

## TOPIC: DIABETES & HEART HEALTH

### FACULTY: DR TAREK JARKAS

Dr Tarek mentioned that currently there were over 537 million diabetics globally, ie 1 in 10 persons suffered from diabetes. This was predicted to rise to over 643 million in 2030 & to 783 million by 2045. Less than 10% of the population had Type 1, or Juvenile diabetes in which the pancreas did not produce insulin, whereas 90% suffered from Type 2, adult onset diabetes, in which, while the pancreas produced insulin, the cells in the body could not utilize the insulin to convert glucose or sugar into energy. This was referred to as Metabolic syndrome since it frequently resulted in multiple complications including, obesity, & affected all the organs & systems of the body. These included the brain, causing strokes, eye, causing retinopathy, kidneys, causing nephropathy, heart, causing heart attack & heart failure. It also impacted the liver, nervous system, bones & was associated with cancer. Having diabetes almost doubled the risk of complications with all these ailments.

Since, individual specialists had already spoken about the relationship of Diabetes or high blood sugar, on the various body organs, systems, in earlier webinars, Dr Tarek mentioned that in the current webinar he would be speaking specifically about the effect of Diabetes on the Heart & Brain.

The Heart works as a pump & supplies the entire body & all the organs with blood through a network of blood vessels. Blood from the heart carries nutrients & oxygen to all the cells of the body including to the heart muscle & the brain. This combination of nutrients & oxygen, along with insulin utilizable in all the cells, fuels all systems & makes energy available the body

Diabetes damages the blood vessels & causes a build up of plaque inside the artery. Also in cases of Hyperlipidemia or high blood cholesterol, the LDL, or bad cholesterol gets deposited within the artery, this plaque thickens the Artery wall & prevents the blood from flowing easily. When the internal artery space is narrowed & blocked by about 60 %, the blood supply is sufficient for the body at rest, however it becomes insufficient if the muscle is required to undertake any activity or exercise like walking, etc. In that event, of insufficient blood supply to the heart muscle, we get a sharp pain, in the chest, shoulders & arms, neck etc. This is called an **Angina**, & results in the activity being reduced & the pain stopping. Diabetics frequently have a silent angina, meaning the pain is not felt & the activity is continued with devastating results.

Blood flow to the heart muscle or the brain is similarly disrupted if there is a blood clot in the coronary arteries, or arteries that supply blood to the brain. Diabetics have a higher probability of blood clots than non diabetics. Stoppage of blood flow to the heart muscle causes the heart muscle to die, & is known as a **Myocardial Infarction or Heart attack**. Stoppage of blood flow to the brain is called a **Brain Attack or Stroke**. During these events, the patient often exhibits mental confusion, emotional distress, dizziness, breathlessness, nausea, weakness, sweating, & has crushing pain . A

heart attack or stroke is a medical emergency requiring the patient to be rushed to the hospital immediately.

Dr Tarek pointed out the **American Heart Associations & the American Diabetic Associations, 8 essentials**, for diabetics & heart patients.

**-Eat Better:** eat in moderation & have a balanced diet

**-Exercise:** walking or some similar activity for 30 minutes daily, accompanied by light muscle building exercises

**-Control sugar:** If HbA1c is above 7, go onto regular & daily medication

**-Weight:** If above 25 BMI, lose weight.

**-BP:** If above 140/90 consult your Physician

**-Lipids:** Keep Total cholesterol below 200 & LDL below 130

**-Smoking:** Quit under any circumstances

**-Sleep:** 7-9 hours daily

In conclusion Dr Tarek offered his own formula of **A, B, C, D, E, F, & S**, for managing Diabetes & Heart ailments.

**A:** A1C, 3 monthly blood report should remain under 7

**B:** Blood Pressure should remain below 140/90

**C:** Maintain Cholesterol below 200

**D:** Drugs & medication to be taken regularly to maintain above medical readings.

**E:** Exercise moderately every day

**F:** Food & Diet to be moderate & balanced

**S:** Stop Smoking, manage Stress & maintain Sleep

Article Link: <https://uaenews247.com/2024/10/29/rak-hospital-educates-uae-residents-on-heart-health-risks-tied-to-diabetes-in-ongoing-diabetes-challenge-2024/>

Webinar Link: <https://www.youtube.com/watch?v=GrHLO04TICE>