



# **DAILY NEWS BULLETIN**

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
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**Healthcare (The Asian Age: 201901107)**

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=14054903>

# Need value for money in healthcare



Rajeev Ahuja

**A**bhijit Banerjee, the winner of the 2019 Nobel Prize in Economics, is reported to have praised the Narendra Modi government for its healthcare program, Ayushman Bharat. He is also reported to have said that though India has one of the highest private healthcare expenditures in the world, people are not getting value for money. Indeed, over 60 per cent of total healthcare spending in India is done directly by households from their own pockets, which is burdensome. The Narendra Modi government together with states and municipalities have quite some distance to cover in ensuring that people get value for money for their healthcare spendings.

It is good to see healthcare becoming a political priority in India. Ayushman Bharat (AB) — one of the successful social initiatives of the Narendra Modi government — is being rolled out by states with the support of the Central government.

However, both the pillars of AB are for the benefit of the weaker sections of society. The PMJAY pillar that entitles free hospital care of up to ₹5 lakhs every year is specifically targeted at the nearly 110 million poor and vulnerable households. The other pillar of health and wellness centres is aimed at providing basic primary and preventive care to all in rural and semi-urban areas, though the poor are likely to benefit more from it.

For the non-poor, especially in towns and cities, nobody seems to be doing anything about the healthcare options available to them. They too face the risk of getting improv-

erished due to healthcare expenses. The issue of value for money is most applicable to them.

Nearly 300 million people, or about 65 per cent of India's urban population, live in about 500 cities having a population of 100,000 and above. The majority of this population comprises the non-poor who derive their income by working in the informal sector. They have limited health expenditure support. For hospital care, they have the option of buying one of the unfriendly, expensive annual health insurance plans from an insurance company or pay hospital bills out of their own pocket. For out-patient (OP) care, almost all of them turn to private providers — by visiting either the OP department of private hospitals or private clinics and paying out of their own pocket.

It is a known fact that private providers are a dominant source of OP care both in urban and rural areas. However, unlike rural semi-urban areas, the OP care in bigger towns and cities is all provided by qualified doctors having private practices. A good part is that there are multiple, qualified providers of care in towns and cities. However, a bad part of it is that the system is highly non-standardised. Some doctors charge significantly higher consultation fees than others. Some doctors charge a consultation fee every time you visit while others allow you a repeat consultation without having to pay again. Some doctors prescribe "minimal" medicine while others heal you with stronger medicines. Some doctors routinely issue payment receipts while others do so only upon request. Some doctors require a prior

**Value for money in healthcare is an important issue for a majority of the non-poor households living in towns and cities. Central and state governments need to do something about it.**

appointment while others don't. Some doctors maintain patient records while others don't. Indeed, out-patient care even by qualified medical doctors is highly variable in India.

Often, patients face several issues in seeking OP care. Besides having to pay a high fee that can run as high as ₹2,000 in a metro city for specialist consultation which may last no more than two minutes, patients may have to wait for long even with prior appointments. Also, doctors often don't spend sufficient time to answer patients' queries. To be fair, there are some doctors that run their practice with a sense of social responsibility. But many doctors are highly commercial-minded. Stories abound of doctors resorting to different strategies to maximise their revenue/profits. The OP care

market in India needs standardisation.

The thriving private practices of doctors in towns and cities are no indication that it's an optimal arrangement. The market mechanism doesn't work well in healthcare. Governments need to intervene in this market for some good reasons: One, healthcare is different from other services as the physical and mental well-being of a person gets affected when s/he is sick, and two, treatment of the sick is not to be governed solely by commercial considerations. Thus, governments have a special role to play in ensuring basic healthcare to all of its citizens at a nominal charge, if not free.

The government could, for example, incentivise private practitioners to get into a network that will enable them to introduce some standardisation of service, fee structure, processes and reporting. Likewise, government could encourage people to buy OP care only from the network providers. Of course, people will be paying for those services as they do now but will be paying only "reasonable" amounts in exchange for services whose "quality" aspect is well-defined.

Healthcare being a state subject, each state government

will need to act on this, with or without any support from the Central government. Except for some partial initiatives such as mohalla clinics of the Delhi government, states seem to have adopted the policy of laissez faire for OP care, when there is a strong case for them to intervene. Any effective solution for OP care in large towns and cities has to take account of the preponderance of private practitioners and involve them.

To conclude, value for money in healthcare is an important issue for a majority of the non-poor households living in towns and cities. Central and state governments need to do something about it. OP care in towns and cities, which at present is totally untouched by governments, is too important to be left completely to market forces. Private practitioners may continue providing care but a government-mediated system is urgently needed to introduce standardisation. Let the hands that heal not become the hands that exploit — for want of a better system!

*The writer is a development economist, formerly with the Bill & Melinda Gates Foundation and the World Bank*



'Cinderella, you SHALL go to the ball!'

## **Vaccine hesitancy**

### **An unwanted booster dose for vaccine hesitancy (The Hindu: 201901107)**

<https://www.thehindu.com/opinion/lead/an-unwanted-booster-dose-for-vaccine-hesitancy/article29902812.ece>

The unchallenged spread of misinformation from a UN-based platform could affect the global vaccination programme

In January this year, the World Health Organization (WHO) listed “vaccine hesitancy” as among the top 10 threats to global health this year; it is defined as [a] “reluctance or refusal to vaccinate despite the availability of vaccines”.

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## **Sleeping**

### **Deep sleep may help treat anxiety (Medical News Today: 201901107)**

<https://www.medicalnewstoday.com/articles/326926.php#3>

Researchers have known for a while about a connection between insufficient sleep and anxiety. A new study strengthens and quantifies this causal relation and shows that a sleepless night can raise anxiety by up to 30%.

New research suggests that getting deep sleep is a natural way to ease anxiety.

Furthermore, the new study suggests that the deep phase of sleep is a natural anxiety reliever.

These are the main takeaways of a paper appearing in the journal Nature Human Behaviour Trusted Source.

Matthew Walker, a professor of neuroscience and psychology at the University of California (UC), Berkeley, is the senior author of the new study.

Prof. Walker and colleagues set out to examine the effects of various stages of sleep on anxiety in 18 participants.

Scientists routinely divide sleep into two broad categories — rapid eye movement (REM) and non-REM sleep — and four substages.

The first two stages of non-REM sleep are periods of light sleep in which the body adjusts from wakefulness to rest.

According to the National Institutes of Health (NIH), the third stage of non-REM sleep is the deep, restorative sleep that we need to feel recharged in the morning. Non-REM sleep is typically followed by REM sleep, which is the dream filled, lighter stage before waking.

These different sleep stages reflect differently in the brain's activity. By measuring brain activity, Prof. Walker and the team determined the effects of various sleep stages on anxiety.

### Deep sleep protects against anxiety

To measure anxiety levels, the researchers asked a group of 18 young adults to watch emotionally unsettling videos after a full night of sleep and after a sleepless night.

After each viewing, the participants completed a standard anxiety questionnaire called the state-trait anxiety inventory.

The scientists used functional MRI and polysomnography to scan the brains of the sleeping participants in order to identify the stages of sleep.

The brain scans showed that a brain area called the medial prefrontal cortex was deactivated after a sleepless night. Previous studies have suggested that this brain area attenuates anxiety and stress.

The scans also revealed excessive brain activity in other regions associated with processing emotions. A sleepless night raised anxiety levels by up to 30%, report the authors.

"Without sleep," Prof. Walker explains, "it's almost as if the brain is too heavy on the emotional accelerator pedal, without enough brake."

Furthermore, the study found that anxiety levels plummeted after a full night of sleep and that this reduction was even more significant in people who spent more time in the deep, slow-wave, non-REM stage of sleep.

"Deep sleep had restored the brain's prefrontal mechanism that regulates our emotions, lowering emotional and physiological reactivity and preventing the escalation of anxiety," reports Eti Ben Simon, a postdoctoral fellow at the Center for Human Sleep Science at UC Berkeley and the study's lead author.

### Sleep as a clinical recommendation

The researchers sought to replicate their findings, so they conducted another set of experiments in a larger sample, of 30 participants, as well as an online survey, of 280 people.

The lab experiments confirmed that people who experienced more deep sleep at night had the least anxiety the following day. The online survey confirmed that the amount and quality of sleep that people got reliably predicted their anxiety levels the following day.

The study's lead author also suggests that good sleep should be a clinical recommendation for treating anxiety.

"People with anxiety disorders routinely report having disturbed sleep, but rarely is sleep improvement considered as a clinical recommendation for lowering anxiety," she says.

"Our study not only establishes a causal connection between sleep and anxiety, but it identifies the kind of deep [non-]REM sleep we need to calm the overanxious brain."

## **Fish oils and omega-3**

### **An fish oils and omega-3 oils benefit our health? (Medical News Today: 201901107)**

<https://www.medicalnewstoday.com/articles/40253.php#foods>

Here are some key points about fish oils. More supporting information is in the main article.

Fish oils contain omega-3 fatty acids and vitamins A and D.

Omega-3 fatty acids found in fish oils may protect the heart and offer other health benefits, but research results have been mixed.

Eating fish is a better way of getting fish oil or omega 3 than taking supplements.

What are omega-3 fatty acids?

Oily fish is a good source of omega-3 oil, but what are the benefits?

Omega-3 fatty acids are fats commonly found in plants and marine life.

Two types are plentiful in oily fish:

**Eicosapentaenoic acid (EPA):** The best-known omega-3 fatty acid, EPA helps the body synthesize chemicals involved in blood clotting and inflammation (prostaglandin-3, thromboxane-2, and leukotriene-5). Fish obtain EPA from the algae that they eat.

**Docosahexaenoic acid (DHA):** In humans, this omega-3 fatty acid is a key part of sperm, the retina, a part of the eye, and the cerebral cortex, a part of the brain.

DHA is present throughout the body, especially in the brain, the eyes and the heart. It is also present in breast milk.

Health benefits

Some studies have concluded that fish oil and omega-3 fatty acid is beneficial for health, but others have not. It has been linked to a number of conditions.

Multiple sclerosis

Fish oils are said to help people with multiple sclerosis (MS) due to its protective effects on the brain and the nervous system. However, at least one study concluded Trusted Source that they have no benefit.

## Prostate cancer

One study found that fish oils, alongside a low-fat diet, may reduce the risk of developing prostate cancer. However, another study linked higher omega-3 levels to a higher risk of aggressive prostate cancer.

Research published in the Journal of the National Cancer Institute suggested that a high fish oil intake raises the risk of high-grade prostate cancer by 71 percent, and all prostate cancers by 43 percent.

## Post-partum depression

Consuming fish oils during pregnancy may reduce the risk of post-partum depression. Researchers advise that eating fish with a high level of omega 3 two or three times a week may be beneficial. Food sources are recommended, rather than supplements, as they also provide protein and minerals.

## Mental health benefits

An 8-week pilot study carried out in 2007 suggested that fish oils may help young people with behavioral problems, especially those with attention deficit hyperactivity disorder (ADHD).

The study demonstrated that children who consumed between 8 and 16 grams (g) of EPA and DHA per day, showed significant improvements in their behavior, as rated by their parents and the psychiatrist working with them.

## Memory benefits

Omega-3 fatty acid intake can help improve working memory in healthy young adults, according to research Trusted Source reported in the journal PLoS One.

However, another study indicated that high levels of omega-3 do not prevent cognitive decline in older women.

## Heart and cardiovascular benefits

Omega-3 fatty acids found in fish oils may protect the heart during times of mental stress.

Findings published in the American Journal of Physiology suggested that people who took fish oil supplements for longer than 1 month had better cardiovascular function during mentally stressful tests.

In 2012, researchers noted that fish oil, through its anti-inflammatory properties, appears to help stabilize Trusted Source atherosclerotic lesions.

Meanwhile, a review of 20 studies involving almost 70,000 people, found "no compelling evidence" linking fish oil supplements to a lower risk of heart attack, stroke, or early death.

People with stents in their heart who took two blood-thinning drugs as well as omega-3 fatty acids were found in one study to have a lower risk of heart attack compared with those not taking fish oils.

The AHA recommend eating fish, and especially oily fish, at least twice a week, to reduce the risk of cardiovascular disease.

#### Alzheimer's disease

For many years, it was thought that regular fish oil consumption may help prevent Alzheimer's disease. However, a major study in 2010 found that fish oils were no better than a placebo at preventing Alzheimer's.

Meanwhile, a study published in *Neurology* in 2007 reported Trusted Source that a diet high in fish, omega-3 oils, fruit, and vegetables reduced the risk of dementia and Alzheimer's.

#### Vision loss

Adequate dietary consumption of DHA protects people from age-related vision loss, Canadian researchers reported in the journal *Investigative Ophthalmology & Visual Science*.

#### Epilepsy

A 2014 study published in the *Journal of Neurology, Neurosurgery & Psychiatry* claims that people with epilepsy could have fewer seizures if they consumed low doses of omega-3 fish oil every day.

#### Schizophrenia and psychotic disorders

Omega-3 fatty acids found in fish oil may help reduce the risk of psychosis.

Findings published in *Nature Communications* details how a 12-week intervention with omega-3 supplements substantially reduced Trusted Source the long-term risk of developing psychotic disorders.

#### Health fetal development

Omega-3 consumption may help boost fetal cognitive and motor development. In 2008, scientists found that omega-3 consumption during the last 3 months of pregnancy may improve sensory, cognitive, and motor development in the fetus.

#### Foods

The fillets of oily fish contain up to 30 percent oil, but this figure varies. White fish, such as cod, contains high concentrations of oil in the liver but less oil overall. Oily fish that are rich in omega-3 fatty acids include anchovies, herring, sardines, salmon, trout, and mackerel.

Other animal sources of omega-3 fatty acids are eggs, especially those with "high in omega-3" written on the shell.

Vegetable-based alternatives to fish oil for omega 3 include:

## Food and Nutrition

### How can these popular foods benefit our health? (Medical News Today: 201901107)

<https://www.medicalnewstoday.com/articles/269143.php#32>

Though the field of medicine continues to advance and branch out in many ways, nutritionists and health experts continue to praise the benefits of certain foods. In fact, eating healthfully has been shown to reduce the risk of obesity, cardiovascular illnesses, and even certain types of cancer.

However, understanding which foods to eat for specific benefits can sometimes be difficult, which is why Medical News Today previously supplied a list of the top 10 healthy foods.

Now, MNT specifies the health benefits of a much wider range of foods.

We provide a cornucopia of delicious and nutritious options for individuals who wish to boost their health by eating healthfully.

Below is a list of foods along with information regarding their potential health benefits.

Note that this article contains summaries and you should click through to read individual articles containing the full list of possible health benefits.

#### Almonds

Almonds are a rich source of vitamin E, copper, magnesium, good quality protein, and healthy unsaturated fatty acids.

Studies have revealed that almonds can potentially help prevent cardiovascular diseases<sup>Trusted Source</sup>, cut the risk of cancer, and help prolong life.

Read more about almonds.

#### Apples

Apples are sometimes called "nutritional powerhouses" because of their impressive nutritional profile.

Apples contain about 14 percent of our daily needs of Vitamin C (a powerful natural antioxidant), B-complex vitamins, dietary fiber, phytonutrients (which help protect the body from the detrimental effects of free radicals), and minerals such as calcium and potassium.

Studies have revealed that eating apples can potentially help prevent dementia and reduce the risk of stroke<sup>Trusted Source</sup> and diabetes.

Read more about apples.

#### Arugula

Along with other leafy greens, arugula contains very high nitrate levels (more than 250 milligrams per 100 grams). High intakes of dietary nitrate have been shown to lower blood pressure, reduce the amount of oxygen needed during exercise, and enhance athletic performance.

The potential health benefits of arugula include lowering the risk of cancer, preventing osteoporosis, and improving muscle oxygenation during exercise.

[Read more about arugula.](#)

### Asparagus

Asparagus is very rich in dietary fiber and contains high levels of vitamin B6, calcium, zinc, and magnesium.

The potential health benefits of asparagus include: reducing the risk of diabetes, preventing kidney stones, and lowering the risk of neural tube defects in babies.

Asparagus is also a natural diuretic, which can help with fluid balance in the body and influence blood pressure and edema.

[Read more about asparagus.](#)

### Bananas

Bananas are naturally free of fat, cholesterol, and sodium, and very rich in potassium.

The potential health benefits of bananas include: lowering blood pressure, reducing the risk of developing childhood leukemia, and supporting heart health.

[Read more about bananas.](#)

### Basil

Basil is rich in vitamin A, vitamin K, vitamin C, magnesium, iron, potassium, and calcium.

Studies have revealed that basil can potentially reduce inflammation and swelling, prevent the harmful effects of aging, and may be useful in treating arthritis and inflammatory bowel diseases.

[Read more about basil.](#)

### Beetroot

Beetroot, also known simply as the beet, has been gaining in popularity as a new super food due to recent studies claiming that beets and beetroot juice can improve athletic performance, lower blood pressure and increase blood flow.

This is partly due to its high content of nitrates, which increase nitric oxide in the body and play a substantial role in heart and vascular health.

Beetroot is a rich source of folate and manganese, and also contains thiamine, riboflavin, vitamin B-6, pantothenic acid, choline, betaine, magnesium, phosphorus, potassium, zinc, copper, and selenium.

[Read more about beetroot.](#)

### Bok choy

Bok choy belongs to the cruciferous vegetable family, which also includes kale, broccoli, cauliflower, Brussels sprouts, cabbage, collard greens, rutabaga, and turnips.

These nutrition powerhouses supply loads of nutrients for little calories. If you are trying to eat healthier, cruciferous vegetables like bok choy should be at the very top of your grocery list.

[Read more about bok choy.](#)

### Broccoli

Broccoli contains high levels of fiber (both soluble and insoluble) and is a rich source of vitamin C.

In addition, broccoli is rich in vitamin A, iron, vitamin K, B-complex vitamins, zinc, phosphorus, and phytonutrients.

Studies have found that broccoli can potentially help prevent osteoarthritis, protect skin against the effects of UV light, reverse diabetes heart damage, and reduce bladder cancer risk [Trusted Source](#).

[Read more about broccoli.](#)

### Cantaloupe

Cantaloupes are also commonly known as muskmelons, mush melons, rock melons, and Persian melons. They are a member of the botanical family Cucurbitaceae, along with honeydew and watermelons.

Cantaloupe contains an abundance of antioxidants, including choline, zeaxanthin, and beta-carotene, all of which protect against a range of diseases and conditions from the common cold to cancer.

Potential health benefits of cantaloupe include lowering risk of developing asthma, managing blood pressure, aiding digestion, keeping hydrated, and reducing inflammation.

[Read more about cantaloupe.](#)

### Carrot

Carrots are a great source of vitamin A. They provide 210 percent of an average adult's needs for the day.

The potential health benefits of carrots include: preventing lung cancer [Trusted Source](#), destroying leukemia cells and inhibiting their progression, and helping to restore vision.

[Read more about carrots.](#)

## Cauliflower

Cauliflowers are a member of the brassica family, more commonly known as cruciferous vegetables.

They contain antioxidants and phytonutrients that can protect against cancer.

They also contain fiber that helps with satiety, weight loss, and a healthy digestive tract, choline that is essential for learning and memory, as well as many other important nutrients.

The potential health benefits of cauliflower include preventing mutations and reducing stress from free radicals, preventing constipation, and helping memory.

Read more about cauliflower.

## Celery

Celery is a very rich source of antioxidants, electrolytes, and vitamin K. Also, thanks to its high water content, it can help rehydrate.

The potential health benefits of celery include: lowering blood pressure, preventing cancer, and soothing joint pain.

Read more about celery.

## Chickpeas

Originally cultivated in the Mediterranean and the Middle East, chickpeas, also known as garbanzo beans, have spread their culinary influence throughout the world.

The potential health benefits of chickpeas include improved glucose levels, lipids, and insulin levels for diabetes, maintaining bone strength and heart health.

Read more about chickpeas.

## Chives

Chives are a nutrient-dense food, meaning that while they are low in calories, they are high in beneficial nutrients like vitamins, minerals, and antioxidants.

The potential health benefits of chives include potential beneficial and preventative effects against cancer, prostate cancer, esophageal and stomach cancer, and positive effects on sleep and mood.

Read more about chives.

## Chocolate

Chocolate is rich in antioxidants. Despite its bad reputation for causing weight gain, there are a number of health benefits associated with its consumption (particularly dark chocolate).

The potential benefits of eating chocolate include: lowering cholesterol levels, preventing cognitive decline, and reducing the risk of cardiovascular problems.

Read more about chocolate.

## Cilantro

Known as coriander in the United Kingdom, cilantro comes from the plant *Coriandrum sativum*. In the United States, the leaves of the plant are referred to as cilantro (the Spanish translation), and the seeds are referred to as coriander.

Many studies have suggested that increasing consumption of plant foods like cilantro decreases the risk of obesity, overall mortality, diabetes, and heart disease while promoting a healthy skin and hair, increased energy, and overall lower weight.

Read more about cilantro.

## Cinnamon

Studies have found that cinnamon can potentially be effective against HIV, improve glucose and lipid levels in patients with type 2 diabetes, help prevent Alzheimer's disease<sup>Trusted Source</sup>, and stop the destructive process of multiple sclerosis<sup>Trusted Source</sup> (MS).

In addition, researchers at Penn State found that consuming cinnamon can help reduce the body's negative responses to eating high-fat meals.

Read more about cinnamon.

## Coffee

Coffee is one of the main sources of antioxidants in the U.S. population.

The potential health benefits of drinking coffee in moderation include: protecting against type 2 diabetes, preventing Parkinson's disease<sup>Trusted Source</sup>, lowering the risk of liver cancer, preventing liver disease, and promoting good heart health.

Read more about coffee.

## Collard greens

Collard greens are part of the cruciferous vegetable family, which also includes kale, broccoli, Brussels sprouts, cabbage, rutabaga, and turnips.

Collard greens are an extremely rich source of vitamin K and also contain folate, thiamin, niacin, pantothenic acid, choline, phosphorus, and potassium.

Health benefits of collard greens may include assisting with bone health, reducing cancer risk, helping lower glucose levels in those with diabetes, and improving sleep and mood.

Read more about collard greens.

## Cranberries

Cranberries are a good source of vitamin C, fiber, and vitamin E.

Studies have found that cranberries can potentially reduce the risk of cardiovascular disease (CVD), slow tumor progression, prevent urinary tract infections, and benefit oral health by preventing bacteria from binding to teeth.

Read more about cranberries.

### Edamame

Edamame is a young soybean that has been harvested before the beans have had a chance to harden. They can be bought shelled or in the pod, fresh or frozen.

The potential health benefits of edamame include maintaining a healthy blood pressure, helping with depression, promoting fertility, and decreasing bone loss.

Read more about edamame.

### Eggplant

The eggplant, also known as aubergine, garden egg, guinea squash, melongene, and brinjal, is usually distinguishable by its signature egg-like shape and vibrant purple color.

The potential health benefits of eggplant include supporting heart health, maintaining weight and blood cholesterol levels, and anti-cancer effects.

Read more about eggplant.

### Flaxseed

Flaxseed is not only "an excellent source of two fatty acids that are essential for human health - linoleic acid and alpha-linolenic acid," but also "an excellent source of fiber and a good source of minerals and vitamins," according to the American Nutrition Association.

The potential health benefits associated with flaxseed include: lowering cholesterol, protecting against cancer, preventing hot flashes, and improving blood sugar levels.

Read more about flaxseed.

### Garlic

Garlic is widely used for several conditions linked to the blood system and heart.

Studies have found that garlic can potentially be a very powerful antibiotic, help protect the heart during cardiac surgery and after a heart attack, lower the risk of developing lung cancer, and reduce high cholesterol and blood pressure levels.

Read more about garlic.

### Ginger

Ginger contains a chemical that is used as an ingredient in antacid, laxative, and anti-gas medications.

Studies have found that ginger can potentially prevent inflammation of the colon, reduce exercise-induced muscle pain, help alleviate nausea caused by chemotherapy, and reduce the severity of period pains.

[Read more about ginger.](#)

## Grapes

The portability, texture, flavor, and variety of grapes have made them a popular finger food in countries all over the world.

Studies have associated grapes with the prevention of cancer, heart disease, high blood pressure, and constipation as well as decreasing the risk of obesity and overall mortality.

[Read more about grapes.](#)

## Grapefruit

Grapefruits are low in calories but full of nutrients. They support clear, healthy skin, help to lower the risk of many diseases and conditions and may even help with weight loss as part of an overall healthy and varied diet.

The potential health benefits of grapefruit include boosting weight loss, maintaining healthy blood pressure and heart health, and combating free radicals.

[Read more about grapefruit.](#)

## Green Tea

Green tea may well be one of the world's healthiest drinks and contains the highest amount of antioxidants of any tea.

Studies have found that drinking green tea is associated with a reduced risk of stroke, and may help fight prostate cancer.

[Read more about green tea.](#)

## Honey

Honey possesses antiseptic and antibacterial properties.

Studies have found that honey can potentially help prevent GERD [Trusted Source](#) (gastroesophageal reflux), shorten the duration of bacterial diarrhea [Trusted Source](#), help heal burns, minimize seasonal allergies, and fight off infections.

[Read more about honey.](#)

## Kale

Kale is a great source of vitamin K, vitamin A, beta-carotene, calcium, and vitamin C.

The potential health benefits of kale include: reducing the risk of certain cancers, lowering the risk of coronary artery disease, and lowering levels of bad cholesterol.

[Read more about kale.](#)

## Kiwifruit

Kiwis are a nutrient dense food, meaning they are high in nutrients and low in calories. The kiwifruit is higher in vitamin C per ounce than most other fruits.

The potential health benefits of eating kiwis include: maintaining healthy skin tone and texture, reducing blood pressure, and preventing heart disease and stroke.

Read more about kiwifruit.

## Mango

The mango is a member of the drupe family, a type of plant food in which an outer fleshy part surrounds a shell (what we sometimes call a pit) with a seed inside. Olives, dates, and coconuts are also types of drupes.

Many studies have suggested that increasing consumption of plant foods like mangoes decreases the risk of obesity and overall mortality, diabetes, heart disease, and promotes a healthy complexion and hair, increased energy, overall lower weight.

Read more about mango.

## Milk

Dairy products, like milk, are a great dietary source of calcium. Calcium has many functions in the body, but its primary job is the development and maintenance of healthy bones and teeth.

Calcium is also important for blood-clotting and wound-healing, maintaining normal blood pressure, and muscle contractions, including heartbeat.

Milk also provides magnesium, phosphorus, vitamin A, riboflavin, vitamins B-6 and B-12.

The potential health benefits of milk include: maintaining bone, blood pressure, and heart health, and providing an increase in vitamin D. Deficiency in vitamin D has been associated with depression, chronic fatigue, and PMS.

Read more about milk.

## Milk alternatives

There are many reasons you might search for an alternative for dairy, the most common being allergies and lactose intolerance.

Some people choose to not consume dairy to follow a vegan diet, which avoids any foods that come from an animal, including milk, cheese, eggs, and honey.

Others may cut dairy out of their diet to avoid hormones and antibiotics in conventional milk, as an acne treatment, or when following the popular "Paleo" diet.

Soy isoflavones have been shown to be beneficial in preventing heart disease, and at least 10 milligrams per day can decrease breast cancer recurrence by 25 percent. Increased soy consumption may be beneficial for menopausal women.

Read more about alternatives to milk.

## Mint

Mint, also known as mentha, is actually a genus of around 15-20 types of plants including peppermint and spearmint. Mint oil is often used in toothpaste, gum, candy, and beauty products while the leaves are used either fresh or dried for teas and food.

Mint has one of the highest antioxidant capacities of any food. Mint has possible positive effects on allergies, common cold, indigestion, irritable bowel syndrome (IBS), and skin.

Read more about mint.

## Mushrooms

Mushrooms, though classified as vegetables in the food world, are not technically plants. They belong to the fungi kingdom and provide several important nutrients.

The potential health benefits of mushrooms include helping to inhibit the growth of cancer cells, regulating blood pressure, and improving immune responses to infection.

Read more about mushrooms.

## Oats

Oats contain high levels of a type of fiber known as beta-glucan. Beta-glucan is known to help lower levels of bad cholesterol.

The potential health benefits of oats include: reducing the risk of coronary artery disease, lowering the risk of colorectal cancer, and lowering blood pressure.

Read more about oats.

## Oily fish

Oily fish, such as salmon or mackerel, is an excellent source of omega-3 oils and lean protein.

Potential health benefits of eating oily fish include: preventing cardiovascular disease, reducing the risk of rheumatoid arthritis, boosting infant sensory, cognitive, and motor development, improving memory Trusted Source, protecting vision, and preventing oral and skin cancers.

Read more about oily fish.

## Olive oil

People who regularly consume olive oil are at a lower risk of developing cardiovascular diseases, including hypertension (high blood pressure), stroke, and hyperlipidemia (high blood cholesterol and triglyceride levels).

In addition, olive oil intake may help treat inflammation, endothelial dysfunction (problems with the inner linings of blood vessels), thrombosis and carbohydrate metabolism.

Read more about olive oil.

## Onions

Onions can vary in size, shape, color, and flavor. The most common types are red, yellow, and white onion.

Flavors can vary from sweet and juicy with a mild flavor to sharp, spicy, and pungent, often depending on the season in which they are grown and consumed. An estimated 105 billion pounds of onions are harvested each year worldwide.

The possible health benefits of consuming onions include lowering the risk of several types of cancer, improving mood, and maintaining the health of skin and hair

[Read more about onions.](#)

## Oranges

An orange has over 170 different phytochemicals and more than 60 flavonoids, many of which have been shown to have anti-inflammatory properties and strong antioxidant effects.

Oranges also contain thiamin, riboflavin, niacin, vitamin B-6, folate, pantothenic acid, phosphorus, magnesium, manganese, selenium, and copper. Because of their high vitamin C content (over twice the daily need), oranges are associated with boosting the immune system.

[Read more about oranges.](#)

## Oregano

Oregano is a rich source of vitamin K and dietary antioxidants.

Studies have found that oregano has antimicrobial activity, anti-inflammatory properties, and components in oregano may help slow down or prevent the progression of disease in patients with breast cancer [Trusted Source](#).

[Read more about oregano.](#)

## Papaya

Papayas grow in tropical climates and are also known as papaws or pawpaws.

The possible health benefits of consuming papaya include a reduced risk of heart disease, diabetes, cancer, aiding in digestion, improving blood glucose control in people with diabetes, lowering blood pressure, and improving wound healing.

[Read more about papaya.](#)

## Peaches

Peaches are a characteristically fuzzy fruit native to northwest China. They are a member of the stone fruit family, meaning that they have one large middle seed, along with cherries, apricots, plums, and nectarines.

One medium peach contains 2 percent or more daily value of vitamins E and K, niacin, folate, iron, choline, potassium, magnesium, phosphorus, manganese, zinc, and copper. They have been shown to ward off obesity-related diseases, such as diabetes, metabolic syndrome, and cardiovascular disease.

Read more about peaches.

### Peppermint

Peppermint is used as a traditional or folk remedy for several conditions and illnesses because of its calming effects.

The potential health benefits of peppermint include: treating the symptoms of irritable bowel syndrome (IBS), calming skin irritation and itchiness, and preventing the onset of headaches and associated symptoms.

Read more about peppermint.

### Pineapple

Pineapple is a source of important vitamins and minerals such as thiamin, riboflavin, vitamin B-6, folate, pantothenic acid, magnesium, manganese, and potassium. It also contains antioxidants and polyphenols, such as beta-carotene.

Fresh pineapple is the only known source of an enzyme called bromelain, which may help reduce joint pain and the symptoms of arthritis, reduce inflammation, inhibit tumor growth, and shorten recovery time following plastic surgery.

Read more about pineapple.

### Potatoes

Along with the tomato and eggplant, the potato plant belongs to the nightshade family, of which some species are truly poisonous. Today, potatoes are one of the cheapest universal crops to produce and are available year-round.

The health benefits of consuming potatoes include maintaining bone structure, supporting heart health, reducing chronic inflammation, and preventing constipation.

Read more about potatoes.

### Pumpkin

Pumpkin is an extremely nutrient dense food, meaning it is chock-full of vitamins and minerals but low in calories. There are many creative ways pumpkin can be incorporated into your diet, including The potential health benefits of pumpkin including supporting heart health, eye health, promoting fertility, and giving immunity a boost.

Read more about pumpkin.

### Quinoa

Nutritionally, quinoa is considered a whole grain. Whole grains include the entire intact grain seed without removing any of its parts.

In contrast, when grains are milled or refined like white breads, white rice, and white pasta, they have been processed to create a finer, lighter texture, and are not as nutrient dense. Quinoa is also a great source of protein.

Consuming 2-3 servings of whole grain foods per day can reduce the risk of cardiovascular disease, type 2 diabetes, high blood pressure, colon cancer, and obesity. Many studies have shown that as whole grain intake increases, the risk for all five of these lifestyle-related conditions decreases.

[Read more about quinoa.](#)

### Rosemary

Rosemary is a rich source of antioxidants and anti-inflammatory compounds.

Studies have found that rosemary may potentially help treat indigestion, enhance memory and concentration, provide neurological protection<sup>Trusted Source</sup>, and provide protection against macular degeneration.

[Read more about rosemary.](#)

### Sage

Sage is rich in antioxidants (apigenin, diosmetin, and luteolin) and important nutrients, such as vitamin K.

Studies have found that sage may potentially improve memory and information processing among people who have mild Alzheimer's disease and help lower cholesterol and triglyceride levels in patients with type 2 diabetes.

[Read more about sage.](#)

### Spearmint

Spearmint contains high amounts of vitamins, antioxidants, and other vital nutrients.

Studies have found that spearmint may potentially have antioxidant and antifungal properties, reduce symptoms of nausea and other digestive problems, and treat hirsutism (abnormal hair growth).

[Read more about spearmint.](#)

### Spinach

Spinach is one of the best sources of dietary magnesium and calcium.

The potential health benefits of spinach include: helping manage diabetes, helping preventing cancer, reducing the risk of asthma, lowering the risk of blood pressure, and improving bone health.

Read more about spinach.

### Strawberries

Strawberries are one of the most popular, refreshing, and healthy treats on the planet; they contain many vitamins and antioxidants that can be beneficial for your health.

The potential health benefits of strawberries include: reducing the risk of heart disease, stroke, cancer, blood pressure, constipation, allergies, diabetes, and depression.

Read more about strawberries.

### Sweet potatoes

Sweet potatoes pack a powerful nutritional punch. They have over 400 percent of your daily needs for vitamin A in one medium potato, plus high levels of fiber and potassium.

The potential health benefits of sweet potatoes include a protective role against prostate cancer, promoting fertility, boosting immunity, and supporting vision.

Read more about sweet potatoes.

### Thyme

Thyme preparations may be more effective than acne prescription creams, according to scientists at Leeds Metropolitan University in England.

Studies have found that thyme may potentially protect against hypertension, help fight off foodborne bacterial infections, and induce cell death in breast cancer cells.

### Tofu

Tofu, made from soybean curds, is naturally gluten-free and low calorie, contains no cholesterol, and is an excellent source of protein, iron, and calcium.

The isoflavones (a type of compound called phytoestrogens) in soy foods have been linked to a decreased risk for osteoporosis, while the calcium and magnesium in soy may help to lessen PMS symptoms, regulate blood sugar, and prevent migraine headaches.

Read more about tofu.

## Tomatoes

The tomato has been referred to as a "functional food," a food that goes beyond providing just basic nutrition, additionally preventing chronic disease and delivering other health benefits, due to beneficial phytochemicals such as lycopene.

Tomatoes are a rich source of vitamins A and C and folic acid. Tomatoes contain a wide array of beneficial nutrients and antioxidants, including alpha-lipoic acid, lycopene, choline, folic acid, beta-carotene, and lutein.

The benefits of consuming fruits and vegetables of all kinds, including tomatoes, are infinite. As plant food consumption goes up, the risk of heart disease, diabetes, and cancer goes down.

Read more about tomatoes.

## Watermelon

Watermelon contains thiamin, riboflavin, niacin, vitamin B-6, folate, pantothenic acid, magnesium, phosphorus, potassium, zinc, copper, manganese, selenium, choline, lycopene, and betaine. Watermelon is a good source of lycopene.

The possible health benefits of watermelon include asthma prevention, reduction of high blood pressure, regulation of digestion, inflammation reduction, and promotes healthy hair and skin. Watermelon is also one of the best sources lycopene.

## Calories

How many calories should I eat a day? (Medical News Today: 201901107)

<https://www.medicalnewstoday.com/articles/245588.php#diets>

When most of us think of calories, we think of how fattening a food is. In dietary terms, calories are the amount of energy that a food provides.

If we consistently take in more energy than we need, we will gain weight. If we take in too little energy, we will lose weight, fat, and eventually muscle mass.

The definition of a calorie is the amount of energy needed to raise the temperature of 1 gram (g) of water through 1° Celsius.

The type and amount of food we eat determine how many calories we consume. For many people on a weight-loss diet, the number of calories in a food is a deciding factor in choosing whether or not to eat it.

How and when we eat can also make a difference, as the body uses energy differently throughout the day. Our body's energy use will depend on how active we are, how efficiently our body uses the energy, and our age.

According to the 2015-2020 Dietary Guidelines for Americans, women are likely to need between 1,600 and 2,400 calories <sup>Trusted Source</sup> a day, and men from 2,000 to 3,000. However, this depends on their age, size, height, lifestyle, overall health, and activity level.

Fast facts on calorie intake and use

Recommended calorie intake depends on factors such as age, size, height, sex, lifestyle, and overall general health.

Recommended daily calorie intakes in the US are around 2,500 for men and 2,000 for women.

Eating a big breakfast could help with weight reduction and maintenance.

The brain uses around 20 percent of the energy used in the human body.

Factors affecting ideal calorific intake include age, bone density, and muscle-fat ratio.

A 500-calorie meal consisting of fruits and vegetables has more health benefits and will keep you feeling full for longer than a 500-calorie snack of pop

Recommended intake

Checking the calories is one aspect of following a healthful diet.

The 2015-2020 Dietary Guidelines for Americans recommend a calorie intake that ranges from <sup>Trusted Source</sup> 1,000 calories a day for an infant of 2 years to 3,200 for an active male aged 16 to 18 years.

As people get older, their metabolic rate slows down.

This reduces their need for energy. From age 19 to 25 years, the recommended intake for women is 2,000 calories a day, but after 51 years, this falls to 1,600.

Burning calories

For the human body to remain alive, it needs energy.

Around 20 percent of the energy we take in is used for brain metabolism. Most of the rest is used in basal metabolism, the energy we need when in a resting state, for functions such as blood circulation, digestion, and breathing.

In a cold environment, we need more energy to maintain a constant body temperature, as our metabolism increases to produce more heat. In a warm environment, we need less energy.

We also need mechanical energy for our skeletal muscles, to maintain posture and move around.

Cellular respiration is the metabolic process by which cells get energy by reacting oxygen with glucose to produce carbon dioxide, water, and energy.

How efficiently energy from respiration converts into physical—or mechanical— power depends on the type of food eaten, the type of physical energy, and whether muscles are used aerobically or anaerobically.

In other words, we need calories to fuel bodily functions, such as breathing and thinking, to maintain our posture, and to move around

### Tip

Here are some tips for burning energy and losing weight more effectively.

Counting calories is not just a matter of what we eat, but how much we burn, too.

1. Eat breakfast: A protein and healthy fat breakfast can keep you full for longer and help prevent snacking during the day.
2. Eat regular meals: This can help you burn calories more effectively and helps prevent mindless snacking.
3. Remember your "five-a-day:" Fruits and vegetables can be a tasty snack and they can bulk out your meals. They are high in nutrients and fiber and low in calories and fat.
4. Eat slow-burning calories: High-fiber carbohydrates, such as legumes, and healthy fats, such as avocado, take longer to release energy, so you will not get hungry as quickly.
5. Exercise: This can help burn off extra calories, and it can make you feel good. A brisk daily walk is easy for most people to do and costs nothing. Challenge yourself with a pedometer. For people who use a wheelchair, there are exercises that can boost heart health and strength.
6. Drink water: It is healthful, has no calories, and can fill you up. Avoid alcohol and sodas as these can easily provide far too many calories. If you crave sweet drinks, choose unsweetened fruit juices, or better still, get a juice maker.
7. Eat more fiber: Fiber, found in fruits, vegetables, and wholegrains, can help you feel full and encourage healthy digestion.
8. Check the label: Some items have hidden fats or sugars. "Ten percent less fat," might not actually mean very much less fat, and it does not necessarily mean that you can eat more of it or that it is really more healthful. If you are counting calories, the label will help you keep track.
9. Use smaller plates: Research indicates that portion sizes have increased<sup>Trusted Source</sup> over the last 3 decades, and this may contribute to obesity. Using a smaller plate encourages smaller<sup>Trusted Source</sup> portions.
10. Slow down: Eat slowly and rest between courses or extra servings, as it can take 20 to 30 minutes for your body to realize it feels full.

11. Make a shopping list: Plan a week of healthful meals and snacks, list the ingredients you need, and when you go grocery shopping, stick to it.

12. A little of what you fancy: Banning foods can lead to cravings and bingeing. Spoil yourself occasionally with a favorite treat, but in smaller amounts.

13. Get enough sleep: Sleep loss affects the metabolism, and it has been linked to weight gain.

14. Avoid eating 2 hours before bed: Eating within 2 hours of sleeping can interfere with sleep quality and promote weight gain.

### Activities

Here are some examples of activities and the calories they can help you burn in 30 minutes. The estimates are for a person weighing 125 pounds.

Activity	Calories burned
Lifting weights	90
Aqua aerobics	120
Walking at 4.5 miles an hour	150
General swimming	180
Running at 6 miles an hour	300
Computer work	41
Sleeping	19

### Food choice

Keeping calorie intake within certain limits will not ensure a healthful diet, as different foods have different effects on the body.

After consuming carbohydrates (carbs), insulin levels will rise significantly more compared with eating fats or protein. Some carbs in particular get into the bloodstream in the form of sugar, or glucose, much faster than others.

Refined flour is a fast carb, while legumes are slower. Slow-release carbs are better for body weight control and overall health than fast carbs.

A 500-calorie meal of fish or meat, salad, and some olive oil, followed by fruit, is more healthful and will stave off hunger for longer than a 500-calorie snack of popcorn with butter or toffee.

### Daily needs

To work out how many calories you need, you need to know your basal metabolic rate and an activity factor.

### Basal metabolic rate

One useful way of estimating BMR is the Mifflin-St. Jeor equation:

Men:  $10 \times \text{weight (kg)} + 6.25 \times \text{height (cm)} - 5 \times \text{age (y)} + 5$

Women:  $10 \times \text{weight (kg)} + 6.25 \times \text{height (cm)} - 5 \times \text{age (y)} - 161$

To calculate your BMR automatically, follow this link and enter your details into the calculator.

Activity factor

After calculating the BMR, multiply the result with an activity factor:

Sedentary lifestyle: If you do very little or no exercise at all, your daily calorie requirement is  $\text{BMR} \times 1.2$ .

Slightly active lifestyle: If you do light exercise between one and three times a week, your daily calorie requirement is  $\text{BMR} \times 1.375$ .

Moderately active lifestyle: If you do moderate exercise three to five times a week, your daily calorie requirement is  $\text{BMR} \times 1.55$ .

Active lifestyle: If you do intensive exercise six to seven times per week, your daily calorie requirement is  $\text{BMR} \times 1.725$ .

Very active lifestyle: If you do very intensive exercise twice a day, with extra heavy workouts, your daily calorie requirement is  $\text{BMR} \times 1.9$ .

This will give a rough idea of the daily calorie intake you need to keep your body weight where it is.

The result is still not perfect, as the equation does not take into account the ratio of muscle to fat. A very muscular person needs more calories, even when resting.

Ideal body weight

As with calories requirements, an ideal body weight depends on several factors, including age, sex, bone density, muscle-fat ratio, and height.

There are different ways of assessing an ideal weight.

Body mass index (BMI)

Body mass index (BMI) is one way of working out what a person should weigh. If you know your height and weight, you can use this calculator [Trusted Source](#) to find out your BMI.

#### BMI Definition

Below 18.5	Underweight
18.5 to 24.9	Normal weight
25-29.9	Overweight
30 or above	Obesity

However, it does not take into account muscle mass.

Imagine a top athlete who weighs 200 pounds, or 91 kilograms (kg) and is 6 feet, or 1 metre (m) and 83 centimeters (cm) tall. They may have the same BMI as an inactive person of the same height. The athlete is not overweight, but the inactive person quite possibly is.

#### Waist-hip ratio

Researchers have found that many people whose waist circumference is less than half their height have a longer life expectancy.

People with a smaller waist to height size have been found to have a lower risk of diabetes, cardiovascular disease, stroke, and other health conditions that are related to obesity.

An adult male who is 6 feet (183 cm) tall should have a waist that does not exceed 36 inches (91 cm).

An adult female who is 5 feet 4 inches (163 cm) tall should have a waist that does not exceed 32 inches (81 cm).

To measure the waist, measure half-way between the lower rib and the pelvic bone at the hip.

This measurement may be more accurate than BMI at determining a healthy weight. However, it is limited as it does not properly measure an individual's total body fat percentage, or muscle-to-fat ratio.

#### Diets

A wide range of diets claim to help people lose or maintain their body weight.

Check the nutrition label to make sure your food provides the right number of calories and other nutrients.

Some of these are safe and effective and help people lose weight and keep it off in the long term. Others are hard to adhere to, or when the person stops following the diet they put weight back on quickly.

To find out more, see our article on the "Eight Most Popular Diets."

The rankings for these diets were based on how many articles mentioned them favorably, how popular they were generally and which ones received the most positive feedback.

More important than counting calories is to eat a healthful and well-balanced diet that you can sustain long-term, for longer than 6 months. Equally important is to be physically active and to balance the calories consumed with the energy used each day.

## **Air pollution**

### **Clearing the air: On Delhi's air pollution (The Hindu: 201901107)**

<https://www.thehindu.com/opinion/editorial/clearing-the-air-on-delhis-air-pollution/article29881803.ece>

Tackling Delhi's pollution needs tough, unpopular measures well ahead of winter

Delhi is once again in the grip of its annual, winter pollution crisis. The city's tryst with air pollution crises isn't new. The rising prominence of particulate matter (PM) from various sources has long been a public health scourge. What differentiates the prevalent PM crisis from earlier ones is the public's ability to monitor pollution levels for themselves. The measurement of pollution, which used to be the domain of weather agencies or pollution control boards, can now be done with consumer appliances. However, increased public awareness and social media angst haven't translated into meaningful public action. The Graded Response Action Plan (GRAP) in Delhi, which provides for a ratcheting slew of measures — from stopping construction work to halting private vehicles — isn't effective when air quality reaches its nadir. It recommends action only after pollutants soar. A Task Force — which comprises top officials of Delhi and the Centre — advises the Environmental Pollution Control Authority, which is in charge of enforcing the GRAP. Rarely does it recommend tough pre-emptive action and when it does, there's no real pressure on municipal bodies and police to ensure that polluters are punished.

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## **Pollutants, their impact on health'**

### **No study in India to find link between pollutants, their impact on health' (The Indian Express: 201901107)**

<https://indianexpress.com/article/cities/delhi/no-study-in-india-to-find-link-between-pollutants-their-impact-on-health-6106937/>

Dr Arun Sharma, director, department of community medicine at DU's University College of Medical Sciences, said there have been air pollution studies in western nations but a micro-environment study in India has not been done.

For Guru Nanak Jaanti, govt may lift odd-even for 2 days

A farmer knows about the pollution crisis. But we also need to know his problems

SC raps Delhi, Punjab govts on pollution: 'Want to rule from ivory tower and leave people to die'

Delhi pollution: Protesters at India Gate demand government action

Protesters at India Gate demand government action. (Express photo)

Scientific evidence on the status of human health in air pollution hotspots does not exist, which needs to be studied to understand the impact of sustained pollution exposure, a Delhi University professor said Wednesday.

Dr Arun Sharma, director, department of community medicine at DU's University College of Medical Sciences, said there have been air pollution studies in western nations but a micro-environment study in India has not been done. "A sustained exposure to such high levels, is it really damaging or do we have a really good immune system that plateauing occurs; (or) after 150, whatever bombardment with PM 2.5 takes place is not going to affect anyway. We don't know," he said at a panel discussion Wednesday on steps to manage air quality in Delhi-NCR.

He added, "We have not yet conducted community-based studies in a longitudinal cohort-based method, where we can find the relationship between high level of pollutants and its impact on human health."

The 24-hour average safe standard of PM 2.5 and PM 10 – particulate matter of 2.5 and 10 micrometres suspended in air, that can enter the bloodstream through respiration causing health problems — is 60 and 100. On Sunday, in Delhi-NCR, PM 2.5 had touched a peak of 560 and PM 10 touched 665.9.

## New Alzheimer's drug

### Chasing the cure(The Indian Express: 201901107)

<https://indianexpress.com/article/opinion/editorials/alzheimers-disease-cure-medicine-drug-china-6106785/>

New Alzheimer's drug offers hope for treating a difficult disease. It must be backed by more substantive trials.



The new drug, Oligomannate, a sugar derived from a Chinese seaweed, works by modifying gut bacteria to reduce inflammation in the brain.

For nearly two decades, doctors treating Alzheimer's patients have been frustrated by the lack of advance in medical research. The most advanced drug that is used to treat the disease was developed in 2003. Now news from China has provided a ray of hope for curing a disease that has been one of the biggest headaches for healthcare systems globally since it was first identified in 1906 by the German physician, Alois Alzheimer. On Monday, the Chinese drug regulator approved a medicine that improves cognitive functions in patients with mild to moderate levels of the disease. This is a significant breakthrough because drugs currently in use treat the neuro-degenerative disorder symptomatically at best, leaving doctors almost helpless about elderly patients who may forget familiar facts and, at times, even the faces of family members.

The new drug, Oligomannate, a sugar derived from a Chinese seaweed, works by modifying gut bacteria to reduce inflammation in the brain. Green Valley, the Chinese biotech company that has developed the drug, claims that a clinical trial on 818 people “demonstrated solid and consistent cognition improvement among those treated versus a control group”. The method adopted by the Chinese researchers is a departure from Alzheimer’s drug development that has focussed on attacking the plaque that forms in the brains of patients; this protein build-up interferes with neural signaling. Last year, pharma major El Lilly threw in the towel during the final stages of trials of a drug that targets the plaque accumulation in brain cells, leading researchers to think of alternate disease pathways — the microbiome, for instance.

There is, however, good reason for tempering the optimism around the new drug. In China, the regulatory agency has asked Green Valley to conduct more research on Oligomannate’s safety — it has, however, allowed the company to market the drug by the last week of December. The complete data on how exactly the cognitive function improved for patients on the drug versus those on placebo — and how meaningful that was in the patients’ lives — is still not known outside select circles in China. Moreover, Oligomannate must be tested on diverse groups of people to be affirmed as a panacea for Alzheimer’s globally. And, these trials need to include many more than 818 individuals. Once knowledge on the mode of action of the Chinese seaweed spreads among medical researchers worldwide, more potent compounds could be developed to target Alzheimer’s — and mitigate a difficult challenge to the health and dignity of at least 50 million elderly people.

### **Air quality (Hindustan Times: 201901107)**

<https://epaper.hindustantimes.com/Home/ArticleView>

Air quality may improve further; light rain, stronger winds to help breathe easy Better wind speed and clear skies helped Delhiites breathe cleaner air on Wednesday as the AQI improved from ‘very poor’ to ‘poor’; IMD scientists say increase in temperature also helped





A view of India Gate and Akshardham Mandir on a clearer day on Wednesday. The buildings in the national capital remained enveloped in a thick haze for the past one week as air quality had deteriorated post-Diwali. Amal KS and raj k raj/HT PHOTOS

New Delhi : Strong winds and clear skies helped Delhiites breathe easy on Wednesday, as the air quality finally improved to enter ‘poor’ category on the air quality index after remaining in the ‘severe’ and ‘emergency’ zone for nearly a week. Scientists at the India Meteorological Department (IMD) have forecast that the air will further improve in the coming days.

The AQI for Delhi has improved from 407 on Monday to 324 on Tuesday and 214 on Wednesday, as per CPCB data.

“At 2 pm today, PM 2.5 – 39, PM 10 – 96. I am glad pollution is coming down. We have to keep up our efforts so that coming days do not see any spike. Grateful to everyone whoever made efforts to reduce it, (sic)” Delhi chief minister Arvind Kejriwal tweeted on Wednesday.

IMD scientists said higher wind speed helped clear pollutants, adding that air quality in the national capital is expected to improve further in the coming days. “The average wind speed throughout the day was 12kmph, which helped blow away the pollutants. The sky was also clear today (Wednesday) and there was good sunlight. The increase in temperature also helped improve the air quality,” said Kuldeep Srivastava, head of the IMD’s regional weather forecasting centre.

Another scientist from IMD, who did not wish to be named, said that the situation is likely to improve further from Thursday. He said the air quality is likely to remain in the ‘moderate’ range till Sunday. AQI in the range of 0-50 is considered ‘good’, 51-100 ‘satisfactory’, 101-200 ‘moderate’, 201-300 ‘poor’, 301-400 ‘very poor’ and 401-500 ‘severe’.

“Tomorrow (Thursday) there is a forecast of strong winds, so there will be some more improvement in the air quality. The direction of the winds on Wednesday was also easterly, which means that the residue from stubble burning in Punjab and Haryana did not affect Delhi,” the senior IMD scientist said.

He added that even though shallow fog expected on Thursday morning, it will not play a major role in trapping pollutants as the winds will be strong and consistent through the day. There is also a possibility of light rain in some parts of the city, which will also bring relief.

At 9 pm on Wednesday, the average AQI at several monitoring stations including at ITO, Mandir Marg, RK Puram, Lodi Road and Patparganj was in the ‘moderate’ zone.

In fact, the PM 2.5 (fine particulate matter with a diameter less than 2.5 micrometres) levels showed a downward curve till 11am and increased marginally to reach 110ug/m<sup>3</sup> at 7pm. Data by System of Air Quality and Weather Forecasting and Research (SAFAR), ministry of earth science’s weather and air quality monitoring centre, also showed that on Wednesday, stubble burning from neighbouring states contributed to only 3% of Delhi’s PM 2.5 levels.

Delhi has been experiencing the worst air days since Diwali on October 27, when the AQI levels nosedived to reach 337. The situation progressively became worse since then and on October 30, Delhi recorded its first ‘severe’ air day.

On Friday, a public health emergency was declared in the city. Measures such as the closure of schools and a blanket ban on construction activities had to be imposed.

**Medical Device (Navbharat Times: 201901107)**

<http://epaper.navbharattimes.com/details/72943-58110-1.html>

# मेडिकल डिवाइसेज के लिए अलग रेगुलेटर क्यों चाहता है नीति आयोग?



■ विक्रान्त सिंह (ईंटी)

केंद्र के थिंक टैंक नीति आयोग ने दवाओं की तरह मेडिकल उपकरणों के लिए भी एक अलग रेगुलेटर बनाने का प्रस्ताव दिया है। आयोग इससे जुड़े एक ड्राफ्ट बिल पर भी काम कर रहा है। आयोग ने हेल्थ मिनिस्ट्री के उस ड्राफ्ट नोटिफिकेशन को खारिज भी कर दिया है, जिसमें सभी मेडिकल उपकरणों को दवा मानकर उन्हें सेंट्रल ड्रग्स स्टैंडर्ड कंट्रोल ऑर्गनाइजेशन यानी CDSCO के रेगुलेशन में लाने की बात कही गई थी। आयोग का कहना है कि CDSCO मूल रूप से दवाओं का रेगुलेटर है और उसके पास उपकरणों की जांच की क्षमता नहीं है।

## मिनिस्ट्री का प्रपोजल

हेल्थ मिनिस्ट्री ने 18 अक्टूबर को एक ड्राफ्ट नोटिफिकेशन जारी किया था। नोटिफिकेशन में देश में बिकने वाले सभी मेडिकल डिवाइसेज को 7 चरणों में रेगुलेशन में लाने के बात कही गई थी। नोटिफिकेशन के मुताबिक, 1 दिसंबर 2019 से इंसानों और जानवरों

जाएगा। हालांकि इस नोटिफिकेशन को लेकर हेल्थ इंडस्ट्री की अपनी चिंताएं हैं।

## इंडस्ट्री की टेंशन

इंडस्ट्री का कहना है कि उपकरण और दवा अलग-अलग चीज हैं। डिवाइसेज इंजिनियरिंग से जुड़ी चीजें हैं। ऐसे में इन्हें दवा मानकर रेगुलेट करने का तब तक कोई तुक नहीं बनता, जब तक मिनिस्ट्री यह आश्वासन न दे कि यह डिवाइसेज से जुड़ा एक अलग कानून बनने तक अस्थायी उपाय है। इंडस्ट्री ने उपकरणों के तहत छोटी से छोटी चीजों के रेगुलेशन पर भी दोबारा विचार करने की जरूरत जताई है। आयोग का कहना है कि उपकरण और दवाओं को अलग-अलग करके देखना चाहिए। उसने कहा है कि स्टेट्स और इंप्लांट जैसे लोगों के स्वास्थ्य पर असर डालने वाले उपकरणों को रेगुलेट करने की निश्चित ही जरूरत है। मुख्य लक्ष्य उपकरणों को किफायती बनाने, क्वालिटी बरकरार रखने और इंडस्ट्री और मार्केट को डिस्टर्ब नहीं करने का होना चाहिए।

## उद्योग का हाल

**Medicine (Navbharat Times: 201901107)**

<http://epaper.navbharattimes.com/details/72949-58525-1.html>

## जरूरी दवाओं की लिस्ट में शामिल हो सकती हैं कैंसर, शुगर की दवाएं

■ विस, नई दिल्ली :

सरकार ने जरूरी दवाओं की राष्ट्रीय लिस्ट में बदलाव करने का फैसला

किया है। सूत्रों का कहना है कि नई लिस्ट में कैंसर, डायबिटीज और दिल के रोगों की नई दवाओं को शामिल किया जा सकता है। इसका फायदा यह होगा कि ये दवाएं सरकारी अस्पतालों में प्री में मिल सकेंगी

**आज की बात  
कल के लिए**

और इनके दामों पर ड्रग प्राइस कंट्रोल ऑर्डर के तहत लगाम लगाई जा सकेगी।

2015 में तैयार लिस्ट में 376 दवाओं को शामिल किया गया था। बाद में इसमें शुगर और कैंसर की कुछ दवाओं के साथ दिल की धमनियों में लगने वाले स्टेट्स और नी इंप्लांट्स को भी शामिल किया गया था।

**Environmental Health (Navbharat Times: 201901107)**

<http://epaper.navbharattimes.com/details/72949-58528-1.html>

# वैज्ञानिक बोले, आ रही क्लाइमेट इमरजेंसी

11 हजार एक्सपर्ट ने चेताया, पूरी दुनिया पर पड़ेगा इसका असर

■ नई दिल्ली : आज से 40 साल पहले जिनेवा में दुनिया की पहली क्लाइमेट कॉन्फ्रेंस में वैज्ञानिकों का एक छोटा-सा ग्रुप जुटा था। उन्होंने पर्यावरण में आ रहे बदलावों को लेकर अपनी चिंता जताई थी। आज करीब 11 हजार वैज्ञानिकों ने क्लाइमेट चेंज पर अपनी चिंता जाहिर की है। उनका कहना है कि इससे निपटने के लिए हमें जल्द ही एक एक्शन प्लान तैयार करना होगा। विभिन्न क्षेत्रों से जुड़े इन वैज्ञानिकों का मानना है कि क्लाइमेट चेंज का असर हमारी दुनिया के हर हिस्से पर पड़ेगा।

वैज्ञानिकों का कहना है कि अगर आप मानते हैं कि पिछले 40 सालों में कुछ नहीं बदला है तो आप सही हो सकते हैं। दुनिया में ग्रीन हाउस गैसों का उत्सर्जन लगातार बढ़ रहा है। हम सभी का ध्यान सिर्फ धरती के बढ़ते तापमान पर लगा है लेकिन क्लाइमेट चेंज का असर इससे कहीं ज्यादा है। वैज्ञानिकों ने अपनी रिसर्च में मानवीय गतिविधियों के पर्यावरण पर पड़ने वाले असर का बारीकी से अध्ययन किया है। उन्होंने जनसंख्या लगातार बढ़ने, जंगल कटने, ग्लेशियरों के पिघलने, मौसम में लगातार हो रहे बदलावों के परिणामों पर ध्यान दिया।



## अभी ज्यादा देर नहीं हुई है

वैज्ञानिकों ने कहा कि दुनियाभर की सरकारें छह बड़े कदम उठाएं तो यह बदलाव रुक सकता है:

- जीवाश्म ईंधन का कम प्रयोग करें, नवीकरणीय ऊर्जा पर जोर दें
- मीथेन जैसे प्रदूषकों के उत्सर्जन में कमी लाएं
- धरती के ईको सिस्टम को काबू में और साफ रखकर उसे बचाने की कोशिश करें।
- मानव कल्याण के लिए बढ़ती जनसंख्या पर काबू किया जाए।
- इकोनॉमी बढ़ाने और संसाधनों के दोहन के गलत तरीके छोड़ने होंगे।
- मांसाहारी भोजन को कम करें।

## क्लाइमेट की क्लास

### क्या है फॉसिल फ्यूल

करोड़ों सालों पहले पृथ्वी पर बहुत उथल-पुथल हुई। कई पेड़-पौधे, जानवर पृथ्वी की सतह में समा गए। करोड़ों सालों तक इनके जीवाश्म या अवशेष धरती के अंदर गर्मी और दबाव झेलते रहे। इस कारण इन जैव पदार्थों में कई कैमिकल बदलाव हुए और ये कोयले, पेट्रोलियम और गैस में बदल गए। इन्हें ही फॉसिल फ्यूल या फिर जीवाश्म ईंधन कहा जाता है। इनके इस्तेमाल से ग्रीनहाउस गैसों पैदा होती हैं जो ग्लोबल वॉर्मिंग की जिम्मेदार हैं। हमें इनका कम इस्तेमाल करना चाहिए।

**Ayurveda (Hindustan: 201901107)**

[http://epaper.livehindustan.com/imageview\\_365033\\_101668646\\_4\\_1\\_07-11-2019\\_10\\_i\\_1\\_sf.html](http://epaper.livehindustan.com/imageview_365033_101668646_4_1_07-11-2019_10_i_1_sf.html)

# आयुर्वेद में गुर्दे को दुरुस्त रखने की क्षमता

नई दिल्ली | विशेष संवाददाता

आयुर्वेद में गुर्दे को दुरुस्त रखने की क्षमता है। यह न सिर्फ गुर्दे के उपचार में कारगर है बल्कि बीमारियों से भी बचाता है। इसके फार्मूले गुर्दे को नुकसान पहुंचाने वाले घातक तत्वों को बेअसर करते हैं। कोलकाता में चल रहे भारत अन्तरराष्ट्रीय विज्ञान मेले में विशेषज्ञों ने यह बात कही। उनके मुताबिक, इस उपचार पैथी को आधुनिक चिकित्सा विज्ञान की कसौटी पर परखे जाने की जरूरत है ताकि इसे व्यापक स्तर पर अपनाया जा सके।

विज्ञान मेले में आयुर्वेद की बढ़ती उपयोगिता पर पहली बार विशेष सत्र का आयोजन किया गया। इंडियन इंस्टीट्यूट ऑफ केमिकल बायोलॉजी में आयोजित सत्र में आयुर्वेद एवं एलोपैथी के विशेषज्ञों ने हिस्सा लिया। सत्र की अध्यक्षता डॉ. सुभाष मंडल ने की। डॉ. भवदीप गंत्रा ने सीक्रेट ऑफ आयुर्वेद पर व्याख्यान दिया।

आयुर्वेद के 'नीरी केएफटी' फार्मूले का जिक्र करते हुए संचित शर्मा ने कहा कि यह गुर्दे में हार्टीएनएफ अल्फा के स्तर को नियंत्रण में रखता है। टीनएफ एल्फा परीक्षण से ही गुर्दे में हो गड़बड़ियों का पता

चलता है। उन्होंने कहा कि जो लोग निरंतर दर्द निवारक दवाएं ले रहे हों या जिनमें किन्हीं अन्य कारणों से गुर्दे की कार्यप्रणाली में गिरावट आ रही है, उन लोगों में आयुर्वेद का यह फार्मूला कारगर हो सकता है क्योंकि यह दवाओं से होने वाले दुष्प्रभाव के साथ-साथ अन्य दूषित तत्वों को नियंत्रित करता है। वक्ताओं ने इस बात पर भी जोर दिया कि आयुर्वेद में उन बीमारियों का भी इलाज है जिनका एलोपैथी में नहीं है। लेकिन उन्हें आधुनिक चिकित्सा की कसौटी पर परखे जाने की जरूरत है।

Heart Diseases ((Hindustan: 201901107)

[http://epaper.livehindustan.com/imageview\\_365043\\_101244724\\_4\\_1\\_07-11-2019\\_20\\_i\\_1\\_sf.html](http://epaper.livehindustan.com/imageview_365043_101244724_4_1_07-11-2019_20_i_1_sf.html)

# शोर वाले कार्यस्थल से हृदय रोगों का डर



सेहत

लंदन | एजेसी

लाखों लोग अपने कार्यस्थलों पर ज्यादा शोर-शराबे का सामना करते हैं। एक हालिया शोध के अनुसार कार्यस्थल पर ज्यादा शोर होने से न सिर्फ सुनने की क्षमता पर असर पड़ता है बल्कि दिल संबंधी बीमारियों का खतरा भी बढ़ जाता है। सेंटर फॉर डिजीज कंट्रोल व प्रीवेंशन के शोध में यह खुलासा हुआ है।

**कई तरह की समस्याएं होती हैं :**

अब तक कार्यस्थलों पर शोर-शराबे के कारण सुनने की क्षमता में कमी आने की बात ही सभी को पता थी। हर साल ऐसी परिस्थितियों में काम करने के कारण लोगों को हो रही स्वास्थ्य समस्याओं पर 17 अरब रुपए खर्च हो रहे हैं। नेशनल इंस्टीट्यूट फॉर ऑक्युपेशनल सेफ्टी एंड हेल्थ द्वारा किए गए एक अध्ययन में पता चला है कि कार्यस्थल पर ज्यादा शोर-शराबे का संबंध उच्च रक्तचाप और उच्च कोलेस्ट्रॉल से है। शोधकर्ता डॉक्टर जॉन ने कहा, कार्यस्थलों पर

## कार्यस्थलों को शांत बनाने की जरूरत

शोधकर्ता मास्टरसन ने कहा, बड़ी संख्या में कर्मचारी सुनने में तकलीफ, उच्च रक्तचाप और उच्च कोलेस्ट्रॉल की समस्या से पीड़ित थे। शोर के कारण दिल संबंधी बीमारियों का जोखिम भी बढ़ रहा है। कार्यस्थलों में होने वाले शोर को कम करने और उन्हें शांत बनाने की जरूरत है ताकि कई लोगों को इन बीमारियों से बचाया जा सके।

होने वाले शोर-शराबे के कारण न सिर्फ सुनने की क्षमता में कमी आती है बल्कि इससे रक्तचाप, कोलेस्ट्रॉल और दिल के स्वास्थ्य पर भी बुरा प्रभाव पड़ता है।

**बढ़ रही दिल की बीमारियां:** ट्रस्टेड सोर्स फॉर हार्ट डिजीज के अनुसार दिल की बीमारियों के लिए उच्च कोलेस्ट्रॉल, उच्च रक्तचाप और हाइपरटेंशन सबसे बड़े कारण हैं। संस्थान के अनुसार हर साल लगभग छह लाख 10 हजार लोगों की दिल संबंधी बीमारियों के कारण मौत हो जाती है।