Hip implants

Top official sought CBI probe into hip implants sold by Indian arm of Johnson & Johnson: ‘Failure of govt. (The Indian Express: 20180830)


But the Centre decided in July 2015 against such a probe on the grounds that “referring the case to CBI may not help the compensation claim” of patients.

Written by Deepak Patel | New Delhi | Updated: August 25, 2018 9:04:09 am

Top official sought CBI probe into Indian arm of Johnson & Johnson: ‘Failure of govt’

But the Centre decided in July 2015 against such a probe on the grounds that “referring the case to CBI may not help the compensation claim” of patients. (File Photo)

Over five years ago, the Maharashtra Food and Drug Administration (FDA) commissioner asked the state government to seek a CBI investigation into complaints by patients against the ASR hip implants sold by the Indian arm of Johnson & Johnson. Three years later, Vijay Anant Vojhala, a patient who underwent a hip replacement surgery using this device, asked the central government for a CBI probe into the “faulty” implants.

But the Centre decided in July 2015 against such a probe on the grounds that “referring the case to CBI may not help the compensation claim” of patients.

Speaking to The Indian Express, Mahesh Zagade, the Maharashtra FDA Commissioner in 2013, said there was a “whole thought process” behind his recommendation and it is the “failure of the government machinery that leads to this type of thing”.

Zagade alleged that his “officials were hand in glove and they did not pay any heed to the complaint (of patients)… and this was a case of failure of FDA machinery.”

Also read | Findings of govt panel: ‘Its hip implant recalled in Australia, in same month Johnson & Johnson got registration certificate in India’
Union Health Secretary Preeti Sudan did not respond to the queries sent by The Indian Express. Johnson & Johnson did not respond to requests for comment on the Maharashtra FDA’s recommendation.

On July 8, 2015, the Union Health Ministry noted in an internal file: “Regarding CBI enquiry, CBI is a police organisation and it looks into criminal liability of a company, individual or government organisation in terms of CrPC; the issues of civil liability/compensation are not looked into by it. Secondly, with respect to criminal liability as well there can not be two simultaneous investigations into a case. Thus, if a CBI enquiry is to be ordered, the investigation by Mahim police station, Mumbai, has to cease and it has to be transferred to CBI. In view of this, referring the case to CBI may not help the compensation claim of the applicant (Vojhala).”

Johnson & Johnson, Johnson & Johnson surgery, Johnson & Johnson hip surgery, hip replacement surgery, Johnson & Johnson hip replacement system, Johnson & Johnson investigation, Indian Express Broken completely: Vijay Vajhala, who had revision surgery. (Express Photo/Kaunain Sheriff M)

On June 4, 2013, Zagade wrote a letter to the Maharashtra Chief Secretary requesting a CBI enquiry against DePuy, a Johnson & Johnson subsidiary that sold the hip implants. On January 5, 2015, Vojhala wrote an email to G N Singh, the then Drug Controller General of India (DCGI), asking for a CBI enquiry. The Mumbai-based patient quoted the letter written by Zagade.

Zagade, who retired on May 31 this year as Principal Secretary of Administrative Reforms in the Maharashtra government, said: “I don’t know what happened later on. They should have taken (the matter of CBI enquiry) up with the central government."

Zagade said: “I did not recommend CBI investigation just like an off-the-cuff kind of thing. There was a whole thought process. In this particular case, about 4,600-4,700 of these hip implants were sold, which later turned to be faulty. It is not the private party (company) that alone is responsible. It is the government machinery which is supposed to supervise this thing under the statute. And it is the failure of this government machinery that leads to this type of thing. The patients are left high and dry at the mercy of the corporate sector.”

Also read | ‘Johnson & Johnson buried key facts on faulty hip implant surgeries, kept regulator in dark’

The DCGI told the Union Health Ministry in 2015 that 4,700 hip implant surgeries were carried out in India prior to the voluntary recall of the product in August 2010.

“When I joined in August 2011. I was told about the complaints that stated that because of these implants, many patients are in pain and therefore, the FDA should enquire into this thing. Till that time, these complaints were not attended to. I found that these implants were faulty and they were recalled in many countries by the company. I found that apart from bearing the expenses of corrective surgeries, the company also provided compensation to the patients that ran into millions and millions of dollars,” Zagade said.

“I called the company representatives and they told me that they have contracted one NGO and this NGO will go around and find out all the patients. I told them that all over the world you are recalling it and here you are playing this kind of prank saying that we have contracted an
NGO. So, they said that we will go to management and we will appraise you of the thing. They did not do anything. Patients were dying,” he said.

“The second time I called them, I told them that this is not some Nokia handset that has been sold and then no one knows where has it gone. Under Drugs and Cosmetics Act, this is one product that is statutorily controlled. Also, I told them this is not an automobile product that goes into some car or motorcycle. It is implanted into patients by hospitals through major surgeries. And hospitals are supplied these implants by distributors or retailers. So, I told them that entire chain from company to distributor to retailer to hospital to patient is recorded. You can find out about all the patients within two-three days. They dilly-dallied,” the retired official said.

Express Editorial | Failure to track hip replacement surgeries is costly. National Joint Registry must monitor implants stringent!

Zagade said that it is at this time that he decided to file an FIR in the Mahim police station. “This was not a regular criminal case under IPC (Indian Penal Code) or other criminal laws. The company went to High Court to get this FIR quashed, the FIR was against the company management itself because they are responsible for the compensation. But the high court said that the investigation should continue. Then I realised that it is not just Maharashtra but this faulty product was sold all across the country,” he said.

“The officials of Maharasthra FDA, the Central govt departments all are responsible towards safeguarding of the patient’s interests. I knew that my officials were hand in glove. They did not pay any heed to the complaint… This was a case of failure of FDA machinery and since it was all-India case that is why I recommended CBI investigation,” Zagade said.

According to Zagade, the CBI probe was also necessary because the headquarters of Johnson & Johnson was not in India.

“Any investigation that has to be carried out beyond the borders of the country has to be done by a central government agency. Even the state police has to approach the central government if they want to carry out such investigation. Therefore, I thought that CBI is the right agency for any international investigation. If you want to pressurise the international company to provide compensation to the patients affected by these implants, then the CBI is a more appropriate agency then the state police,” Zagade said.
Nutrition and livelihoods

Nutrition and livelihoods: A weapon that can kill two birds — hunger and rural poverty

A proposed scheme for inclusion of milk in the National Mid-Day Meal programme and delivering it to 10 crore schoolchildren. ((The Indian Express: 20180830)


India is a nation of contradictions.

It has 121 people in the Forbes World’s Billionaires list, below only that of two countries: The US (585) and China (373). Yet, the last official data for 2011-12 also shows 21.9 per cent of its population being below the poverty line.

Moreover, we rank 100th out of 119 countries in the Global Hunger Index for 2017. 14.5 per cent of India’s population is undernourished, while the prevalence of mortality, wasting (low weight for height) and stunting (low height for age) in its children under the age of five is 4.8 per cent, 21 per cent and 38.4 per cent, respectively. Compare these to China, which is ranked 29th in the overall index, with its respective undernourishment, child mortality, wasting and stunting ratios at 9.6 per cent, 1.1 per cent, 1.8 per cent and 6.3 per cent.

Angus Deaton, the Nobel Prize winner for Economics in 2015, has highlighted how under-nutrition in India isn’t just a calorie intake issue, but also has to do with predominantly carbohydrate-based diets with low protein and fat content. This, for a country that also boasts of being the world’s largest producer of the most wholesome source of protein and fat: milk. The irony is all the more, when farmers are now pouring milk on roads and dairies have slashed procurement prices due to the huge stocks of unsold powder lying with them.

The solution in these circumstances could well be diverting the surplus milk, which dairies are unable to handle today, for distribution under the Integrated Child Development Services and Mid-Day Meal (MDM) schemes. Prime Minister Narendra Modi, in his latest Independence Day address, has talked about malnutrition being a “major hurdle” and “huge bottleneck” in the development of children, and also how he was “restless” to rid the country of it. His government should walk the talk, by committing serious resources on the one programme that can effectively deliver on this front.

The MDM scheme at present covers around 10 crore children across some 10 lakh schools in India. Reaching milk to these children daily would, in the normal course, be a logistical nightmare. Milk requires a cold chain, without which its shelf life is only a couple of hours. Also, the milk in normal pouches bought by households contains millions of disease-causing microbes. It cannot be drunk without boiling, which isn’t easy in schools where there are 100 children on an average.

The system to deliver milk under MDM should be one that doesn’t compromise on quality and hygiene of the product, while also being cold chain free. The best way to do that is by making available milk in 6-months shelf life carton packs of 200 ml. India has over 850 dairy plants,
including 250-odd in the cooperative sector. Out of them, there are at least 100 plants having enough space to put up separate dedicated lines for processing and packing 2 lakh litres per day (LLPD) of long-life UHT (ultra-heat treated) milk. These 100 plants, handling 200 LLPD, would be able to supply 200 ml of milk daily to 10 crore children under the MDM scheme.

What would be the cost?

The investment for a 2 LLPD UHT-cum-carton packing facility in an existing dairy will be Rs 60-70 crore. For 100 plants — each with capacity to pack 10 lakh 200-ml cartons a day — the total capital cost comes to Rs 6,000-7,000 crore. But the advantage with carton packing is that the shelf life of milk goes up and a school’s requirement need be supplied only once a month, rather than on a daily basis. The logistics of transporting milk from 100 plants to 10 lakh schools once a month can be broken down to 10,000 schools per plant. On a daily basis — taking 25 working days in a month — it works out to 400 schools per plant. If a 10-tonne (10,000-litres) truck were to cover 20 schools daily, the dairy has to, then, engage 20 such trucks.

The logistical savings, in other words, are worth the initial investment. How about operational costs?

While the procurement cost of toned milk would be Rs 5-6 per 200 ml, packaging, transportation and fortification will take it to Rs 12 or Rs 60 per litre. Thus, 200 LLPD would cost roughly Rs 120 crore a day or Rs 24,000 crore annually, assuming 200 school-days in a year. But this is insignificant, when the Centre’s budgeted food subsidy bill for 2018-19 is Rs 169,323 crore and the value of milk produced by Indian farmers today exceeds that of all cereals and pulses combined. Milk’s inclusion in the MDM scheme will not only ensure superior nutritional outcomes for our children, but 50 per cent of the Rs 24,000-crore annual outlay would go to India’s mostly resource-poor dairy farmers.

To plug leakages under the scheme, the Centre could use the fintech systems developed as part of its Digital India initiative. The scheme funds can be transferred directly to a unique School Milk Project Account (SMPA) of every school. The school will, then, pay to the dairy on delivery of the milk consignment. The SMPA could further be configured to pay only to one account — that of the dairy responsible for supply to the particular school.

The beauty of milk is not just in its being a perfect medium to deliver nutrition — in the form of protein, fat and minerals, and also through fortification with Vitamin A and D — to those needing it the most. Milk, as Verghese Kurien saw it, is also the ideal vehicle for promotion of livelihoods and improving incomes in rural India.

India has reached a stage, where the market for milk isn’t growing at the same rate as production. The current crisis stemming from a production glut can be overcome not by subsidising export of milk powder, but by expanding the domestic market for liquid milk. That market of 200 LLPD through the MDM scheme is the best legacy that Prime Minister Modi can leave in his current term.
Loneliness

Close ties with father help daughters overcome loneliness (The Tribune: 20180830)


Close ties with father help daughters overcome loneliness

Fathers’ relationships with their children, particularly their daughters, are different from relationships mothers have, researchers said. iStock

WASHINGTON: Young girls who have a close relationship with their father are less likely to feel lonely, scientists say.

“We found that closeness between fathers and daughters tends to protect daughters and help them transition out of loneliness faster,” said Xin Feng, associate professor at The Ohio State University in the US.

For the study published in the Journal of Family Psychology, researchers analysed data from 695 families.

Mothers and fathers rated their relationships (both closeness and conflict) with their child when the child was in grades 1, 3, 4 and 5. In grades 1, 3 and 5 the children rated their levels of loneliness.

Results showed that levels of closeness tended to decline over this time period, while conflict increased.

“This is a time when children are becoming more independent, developing relationships with friends and spending more time outside the home,” said Julia Yan, a doctoral student at Ohio State.

“So they become less close with their parents and have more conflict as their need for autonomy increases,” said Yan

Loneliness also tended to decrease as the kids developed relationships with their peers and felt more comfortable with their social skills.

However, the study showed that kids did not shed their loneliness at the same rate. Daughters did better when they had closer relationships with their fathers.

Relationship closeness did not have an effect on loneliness in boys. The study can’t show why, but Yan said it may be because parents do not socialise boys to have particularly close relationships and put less emphasis on them maintaining close ties.

Mothers’ relationships didn’t have an effect in this study, but that doesn’t mean they aren’t important, Yan said.
One reason for the lack of impact among mothers in this research was that mothers nearly always had close relationships with their kids, so there was less difference to measure.

Fathers’ relationships with their children, particularly their daughters, are different from relationships mothers have, researchers said.

“In our society, mothers tend to be responsible for everyday care and stability for their children,” Feng said.

“Fathers have more freedom to interact with their children in different ways, to challenge them and have a wider range of emotional contact. That may be one reason why fathers had more impact on their daughters,” he said.

The results affirm that fathers should nurture their relationships with their children, particularly their daughters, the researchers said.

“Pay attention to their feelings, especially when they are sad or unhappy, and help them cope. Our results suggest it can really help daughters feel less lonely over time,” said Feng, PTI

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**Pollution**

**NCR cities will get more stations to monitor pollution (Hindustan Times: 20180830)**


AIR WE BREATHE Nearly 60% of the country’s urban areas and the entire rural belts are still off the monitoring radar

From page 02 NEWDELHI: The Central Pollution Control Board (CPCB) plans to expand its existing network of air quality monitoring stations in the national capital – both real time and manual – from 89 to 141.

Once the plan is implemented, the four NCR cities – Gurugram, Noida, Faridabad and Ghaziabad – will get at least five additional monitoring stations.

But with 60% of the country’s urban areas and the entire rural belt still off the radar of the pollution monitoring network, experts said real-time low-cost sensors are key to air pollution monitoring in the future.

Arun Kumar Mehta, additional secretary of the Union environment and forest ministry, said, “We need workable data even if it is not 100% accurate. Low-cost real-time sensors can achieve this. We need to expand our monitoring network to check pollution levels in smaller towns and rural areas. That can’t be done only with sensors that can give accurate data but are very expensive.”
Mehta was speaking at a workshop organised by the Union environment ministry and IIT Kanpur to discuss the potentials and challenges of low-cost sensors – an emerging technology – on Wednesday.

SN Tripathi, coordinator of the Centre for Environmental Science and Engineering at IIT Kanpur, said, “As part of a pilot project, IIT Kanpur had installed 20 low-cost sensors in Delhi between November 2017 and March 2018. The sensors performed well and gave some interesting data, which are being analysed. They didn’t require any calibration for at least four months. With proper calibration and battery life, low-cost sensors can fill up the existing data gap in India.”

While the cost of conventional monitoring stations can run up to ₹5 crore, the cost of real-time sensors can be as low as ₹5 lakh or even less.

The paucity of funds is one of the main challenges in setting up conventional high-cost monitors across the country.

“Monitoring air quality across India would require huge resources. So we need alternative solutions. Solutions that may not be the best but are workable,” said CK Mishra, union environment and forest secretary.

A study – comparing pan-India district level data on PM2.5 levels over the last two decades -- conducted by the IIT Delhi recently has shown that the rate of increase in pollution levels in smaller towns such as Gorakhpur, Muzaffarpur and Jabalpur are way higher than that of metropolitan cities such as Delhi, where pollution levels are stagnating.

Currently, there are 134 real-time air quality monitoring stations in 71 cities across the country. Of the 134, NCR has 52 stations and Delhi has 38 stations, thereby revealing the gap in air quality monitoring in the country. Experts have suggested that a two-layered monitoring network – comprising both high-cost monitoring stations that can provide accurate data and low-cost real-time sensors – could be used to cover the entire country.

Existing automatic air quality monitoring stations in DelhiNCR

Medicine supply chain

Overhaul the medicine supply chain (Hindustan Times: 20180830)


Given the problems in the old system, many countries have developed more scientific models.

Health systems around the world are benefitting from recent advances in supply chain technologies to deliver essential medicines to patients more effectively. Traditional lines between public, private, online, and physical are starting to blur and, as a result, direct-to-home and online pharmacy models have developed more quickly in emerging markets like India than many had expected. A commonly used supply chain architecture for essential medicines in
most developing countries has historically been bulk procurement by the national or state/provincial government and then distribution to districts and health clinics owned by the government. This approach, even when well implemented, may suffer from many problems which are linked to, among other things, multiple levels of complexity, long resupply intervals, uncertainties in financing, and diffused accountabilities. Many countries have, therefore, developed alternative supply chain models based on modern day supply chain science and technologies.

South Africa, for example, is now implementing a model in which the government negotiates prices and select suppliers, but the suppliers deliver the medicines directly to health clinics or district hospitals. In the past, such models were not feasible because of the challenges in verifying whether the supplier delivered the right quantity of products to the clinic. In South Africa, a new supply chain visibility platform enables supplier-direct-delivery by providing government procurement managers with unprecedented visibility into stock, receipts, and consumption at each health clinic.

One of the main sources of underperformance within supply chains stems from the lack of information capture and sharing. Modern supply chains have adopted information and communication technology such as the Electronic Vaccine Intelligence Network, being used in public sector in India, to improve information flow and decision making across these supply chains.

In Senegal, the government has started contracting private, third-party, logisticians for last-mile deliveries of all essential medicines from district warehouses to individual health clinics. Healthcare workers in clinics no longer have to determine order quantities for medicines or travel to district headquarters to collect medicines stock. The third-party logisticians deliver an assortment of 100+ medicine to each clinic and use tablet computers to collect stock and consumption data. This data, coupled with advanced analytics, allows for more precise forecasts of how much to ship to each clinic in the next round of delivery. As a result, medicine shortages have practically been eliminated in Senegal, that too at a reduced cost.

Around the world there is also a concern that distribution reach of the private sector is confined to more concentrated urban areas whereas those living in rural and remote regions depend on the public-sector medicines distribution system. Australia is one of the most sparsely populated countries in the world. Stocking products which are infrequently ordered and delivering them to remote rural pharmacies/clinics means minimal or no profit for private wholesalers and distributors. To remedy this incentive problem, the government of Australia runs an incentive pool which pays a small bonus to wholesalers who supply the full range of medicines to pharmacies in designated remote areas at or below the negotiated price. The Community Service Obligation (CSO) Incentive pool is overseen by an independent agency which monitors compliance and conducts regular audits of the distributors. Managing such an incentive pool requires strong government oversight and enforcement, but new digital technologies could also enable such structures in fragmented markets with lower enforcement capacity.

The private distribution network for medicines in China (not unlike India) is a complex multi-tier network with multiple middle men between the manufacturer and the end clinic. Some of the channel intermediaries charge additional markups adding to overall healthcare costs.
multiple product handoffs from one intermediary to another lead to the lack of transparency in the system and increased risks for fake products entering the supply chain. Modelling studies have shown the multiple benefits of reducing the number of tiers in the supply chain. Learning from them, China has now implemented a “two-invoice system” whereby only two invoices can exist between a manufacturer and a clinic. Each manufacturer sells to a distributor and that distributor sells directly to hospitals and clinics, eliminating multi-tiered distribution. In its phased implementation, rural areas which require “fine mesh distribution” would be allowed up to three invoices till national distributors can expand their distribution coverage to all regions.

As countries around the world, including India, attempt to ensure the timely availability of a full range of medicines to each and every one of their citizens, they would benefit greatly from studying some of these newer approaches that have been implemented, and developing appropriate solutions to their own challenges.

Gene (The Asian Age: 20180830)
Gene that can put an end to your nightmares discovered

Tokyo, Aug. 28: Scientists have identified a pair of genes that regulate how much we dream, an advance that may allow them to 'switch off' nightmares in the future.

Rapid eye movement (REM) sleep, a mysterious stage of sleep in which animals dream, is known to play an important role in maintaining a healthy mental and physical life, but the molecular mechanisms behind this state are barely understood.

A research team led by scientists at the RIKEN Center for Biosystems Dynamics Research (BDR) in Japan has identified a pair of genes that regulate how much REM and non-REM sleep an animal experiences.

During REM sleep, our brain is as active as it is during wakefulness, and this stage is believed to function in memory consolidation.

Although our knowledge of the neural mechanisms underlying sleep has gradually advanced, the essential molecular factors that regulate REM sleep are still unknown.

The amount of REM sleep was drastically decreased down to almost undetectable levels when both genes were knocked out in a mouse model.

This study was published by Cell Reports on August 28.

Several past studies have suggested that acetylcholine — the first identified neurotransmitter — and its receptor are important for the regulation of REM sleep.

Acetylcholine is abundantly released in some parts of mammalian brain during REM sleep and wakefulness. However, it was unclear which receptor or receptors were directly involved in the regulation of REM sleep due to the complexity of the underlying neural network.

For this study, the researchers used cutting-edge genetic tools to modify mouse genes and conduct genetic screening for factors whose inhibition would cause sleep abnormalities.

After knocking out a number of genes encoding various acetylcholine receptors, they found that the loss of two receptors — called Chrml and Chrml3 — induced a characteristic short-sleep profile.

— PTT
Muscle-building blunted in obese adults: Study

Biopsies from one leg of eighteen subjects taken

Washington, Aug. 29: Obesity diminishes a person's ability to build muscle after engaging in resistance exercise, according to a new study.

Nicholas Burd, who led the new research with the division of nutritional sciences graduate student Joseph Beals, said, “Our new study goes further, showing there is an obesity-related impairment in building new muscle proteins in the fed state after a weightlifting session.”

Beals and his colleagues recruited nine obese and nine normal-weight 20- to 23-year-old adults for the new study. The participants, who did not engage in a regular exercise program, took a couple of standardised health surveys and were deemed healthy but “insufficiently active” prior to enrollment in the study.

After assessing participants’ body composition, glucose tolerance and ability to engage in a weighted leg extension exercise, the researchers began infusions of stable-isotope-labelled phenylalanine in all study subjects. This allowed the team to monitor amino acid levels in participants’ blood and muscles throughout the experiment.

The team took muscle biopsies from one leg of each of the study subjects, who then performed four sets of 10-12 repetitions of the resistance exercise with the opposite leg.

Burd added, “This weightlifting protocol is more demanding than most current exercise recommendations.” Immediately after the exercise, subjects consumed 170 grams of lean ground pork, which amounted to 36 grams of protein and 4 grams of fat. Researchers then collected additional muscle biopsies from the exercised and inactive legs at 120 and 300 minutes after pork ingestion.

As expected, there were notable differences between the obese and normal-weight participants before the experiments began. Further differences between the normal-weight and obese adults appeared after the exercise and ingestion of protein-dense food.

“We show that post-workout muscle building and repair is blunted in young adults with obesity,” Burd said. “This is significant because muscle building and repair after exercise has long-term implications for metabolic health and overall physical performance.”

The full findings are present in the Journal of Physiology. — Agencies

Cell Metabolism (The Asian Age: 20180830)

Cell metabolism may treat cancer

Washington, Aug. 29: Researchers have discovered that cell metabolism plays an important role in the ability of cells to start a survival program called autophagy, an unwanted side effect of some anti-cancer drugs that help some tumor cells dodge treatment and eventually regrow into new tumors.

The findings provide new insights into ways to use cell metabolism to ‘pull the plug’ on tumor cells that survive treatment, possibly leading to better treatments and outcomes for patients.

Research assistant professor Carol Mercer said, “Cells adapt to nutrient starvation by increasing autophagy, where a cell basically eats itself and recycles cellular contents to support essential processes until nutrients become plentiful once again. This process is regulated by the mammalian target of rapamycin (mTOR) and AMP-activated protein kinases (AMPK).”

Mercer, principal investigator on the study, and her lab worked primarily in cultured cells to understand how metabolism regulates autophagy, identifying strategies to manipulate this pathway to the patients’ advantage. This work was built on pre-clinical studies in animal models by Hala Elnakat Thomas, PhD, first author and research instructor in the department, who found that the combination of mTOR inhibitors were effective in the treatment of liver cancer but had the disadvantage of increasing autophagy. The findings are present in the journal, Cell Reports. —ANI

Herpesviruses (The Asian Age: 20180830)

A new way to attack herpesviruses

Washington, Aug. 29: A team of scientists have uncovered the mechanism that allows the virus to replicate. Their study could open new therapeutic avenues to treat not only cytomegalovirus but other viruses as well. Human cytomegalovirus is a leading cause of birth defects and transplant failures. As it’s evolved over time, this virus from the herpes family has found a way to bypass the body’s defense mechanisms that usually guard against viral infections. Until now, scientists couldn’t understand how it manages to do so. Normally, when a virus enters your cell, that cell blocks the virus’s DNA and prevents it from performing any actions. The virus must overcome this barrier to effectively multiply. To get around this obstacle, cytomegalovirus doesn’t simply inject its own DNA into a human cell. Instead, it carries its viral DNA into the cell along with proteins called PP71. After entering the cell, it releases these PP71 proteins, which enable the viral DNA to replicate and the infection to spread. The researchers found that, while PP71 is still present in the cell, it activates another protein known as IE1. This happens within the first few hours of the virus entering the cell, allowing the IE1 protein to take over after PP71 dies and continue creating a new virus.

— ANI
**Bacteria (The Asian Age: 20180830)**


**BACTERIA FROM POULTRY PRODUCTS CAUSES URINARY TRACT INFECTIONS**

Washington, Aug. 29: A strain of Escherichia coli bacteria — that lurks in retail chicken and turkey products — can be passed on to people, causing urinary tract infections and other serious conditions, a study has found.

Many people think of urinary tract infections (UTIs) as a common and minor annoyance, but invasive UTIs that involve the kidneys or blood can be life-threatening.

More than 80 per cent of UTIs are caused by E coli, but only a few strains are responsible for most of the serious infections. One type of E coli, called E coli ST131, is particularly adept at travelling from the bladder to the blood and kills thousands of people each year.

It is unknown how most people pick up E coli ST131 infections. Previous studies suggested that retail meat was not a source.

Scientists showed that there are strains of E coli ST131 and that one strain in particular may be passed to people via contaminated poultry meat.

They conducted a one-year longitudinal study where they analysed retail chicken, turkey and pork purchased from major grocery chains in the US.

During the same year, the team also collected and analysed urine and blood isolates. — PTI

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**Smoking, Drinking (The Asian Age: 20180830)**

Smoking, drinking harm arteries in teenagers

London, Aug. 29: The arteries of teenagers who drink alcohol and smoke — even very occasionally — begin to stiffen by the age of 17, increasing their risk of heart attacks and stroke in later life, a study has found.

The findings, published in the European Heart Journal, showed that a combination of high alcohol intake and smoking was linked to even greater arterial damage compared to drinking and smoking separately.

The researchers analysed data from 1,266 adolescents over a five-year period between 2004 and 2008. — PTI
3 chocolate bars may cut heart failure risk

Berlin, Aug. 29: Chocoholics, rejoice! Eating up to three bars of chocolates every month can lower the risk of heart failure, a study claims.

However, indulging in such treats on a daily basis may increase the risk of heart failure by 17 per cent, according to researchers from the Icahn School of Medicine at Mount Sinai in the US.

The research, presented at the European Society of Cardiology conference in Germany, looked at five studies involving more than 575,000 individuals.

Scientists found those eating up to three bars monthly had a 13 per cent lower risk of heart failure compared to those who ate none.

— PTI
Monitoring of nutrition to go hi-tech in Rajasthan (The Hindu: 20180830)


Smartphones will be supplied to all Anganwadi centres in the State to ensure success of programmes.

Monitoring of nutrition and health-related services in the Anganwadi centres will go hi-tech in Rajasthan during September, which will be observed as a “nutrition month”. With the mobile applications replacing the manual observation methods, smartphones will be supplied to all Anganwadi centres in the State to ensure success of nutrition programmes.

Chief Minister Vasundhara Raje had announced in her Independence Day address on August 15 that September would be celebrated as a “nutrition month” to spread awareness about health and nutritional aspects of food in both urban and rural areas. The free milk distribution in schools for the students of Classes I to VIII along with the midday meals was also extended from three days to all days in the week.

Orientation workshop

At an orientation workshop for the Integrated Child Development Services (ICDS) officials here on Wednesday, several presentations were made on the activities to be taken up next month for strengthening primary health care of children and improving their nutritional standards. ICDS Director Sushma Arora said new strategies would ensure success of the National Nutrition Mission (NNM).

The district-level officers of the connected departments, including Rural Development & Panchayati Raj, Medical & Health, Education, Water Resources and Sanitation, also attended.
the workshop. Roli Singh, Principal Secretary (Women & Child Development), said the results of new initiatives on the front of nutrition were very encouraging.

The activities to be conducted at the district and block headquarters and in Anganwadi centres during September will connect nutrition with the development of human capital, earlier considered a burden. World Bank’s representative Arvind Singhal and UNICEF representative Nizamuddin Ahmed made suggestions for removal of systemic barriers.

Rajasthan plans to implement NNM with a vision document for 2022, which is at present being formulated to ensure convergence of work by all stakeholders for improving nutrition levels of women and children and reducing under-nutrition and low birth weight by 2% each year.

The NNM, approved by the Union Cabinet, will be implemented in 24 of the 33 districts in the State. The declaration of September as a “nutrition month” forms part of the strategies for addressing the issue of under-nutrition and stunting.

**Plastic Surgery (Hindustan: 20180830)**

http://epaper.livehindustan.com/imageview_177302_87818328_4_1_30-08-2018_i_20.pagezoomsinwindows.php
चीन के युवाओं को चाहिए बड़ी आंखें-पतली नाक

चीन के युवाओं की अपनी छोटी-छोटी आंखें और छोटी सी नाक का विवरण यहाँ नहीं है। उन्हें बड़ी नजरों के साथ बड़ी आंखें और पतली सी लंबी नाक चाहिए। अपनी इस चाहत को पाने के लिए लाखों युवा प्लास्टिक सर्जरी कर रहे हैं। इसकी वजह से चीन में प्लास्टिक सर्जरी का बयां आ गया है।

एक रिपोर्ट के अनुसार, चीन में तकरीबन 80 लाख से ज्यादा लोगों ने सर्जरी कराई है, जिसमें से पांच चौथाई की उम्र 30 साल से कम है और उनमें भी कार्यकर्ताओं का शामिल भी है। बीमारियों के विपरीत, प्लास्टिक सर्जरी का मामला चीन में विश्वविद्यालयों में व्यापक है और अन्य राज्यों से इसे अधिकतर देखा जाता है। क्योंकि यह एक रूपक है जो अन्य देशों की तुलना में अधिकतर लोगों को बेहतर बनाता है।

चीन के लोग सर्जरी की मांग करते हैं, लेकिन इसके आदर्श की तुलना में इसके लाभों का अभाव है। इसलिए चीन में प्लास्टिक सर्जरी का चलन तेजी से बढ़ गया है। इसमें सबसे ज्यादा संख्या युवाओं की है। सालाना 40 लाख लोग प्लास्टिक सर्जरी करने वालों की संख्या बढ़ती रही है।

आलमस्तकः बढ़ाने को कारते हैं सर्जरी
पिछले साल आईएएक रिपोर्ट के मुताबिक, चीन के युवाओं का कहना है कि उन्हें अपने आकाश में बढ़ता करने के लिए तनाव बढ़ाने के लिए कोस्मेटिक सर्जरी करना पड़ता है।

पांच लाख आपने तक खर्च कर ले
हेन्द्र के द्वितीय वर्ष के आगमन के दिन ही युवा कारण में बढ़ता करना है कि यह परम्परा उन्हें बेहतर बनाने के लिए कोस्मेटिक सर्जरी करने की जरूरत है।

कुछ बोटॉक्स के इंजेक्शन ले रहे
जो माता-पिता अपने बच्चों की कोस्मेटिक सर्जरी के लिए अनुमोदन देते हैं, वे बोटॉक्स इंजेक्शन के लिए ऐसा नहीं करते हैं। बीलिंग्क के अनुसार, से देखा जा रहा कि यह कोस्मेटिक सर्जरी करने वाले लोगों का संख्या आसान चाल के हुए लगभग 25 साल से कम है।

सर्जरी करने वाले अधिकारियों से 25 साल से कम उम्र के : एक रिपोर्ट के मुताबिक, अमेरिका के मुकाबले चीन में प्लास्टिक सर्जरी करने वाले लोगों की संख्या काफी हो गई है। इसमें भी आचे से 2015 में कोस्मेटिक सर्जरी करने वाले लोगों का कहना था कि वे अपने कारकिर्दि को बेहतर बनाने के लिए सर्जरी कर सकते हैं। चीन में हुए नए सर्वेक्षण में 65% युवाओं ने कहा, कोस्मेटिक सर्जरी से
उदी आंख से फिर से रोशन होगी दुनिया

वाशिंगटन। वैज्ञानिकों ने पहली बार कृत्रिम आंख का एक 3डी प्रोटोटाइप विकसित किया है जो रोशनी को ग्रह कर सकता है।

यह तकनीक अंधे लोगों की देखने में मदद कर सकती है। शोधकर्ताओं ने शीशों पर चांदी के कपड़ों से बनी स्वाता का इस्तेमाल कर यह 3डी प्रोटोटाइप बनाया जा रहा है।
दिल का ‘सुरक्षा कवच’ बनेगी एनीमिया की दवा

लंडन | एजेंसी

खून की कमी को दूर करने के लिए इस्तेमाल की जाने वाली दवा हमारे दिल की सुरक्षा करने में भी सक्षम हो सकती है। वैज्ञानिकों ने एक शोध में पाया है कि इस दवा के प्रयोग से लोगों में टाइप-2 डायबिटिज को नियंत्रित कर दिल का दौर पड़ने की आशंका को कम किया जा सकता है।

शोध में सामने आया है कि दिल का दौर पड़ने के बाद ‘एचआईएफ’ नामक प्रोटीन दिल के सेल्स को बचाने का काम करता है। पर जिन लोगों को मधुमेह फैट पहुंच जाता है, जिससे एचआईएफ प्रोटीन सक्रिय नहीं रह पाता। इस तरह व्यक्ति के दिल की मांसपेशियों को नुकसान पहुंचने की संभावना ज्यादा रहती है। दिल का दौर पड़ने के बाद स्थिति ज्यादा खतरनाक हो सकती है। शोधकर्ताओं का कहना है, ‘हमने इस शोध में पाया है कि टाइप-2 डायबिटिज वाले लोगों में फैटी एसिड ज्यादा मात्रा में
तमाम क्षेत्रों के प्रदूषण का अध्ययन कर ने तैयार की रिपोर्ट

वायु प्रदूषण पर होंगे कई वार

आयोजना के बारे में
- सरकार व शहरी अधिकारी द्वारा आयोजित एक रेपोर्ट ज्ञापन करने का किया गया अध्ययन
- 18 सितंबर तक एक्सिस्ट का नाम भेजने का दिशा में गया था सरकार

राह में रोड़ बने महत्वपूर्ण उपकरण

अग्रणी शैक्षणिक विभाग के अधीपतन में आयोजित एक रेपोर्ट है जिसमें वायु प्रदूषण को नियंत्रित करने का एक महत्वपूर्ण उपकरण शामिल है। यह रेपोर्ट में वायु प्रदूषण का अध्ययन करने के लिए सरकार ने एक रेपोर्ट ज्ञापन कराने का किया गया था। रेपोर्ट में वायु प्रदूषण का अध्ययन करने का एक महत्वपूर्ण उपकरण शामिल है। यह रेपोर्ट में वायु प्रदूषण का अध्ययन करने के लिए सरकार ने एक रेपोर्ट ज्ञापन कराने का किया गया था।