of the first to be carried out in humans to find components which could have a direct effect on 'brown fat' functions, which plays a key role in how quickly we can burn calories as energy. Initially only attributed to babies and hibernating mammals, it was discovered in recent years that adults can have brown fat too. "We need to ascertain if caffeine is acting as the stimulus or if there's another component helping with the activation of brown fat," said Professor Michael Symonds, from the University of Nottingham. "... It could potentially be used as part of a weight management regime or as part of glucose regulation programme to help prevent diabetes," he said.

After Bihar, Encephalitis hits Bengal: 3 cases from three districts

June 25, 2019/The Indian Express

Three children from Howrah, Hooghly and Burdwan have been diagnosed with acute encephalitis syndrome (AES) in West Bengal. These are the first cases of AES in the state this year. This has rung alarm bells in the state health department at a time when the disease has claimed more than 150 lives in Bihar. The last time West Bengal saw an AES outbreak was in 2014 when 212 children died in the northern part of the state. The three children, diagnosed with AES, were admitted to Kolkata's Institute of Child Health (ICH), three weeks ago. They are aged below 15, according to doctors. One of the children, who hails from Howrah, has been put on ventilator, while the one hailing from Hooghly was discharged on Monday. Doctors at ICH clarified that these cases don't indicate an outbreak. "Japanese encephalitis is very common. It can be prevented through vaccines. Mosquitoes too carry the virus. The virus may also travel through water. One way to prevent encephalitis is to drink clean water," Dr Giri said. "We are yet to identify the cause of the disease in these three patients. In most cases, we don't get to know the reason. Even in western countries, 50-60 per cent cases go undetected. Fever, unconsciousness, convulsions, nerve paralysis and drowsiness are some of the symptoms of encephalitis. The nervous system gets affected. In some cases, the disease might result in some cognitive defect also," said Dr Apurba Ghose, director of ICH. Dr Ghosh rubbished that consumption of raw lychees leads to AES.

The doctors warned that the summer-monsoon season can see more cases of encephalitis. A senior health official said, "Hospitals have been alerted. There is nothing to panic." Encephalitis is characterised by high or no fever, vomiting and convulsions and can be life threatening if not detected early. People, including children and the elderly, with a low immune system are prone to contract AES.

Air pollution linked to heart disease, stroke risk: Study

June 25, 2019/The Indian Express



Air pollution and living in apartment buildings may increase the risk of developing dangerous conditions such as heart disease, stroke, and diabetes. Researchers from Lithuanian University of Health Sciences investigated the link between a long-term exposure to ambient air pollution and residential distance to green spaces and major roads with the development of hypertension and some components of metabolic syndrome. These components included a high triglyceride level, reduced high-density lipoprotein cholesterol, higher blood glucose, and obesity.

The associations were assessed among people who lived in either private or multifamily houses. The results indicate that air pollution levels above the median are associated with a higher risk of reduced high density lipoprotein.

“Our research results enable us to say that we should regulate as much as possible the living space for one person in multifamily houses, improve the noise insulation of apartments, and promote the development of green spaces in multifamily houses,” said Agn Brazien, lead author of the study published in the Journal of Public Health. Traffic-related exposure was associated with the incidence of hypertension, higher triglyceride level and reduced high-density lipoprotein cholesterol. However, the negative impact of traffic air pollutants was observed only in the participants who lived in multifamily buildings. In addition, a built-up environment, high residential density, street traffic and its configurations are further factors associated with social interactions and supportive relationships, which could also impact cardiovascular health. The greenness, size, and type (activity) of the available open public spaces were observed to be inversely related to the risk factors assessed. Researchers have additionally found positive effects of the natural environment, and have emphasised the positive impact of such spaces on cardiovascular health.

Drugs for epilepsy and depression may cause long-term side effects in brain

June 25, 2019/The Indian Express

While taking drugs for epilepsy or depression is common, they might increase one’s risk of suffering from dementia, a group of researchers have concluded. Quoted in a report in BBC, it was further stated that the cause for this being the medicines prescribed in these cases belong to a family of drugs known as anticholinergics. These have already been associated with short-term problems with thinking. Recently, a study that examined UK patients has inferred that it might have potential long-term side effects in the brain. However, it is also mentioned that the findings in JAMA Internal Medicine do not really indicate that there is a direct risk, and neither is there an urgency for people who take the drug to come off it. Experts stress the findings do not prove there is a direct risk or mean that patients should come off the drugs. The subsequent findings revealed a link between anticholinergic medications and a heightened risk of dementia, basically among those who are 55 and older. Certain drugs in this group of medicine like antipsychotics, antidepressants, bladder drugs and epilepsy drugs were held responsible. Other anticholinergic medicines, that included heart rhythm drugs, asthma medication were not considered to be of any risk. Researchers maintain that although the link might be real, others factors not considered in this case might change the result.

Gut microbes prevent food allergies

June 26, 2019/The Asian Age



The epidemic of food allergy is caused by the absence of certain beneficial bacteria in the human gut, researchers suggest. "The loss of these bacteria acts as a switch that makes children susceptible to food allergy," the recent study suggests. For reasons that remain a mystery, the number of Americans who suffer from food allergy has risen sharply over the last decade to as many 32 million, according to one recent estimate. Nearly 8 per cent of children in the US, about two in every classroom, are affected. One hypothesis is that certain Western lifestyle factors, an increase in births by Caesarean section, a decline in breastfeeding, increased use of antibiotics and smaller family sizes, for example, is disrupting the normal microbial balance in the gut, depriving babies of the "good" bacteria that prepare the immune system to recognise food as harmless. As part of the study, published in the Journal of Nature Medicine, the researchers began testing this hypothesis by studying gut bacteria in babies with and without food allergies. The team collected stool samples from 56 food-allergic patients and 98 matched controls. Gerber and his colleagues at Brigham and Women's Hospital analysed those samples for changes in bacterial content. The work revealed that the bacteria in the feces of babies with food allergies were different from those of controls. But did those bacterial differences play a role in their food allergies?

Chemicals in everyday products can up risk of osteoporosis

June 26, 2019/The Asian Age

Women exposed to triclosan, a chemical widely used as an antibacterial in soaps, tooth pastes and other personal care products, are more likely to develop osteoporosis, a study has found. Triclosan is an endocrine-disrupting chemical that has been banned by the US Food and Drug Administration (FDA) from over-the-counter hand sanitiser in recent years. The research, published in the Journal of Clinical Endocrinology & Metabolism, is the first of its kinds to investigate the association between triclosan exposure with bone mineral density and osteoporosis. A person can be exposed to triclosan via consumer products, like soaps, hand sanitisers, toothpaste, and mouthwash and contaminated water. "Laboratory studies have demonstrated that triclosan may have potential to adversely affect the bone mineral density in cell lines or in animals," said Yingjun Li, from Hangzhou Medical College School of Public Health in China. "However, little is known about the relationship between triclosan and human bone health," said Li. The researchers analysed data from 1,848 women to determine the link between triclosan and bone health. They found women with higher levels of triclosan in their urine were more likely to have bone issues.

Air pollution in India linked to increased hypertension risk in women: Study



June 27, 2019/The Indian Express

Exposure to higher levels of indoor air pollution in India is associated with an increased risk of hypertension among women, according to a study. Researchers led by the Barcelona Institute for Global Health (ISGlobal) in Spain studied the association in India, where burdens of air pollution and hypertension are projected to increase. The results show that women exposed to higher levels of air pollution at home have a higher hypertension prevalence. The study, published in the journal *Epidemiology*, studied 5,531 adults from 28 peri-urban villages near Hyderabad city. The researchers measured systolic and diastolic blood pressure of participants and estimated their annual residential exposure to fine particulate matter (PM_{2.5}) and black carbon. The participants also answered a survey to determine socio-economic status, lifestyle and household characteristics, including the type of cooking fuel generally used. All study participants were exposed to fine particulate matter levels above the 10 microgrammes per cubic metre limit recommended by the World Health Organization (WHO). Average exposure to PM_{2.5} in this study was 33 microgrammes per cubic metre. “Other studies have found that women that cook with solid fuels such as biomass tend to have higher blood pressure than those using clean fuels, although our data is not powered enough to support this,” Curto said. “Our study suggests that the effects of outdoor air pollution on cardiovascular health may be independent from those of indoor air pollution,” she said.

New AI-enabled tool may help detect heart attacks

June 28, 2019/The Indian Express

Scientists have developed an artificial intelligence (AI) based system that can better predict heart attacks and other cardiac events as compared to conventional risk models. Risk determination is an imperfect science, and popular existing models like the Framingham Risk Score have limitations, as they do not directly consider the condition of the coronary arteries. Coronary computed tomography arteriography (CCTA), that gives highly detailed images of the heart vessels, is a promising tool for refining risk assessment, according to a study published in the journal *Radiology*. The decision-making tool, known as the coronary artery disease reporting and data system (CAD-RADS), emphasises stenoses, or blockages and narrowing in the coronary arteries. While CAD-RADS is an important and useful development in the management of cardiac patients, its focus on stenoses may leave out important information about the arteries, said Kevin M Johnson, associate professor at the Yale School of Medicine in the US. Noting that CCTA shows more than just stenoses, Johnson investigated machine learning (ML) system capable of mining the myriad details in these images for a more comprehensive prognostic picture. “Starting from the ground up, I took imaging features from the coronary CT,” Johnson said. Compared to CAD-RADS and other scores, the ML approach better discriminated which patients would have a cardiac event from those who would not. When deciding whether to start statins, the ML score ensured that 93 per cent of patients with events would receive the drug, compared with only 69 per cent if CAD-RADS were relied on. “The risk estimate that you get from doing the machine learning version of the model is more accurate than the risk estimate you’re going to get if you rely on CAD-RADS,” Johnson said. “Both methods perform better than just using the Framingham risk estimate.

Climate warming may increase malaria risk in colder regions

June 28, 2019/The Indian Express



A slight rise in temperature may increase the risk of malaria to hundreds of thousands, if not millions, of people, in areas that are currently too cold for malaria parasites to complete their development, according to a study. Researchers at Penn State in the US used two of the most important malaria-hosting mosquito species in the world — *Anopheles stephensi* and *Anopheles gambiae* — to conduct their experiments. They maintained these malaria-infected mosquitoes in the laboratory under a variety of temperatures ranging from 16 to 20 degrees Celsius. For the study, published in the journal *Biology Letters*, the researchers maintained a separate control set of mosquitoes at 27 degrees Celsius, which is the temperature at which malaria transmission is typically highest. “Our work shows that even small increases in temperature could dramatically increase malaria infections in humans because the parasites develop much faster at these lower temperatures than has been previously estimated,” said Jessica Waite, senior scientist at Penn State. “Parasite development rate further increases when temperatures fluctuate naturally, from cooler at night to warmer in the day,” she said. In addition, the team varied the daily temperatures by 10 degrees Celsius — 5 degrees Celsius above and below the daily mean — since such variation in temperature is common in natural settings when it is cooler at night and warmer in the daytime. The traditional model estimates that parasites in the mosquito take 56 days to develop at temperatures just above the minimum threshold for development — a cool 18 degrees Celsius, or 64 degrees Fahrenheit.

Commonly prescribed drugs may up dementia risk: Study

June 29, 2019/The Indian Express

Drugs widely prescribed to treat a variety of conditions including gastrointestinal disorders and bladder conditions may significantly increase the risk of dementia in older adults. The researchers from University of Nottingham in the UK looked at the medical records of 58,769 patients with a diagnosis of dementia and 225,574 patients without a diagnosis of dementia, all aged 55 and over. These patients had used strong anticholinergic medication daily for three years or more. Anticholinergic drugs help to contract and relax muscles. They are prescribed to treat a variety of conditions including, allergies, gastrointestinal disorders, bladder conditions, chronic obstructive pulmonary disease and symptoms of Parkinson’s disease. According to the research published in the journal *JAMA Internal Medicine*, out of the 58,769 patients with dementia, 63 per cent were women. The average age of the patients was 82. The research indicates that anti-cholinergic drugs should be prescribed with caution in middle-aged and older patients.

“The risks of this type of medication should be carefully considered by healthcare professionals alongside the benefits when the drugs are prescribed and alternative treatments should be considered where possible, such as other types of antidepressants or alternative types of treatment for bladder conditions,” said Carol Coupland, a professor at University of Nottingham.

“These findings also highlight the importance of carrying out regular medication reviews,” Coupland said.

High uptake of HPV vaccine can lead to elimination of cervical cancer: Study



June 30, 2019/The Indian Express

A study has found that the uptake of Human Papillomavirus (HPV) vaccination among schoolgirls in Britain has led to plummeting cervical cancer risk. All schoolgirls in Britain have been offered the HPV vaccine at the age of 12 or 13 since 2008 and later this year, the programme will be extended to boys of the same age. The study, published in The Lancet medical journal looked at screening programmes involving 60 million people in 14 countries and found levels of the two strands of HPV virus – that are mainly responsible for the cancer – fell 83 per cent in girls aged 13 to 19 after five to eight years of vaccination, and 66 per cent in women aged 20 to 24. The researchers, led by Laval University in Canada, said that if the number of people having the vaccination remains high, the cancer could soon be eliminated. He added that Australian scientists have estimated they could wipe out cervical cancer in their country – which is similar to UK – within a few decades. Dr David Mesher, of Public Health England, added, ‘There will be a time in the future where we will see very low rates of cervical cancer.’

Around 3,200 British women are diagnosed with the disease every year, while almost 1,000 die from it annually. The research team also looked at the impact of the vaccination programme on levels of abnormal cells and cervical lesions, known as cervical intraepithelial neoplasia (CIN), which can be early warning signs of cervical cancer.

Use of statins reduces mortality, stroke risk in dementia patients: Study

July 2, 2019/The Indian Express

The use of statins is significantly associated with a reduction in the risk of mortality in dementia patients, according to a study. The study, which analysed 44,920 Swedish dementia patients between 2008 and 2015, found users of statins had a 22 per cent lower risk of all-cause death compared to matched non-users. “Survival in patients in dementia is variable, and previous studies have identified many factors associated with survival and risk of stroke in these patients,” said Bojana Petek from the University Medical Center Ljubljana in Slovenia.

“However, the effect of statins on these two outcomes is not clear. The aim of this study was to analyse the association between the use of statins on the risk of death and stroke in patients diagnosed with dementia,” Petek said. The research, which was presented at 5th European Academy of Neurology (EAN) Congress, also demonstrated that statin users had a 23 per cent reduction in the risk of stroke, which is three times more likely in patients with mild dementia and seven times more likely in those with severe dementia. The protective effect of statins on survival were strong for patients younger than 75 years (27 per cent reduction) and in men (2 per cent reduction) but women and older patients also benefited (17 per cent and 20 per cent reduction, respectively). Patients with vascular dementia — the second most common type of dementia after Alzheimer’s disease — also saw a 29 per cent lower mortality risk, according to the study. “This is a cohort study, which means patients were not randomized to a treatment like they would be in a clinical trial. For this reason, we can only show an association, and not definitely prove that statins caused this decline in mortality,” said Dr Sara Garcia-Ptacek from the Karolinska Institutet in Sweden.

Vitamin D deficiency from birth linked to high blood pressure in later life



July 3, 2019/The Indian Express

A recent study discovered that Vitamin D deficiency from birth to early childhood is associated with an increased risk of elevated blood pressure in later childhood and even adolescence. According to the study published in the Journal of Hypertension, researchers examined 775 children from birth until the age of 18. Later, when they compared children born with adequate Vitamin D levels to those with a deficiency, they found that children born with low levels of Vitamin D had an approximately 60 per cent higher risk of elevated systolic blood pressure (values that determine whether your blood pressure is normal, too high or too low) between ages six and 18. Further, the researchers discovered that children who had persistently low levels of Vitamin D through early childhood had double the risk of elevated systolic blood pressure between ages three and 18. They also found that high systolic blood pressure readings increase the risk of cardiovascular disease even when diastolic blood pressure, the second number in a blood pressure reading, is controlled. “Currently, there are no recommendations from the American Academy of Pediatrics to screen all pregnant women and young children for Vitamin D levels. Our findings raise the possibility that screening and treatment of Vitamin D deficiency with supplementation during pregnancy and early childhood might be an effective approach to reduce high blood pressure later in life,” said Guoying Wang, the study’s lead author.

Panic over Zika has died down, but researchers say virus is still spreading

July 3, 2019/The Indian Express

With measles and Ebola grabbing headlines, it is easy to forget the health panic of 2016, when Zika was linked to severe birth defects in thousands of Brazilian newborns whose mothers were infected while pregnant, striking fear across the country and much of the Americas. As health officials struggled to halt its spread, the virus galloped through Latin America and the Caribbean that spring and summer and eventually reached the United States, sickening more than 200 people in Florida and Texas and prompting countless travelers to cancel vacations in the tropics. Then, seemingly overnight, the epidemic evaporated, and public attention moved on. But Zika, it turns out, did not vanish. “Zika has completely fallen off the radar, but the lack of media attention doesn’t mean it’s disappeared,” said Dr. Karin Nielson, a pediatric infectious disease specialist at UCLA who studies Zika’s impact in Brazil. “In some ways, the situation is a bit more dangerous because people aren’t aware of it.” The virus, which is mostly spread by mosquitoes but also through sex with an infected person, is still circulating in Brazil and other countries that were at the center of the epidemic, and two years ago the same strain from the Americas arrived in continental Africa for the first time. That strain, researchers recently discovered, had been causing birth defects in Asia long before the Zika epidemic of 2016. Another concern is over places where the mosquito that spreads the virus — the female *Aedes aegypti* — is endemic but have so far been spared locally transmitted cases of Zika. On Tuesday, the World Health Organization issued a report on Zika that listed 61 such countries, among them densely populated behemoths like China, Egypt and Pakistan as well as much of Africa.

Poor quality sleep in 50s, 60s increases risk of Alzheimer's disease: Study



July 3, 2019/The Indian Express

People who report poor quality of sleep as they age from their 50s to their 60s have more protein tangles in their brain, putting them at higher risk of developing Alzheimer's disease later in life, according to a study. The new finding, published in the Journal of Neuroscience, highlights the importance of sleep at every age to maintain a healthy brain into old age. "Insufficient sleep across the lifespan is significantly predictive of your development of Alzheimer's disease pathology in the brain," said the study's senior author, Matthew Walker. "Unfortunately, there is no decade of life that we were able to measure during which you can get away with less sleep," Walker said. A team of researchers at University of California in the US found that adults reporting a decline in sleep quality in their 40s and 50s had more beta-amyloid protein in their brains later in life, as measured by positron emission tomography, or PET. Those reporting a sleep decline in their 50s and 60s had more tau protein tangles. Both beta-amyloid and tau clusters are associated with a higher risk of developing dementia, though not everyone with protein tangles goes on to develop symptoms of dementia, according to the study.

"The idea that there are distinct sleep windows across the lifespan is really exciting. It means that there might be high-opportunity periods when we could intervene with a treatment to improve people's sleep, such as using a cognitive behavioral therapy for insomnia," said Joseph Winer, first author of the study.

Scientists eliminate HIV from animal's genome for the first time; indicate possible cure for HIV

July 3, 2019/The Indian Express

For the first time, researchers have eliminated replication-competent HIV-1 DNA — the virus responsible for AIDS — from the genomes of living animals. The study, published in the journal Nature Communications, marks a critical step toward the development of a possible cure for humans infected with HIV. Most HIV-positive individuals can live their entire life without progressing to AIDS, although it requires a cocktail of different medications that interrupt viral replication.

"Our study shows that treatment to suppress HIV replication and gene editing therapy, when given sequentially, can eliminate HIV from cells and organs of infected animals," said Kamel Khalili, director of the center for neurovirology and the Comprehensive NeuroAIDS Center at Temple University's Lewis Katz School of Medicine, who is one of the study's lead authors. Current HIV treatment focuses on the use of antiretroviral therapy (ART) which suppresses HIV replication but does not eliminate the virus from the body. Therefore, ART is not a cure for HIV, and needs to be taken life-long. If it is stopped, HIV rebounds, renewing replication and fuelling the development of AIDS. HIV rebound is directly attributed to the ability of the virus to integrate its DNA sequence into the genomes of cells of the immune system, where it lies dormant and beyond the reach of ART drugs. In previous work, Dr Khalili's team used CRISPR-Cas9 technology to develop a novel gene editing and gene therapy delivery system aimed at removing HIV DNA from genomes harbouring the virus. In rats and mice, they showed that the gene editing system could effectively excise large fragments of HIV DNA from infected cells, significantly impacting viral gene expression. However, gene editing also cannot completely eliminate HIV on its own.

Early risers may have lower breast cancer risk

July 4, 2019/The Tribune



Women who wake up early may have a lower risk of developing breast cancer than the females sleeping for longer hours, a study has found. Using a technique called Mendelian randomisation, researchers analysed genetic variants associated with three particular sleep traits—morning or evening preference (chronotype), sleep duration, and insomnia. They analysed databases of more than four lakh women from two studies—UK Biobank study and Breast Cancer Association Consortium (BCAC) study. In observational analysis of UK Biobank data, morning preference was associated with a slightly lower risk of breast cancer (one less woman per 100) than evening preference, whereas there was little evidence for an association with sleep duration and insomnia symptoms. Analysis from BCAC also supported a protective effect of morning preference, and showed a potential harmful effect of longer sleep duration (more than the recommended 7-8 hours) on breast cancer, whereas evidence for insomnia symptoms was inconsistent. Eva Schernhammer from the University of Vienna in Austria said these findings, published in the journal BMJ, identify a need for future research exploring how the stresses on our biological clock can be reduced.

Researchers identify new gene linked to schizophrenia

July 5, 2019/The Indian Express

After almost 20 years of research, Australian and Indian scientists have identified a new gene directly linked to schizophrenia. Scientists from the University of Queensland in Australia and a team of Indian researchers searched the genomes of over 3,000 individuals and found those with schizophrenia were more likely to have a particular genetic variation. The team of Indian researchers was led by Rangaswamy Thara, co-founder and director of the Chennai-based Schizophrenia Research Foundation. Bryan Mowry from the university said such studies had predominantly been done in populations with European ancestry, with more than 100 schizophrenia-associated variants identified previously. “Looking at other populations can highlight different parts of the genome with a more robust association with the disease,” Mowry said. “This study identified a gene called NAPRT1 that encodes an enzyme involved in vitamin B3 metabolism – we were also able to find this gene in a large genomic dataset of schizophrenia patients with European ancestry,” he said.

With regards,

Syed Adil Shamim Andrabi
Information Interface Officer/PRO
Indian Council of Medical Research-
Department of Health Research
Ministry of Health and Family Welfare
proicmr@gmail.com, syed.adil@icmr.gov.in
Ext. 286, Phone. 26589130