

DID YOU KNOW?

Better cardiorespiratory fitness is associated with lower mortality risk at all ages

Extreme fitness did not increase mortality in a large observational study. Studies link cardiorespiratory fitness to lower all cause mortality. Some evidence suggests excessive physical activity is harmful, especially in older adults. To better understand the association between cardiorespiratory fitness and mortality risk across the age spectrum, investigators examined deaths in ~750,000 U.S. veterans aged 30 to 95 years (94% men), including ~111,000 in their 70s and 27,000 in their 80s, who had undergone a standardised exercise treadmill test. Cardiorespiratory fitness was assessed using peak METs (Metabolic Equivalent) achieved.

During a median follow-up of 10.2 years, there was an inverse association between cardiorespiratory fitness and mortality across age, sex, and race strata. The highest mortality risk was seen in the least fit individuals (20th percentile for peak MET [=5]), who had a fourfold higher risk compared with the fittest individuals (98th percentile for peak MET [=14]), who had the lowest mortality risk, regardless of gender.

The investigators did not find evidence of increased mortality risk with extremely high cardiorespiratory fitness, even in the oldest individuals.

Source: *Journal Watch*



Almost half of global cancer deaths are due to risk factors - with smoking, alcohol use, and high BMI the greatest contributors



STAR HEALTH REPORT

According to the Global Burden of Diseases, Injuries, and Risk Factors (GBD) 2019 study, smoking, alcohol use, high Body Mass Index (BMI), and other risk factors caused 4.45 million cancer deaths in 2019.

The new study estimates how risk factors contribute to cancer deaths and ill health globally, regionally, nationally, across age groups, for both sexes, and over time. 34 risk factors accounted for 4.45 million cancer deaths globally in 2019 (44.4% of all cancer deaths) for both sexes combined, with smoking, alcohol use, and high BMI as the leading causes. In 2019, 50.6% (2.88 million) of male cancer deaths were due to estimated risk factors, compared to 36.3% (1.58 million) of female cancer deaths.

Environmental, occupational, and behavioral risks killed and disabled more men than women. Global cancer deaths due to risk factors climbed by 20.4% from 2010 to 2019 and varied based on country development.

The authors recommended investing in risk-reduction strategies and strengthening health systems for early diagnosis and effective treatment.

Can you recognise Schizophrenia?

STAR HEALTH DESK

Schizophrenia is a disabling mental illness without care. People with the disorder hear voices, see imaginary sights, or believe others control their minds. These sensations can cause erratic behaviour. Treatment can manage the most severe symptoms, but there is no cure.

Multiple personality disorder is not the same as schizophrenia. There are hallucinations, delusions, and catatonia (the person becomes physically fixed in a single position for a long time). Lack of enjoyment in daily life and withdrawal from social activities can mimic depression.

People with schizophrenia cannot organise their thoughts or make logical connections. They may feel like their thoughts are unrelated. Sometimes they feel "thought withdrawal" or "thought blocking" when their flow of thinking is interrupted.

The disease is severe. People sometimes mumble or make up words. They may be angry or expressionless. Many struggle to keep clean. Pacing is a repeating behaviour. Despite the stigma, violence is rare.

It affects men, women, and all ethnicities. Between 16 and 30, symptoms usually appear. Early symptoms may appear weeks, months, or years before psychosis. Men get it before women. Schizophrenia is rare in children and after 45. A family history of schizophrenia or other psychoses may increase the risk. Genes, experiences, and environment may cause psychoses.

Doctors diagnose schizophrenia based on a person's history and symptoms. Medications can reduce abnormal thinking, hallucinations, and delusions. Some experience tremors and weight gain. Drugs can interact with other medications or supplements. Most people with

schizophrenia need medication. Counselling can help people recognise and manage problem behaviours and thoughts and improve relationships.

Early treatment improves outcomes. Rehabilitation programmes for schizophrenia teach people how to use public transportation, manage money, shop, and find a job. These programmes work best when combined with Coordinated Specialty Care (CSC). Medication, therapy, social services, and

when many are starting careers. Rehabilitation can help people develop job skills.

Schizophrenia affects relationships. Their strange thoughts and behaviours may alienate friends, coworkers, and family. Therapy helps. Relationship-building therapy is one type. If you are close to someone with schizophrenia, join a support group or get counselling to learn more about it.

Planned pregnant women with schizophrenia should check with their doctors about their



medications. Pregnancy studies on schizophrenia drugs are promising. There are no definitive links between schizophrenia medications and birth defects or pregnancy complications, so talk to your doctor.

Schizophrenia patients can be difficult to help. Psychotic episodes that require hospitalisation often trigger treatment. Once the person is stabilised, family members can encourage them to stay on medication, attend follow-up appointments, and be supportive and respectful.



Cardiologist Prof Dr S M Mustafa Zaman (4th from left) and his team at BSMMU who performed a successful TAVI on an 80-year-old patient

PHOTO: COURTESY

An innovative approach to treating heart disease

STAR HEALTH REPORT

Transcatheter Aortic Valve Implantation (TAVI) - a procedure that replaces an aortic valve without chest incision or anaesthesia was successfully performed on a 80 year old patient at Bangabandhu Sheikh Mujib Medical University (BSMMU) recently by cardiologist Prof Dr S M Mustafa Zaman.

As we age, calcium accumulates in the valves. In some cases, the diameter of the valve opening may decrease to a square centimetre or less. As a result, the heart has to exert more force to push blood into the aorta. Various physical problems arise as a result of this. Usually, after the age of 60-65 years, this type of aortic valve problem can start.

TAVI involves inserting a catheter into a blood vessel in your upper leg or chest and passing it towards your aortic valve.

Previously, if there was a problem with the aortic valve or if this valve had to be replaced, the help of open-heart surgery had to be taken. In that case, a wound of about 7 to 8 inches was formed on the patient's chest. Even during the operation, the patient had to be kept under the supervision of the heart-lung machine.

The TAVI method does not require such an extensive cutting. The procedure is very similar to the angioplasty procedure. In this case, too, the catheter is inserted into the femoral artery through the groin.

This catheter is advanced into the aorta, past the narrowed aortic valve, and into the left ventricle. It is then sent through the catheter. A balloon catheter is passed over this wire. A stent surrounds the balloon. And the new valve is sewn inside the stent. The balloon is moved to the old valve and inflated. As the balloon inflates, the narrowed mouth of the valve also expands.

This procedure also opens the stent surrounding the balloon. And the old valve is replaced with a new valve sewn together with a stent.

In response to a question about the benefits of TAVI, Dr Zaman said the patient does not develop large lesions in the chest. There is no more than two to three days stay in the hospital. No ventilation is required. As a result, the TAVI procedure is highly effective

for aortic valve replacement in the elderly, who usually have multiple co-morbidities. Open heart surgery risky in such patients, and TAVI is much less risky in all these cases.

The operation at BSMMU was successful and the patient is discharged from the hospital. Dr Zaman said this is an important milestone in the public sector. He informed that the cost of TAVI procedure in Bangladesh is almost one fifth in comparison to some of the foreign countries. This can help Bangladeshi patients to a great extent. He urges support from the government to serve the deserving patients of the country.

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HAVE A NICE DAY
Body is real,
so is mind

DR RUBAIUL MURSHED

According to a study, 'sad feelings' can alter stress related brain tasks and increase blood levels of inflammatory proteins linked to heart disease, stroke, and metabolic syndrome. Mind and mindset are crucial to one's nature. Our nature or behaviour is controlled by the 'brain,' a mysterious 3-pound soft structure responsible for solving problems, planning actions, and controlling emotions. These executive functions control our body and mind.

The central nervous system is the brain and spinal cord (CNS). They regulate thought, memory, emotion, touch, motor skills, vision, breathing, temperature, hunger, and more. It controls things we don't notice, like digestion. Simply put, it is the body's central computer. The spinal cord connects the body and brain. Brain information travels 268 mph, say, scientists. Men are smarter than women. Bigger does not equal smarter.

New research may help us understand how a healthy brain works, how to keep it healthy, and what happens when it is diseased or dysfunctional.

Scientists call the human brain "evolution's crowning achievement." Scientists agree that the brain is always active, firing millions of neurons. The brain and some cognitive functions decline with age, but many mental skills improve. Older brains perform better in vocabulary, comprehension, conflict resolution, and emotional regulation. We need a bridge between young and old today.

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