



COVID-19, influenza, and vascular thrombotic events

The association of COVID-19 with thrombotic events was initially inferred from case series. Now, investigators have analysed U.S. claims and medical records data to evaluate incidence of inpatient arterial and venous thrombotic events among adults hospitalised with COVID-19 between April 1, 2020, and May 31, 2021 (41,443 before vaccine availability and 44,194 after). Controls comprised 8,269 adults hospitalised with influenza during the 2018–2019 season.

The adjusted 90-day risk for developing arterial thrombosis was no different between patients with COVID-19 or influenza, both before and after COVID-19 vaccine availability (hazard ratio [HR], 1.04–1.07). In patients who experienced an arterial thrombotic event, subsequent 30-day mortality risk was higher among those with COVID-19 compared with influenza (HR, 3.45 whether before or after vaccine availability).

Adjusted risk for developing venous thrombosis was higher among patients with COVID-19 than influenza (HR, 1.60 [before vaccine] and 1.89 [after vaccine]). Following a venous thrombotic event, 30-day mortality risk was higher in patients with COVID-19 compared with influenza (HR, 2.96 [before vaccine] and 3.80 [after vaccine]). These data support an increased risk for venous, but not arterial, thrombotic events with COVID-19 hospitalisation relative to influenza hospitalisation.

The authors stratify the observation period by COVID-19 vaccine availability dates – however, prior to the emergence of the Delta variant (summer of 2021), patients admitted with severe COVID-19 were largely unimmunised. Because these data largely reflect the prevaccine era, examining this question in the current setting of relatively high population immunity is warranted.

Source: Journal Watch

Use heart for every heart

PROF DR S M MUSTAFA ZAMAN

Use heart for every heart – the theme is about celebrating and connecting like-minded people on the occasion of World Heart Day this year. It created a sense of commitment around the common cause of heart health, and it is a concept that encapsulates the values of World Heart Day.

The World Heart Federation organises World Heart Day on September 29 every year to emphasise the importance of being active and staying informed about cardiovascular health and diseases.

According to the World Health Organisation (WHO), World Heart Day informs people around the globe that cardiovascular diseases (CVD), including heart disease and stroke, is the world's leading cause of death, claiming 18.6 million lives each year, and highlights the actions that individuals can take to prevent and control CVD. It aims to drive action to educate people that by controlling risk factors such as tobacco use, unhealthy diet and physical inactivity, at least 80% of premature deaths from heart disease and stroke could be avoided.

In the time of COVID-19, CVD patients faced a double-edged threat. They are more at risk of developing severe forms of the virus and may also be afraid to seek ongoing care for their hearts.

Cardiovascular diseases include blood clots, cardiomyopathies, cardiac arrest, high blood pressure, stroke etc. The risk factors leading to cardiovascular diseases include a sedentary lifestyle, obesity, smoking, alcohol intake, bad cholesterol, high blood pressure, etc.

Use heart to listen to your heart. If you have an underlying health condition, such as heart disease, heart failure, diabetes, high blood pressure or obesity, do not let COVID-19 stop you from attending your regular check-ups.

This year, World Heart Day has decided to bring to mind how one can take care of the heart with one's own heart:

Know your heart: Knowing one's heart is essential and requires understanding the risks you are prone to. This would involve getting back on track, visiting the doctor and knowing where you stand.

Fuel your heart: Eating healthy is one of the most important steps toward ensuring that the heart is fueled with clean energy. Omega 3-rich fish, nuts, berries, oats and legumes are some of the easily available foods that one can consume to ensure the heart's good health.

Move your heart: This is another pivotal measure required

hypertension, diabetes or chronic kidney disease. Otherwise, healthy people can aim for 2,300 mg a day or less.

- Maintain a healthy weight. Keeping a healthy weight or losing weight can help control high blood pressure, lower your risk of related health problems, and keep the heart healthy.

- Increase physical activity. Regular physical activity can help lower blood pressure and manage stress, which reduces the risk of several health problems and keep weight under control. For most



to ensure that the heart stays healthy and hale. Remaining active, breaking a sweat and staying fit through exercises and yoga is another way one can ensure good health.

Love your heart: While it is next to impossible to stay away from fast food, mostly because of the erratic work timings and schedules one follows, it is important to:

- Eat a healthy diet which emphasises fruits, vegetables, whole grains, poultry, fish and low-fat dairy food. It is essential to take plenty of potassium, which can help prevent and control high blood pressure. Eat less saturated fat to prevent the development of atherosclerotic cardiovascular disease.

- Decrease the salt in your diet. A lower sodium level – 1,500 mg daily – is appropriate for people 51 years of age or older and individuals of any age who are black or who have

healthy adults, it is recommended that you get at least 150 minutes a week of moderate aerobic activity or 75 minutes a week of vigorous aerobic activity, or a combination of moderate and vigorous activity.

- Stop alcohol intake.
- Do not smoke. Tobacco injures blood vessel walls and speeds up the process of hardening the arteries.

- Manage stress. Reduce stress as much as possible. Practice healthy coping techniques such as muscle relaxation, deep breathing or meditation. Getting regular physical activity and plenty of sleep can help, too.

Together everybody has the power to reduce the premature deaths from and burden of cardiovascular diseases, helping people everywhere to live longer.

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HAVE A NICE DAY Secret paybacks of good acts

DR RUBAUL MURSHED



Have you ever felt good after accompanying a sick neighbour to the hospital in the middle of the night? Then there was the time when you left food and essentials in front of your friend's door regularly at the peak of the COVID-19 pandemic.

Or ever noticed that you were more relaxed after helping a disabled stranger? In more examples like these, it has been that the answers to these questions were 'Yes'. And science has revealed that doing good benefits us mentally, physically, and emotionally. Helping others in difficult times helps us 'most'.

The science of good deeds is now an established fact. Hormones are integral in so many of our body systems, and they regulate much of what our body does. They help from regulating mood to growth and development. In short, these chemical messengers control the way our organs work and a little bit goes a long way.

Because of these, minor changes in levels can cause significant changes to your body and lead to certain conditions that require medical treatment. Researchers have looked at the benefits of good deeds and the significance of moralities in the last few years.

When we help others, our brains release oxytocin, serotonin and dopamine. These hormones boost our mood and counteract the effect of cortisol (the stress hormone). Doing a good deed also helps us take a step outside our world for a little while.

Performing good acts can positively affect our health, like reducing stress. Managing stress can be a key part of quitting smoking. The science of doing good deeds not only inspires me but also surprises me. Kindness is integral to good deeds, an inner desire that makes us want to do good things even if we do not get anything in return

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Weight loss beneficial for individuals with obesity, but not for the lean

STAR HEALTH DESK

Intentionally losing weight can bring long-term health benefits for individuals with obesity, regardless of the method or strategy they use, according to a study of almost 200,000 people.

Those who lost more than 4.5kg had less weight gain and a lower risk of type 2 diabetes than those who did not lose weight, but lean individuals did not benefit, with weight loss attempts associated with longer-term weight gain and higher risks of type 2 diabetes. The research was published on September 27 in the open-access journal PLOS Medicine.

Obesity can lead to higher risks of diseases including type 2 diabetes. Controlling weight can be an effective strategy for preventing and managing obesity and related diseases, though long-term weight change and risk of developing type 2 diabetes are not well studied.

Qi Sun and colleagues from the TH Chan Harvard School of Public Health, U.S., included healthy participants from three prospective cohort studies from 1988–2017. Individuals were aged between 24–78 and predominantly female – 11.6% male and 14.2% male in the cohorts.

Exercise was most effective for long-term weight control and prevention in individuals with



obesity and associated with least weight gain after four years.

24 years later, risk of diabetes was reduced for individuals with obesity irrespective of weight loss strategy – ranging from a 21% reduction for exercise to a 13% reduction for diet pills. For overweight individuals, the researchers saw a range of 9% reduction in type 2 diabetes risk for exercise to an increase of 42% risk for those who took pills, and in

lean individuals, all weight loss was associated with an increased risk of type 2 diabetes – ranging from a 9% increase for exercise and a 54% increase for pills or FCP.

The authors conclude that while weight loss can be beneficial for those who are overweight and obese, weight loss strategies do not bring the same gains for lean individuals and weight loss strategies should be used only by those who medically need them.

Modelling study estimates the number of people living with Type 1 Diabetes is set to double by 2040

STAR HEALTH REPORT

An estimated 8.4 million people were living with Type 1 Diabetes (T1D) across the globe in 2021, according to the results of a new modelling study published in The Lancet Diabetes & Endocrinology. This number is predicted to increase to 13.5–17.4 million people living with T1D by 2040.

There is an opportunity to save millions of lives in the coming decades by raising the standard of care for T1D (including ensuring universal access to insulin and other essential supplies) and increasing awareness of the signs and symptoms of T1D to enable a 100% rate of diagnosis in all countries.

Researchers modelled data on



childhood, adolescent and adult T1D prevalence in 97 countries, along with incidence over time data from 65 countries and mortality data from 37 countries to predict T1D incidence, prevalence, and mortality in 2021 for 201 countries, with projections of future prevalence through 2040. The estimates were tested for accuracy against real world prevalence data from 15 countries. In 2021, the model estimated that

8.4 million individuals worldwide were living with T1D. Of these individuals, 18% were under 20 years old, 64% were between 20–59 years, and 19% were over 60 years. Although historically T1D has been a disease associated with onset in childhood, these results reveal that numerically more adults than children are diagnosed every year (316,000 vs 194,000 incident cases worldwide in 2021), with a mean diagnosis age of 32 years.

The projected T1D prevalence in 2040 given by the model was 13.5–17.5 million people, with largest relative increases predicted to occur in LICs and LMICs. Conservative estimates place the relative increase in the number of people living with T1D by 2040 compared to 2020 at 66%.

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