

When your food and lifestyle turn you into a heart patient

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Who would have known that trans-fat intake would cause the deaths of hundreds of thousands of people when French chemist Paul Sabatier won the 1912 Nobel Prize in Chemistry for discovering the hydrogenation method to produce it?

Trans-fat or Trans-fatty Acid (TFA) is one type of fat that is usually found in processed foods such as baked goods, snack foods, fried foods, shortening, margarine, and certain vegetable oils.

In parallel to other reasons like leading an unhealthy lifestyle, high salt and sugar intake and so on, eating trans-fat increases blood cholesterol levels and the risk of heart disease.

According to a recent report by the World Health Organization (WHO), Bangladesh is among 15 countries with the world's highest chronic heart disease (CHD) burden due to trans-fat.

Each year, Bangladesh sees more than 11,000 deaths due to trans-fat out of some 2.77 lakh CHD caused deaths.

Globally, TFA intake is estimated to be responsible for more than half a million deaths from coronary heart disease each year.

"The harsh reality is that people—many of them are doctors—are not aware of the danger of trans-fat. Usually, all types of baked foods contain this harmful fat," Dr SM Mustafa Zaman, a professor of cardiology at the Bangabandhu Sheikh Mujib Medical University (BSMMU) told *The Daily Star*.

In a 2014 study by the Bangladesh Council on Scientific and Industrial Research (BCSIR) and the Jagannath University, the TFA was found to constitute 5 to 39 percent of total fat in 12 types of bakery biscuits in the market which is 20 times higher than the WHO limit.

According to nutrition experts, when a vegetable oil is used again and again to fry foods, it also produces TFA.

Besides, any food turns harmful when *Dalda* or *Bonospoti Ghee* is added to them.



Representational image of food items containing trans-fat.

PHOTO: AFP

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In May 2018, the WHO launched a programme to support governments to bring down the industrially produced TFA to two percent per 100mg fat in the global food supply by 2023.

So far, Bangladesh has no law or regulation to ensure this limit.

"We have been working to finalise a draft regulation in this regard for the last one year. Hopefully we will be able to turn it into an act soon," Prof Dr Md Abdul Alim, member of the Bangladesh Food Safety Authority (BFSA) told *The Daily Star*.

TFA IS NOT THE LONE ENEMY

Asraful Alam, 45, a businessman in Dhaka's Kamalapur area, never felt that he had heart problems.

But suddenly in 2014, he had a heart attack

and needed to set four rings in his heart. Later in 2018, he again had another heart attack and needed to set two rings.

Since then, he has not been able to return to normal life.

"I was quite okay before the heart attack, except a feeling of mild pain in my right hand. Later, I learnt from the doctors that it was a sign prior to heart attack," Asraful Alam told *The Daily Star*.

According to the eighth Bangladesh Demographic Health Survey (BDHS) 2017-18 published in January this year, hypertension among people aged 35 and above went up to 40 percent in 2017 from 26 percent in 2011.

During the same period, the number of diabetic patients of the same age group increased to 14 percent from 11.

According to the survey, some three crore people aged 18 and above were hypertensive (with blood pressure above 90 and 140) and 1.1 crore of the same age group suffer from high blood sugar.

"Of all types of heart disease, the ischemic heart disease (heart attack) is the most worrying. Due to high intake of fats, especially trans-fat, the vein becomes blocked or narrowed and prevents blood from circulating back to the heart and this leads to a heart attack," Dr Sohel Reza Chowdhury, a professor at the National Heart Foundation and Research Institute told *The Daily Star*.

So what are the lifestyle factors that cause heart disease?

Dr Aliya Naheed, a team member of the

latest BDHS who works at icddr,b told *The Daily Star*, "Inadequate physical exercise, carbohydrate-based food habit, junk food, a lot of salt and sugar intake, and smoking are the habits to blame for this."

According to experts, each adult needs to walk at least 30 minutes to keep the heart in good health.

"People need to modify their lifestyles. We need to ensure the safety of food. We need a multi-sectoral approach to address the issue," Dr Aliya said.

Awareness among the people is the most important factor to fight the wave of heart disease, she said. "We have to learn how to lead a stress-free life in line with other strategies. We have to teach our children in schools about this issue."

Keeping your heart healthy during COVID-19

MAISHA ZAMAN

Shumona Rahman, 40, started experiencing chest pain, shortness of breath, fatigue and developed certain other symptoms, a while after recovering from COVID-19. Upon consulting her doctor, she was diagnosed with myocarditis, a condition that causes inflammation of the heart muscle and abnormal heart rhythms.

What Shumona experienced is not new for COVID survivors as they are prone to developing heart diseases after recovering from COVID-19. National Professor Brig (Rtd) Abdul Malik, Founder, National Heart Foundation of Bangladesh, shares, "Myocarditis is usually caused by viral infections. People who previously had no record of heart disease can get affected by it after they have been infected with COVID-19. It has also been seen that a patient's electrocardiogram (ECG) test showed the coronary artery to be normal whereas his/her heart has experienced damage due to myocarditis." Dr Malik emphasised on the need for further research to determine the severity of the issue.

According to World Heart Federation, patients with cardiovascular disease (CVD) are more prone to suffering from COVID-19 severely. Diseases and conditions that affect some form of heart condition or heart function include hypertension and diabetes, acute coronary syndrome, injury to muscle tissues of the heart, myocardial injury, heart failure, and less heard of but widespread diseases such as rheumatic heart disease and Chagas disease. To tackle these, the study recommends emphasising on awareness and prevention and reassurance. This includes, giving special attention to ensure the availability of separate facilities for dealing with COVID-19 cardiac patients and non-COVID-19 cardiac patients, including



catheterisation laboratories for performing invasive heart examinations.

The *Journal of the American Medical Association (JAMA)* states that reducing the number of COVID-19 cases will also reduce the number of people with myocarditis in the post-pandemic era.

As per World Health Organization (WHO), non-communicable diseases (NCDs) account for 71 percent of global deaths, with CVD ranked as the number one killer, causing 31 percent deaths globally.

Dr A M Shafique, Consultant & Coordinator, Interventional & Clinical Cardiologist, Department of Cardiology, United Hospital Limited states, "The global mortality rate for COVID-infected patients remains low at 2.3 percent and the mortality rate in Bangladesh has been roughly around 1.29 percent. However, the global mortality

rate can jump to around 10.5 percent among patients with CVD and 14.8 percent for patients above 80 years of age."

Research studies funded by the American Heart Association suggest that it is difficult to determine whether the lungs take longer to heal or whether patients suffer from cardiac issues once they recover from COVID-19. Also, whether screenings to detect cardiovascular damage should become a regular part of follow-up care for COVID-19 patients and survivors remains unclear.

Both Dr Malik and Dr Shafique urge everyone to follow the basic protocols such as maintaining social distancing of at least one metre, wearing masks that fit the face properly, washing hands for at least 20 seconds, eliminating smoking and tobacco consumption, etc., since we are still unsure when a vaccine will be available. People

with existing CVD or other NCDs such as hypertension, diabetes, cancer, must be very careful; they should try to avoid going outside as much as possible. Factors like air pollution must also be tackled as they contribute significantly towards CVD. Dr Malik emphasises on the economic costs and detriments in terms of achieving the SDGs, which may arise and worsen the situation, if the government does not undertake steps to provide proper facilities to address COVID-19 and NCDs.

Regarding lifestyle changes, nutritionist Jennifer Binte Huque, Green Life Medical College & Hospital, suggests, to boost immunity for an overall good health, we must ensure a balanced diet by consuming fresh and colourful fruits and vegetables along with a good balance of carbohydrates, good fats and protein. Besides, home-cooked meals should be consumed as much as possible and junk foods should be avoided as they contain high amounts of trans-fats and saturated fats. Two to three litres of water must also be consumed as dehydration increases the risk of COVID-19. We must also be active for at least 30 minutes a day. However, patients with CVD who have suffered from COVID-19 can be active for 20-30 minutes for three to four days a week,

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depending on their health condition.

She recommends that people, especially patients with a history of CVD, must not consume too much salt or sugar. Additionally, they must check their serum electrolytes and cholesterol levels; patients must consult a nutritionist or clinical dietician before making changes to their diet. Additionally, studies by WHO recommend maintaining good personal and food hygiene practices as there is no concrete evidence yet about which particular food can prevent us from getting infected by COVID-19.

Dr Shafique and nutritionist Jennifer advise that the negative news concerning COVID-19 increases stress levels of COVID-infected patients which may hamper their immune system. Therefore, patients should be counseled on managing their stress levels. According to Dr Shafique, patients are at a risk of developing cardiomyopathy which occurs due to viral infections and also due to severe acute mental stress.

Another problem which has arisen due to the pandemic is that patients who have CVD are not seeking medication like they used to before. According to a report by Dr Ferdous Hakim, Health Researcher and Epidemiologist (independent), published in the World Heart Federation website, in Bangladesh, people tend to avoid the hassle of seeking care in a centralised system where testing services are not as widely available as compared to a decentralised healthcare system. Such a centralised system has seen a high turnover of people leading to long queues and lengthy waiting times to obtain COVID-19 test reports and consequently, increasing exposure to the virus.

To tackle the aforementioned crises, experts recommend introducing innovative and effective methods to ensure proper healthcare facilities. Cardiac rehabilitation through phone and video calls and messages can be made more popular, though they have their own set of challenges, such as limited scope for patients to get adequate diagnosis, especially if their conditions are critical. Therefore, formulating national response and preparedness plans to combat COVID-19 is vital to properly address its link with CVD and other forms of diseases.