

World Heart Day 2019: my heart, your heart

PROFESSOR DR S M MUSTAFA ZAMAN

World Heart Day 2019 focuses on creating a global community of heart heroes. People from all walks of life who are acting now to live longer, better, heart-healthy lives by making a promise. From professionals involved in cutting-edge cardiology research and heart healthcare to everyday people looking after their and their loved ones' hearts - we can all be heart heroes.

Some things we cannot control, but several key risk factors for heart disease can be controlled through lifestyle choices. Some things about our bodies were passed on to us by our parents through genetics. Having a family member with certain health problems can increase your risk of having those conditions too. The good news is, even though some problems can be passed on from your parents, making healthy choices can decrease your chances of developing some diseases. Here are some things you can work on to lower your odds of getting heart disease:

- **Do not smoke:** Cigarettes are very bad for your health. Smoking can cause heart disease



and cancer. Over time, cigarette smoke damage your heart and blood vessels by narrowing it and making it hard for blood to deliver oxygen and nutrients to your organs. To keep your heart healthy quitting smoking is very important.

- **Do not miss antihypertension medicine:** People whose blood pressure is above a normal range are said to have high blood pressure,

or hypertension. High blood pressure has no warning signals, so everyone should have their blood pressure checked regularly. High blood pressure can be reduced by increasing physical activity, making healthy food choices and staying a healthy weight. If you stop medicine without doctor's advice it may cause stroke, heart attack or kidney disease.

- **Exercise regularly:** Getting some regular, daily exercise can reduce your risk of heart disease. Physical activity can help you control your weight and reduce your chances of developing other conditions that may put a strain on your heart, such as high blood pressure, high cholesterol and diabetes.
- **Keep your cholesterol in check:** Cholesterol always is trying to harm your blood

vessels. Too much cholesterol in the blood raises the risk for heart disease. By eating foods low in fat and cholesterol, we can reduce the amount of bad cholesterol in our bodies. Adults should generally have their cholesterol measured at least once every year starting at age 40.

- **Maintain a healthy weight:** Being overweight is not about how you look outside. It can lead to serious problems inside like high blood cholesterol, high blood pressure and diabetes. Eat right and get physically active to maintain a healthy weight!

- **Take better care of diabetes:** Diabetes can cause problems for the body and increase the risk for heart disease. Being overweight and physical inactivity are two things that cause type 2 diabetes. Depending on your risk factors, such as being overweight or having a family history of diabetes, your doctor may recommend early screening for diabetes.

Healthy lifestyle choices will keep your heart healthy and decrease the chances of heart diseases significantly.

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DID YOU KNOW?



Soft drink consumption is associated with mortality!

Soft drink consumption has been associated not only with weight gain and obesity but also with excess mortality in U.S. studies. In this prospective cohort study from 10 European countries, ≈450,000 participants (mean age, 51) completed questionnaires on dietary and clinical risk factors, including consumption of sugar-sweetened and artificially sweetened soft drinks. Participants with known heart disease, cancer, or diabetes were excluded. Mean follow-up was 16 years.

These results have potential public health implications. The fact that excess all-cause mortality was associated with both sugar-sweetened and artificially sweetened soft drinks, regardless of BMI, deserves closer examination for possible mechanisms that might not involve weight gain. However, this observational study does not prove that the association is causal, and other unmeasured dietary and lifestyle factors might have influenced the results.

HEALTH bulletin



Obesity linked to 6-fold increased risk of developing type 2 diabetes

Obesity is linked to a nearly 6-fold increased risk of developing type 2 diabetes (T2D), with high genetic risk and unfavourable lifestyle also increasing risk but to a much lesser extent. The findings were presented at this year's Annual Meeting of the European Association for the Study of Diabetes in Spain.

According to the International Diabetes Federation, approximately 425 million adults (20-79 years) were living with diabetes in 2017; by 2045 this is expected rise above 600 million.

The researchers found that having an unfavourable lifestyle and obesity are associated with a greater risk of developing T2D regardless of their genetic risk. Obesity (defined as a body mass index of 30 kg/m² or higher) increased T2D-risk by 5.8-fold compared to individuals with normal weight.

The authors say the effect of obesity on type 2 diabetes risk is dominant over other risk factors, highlighting the importance of weight management in type 2 diabetes prevention.

The role of gene in health and diseases

DR IFTIKHAR AHMED

Human genes help make them unique as the basis for inheritance. They are passed from parent to offspring and hold the DNA, the instruction for making proteins which do most of the work in cells. Genes go far in determining their physical traits – like eye colour and the colour and texture of hair. They are composed of strands of a molecule DNA and are located in single file within the chromosomes. The genetic message is encoded by the building blocks of the DNA, which are called nucleotides. Approximately 3 billion pairs of nucleotides are in the chromosomes of a human cell, and each person's genetic makeup has a sequence of nucleotides. This is mainly what makes us different from one another.

Scientists believe that every human has about 25,000 genes per cell. A mutation, or change, in any one of these genes can result in a disease. A genetic disease is caused by an abnormality in an individual's genome, the person's entire genetic makeup, resulting in changes in gene's instructions for making a protein and so the protein does not work properly or is missing entirely. The abnormality can range from minuscule to major - from a discrete mutation in a single base in the DNA of a single gene to a gross chromosome abnormality. Some genetic disorders are inherited from the parents,



while other genetic diseases are caused by acquired changes or mutations in a pre-existing gene or group of genes. Mutation can occur either spontaneously or due to some environmental exposure. Intervention by gene therapy, the treatment or elimination of inherited diseases due to these mutations could become a reality.

The management of genetic disease can be divided into counselling, diagnosis, and treatment. The fundamental purpose of genetic counselling is to help the individual or family understand their risks and options and to empower them to make informed decisions.

Although effective treatments exist for some genetic diseases, for others there are none. A group of genetic disorders called inborn errors of metabolism, which result from genetic changes that disrupt the production of specific enzymes;

treatments sometimes include dietary changes or replacement of the particular enzyme that is missing.

For other genetic conditions, therapeutic strategies are designed to improve particular signs and symptoms associated with the disorder. These approaches vary by disorder and are specific to an individual's health needs. For example, a genetic disorder associated with a heart defect might be treated with surgery to repair the defect. Conditions that are characterised by defective blood cell formation, such as sickle cell disease, can sometimes be treated with a bone marrow transplant.

Most treatment strategies for genetic disorders do not alter the underlying genetic mutation; however, a few disorders have been treated with gene therapy. This experimental technique involves changing a person's genes to prevent or treat a disease. Gene therapy carries the promise of cures for many diseases and for types of medical treatment that did not seem possible until recently. With its potential to eliminate and prevent hereditary diseases such as cystic fibrosis and haemophilia and its use as a possible cure for heart disease and cancer, gene therapy is a potential medical miracle-technique.

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Apollo Hospitals Dhaka celebrated World Heart Day

STAR HEALTH REPORT

The Paediatric Cardiology department of Apollo Hospitals Dhaka celebrated the 'World Heart Day 2019' by offering treatment for under privileged children with congenital heart diseases like Patent Ductus Arteriosus (PDA), Atrial Septal Defect (ASD) and Ventricular Septal Defect (VSD), says a press release.

Dr Ratnadeep Chaskar, CEO; Dr Tahera Nazrin, Interventional Paediatric Cardiologist; Dr Azmeri, Paediatric Cardiologist of Apollo Hospitals Dhaka were present in the celebration with children having heart diseases.

The treatment is being done using state of the art modern technology without any surgical procedure.



THE HEART HEALTH

Avoid

- ♥ Avoid relying on processed foods
- ♥ Avoid using too much salt
- ♥ Avoid Stress
- ♥ Quit smoking

Be More Active

- ♥ Exercise, it keeps your metabolism active
- ♥ Have a low calorie diet if you're overweight
- ♥ Vegetables and low GI foods provide important
- ♥ Nutrition and won't adversely affect blood sugar levels

♥ Cholesterol Test

♥ HbA1c Test

♥ Blood Pressure Check

Check up

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