



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Monday

201901209

Ayurveda (The Asian Age: 201901209)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=14246080>

'Ayurveda with artificial intelligence India's gift to world'

■ My efforts were to highlight the medicinal values of traditional ayurvedic ingredients, because they are ideal for the beauty and wellness industry. People abroad are well aware of the harmful effects of chemicals and the benefits of organic systems like ayurveda.



Shahnaz Husain
meanwhile

"Shahnaz Husain is a name to reckon with. To her exclusively goes the credit of bringing the therapeutic values of herbs out of the mists of antiquity and legend, and combining them with scientific research and practice. Shahnaz Husain has done so much for India's image abroad that she truly deserves the sobriquet of India's beauty ambassador."

— Washington Post

Earlier, global brands came from the West. But today, things have changed. Today, the world is looking at the emerging markets in India and the fact that India is the second largest consumer market in the world. In fact, the share of the emerging market in Asian countries has grown to 40 per cent in global output. Over the last four decades I have been promoting Brand India and ayurveda with a crusader's

zeal. My idea was to make ayurveda go global. I believe that creative and cultural industries, like ayurveda, play an important role in the economy of developing nations by encouraging economic growth, generating employment and creating wealth. Before I took on ayurveda and made it popular, it had few takers in the mainstream modern culture.

But, today it has made such a great impact globally because of the "back to nature" trend and the worldwide interest in holistic systems.

In order to promote Brand India, I have also spoken from every rostrum on India's heritage of herbal healing.

I narrated how I pioneered ayurvedic beauty care and innovated products using organic ingredients. Harvard business school invited me to speak on how I created a brand without commercial advertisements. I became a Harvard case study on brand creation and now I am a subject in Harvard on "emerging markets". I also had the opportunity to speak to students at the London School

of Economics and Oxford University on India's rising global influence. MIT also invited me to speak on innovative entrepreneurship and ayurvedic beauty care.

In the scenario of globalisation, the challenge was to develop ayurveda to compete in the international market. My efforts were to highlight the medicinal values of traditional ayurvedic ingredients, because they are ideal for the beauty and wellness industry. The main reason for the international success of our beauty products is that they are based on ayurveda. People abroad are well aware of the harmful effects of chemicals and the benefits of organic systems

like ayurveda. However, it is necessary to keep abreast of international standards of quality, and selling in the global market and competing with leading brands have helped us in meeting international standards of quality.

Our products have won international awards for quality excellence in London, Paris, New York, Geneva and Cannes. I also became the first woman in 107 years to receive the "World's Greatest Woman Entrepreneur" Award from the New York based Success business magazine. When I recently received the "Pioneering Ayurveda Worldwide" Award in the British Parliament, I spoke on ayurveda and how we can adapt artificial intelligence for customised beauty care. I said, "Ayurvedic inheritance combined with artificial intelligence is India's gift to the world."

My mission has been to create an international market for Indian ayurvedic beauty and health care. Today, it is a dream come true to see the worldwide success of ayurveda.

The writer is a pioneering herbal beauty entrepreneur who has taken the herbal heritage of Ayurveda worldwide



Malaria, dengue and chikungunya cases

Telling Numbers: Year on year, drop in malaria, dengue and chikungunya cases (The Indian Express: 201901209)

<https://indianexpress.com/article/explained/telling-numbers-year-on-year-drop-in-malaria-dengue-and-chikungunya-cases-6157117/>

For each of these diseases, the number of cases was less than in 2017, when there were 8,44,558 cases of malaria, 1,88,401 of dengue and 67,769 of chikungunya.

In 2018, the country recorded 4,29,928 cases of malaria, 1,01,192 cases of dengue, and 57,813 clinically suspected cases of chikungunya.

For each of these diseases, the number of cases was less than in 2017, when there were 8,44,558 cases of malaria, 1,88,401 of dengue and 67,769 of chikungunya. These figures, tabled in Parliament, were part of the Ministry of Health and Family Welfare's reply to a question.

(Source: Ministry of Health and Family Welfare)

The highest number of malaria cases in 2018 was recorded in Uttar Pradesh, at 86,486, followed by Chhattisgarh (78,717), Odisha (66,311), Jharkhand (57,095) and West Bengal (26,440). Except Uttar Pradesh, all these states registered a lower number of cases than in 2017. In Uttar Pradesh, the number of cases rose from 32,345 in 2017.

(Source: Ministry of Health and Family Welfare)

For dengue, Punjab recorded the highest number of cases in 2018, at 14,890, down from 15,398 cases in 2017. It was followed by Maharashtra (11,011), Rajasthan (9,587), Gujarat (7,579) and Delhi (7,136). While the number of cases decreased in Punjab and Delhi between 2017 and 2018, it rose in each of the other three states.

(Source: Ministry of Health and Family Welfare)

For clinically suspected cases of chikungunya, the highest count was 20,411 in Karnataka, down from 32,831 cases in 2017. Karnataka is followed by Gujarat (10,601), Maharashtra (9,884), Jharkhand (3,405) and Madhya Pradesh (3,211).

In its reply, the Health Ministry noted that dengue and chikungunya are outbreak-prone diseases, and therefore their numbers vary from state to state and from time to time.

Therefore, a year-on-year increase in the number of cases for a particular state depends on when an outbreak happens, it said.

MALARIA CASES

State	2018	2017
Uttar Pradesh	86,486	32,345
Chhattisgarh	78,717	140,727
Odisha	66,311	347,860
Jharkhand	57,095	94,114
West Bengal	26,440	31,265
All India	4,29,928	8,44,558

DENGUE CASES

State	2018	2017
Punjab	14,890	15,398
Maharashtra	11,011	7,829
Rajasthan	9,587	8,427
Gujarat	7,579	4,753
Delhi	7,136	9,271
All India	1,01,192	1,88,401

CLINICALLY SUSPECTED CHIKUNGUNYA CASES

State	2018	2017
Karnataka	20,411	32,831
Gujarat	10,601	7,953
Maharashtra	9,884	8,110
Jharkhand	3,405	269
Madhya Pradesh	3,211	2,477
All India	57,813	67,769

Health Cate

All 14 doc posts vacant at Rewari trauma centre (The Tribune: 201901209)

<https://www.tribuneindia.com/news/haryana/all-14-doc-posts-vacant-at-rewari-trauma-centre/872164.html>

12 doctors in civil hospital absent from duty for several years, but authorities yet to take action
Sir Shadi Lal Civil Hospital in the city is one of the few government-run healthcare centres where more than 10 doctors continue to remain absent from duty for the past several years and all 14 posts of doctors, including neurosurgeon, neurologist, orthopedician, anesthetist, radiologist and medical officer, are lying vacant in the trauma centre near the civil hospital.

People have to rush either to Gurugram, Rohtak PGIMS or Jaipur in case of emergency due to non-availability of specialists and modern health services to treat critical patients. Incidentally,

the casualty ward of civil hospital has been set up in the trauma centre so that critical patients of both facilities could be treated at one place.

No specialist is available at the casualty ward to treat the accident victims and trauma patients though the authorities claim that specialist doctors are called on requirement. The trauma centre is also not equipped with MRI and ultrasound facilities.

There are 56 sanctioned posts of medical officer in the district and 15 of them are vacant while 12 doctors in the civil hospital have been absent from duty for several years. Two posts of Deputy Civil Surgeon are also lying unfilled, affecting administrative work.

“The trauma centre has become a referral unit due to want of doctors and facilities. Junior doctors treat the critical patients there and do not take much time to refer them to Rohtak PGIMS or other government hospital,” said Vijay Kumar, a patient.

Saket Dhingra, a local RTI activist, alleged that doctors absent from duty were either running their own private hospitals or working there.

“Some of the doctors are not resigning to evade penalty as they are legally bound to deposit a sum of Rs 25 lakh on putting in their papers as per the bond agreement signed by them at the time of joining. Hence, they are waiting for termination to avoid the fine. They are freely practising at private hospitals while poor patients coming to the hospital suffer due to non-availability of adequate doctors,” Dhingra pointed out.

Dr Sarabjit Thapar, Deputy Civil Surgeon, admitted health services were hit by the shortage of doctors and paramedical staff. He said the authorities had been informed about the crunch. “They have been urged to take action against the doctors not coming to work and to fill vacant posts in the trauma centre.” He, however, denied any shortage of doctors in the civil hospital.

Healthy skin

Morning routines for healthy skin (The Tribune: 201901209)

<https://www.tribuneindia.com/news/health/morning-routines-for-healthy-skin/871912.html>

After sleep has refreshed and healed your body, the morning hours can do wonders for your skin, if planned well.

Rajni Ohri, Founder, Ohria Ayurveda and Mohit Narang, Skincare expert, AVON gives tips on healthy morning rituals to keep your skin healthy.

Drink water

Start your day by drinking one glass of water. Nothing can work better than hydrating your skin right in the morning.

Never skip breakfast. In fact, your breakfast should be rich in nutrients and should include fruits, oats, multi-grain breads and dry fruits for a healthy body and skin.

Drink green tea or detox water to flush the body toxins away before taking a bath.

Yoga

Yoga is beneficial for the skin and the body. A 5-minute face yoga session will improve circulation, facilitating the delivery of oxygen and nutrients and relieve tension in the facial muscles.

Sarvangasana, chakrasana, dhanurasana, shirshasana are effective in increasing blood flow to the skin and removing toxins. Pranayam stimulates endocrine gland, oxygenate cells reducing stress, and improving blood flow for skin glow. Practice kapalbhati, bhastrika, and anulom-vilom.

Skincare rituals

Your morning skincare routine should include cleansing, moisturizing and protection. Use a cleanser that is rich in aloe vera and other skin-nourishing ingredients. Don't forget to apply sunscreen when you step out.

Splash fresh rose water on face and eyes stored in a silver vessel.

In the morning, remove toxins accumulated in the body during sleep, oil pulling will detoxify, keep the facial skin healthy and is a good exercise for the mouth, jawline, and maintains perfect dental health.

Tongue cleaning to remove accumulated phlegm, according to ancient texts, helps you receive nutrients smoothly.

Remove your makeup before taking a bath. This will prevent the harsh rubbing of skin that can irritate the area around the eyes. This also ensures deeper cleansing of the skin.

Home remedies

Apply a 'mukh lepam' before bathing for 10 minutes while you are doing your daily chores. Black lentil powdered and blended with warm milk or clarified butter is an ideal morning team. On weekends highly recommended is a body scrub. Keep a body scrub powder made of orange peels, green gram, rice powder in a jar and mix it with milk and coconut oil, let it dry and scrub in the opposite direction and finally wash off.

On weekdays, preserve the skin's moisture by dabbing shower oil on wet cleansed skin, natural cold-pressed oils in shower oil are very nourishing, softening and seal the natural moisture.

Use face masks for glowing skin. You can use a turmeric, besan or gram flour face pack for brighter and clearer skin. You can also use a tomato or potato peel to get rid of red and tanned skin.

Facial exercises

Thirty minutes before a shower, do facial exercises. 'Kiss the ceiling' is the best way to tone almost all facial muscles, 'pinching' the jawline and neck is another very beneficial exercise to remove stiffness, improve blood flow to the skin.

Self-massage before bath also moisturizes the skin and gives a beautiful sheen.

Wellness

Bring a warm natural glow to the skin by removing negative emotions, toxins from your mind.
— IANS

Mortality risk

Vigorous exercise lowers mortality risk in women (The Tribune: 201901209)

<https://www.tribuneindia.com/news/health/vigorous-exercise-lowers-mortality-risk-in-women/871911.html>

Women who exercise vigorously are at significantly lower risk of dying from heart disease.
Source: iStock.

Women who exercise vigorously are at significantly lower risk of dying from heart disease, cancer and other causes, reveals a new study.

The study, presented at EuroEcho 2019, a scientific congress of the European Society of Cardiology (ESC), examined exercise capacity and heart function during exercise in women and their links with survival.

The study included over 4,000 adult women referred for treadmill exercise echocardiography because of known or suspected coronary artery disease.

"Exercise as much as you can. Fitness protects against death from any cause," said study author Jesus Peteiro from University Hospital A Coruna in Spain.

For the findings, participants walked or ran on a treadmill, gradually increasing the intensity, and continuing until exhaustion.

Images of the heart were generated during the test. Fitness was defined as a maximal workload of 10 metabolic equivalents (METs), which is equal to walking fast up four flights of stairs or very fast up three flights, without stopping.

Women who achieved 10 METs or more (good exercise capacity) were compared to those achieving less than 10 METs (poor exercise capacity).

During a median follow-up of 4.6 years there were 345 cardiovascular deaths, 164 cancer deaths, and 203 deaths from other causes.

After adjusting for factors that could influence the relationship, METs were significantly associated with lower risk of death from cardiovascular disease, cancer, and other causes.

The annual rate of death from cardiovascular disease was nearly four times higher in women with poor, compared to good, exercise capacity (2.2 per cent versus 0.6 per cent).

Annual cancer deaths were doubled in patients with poor, compared to good, exercise capacity (0.9 per cent versus 0.4 per cent).

The annual rate of death from other causes was more than four times higher in those with poor, compared to good, exercise capacity (1.4 per cent vs 0.3 per cent).

"Good exercise capacity predicted lower risk of death from cardiovascular disease, cancer, and other causes," Peteiro said.

The researcher noted that most study participants were middle aged or older women: the average age was 64 and 80 per cent were between 50 and 75.

"The results were the same for women over 60 and less than 60 although the group under 50 was small," said Peteiro.

Regarding imaging of the heart, the researchers assessed function of the left ventricle (one of the heart's pumping chambers) during the exercise test.

Patients with poor heart function during exercise had a higher probability of death from cardiovascular disease during follow-up.

Heart function during exercise did not predict the likelihood of death from cancer or other causes.

"Looking at both examinations together, women whose heart works normally during exercise are unlikely to have a cardiovascular event. But if their exercise capacity is poor, they are still at risk of death from cancer or other causes," Peteiro said.

"The best situation is to have normal heart performance during exercise and good exercise capacity," Peteiro added. — IANS

Toxicity in air

Save your skin from the toxicity in air (The Tribune: 201901209)

<https://www.tribuneindia.com/news/health/save-your-skin-from-the-toxicity-in-air/871083.html>

As air pollution levels rise, we need to protect against not just respiratory problems but our skin as well

As air quality index (AQI) levels fluctuate between severe and dangerous, there is no escaping air pollution and its multitude harmful effects on various organs of the body, including the largest organ — our skin. Air pollution makes it difficult for the skin to breathe, leaves it parched, and robs it of essential ingredients.

The skin is our only barrier against external elements. The skin is exposed to ultraviolet radiation, smoke, exhaust fumes, etc. containing volatile organic compounds and aromatic hydrocarbons and ozone. The skin acts as a shield against such chemicals and physical air pollutants. However, if you do not protect your skin then exposure to air pollutant can lead to various problems such as:

Interaction between various air pollutants affects the skin in different ways. For example, pollutants like nitrogen dioxide and sulphur dioxide scatter the UVR and UV irradiance but these are the active ingredients in smog, which cause damage to the skin. The effects of pollution depend on various factors such as the nature of pollutants that the skin is exposed to

and the texture of the skin. The protective ability of the skin is not unlimited and continuous exposure to environmental factors diminishes the skin's defence potential. As a result, the skin loses its ability to produce natural antioxidants.

However, some preventive measures can protect the skin against air pollution and repair the damage done, at least to some extent. The pollution particles in air are large and cannot penetrate the skin but the chemicals that are attached to these can penetrate it and even alter the genetic structure of the body. Some simple measures can help protect skin from damage and restore to its elasticity:

Hydrate: Drink lots of water daily to keep the skin hydrated from inside. Hydration improves the elasticity of skin and enhances its natural protective quality. It also flushes out the toxins.

Scrub daily: If remain outdoors for long periods of time then you must scrub your face and exposed parts of the skin daily. Scrub for 10 seconds every day, this will help your skin recover from the damages of the pollutions.

Double cleanse skin every night: Do not go to bed without cleansing your skin. First use a cleaning wipe or lotion or light oil to remove all traces of make-up, dirt and grime from the skin. Next, wash your face with a cleanser to remove any traces of pollutants on the skin. You can also use a cleansing brush for better cleansing.

Layer skin with protectants: Layer your skin with toner, moisturiser and sunscreen before you step out. Toner, moisturiser and sunscreen should be applied at least 40 minutes before stepping out. Then re-apply the sunscreen every 2 to 3 hours.

Use face packs: Use face packs that have antioxidants as their ingredients. Face packs help remove radicals and replenish and nourish the skin. Use homemade packs that include natural ingredients like turmeric, gram flour, milk, lemon juice, etc.

Massage: Massage your skin with coconut oil once a week and bathe with warm water after the massage. A coconut oil massage will help relax the skin and cleanse it.

Protect skin and eyes from blue-light exposure: Our digital devices emit constant blue light. A continuous or prolonged exposure to this light can be dangerous for the eyes as well as the skin. Set your devices to yellow light to reduce the strain.

Eat more Vitamin B3: Vitamin B3 is one of the best-known ingredients to fight against negative effects of dust, exhaust fumes and cigarette smoke. Vitamin B3 reduces the damage to skin cells, strengthens the skin barrier, and repairs the UV damage.

Avoid polluted areas. If you have to be in areas with polluted air, then invest in high quality air masks to protect your skin. Start using air purifiers and ventilators at home.

Right skin-care products

You can shield your skin from airborne pollutants and their effects by using the right skin-care products. Look for antipollution ingredients that contain antioxidants

and soothing ingredients that can neutralise the damage caused by pollution as well as replenish the lost essential elements on the skin's surface. If you notice environmental damage to your skin, consult a dermatologist for the correct treatment options best suited to your skin type.

— The writer is a dermatologist and co-founder, The Esthetic Clinics, Mumbai

Depression

Brain differences detected in kids with depressed parents (The Tribune: 201901209)

<https://www.tribuneindia.com/news/health/brain-differences-detected-in-kids-with-depressed-parents/871012.html>

NEW YORK: Researchers have found structural differences in the brains of children at high risk for depression due to parental depressive history. Depression is a common and debilitating mental health condition that typically arises during adolescence. While the causes of depression are complex, having a parent with depression is one of the biggest known risk factors.

Studies have consistently shown that adolescent children of parents with depression are two to three times more likely to develop depression than those with no parental history of depression.

"The findings highlight a potential risk factor that may lead to the development of depressive disorders during a peak period of onset, said study author Randy P. Auerbach, Associate Professor at Columbia University in the US.

"However, in our prior research, smaller putamen volumes also has been linked to anhedonia--a reduced ability to experience pleasure--which is implicated in depression, substance use, psychosis, and suicidal behaviours," Auerbach said.

"Thus, it may be that smaller putamen volume is a transdiagnostic risk factor that may confer vulnerability to broad-based mental disorders," Auerbach added.

For the study, published in the Journal of the American Academy of Child & Adolescent Psychiatry, the researchers analysed brain images from over 7,000 children in the United States participating in the Adolescent Brain Cognitive development (ABCD) study, led by the National Institutes of Health (NIH).

According to the study, about one-third of the children were in the high-risk group because they had a parent with depression.

The research found that in the high-risk children, the right putamen--a brain structure linked to reward, motivation, and the experience of pleasure--was smaller than in children with no parental history of depression.

"Understanding differences in the brains of children with familial risk factors for depression may help to improve early identification of those at greatest risk for developing depression themselves, and lead to improved diagnosis and treatment," said study researcher David Pagliaccio. IANS

Allergies

Introducing peanuts, eggs early may help some infants prevent allergies (The Tribune: 201901209)

<https://www.tribuneindia.com/news/health/introducing-peanuts-eggs-early-may-help-some-infants-prevent-allergies/870093.html>

Brain differences detected in kids with depressed parents

Introducing peanuts, eggs early may help some infants prevent allergies

One was introduced to six allergenic foods (including peanut and egg) from three months of age alongside breastfeeding, and another group was exclusively breastfed for six months. iStock

Early introduction of certain foods known to cause allergies—like peanuts and eggs—to infants can prevent them from developing an allergy even if the children do not adhere strongly to the diet, a study says.

The study, published in the Journal of Allergy and Clinical Immunology, is a continuation from The Enquiring About Tolerance (EAT) study in the UK where over 1300 three-month old infants were recruited and placed into one of two groups.

One was introduced to six allergenic foods (including peanut and egg) from three months of age alongside breastfeeding, and another group was exclusively breastfed for six months.

The group which received the allergenic foods was called the Early Introduction Group (EIG), and the one which was only breastfed was termed the Standard Introduction Group (SIG).

The researchers, including those from King's College London in the UK, said among children with food sensitisation at study enrolment, about 34 per cent in the SIG developed food allergy, compared to 19 per cent of the infants in the EIG.

The researchers said one-third of the infants who were only breast fed before developed a peanut allergy, versus 14.3 per cent in the EIG.

In the infants who were previously sensitised to egg, 48.7 per cent of them developed an egg allergy in the SIG compared to one-fifth of them in the EIG.

According to the researchers, an early introduction of allergenic foods to infants who were not already predisposed to food allergies was not linked to an increased risk of developing a food allergy.

There were no significant differences in the allergy rates between the two groups of infants who were not sensitised to any food at the time of enrolment.

“These results have significant implications and are informative when it comes to infant feeding recommendations concerning allergies and the development of new guidelines,” said study co-author Gideon Lack from King's College London.

“If early introduction to certain allergenic foods became a part of these recommendations, we also have data that tells us what populations may need extra support when it comes to implementing the recommendations,” Lack said. PTI

Medical Education

Fee cut for medical courses under study (The Tribune: 201901209)

<https://www.tribuneindia.com/news/fee-cut-for-medical-courses-under-study/872142.html>

In what could prove to be a big relief for medical students, a panel tasked with drafting guidelines for fee structure in private colleges is mulling slashing fee for half of graduate and postgraduate seats by 70 per cent and 90 per cent, respectively.

With the process of constitution of National Medical Commission currently on, the Union Health Ministry has asked the Board of Governors (BoG), vested with powers of the MCI, to prepare draft guidelines for the fee structure in private medical colleges and deemed universities.

With this reduction planned by the BoG, fees of 50 per cent of MBBS seats in private medical colleges will range between Rs 6 lakh to Rs 10 lakh.

Currently, in a number of states, including Delhi and Maharashtra, MBBS students are charged Rs 25 lakh annually. The fee for the three-year PG courses in several medical colleges ranges between Rs 1 crore to Rs 3 crore. — PTI

Typhoid vaccine

Bharat Biotech’s typhoid vaccine offers 82% protection (The Hindu: 201901209)

<https://www.thehindu.com/sci-tech/health/bharat-biotechs-typhoid-vaccine-offers-82-protection/article30219547.ece>

Phase-III clinical trial carried out in Nepal in over 10,000 children.

A typhoid vaccine (Typhbar TCV) developed by the Hyderabad-based Bharat Biotech has shown 81.6% efficacy in preventing typhoid fever at 12 months in a

Dengue outbreak

Expert's fear Kerala is in for a major dengue outbreak in 2020(The Hindu: 201901209)

<https://www.thehindu.com/news/national/kerala/experts-fear-state-is-in-for-major-dengue-outbreak-in-2020/article30238638.ece>

Possibility of next epidemic may be more virulent

Kerala could be bracing for yet another major dengue epidemic in 2020 going by the current and early disease surveillance trends.

Breast cancer

Breast cancer: Does hair dye increase risk? (Medical News Today: 201901209)

<https://www.medicalnewstoday.com/articles/327234.php#5>

A recent study has investigated links between hair products and breast cancer. The findings have caused a stir, so in this article, we put the results into perspective.

A new study looks at hair dye and breast cancer risk.

Overall, breast cancer affects around 1 in 8 women during their lifetime.

Although breast cancer incidence rates among non-Hispanic white women have historically been higher than among non-Hispanic black women, in recent decades, the rate of breast cancer among black women has increased.

Today, the breast cancer rates among black and white women are similar. However, according to the authors of a new study:

"[B]lack women [are] more likely to be diagnosed with aggressive tumor subtypes and to die after a breast cancer diagnosis."

Scientists are working to pin down all the risk factors associated with breast cancer, and they are eager to understand why race-related disparities occur.

The study, which now appears in the International Journal of Cancer, focuses on hair products. Specifically, the researchers investigated hair dye and chemical hair straighteners, which permanently or semipermanently "relax" the hair.

Hair dye and breast cancer

Over the years, a number of studies have hinted at hair products' potential role in cancer. As the study authors explain, "Hair products contain more than 5,000 chemicals, including some with mutagenic and endocrine-disrupting properties."

Older studies^{Trusted Source} have shown that certain chemicals in hair dye can induce tumors in the mammary glands of rats.

However, studies that have searched for an association between hair products and breast cancer in human populations have produced inconsistent results.

The authors of the recent research, based at the National Institute of Environmental Health Sciences, set out to take a fresh look. They decided to include hair straighteners in their analysis because earlier studies have largely ignored them. Importantly, according to the authors, these straightening chemicals "are used predominately by women of African descent."

Because hair product ingredients tend to vary depending on whether the manufacturers market them to white or black women, the authors wondered if this might play a part in the disparity in breast cancer.

To investigate, the researchers took data from the Sister Study. This dataset includes information from 50,884 women aged 35–74. The scientists followed the women for an average of 8.3 years. The participants had no personal history of breast cancer but at least one sister who had received a breast cancer diagnosis.

Headline statistics

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As part of their analysis, the researchers accounted for a wide range of variables, including age, menopausal status, socioeconomic status, and reproductive history. Importantly, they also had access to information about participants' use of hair care products.

They found that women who used hair dye regularly in the 12 months before enrolling in the study were 9% more likely to develop breast cancer.

Specifically, when the scientists assessed the use of permanent dyes, they found that women who used these products every 5–8 weeks or more had an increased risk of breast cancer. Among white women, the risk increased by 8%. Among black women, the risk increased by 60%.

The study authors found no significant links between breast cancer and the use of semipermanent or temporary dyes.

When they looked at chemical hair straighteners, they concluded that women who used them every 5–8 weeks or more had a 30% increased risk of breast cancer. In this case, there were no significant differences between white and black women, though it is worth noting that black women seemed to use these products more often.

Not all percentages are equal

It is important to put these figures into perspective. The percentages above describe relative risk, which publishers tend to focus on because the numbers appear more dramatic.

For instance, studies have shown that women who drink two or more alcoholic beverages per day have a 50% higher risk of developing breast cancer. In other words, over the course of a lifetime and compared with women who do not drink, these women are 50% more likely to develop breast cancer.

However, this does not mean that they have a 50% chance of developing breast cancer.

In the general population, women have a 12% risk of developing breast cancer in their lifetime. So, if we increase this risk by 50%, that brings the risk up to 18%. In this example, the absolute risk increase is 6%, which is the difference between 12% and 18%. Although this is a significant increase, it does not have the same psychological impact as 50%.

Returning to the hair product study, although the reported relative risk of a 60% increase in breast cancer risk among black women is a significant result, the absolute risk of a new cancer diagnosis in this study population was less than 1% per year.

This does not mean that the topic is not worth pursuing. Any increase in cancer risk is important, but understanding the statistics helps put the matter into perspective.

Study limitations

As with any observational study, it is impossible to determine whether or not a factor is causal. The observed relationship might be dependent on other factors that the analysis could not account for.

Another potential issue is that every participant in the study had at least one first-degree relative who has experienced breast cancer. As the authors explain, this "may limit the generalizability of these findings."

However, taking everything into account, this is a large study, and the findings are worth following up.

"We are exposed to many things that could potentially contribute to breast cancer, and it is unlikely that any single factor explains a woman's risk," explains study co-author Dale Sandler, Ph.D. "While it is too early to make a firm recommendation, avoiding these chemicals might be one more thing women can do to reduce their risk of breast cancer."

Breast Cancer / Cancer / Oncology / Cosmetic Medicine / Plastic Surgery

Marijuana

Is marijuana use associated with a higher risk of cancer? (Medical News Today: 201901209)

<https://www.medicalnewstoday.com/articles/327230.php#4>

As the use of marijuana is increasing in the United States, researchers are asking whether the use of this substance — particularly smoking joints — is associated with an increased risk of any form of cancer, and, if so, which.

A new meta-analysis suggests that there is still no end in sight for the debate around marijuana use and cancer risk.

Marijuana is one of the most widely used drugs in the United States, with more than one in seven adults reporting that they used marijuana in 2017.

Statistical reports project that sales of cannabis for recreational purposes in the U.S. will amount to \$11,670 million between 2014 and 2020.

According to recent research Trusted Source, smoking a joint remains one of the main ways in which individuals use marijuana recreationally.

While specialists already know that smoking tobacco cigarettes is a top risk factor for many forms of cancer, it remains unclear whether smoking marijuana can increase cancer risk in a similar way.

To try to find out whether there is a link between recreational marijuana use and cancer, researchers from the Northern California Institute of Research and Education in San Francisco and other collaborating institutions recently conducted a systematic review and meta-analysis of studies assessing this potential association.

In their paper — which appears in JAMA Network Open Trusted Source — the team notes that marijuana joints and tobacco cigarettes share many of the same potentially carcinogenic substances.

"Marijuana smoke and tobacco smoke share carcinogens, including toxic gases, reactive oxygen species, and polycyclic aromatic hydrocarbons, such as benzo[alpha]pyrene and phenols, which are 20 times higher in unfiltered marijuana than in cigarette smoke," write first author Dr. Mehrnaz Ghasemiesfe and colleagues.

"Given that cancer is the second leading cause of death in the United States and smoking remains the largest preventable cause of cancer death (responsible for 28.6% of all cancer deaths in 2014), similar toxic effects of marijuana smoke and tobacco smoke may have important health implications," they go on to emphasize.

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'Misinformation — a threat to public health'

Dr. Ghasemiesfe and team identified 25 studies assessing the link between marijuana use and the risk of developing different forms of cancer. More specifically, eight of these studies

focused on lung cancer, nine looked at head and neck cancers, seven examined urogenital cancers, and four covered various other forms of cancer.

The studies found associations of different strengths between long-term marijuana use and various forms of cancer.

The researchers note that the study results regarding the link between marijuana lung cancer risk were mixed — so much so that they were unable to pool the data.

For head and neck cancer, the researchers concluded that "ever use," which they define as exposure equivalent to smoking one joint a day for 1 year, did not appear to increase the risk, although the strength of the evidence was low. However, the studies produced mixed findings for heavier users.

There was insufficient evidence to link this drug to a heightened risk of nasopharyngeal carcinoma, oral cancer, or laryngeal, pharyngeal, and esophageal cancers.

Among urogenital cancers, the investigators found that individuals who had used marijuana for more than 10 years appeared to have a higher risk of testicular cancer — more specifically, testicular germ cell tumors. Once again, however, the strength of the existing evidence was low.

There was insufficient evidence that marijuana use was associated with an increased risk of other forms of cancer, including prostate, cervical, penile, and colorectal cancers.

Dr. Ghasemiesfe and colleagues note that the studies that they had access to had many limitations, including numerous methodological problems and an insufficient number of participants who reported high levels of marijuana use.

Going forward, the team suggests that there is an urgent need for better quality studies assessing the potential relationship between marijuana and cancer. The researchers conclude:

"Misinformation [on this topic] may constitute an additional threat to public health; cannabis is being increasingly marketed as a potential cure for cancer in the absence of evidence, with enormous engagement in this misinformation on social media, particularly in states that have legalized recreational use."

"As marijuana smoking and other forms of marijuana use increase and evolve, it will be critical to develop a better understanding of the association of these different use behaviors with the development of cancers and other chronic conditions and to ensure accurate messaging to the public," they add.

Air pollution

How reducing air pollution benefits health (Medical News Today: 201901209)

<https://www.medicalnewstoday.com/articles/327252.php#1>

A new report details the drastic improvements in health outcomes that occurred as a result of decreasing air pollution across various countries, including the United States.

New research details the health benefits of pollution-reducing interventions.

There is no doubt that air pollution adversely affects health.

Some of the studies reported by Medical News Today have pointed to potential cardiovascular and neurological harms, as well as links between air pollution and diabetes, among other health effects.

But what is the impact of pollution-reducing public interventions on health? In the hope of answering this question, the Environmental Committee of the Forum of International Respiratory Societies in Lausanne, Switzerland, carried out an investigation.

The report appears in the American Thoracic Society's (ATS) journal, *Annals of the American Thoracic Society*.

Dr. Dean Schraufnagel, from the ATS, is the lead author of the report. Dr. Schraufnagel and his team looked at air pollution interventions across the United States, Western Europe, Asia, and Africa.

Reducing pollution cuts mortality, asthma

One of the study's key findings regards the effects of banning smoking in Ireland. The report found a 13% reduction in mortality from any cause, a 26% drop in the occurrence of ischemic heart disease, as well as a 32% drop in cases of chronic obstructive pulmonary disease (COPD).

The report also details the outcomes of shutting down a steel mill in Utah for 13 months. Hospitals saw reduced admissions for pneumonia, pleurisy, bronchitis, and asthma as a result, particularly among children.

Closing the steel mill also cut school absenteeism by 40% and reduced daily mortality. Shutting down the steel mill for just 13 months halved the concentration of pollutants in the air.

Also, for every 100 micrograms (μg)/cubic meters (m^3) of air pollutants, closing the mill resulted in a 16% reduction in deaths.

Finally, women who were pregnant during the shutdown were far less likely to have premature births than those who were pregnant before or after it. This was especially true of women who were in their second trimester during the closure.

Benefits of shutting down transport

Another instance examined by the report was the "alternative transportation strategy" implemented in Atlanta, GA, in the summer of 1996 when the city was hosting the Olympics. During this intervention, the City of Atlanta closed off parts of its downtown to private cars to help athletes travel to their events more efficiently.

The city replaced this part closure with public transport and other telecommuting options. The result was a 28% drop in peak daily ozone concentrations.

Four weeks after the closure, Medicaid records showed a 42% drop in hospital visits related to childhood asthma.

Pediatric visits to the emergency department saw an 11% drop, and overall hospitalizations related to asthma fell by 19%.

A similar phenomenon occurred in China during the 2008 Olympic games. Factory and travel restrictions issued by the government between July 1st and September 20th led to a drop of up to 62% in air pollutant concentrations.

Asthma-related hospital visits also dropped by 58% within 2 months of the government's intervention. Rates of cardiovascular mortality — particularly among women and older adults — also fell, as did inflammation among young, healthy adults.

Why public health action is urgently needed

The study's lead author comments on the findings, saying, "Air pollution is [a] largely avoidable health risk that affects everyone."

"Urban growth, expanding industrialization, global warming, and new knowledge of the harm of air pollution are among the factors that raise the degree of urgency for pollution control and stress the consequences of inaction," cautions Dr. Schraufnagel.

"Fortunately, reducing air pollution can result in prompt and substantial health gains. Sweeping policies affecting a whole country can reduce all-cause mortality within weeks. Local programs, such as reducing traffic, have also promptly improved many health measures."

"We knew there were benefits from pollution control, but the magnitude and relatively short time duration to accomplish them were impressive."

"Our findings indicate almost immediate and substantial effects on health outcomes followed reduced exposure to air pollution. It's critical that governments adopt and enforce WHO guidelines for air pollution immediately."

Alzheimer's risk gene

Alzheimer's risk gene and heavy metal exposure may impair cognition (Medical News Today: 201901209)

<https://www.medicalnewstoday.com/articles/327238.php#4>

A new study in mice finds that cadmium exposure, combined with a genetic predisposition to Alzheimer's, can trigger symptoms of cognitive decline.

For people with a key risk gene, exposure to cadmium may raise the risk of cognitive impairment, suggests new research in mice.

The so-called human apolipoprotein E (APOE) gene encodes instructions for creating the homonymous protein.

Typically, the APOE gene combines with fats to create lipoproteins — proteins that, in turn, carry cholesterol and other liquids through the bloodstream.

There are three variants, or alleles, of this gene. The E3 variant, for instance, is widespread, with half of the population carrying it.

The variant E4 of the APOE gene significantly raises a person's risk of developing Alzheimer's disease.

New research in mice suggests that people who already have a copy of the APOE4 gene and are thus at risk of Alzheimer's may experience cognitive decline as a result of exposure to cadmium — a neurotoxic heavy metal.

Cadmium occurs naturally in the earth, and "it is extracted during the production of copper, lead, and zinc." Foods such as shellfish, some leafy green vegetables, or grain cereals may contain cadmium; cigarette smoke and polluted air can also contain the metal.

Zhengui Xia, professor of environmental and occupational health sciences at the University of Washington School of Public Health, is the last and corresponding author of the new study, which appears in the journal *Toxicological Sciences*.

Studying cadmium and the APOE4 gene

In the new study, the scientists used mouse models of Alzheimer's disease with an activated version of the E4 or E3 variant of the APOE gene. Then, the researchers added low doses of cadmium to the drinking water, which the mice drank for 14 weeks.

The maximum amount of cadmium that the mice ingested was the equivalent to the amount that humans in the United States have in their blood, including people who have never smoked.

The researchers examined the rats' cognitive abilities through standard novel objection location tests and T-maze tests.

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The cognitive skills that the scientists chose to focus on rely on the hippocampus Trusted Source — a brain area crucial for learning and memory. It is also one of the brain regions that gets most damaged in the early stages of Alzheimer's.

Cadmium accelerates cognitive impairment

The mice that had ingested cadmium performed less well in the novel object location tests, indicating a poorer short-term spatial working memory.

These symptoms occurred earlier in mice with the APOE4 gene than those with APOE3.

Male mice experienced an earlier onset than females with the same genetic makeup.

Later in life, mice with the APOE4 gene performed worse in the T-maze test than those with APOE3.

The authors conclude that exposure to cadmium "impaired neuronal differentiation of adult-born neurons" in the hippocampus of male mice with the APOE4 gene.

Overall, conclude the researchers, the results suggest that an interaction between APOE4 and cadmium exposure "leads to accelerated cognitive impairment and that impaired adult hippocampal neurogenesis may be one of the underlying mechanisms."

Young male mice seemed overall more susceptible to the effects of this interaction than young female rodents.

"This heavy metal is bad for you," says Xia.

"Exposure to cadmium through our daily lives could have a detrimental effect on our cognition. If you have the APOE4 gene, the risk is significantly higher."

Zhengui Xia

"Our study provides direct evidence for an interaction between this Alzheimer's genetic risk gene and environmental exposures on accelerated cognitive impairment."

The author also comments on the potential mechanisms that may explain the findings. "It is possible that APOE4 may cause leakage on the blood-brain barrier and lead to a higher degree of cadmium accumulation in the APOE4 brain."

New diet

New diet that matches biological clock may be better for diabetes Medical News Today: 201901209)

<https://www.medicalnewstoday.com/articles/327223.php#3>

Typically, doctors advise people with type 2 diabetes to eat about six times a day. But this approach can lead to a vicious cycle in which individuals require more intensive treatments. Could a different approach to diet be more suitable?

Eating three meals a day that includes a breakfast of fruit, bread, and sweets may be more beneficial for type 2 diabetes.

Type 2 diabetes is one of the most common metabolic conditions. Across the globe, over 400 million Trusted Source people live with it.

Usually, doctors prescribe drugs that will help individuals with diabetes keep their blood sugar levels under control, as well as advise them on how to change their dietary habits to aid treatment.

Many healthcare providers believe that the best approach for people with type 2 diabetes is to eat more, smaller meals at regular intervals throughout the day. Typically experts recommend eating six times a day.

However, this approach can lead to problems. Some people who follow this type of diet plan require more intensive treatments. This is particularly true of those with severe forms of diabetes who need to inject themselves with high doses of insulin to counterbalance insulin resistance.

However, high-dosage insulin injections can introduce glucose (blood sugar) level imbalances. They can also cause weight gain and lead to a higher risk of cardiovascular problems.

Recently, a team of researchers from Tel Aviv University in Israel has hypothesized that eating according to a person's natural "body clock" — which typically calls for three larger meals a day — might help physiological processes to synchronize better and reduce the amount of insulin a person requires.

Weight loss and improved blood sugar

"The traditional [diet for people with diabetes] specifies six small meals spread throughout the day," says Prof. Daniela Jakubowicz. "But [this diet]," she adds, "has not been effective for sugar control, so [people with diabetes] require additional medication and insulin. And insulin injections lead to weight gain, which further increases blood sugar levels."

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Prof. Jakubowicz and team have now conducted a study confirming that the three meals a day approach could be more helpful for those with type 2 diabetes.

"[O]ur research proposes shifting the starch-rich calories to the early hours of the day. This produces a glucose balance and improved glycemic control among [people with type 2 diabetes]," the specialist explains.

"We believe that through this regimen, it will be possible for [people with diabetes] to significantly reduce or even stop the injections of insulin, and most antidiabetic medications, to achieve excellent control of glucose levels."

Prof. Daniela Jakubowicz

In their study paper — which features in the journal *Diabetes Care* — the investigators note that they based their findings on a trial involving 28 participants with type 2 diabetes.

The researchers split the participants into two groups and randomly assigned them to follow either the typical six meals a day diet or the newly devised three meals a day diet.

In the three meals a day approach, participants had to follow a diet plan that is supposedly more in line with humans' natural inclination to eat more in the morning, and fast in the evening and during the night.

This diet requires eating a breakfast of bread, fruit, and sweets early in the morning, having a sizeable lunch, and a small meal at dinnertime, which must not feature any starchy foods, sweets or fruit.

The team assessed the participants' body weight, blood sugar control, appetite, and circadian clock (body clock) gene expression both at baseline, and then again at 2 weeks after the start of the trial, and at 12 weeks after.

Child Health (Navbharat Times: 201901209)

<http://epaper.navbharattimes.com/paper/12-13@13-09@12@2019-1001.html>

ऑपरेशन से डिलिवरी, बच्चे में मोटापा नहीं !

■ आईएनएस, लंदन : सिजेरियन या ऑपरेशन से पैदा होने वाले बच्चों में मोटापे का खतरा कम होता है। एक नई स्टडी में यह दावा किया गया है। इससे पहले कई रिसर्च में कहा गया था कि ऑपरेशन से पैदा होने वाले बच्चों में मोटापे का खतरा ज्यादा होता है। नई स्टडी में करीब दस हजार टीनेज बच्चों को शामिल किया गया। उन्होंने पाया बच्चों में मोटापे का इस बात से संबंध हो सकता है कि प्रेग्नेंसी के दौरान मां का वजन कितना था। शोधकर्ताओं का कहना है कि हमने सिजेरियन से डिलीवरी और बच्चे में मोटापे के बीच कोई संबंध नहीं पाया। इससे उसके वजन पर कोई असर नहीं होता है।

तापमान बढ़ने से हॉर्मोनल बदलाव के चलते जल्द हो रहा प्रसव, इससे नवजातों पर खतरा बढ़ रहा

गर्मी के कारण दो हफ्ते पहले पैदा हो रहे बच्चे

शोध

लंदन | एजेसी

जलवायु परिवर्तन के कारण गर्भवती महिलाएं समय से पहले ही बच्चे को जन्म दे रही हैं, जिससे नवजातों पर खतरा बढ़ रहा है। एक हालिया शोध में यह खुलासा किया गया है।

बच्चों के जन्म और वातावरण के बारे में शोध कर रहे अमेरिकी वैज्ञानिकों के अनुसार, जिस दिन तापमान 32 डिग्री से ज्यादा था उस दिन जन्मदर में पांच फीसदी का इजाफा देखा गया। कुछ बच्चे अपने समय से कई दिनों पहले पैदा हो गए थे। वहीं कुछ बच्चे समय से दो हफ्ते पहले ही पैदा हो गए। शोधकर्ताओं का मानना है कि गर्मी से गर्भवती महिला

में हॉर्मोनल बदलाव हो जाते हैं, जिससे प्रसव जल्दी हो जाता है। समय से पूर्व जन्म होने से बच्चे कम वजन के होते हैं, उनका विकास धीमा होता है और उनमें कई तरह की स्वास्थ्य समस्याएं होती हैं। शोधकर्ताओं का कहना है कि दिनोदिन मौसम के गर्म होने के कारण यह समस्या और बढ़ती ही जा रही है।

जलवायु परिवर्तन के कारण पृथ्वी पर बढ़ रही गर्मी : लॉस एंजेलिस की यूनिवर्सिटी ऑफ कैलिफोर्निया के वैज्ञानिकों ने अमेरिका में 1969 से 1988 के बीच पैदा हुए 5.6 करोड़ बच्चों के डाटा का विश्लेषण किया। उन्होंने देखा कि गर्म दिनों में जिस दिन तापमान 32 डिग्री से ज्यादा था जन्मदर बहुत बढ़ गई। कई महिलाओं के बच्चे समय से पहले ही पैदा हो गए। जलवायु



5.6

करोड़ बच्चों के डाटा का विश्लेषण किया जो 1969 से 1988 के बीच पैदा हुए

32

डिग्री से ज्यादा तापमान वाले दिन जन्मदर बढ़ने के साथ-साथ समय से पहले हुए बच्चे

हार्मोन का उत्पादन बढ़ता है

शोधकर्ताओं का कहना है कि गर्म तापमान में गर्भवती महिला के शरीर में ऑक्सिटोसिन नामक हार्मोन का उत्पादन काफी बढ़ जाता है। यह प्रसव पीड़ा को जल्दी शुरू कर देता है और गर्भाशय को सिकोड़ देता है। इसके चलते बच्चा बाहर की ओर निकलने लगता है। इस शोध को पत्रिका नेचर क्लाइमेट चेंज में प्रकाशित हुआ है।

परिवर्तन के कारण पृथ्वी पर गर्मी बढ़ती ही जा रही है।

शोधकर्ता एलान बारेका ने कहा, जिस समय काल का हमने अध्ययन किया उसमें हमने 25,000 हजार समय पूर्व जन्म के मामले देखे। औसतन गर्भावस्था छह दिन पहले ही खत्म हो

गई, लेकिन कुछ मामलों में बच्चे दो हफ्ते ही पैदा हो गए। शोधकर्ताओं के अनुसार उस समय की तुलना में वर्तमान में गर्मी बहुत बढ़ गई है। ऐसे में समय पूर्व जन्म के मामले अब ज्यादा देखने को मिल रहे हैं। किंग्स कॉलेज लंदन के प्रो. एंड्रयू शेनान ने कहा, इस शोध के निष्कर्ष वैध

व स्पष्ट हैं। कई स्वास्थ्य की परिस्थितियों की तरह तापमान भी शरीर के प्राथमिक कार्यप्रणालियों जैसे रक्त प्रवाह और सांस लेने की प्रक्रिया को प्रभावित करता है। गर्भवती महिलाओं को गर्म तापमान में पर्याप्त पानी पीना चाहिए और खुद को ठंडा रखने का प्रयास करना चाहिए।

Social Problem (Hindustan: 201901209)

घरेलू हिंसा दे रही दीर्घकालिक रोग

लंदन | एजेसी

घरेलू हिंसा झेलने वाली महिलाओं में दीर्घकालिक बीमारियां विकसित होने का खतरा दोगुना होता है। इसके चलते उनको लंबे समय तक शारीरिक दर्द और अत्यधिक थकान महसूस होती है। इंटरपर्सनल वॉयलेंस नामक जर्नल में प्रकाशित अध्ययन में इस बात का खुलासा हुआ है।

बर्मिंघम और वार्विक यूनिवर्सिटी के शोधकर्ताओं का कहना है कि घरेलू हिंसा का सामना करने वाली महिलाओं में फाइब्रोमायल्जिया और क्रॉनिक फैटीग सिंड्रोम (सीएफएस) विकसित होने की संभावना दोगुनी होती है। फाइब्रोमायल्जिया में मांसपेशियों और हड्डियों सहित पूरे शरीर में दर्द उत्पन्न होता है। जबकि सीएफएस में अत्यधिक

अध्ययन

- घरेलू हिंसा के कारण लंबे समय तक बना रहता है शारीरिक दर्द
- हिंसा झेलने वाली 18 हजार से अधिक महिलाओं का डाटा जांचा

थकान और सुस्ती उत्पन्न होती है। ये दोनों ही लंबे समय तक चलने वाले विकार हैं।

घरेलू हिंसा से नकारात्मक प्रभाव : अध्ययन के सह-लेखक सिद्धार्थ बंदोपाध्याय ने कहा, हम जानते हैं कि घरेलू हिंसा की शिकार महिलाओं और उनके बच्चों पर नकारात्मक प्रभाव पड़ता है। हमें अध्ययन में हिंसा का सामना करने वाली महिलाओं और कई बीमारियों के बीच गहरा संबंध देखने को मिला।

वायु प्रदूषण घटने से मौत का खतरा कम

न्यूयॉर्क। एक हालिया अध्ययन में पता चला है कि वायु प्रदूषण को कम करने से जल्द मौत के खतरे को रोका जा सकता है। एनाल्स ऑफ द अमेरिकन थोरेसिक सोसाइटी नामक पत्रिका में प्रकाशित अध्ययन के मुताबिक, वायु प्रदूषण में कमी आने से स्वास्थ्य पर सकारात्मक असर पड़ता है। शोधकर्ताओं ने कहा, आयरलैंड में धूम्रपान पर प्रतिबंध लगाने के एक सप्ताह के बाद सभी कारणों से होने से वाली मृत्यु दर में 13 %, इस्केमिक हृदय रोग में 26 % की कमी देखी गई।