



IMPORTANCE OF MONITORING BLOOD SUGAR LEVEL: POST COVID

* Dr. Vishwambhar Jadhav

** Ms. Deksha Shetty

*Assistant Professor, ** M.P.Ed. Scholar, Department of Physical Education, University of Mumbai

Abstract:

The current paper studies the growing trend and the worldwide concern about Diabetes and its types along with the problems and complications associated with it such that the person who is diagnosed with diabetes run the risk for low muscular strength along with a faster decline in the muscle strength. Through studies, it has been observed that in recent years, the type 2 Diabetes Mellitus prevalence has significantly increased in low- and middle-income countries compared to higher-income countries and post COVID-19 it has been notoriously leaving diabetes as an aftermath.

Different associations/organisations and research studies have prescribed varied indicators of self-care behaviours. Let's take for example, The American Association of Diabetes Educators (AADE) has identified seven self-care behaviours: healthy eating, being active, monitoring, taking medication, problem-solving, healthy coping, and reducing risks. Based on various studies, this paper will mainly probe on how checking your blood sugar levels requires high attention and adequate self-care which can prevent or better manage the disease by making positive amendments and changes in lifestyle by including physical activities in daily regime for its prevention or effective management.

General public needs to be educated about some self-care behaviours which is essential to control adequate metabolism and to prevent long-term complications. Such awareness can contribute to bringing down the cases of diabetes or at least help to manage it. Globally collective research in the area of prevention, control, and management of diabetes and better health care services are the need of the hour.

Keywords: Blood Sugar, Post COVID, Diet, Physical Activity

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Introduction:

According to the International Diabetes Federation (IDF), the number of people with diabetes mellitus has increased from 108 million in 1980 to 422 million in 2014 and 537 million in 2021 and this number is likely to reach 643 million by 2030. Apart from the studies proving that nearly 80% of the people living in low-income and middle-income countries are more prone to diabetes there is also another interesting study which shows that compared to other ethnic groups, South

Asian countries such as India, Nepal, Sri Lanka, Pakistan, Bangladesh, etc. are at a higher risk of diabetes mellitus type 2. This is because people from this region of the globe tend to have characteristics responsible for diabetes and cardiovascular disease such as more abdominal fat, more insulin resistance, low levels of adiponectin, high triglycerides, low high-density lipoproteins and high low-density lipoproteins. Also, the awareness and knowledge about the disease is also minimum which leads to improper self-care,

delayed diagnosis and treatment. It is essential that people are educated about the inclusion of physical activities in their day to day lives and avoiding stress which is critical for managing blood glucose and general health in individuals with diabetes and prediabetes conditions and also understanding the whole truth that the physical activity and exercise recommendations and precautions may vary with the type of diabetes diagnosed in an individual. i.e. type 1 diabetes, type 2 diabetes, prediabetes and gestational diabetes mellitus.

Definition:

Diabetes is a chronic (long-lasting) health condition that affects how your body turns food into energy. Your body breaks down most of the food you eat into sugar (glucose) and releases it into your bloodstream.

Rising Trends in the Cases of People With Diabetes:

Diabetes is becoming a silent killer as evidenced by statistics, with huge populations in the world dominated by diabetes, this global health problem is steadily increasing. Unfortunately, her more than 212 million people with diabetes are unaware of their disease. Over 352 million people suffer from impaired glucose tolerance (IGT), putting them at increased risk for complications such as diabetes, cardiovascular disease, stroke and kidney development. Disability, foot ulcers, visual impairment, nerve damage. The risk was also revealed when it was observed that people with blood sugar problems were more likely to develop severe complications and symptoms of COVID-19.

COVID-19 and Diabetes:

COVID-19 has been often referred to for its serious and not so serious aftermath such as concentration issues, fatigue, stomach issues but health caretakers are now worried about a familiar condition being triggered, which is diabetes.

According to the research, published in *The Lancet Diabetes & Endocrinology*, shows that COVID-19 can increase a person's risk of developing diabetes up to a

year later, even after a mild SARS-CoV2. This was proved after conducting an extensive study with a sample size of approximately 2,00,000.

This upward graph in the rise of diabetes post COVID-19 is a worldwide observation and more studies have been probed on this. Signs of a rise were noticed in the first few months of the pandemic in Wuhan, China, and have since been confirmed in other countries.

There are possible reasons why this could have happened, the first reason being that during COVID, many undiagnosed diabetic cases would have come to known because of the blood sugar diagnosis in addition to the COVID diagnosis. On the other hand, is the phenomenon called stress hypoglycaemia which during illnesses, e.g. a viral infections tend to release stress in the human body, and this results the blood sugar levels to spike.

Once the illness resolves, the symptoms may subside, so in theory the diabetes diagnosis is temporary, although it is also true that those affected are at a higher risk of developing true type 2 diabetes later in life.

Indicators of Self-Care Behaviour:

While as of now we do not have a cure for diabetes, but a person with diabetes can live a healthy life through self-management strategies. While we have various indicators of how we can manage self-care, an overall analysis of the lifestyle routines and behaviour remains to be healthy diet, physical activeness, keeping the weight under control, proper medication, diagnosis that includes, regular glucose monitoring, checking cholesterol levels, taking care of kidneys, avoiding stress, etc. Also dealing with diabetes or managing it may at times trigger emotional lows as well. It is therefore essential to realise and accept such emotions and focus on self-care.

Diabetes and Diet:

Although eating healthy does not mean that you have limited eating options and that you cannot eat your favourite

food or check in to your favourite food joint. However, one must have the knowledge that different food affect their blood sugar differently based on which a check on the food that one eats is crucial and necessary.

It is essential to meet a nutritionist or doctor to make a diet plan or chart for you. It is essential to include healthy carbohydrates, leafy vegetables, food rich in fiber, proteins such as beans pulses, eggs, fish. It is necessary to avoid some food items from the diet such as processed meats and cold cuts and red meats, high carb items such as refined grains like white bread, pasta, and rice, sugar-sweetened beverages, fried food items such as French fries, chips, candy, alcohol, breakfast cereals. Also having a fruit is better than having a fruit juice.

The plate method by adjusting the portions of certain food groups is an effective way to keep your blood sugar levels under control. To begin with, the plate has to be filled half with vegetables that are non-starchy e.g. leafy vegetables, cauliflower etc. Next one quarter of proteins and the remaining quarter with carbohydrates including whole grains, fruit or dairy products.

Diabetes and Physical Activity:

With a weekly physical activity goal aimed at 150 minutes of moderate-intensity, the types of exercises and physical activities that a person with diabetes or in the pre diabetes stage could include walking, cycling, jogging, swimming or aerobics. Strength training can also be a good option to consider since with the condition of steady decline in muscle strength, it can help in muscle mass, insulin sensitivity body composition, strength, physical function, mental health, etc. especially for people with type 2 diabetes visible improvements in glycaemic control, insulin have been observed.

Whichever option of remaining active may apply to the person, he may choose that one but with necessary consultation with a health care professional. Also, it is

essential that the blood glucose level should be monitored before, during, and immediately after a physical activity is performed because physical activity can lower the blood glucose level and develop a condition called as hypoglycaemia. Balancing the activity with an insulin doses that one takes is also essential so that one doesn't end up having low blood glucose.

Also, the thumb rule of hydrating needs to be followed throughout. If not a form of exercise, making simple changes to one's daily routine can also be valuable. For e.g. spending less screen time and taking sufficient breaks which include walking, taking the stairs instead of the lifts/elevators etc. and doing light activities such as leg lifts, overhead arm stretches, desk chair swivels, torso twists or including simple stretching exercises such as chair yoga i.e. holding onto a chair while when sitting or standing etc.,

Doing alternate types of physical activity every week will reap great health benefits and reduce boredom.

Diabetes and Collective Responsibility:

As a state, it is essential that better government health care services are provided along with care and recommendations in areas of diet and exercises. It is crucial that open spaces and recreational centres are provided so that people are better equipped to manage diabetes.

In India, support groups for diabetes are a very rare phenomenon, hence a considerate step needs to be taken as an initiative to form more support groups for people coping with diabetes in order to provide a platform to vent out and express themselves freely. This may be helpful for the ones who have been recently diagnosed as it may provide necessary insights about coping methods.

While there is quite a list of what needs to be done and what needs to be avoided for a diabetic, it is essential that the other half of humanity who are not diabetic can contribute as well. Their support as a friend, a workout



buddy, an ally to encourage and follow healthy diet, or spread relevant knowledge and new developments in the area that they may come across may help people coping with diabetes in a better manner. With diabetes, people tend to be vulnerable to mood swings and disturbances due to sugar fluctuations, it is important to be patient and empathetic with a person with diabetes. Spreading positivity and not negative stories may be an essential channel to provide confidence and the much-needed support. We can all strive to keep diabetes and its implications at bay or at least easily manageable, if we all come together and support each other.

Conclusion:

Covid lockdown has been a very crucial time for everyone. Many people lost their lives, a lot of people are facing survivors guilt because of what they went through, especially those who lost their loved ones. People have been going through a lot of trauma dealing with mental, emotional and physical stress trying to cope up with things in their life. Worrying about how long we are going to face these crisis, stressing about how they would manage their finances? How long will they have to face these crisis, etc. Staying at home has made everyone sick, frustrated, irritated, stressed and worried. Healthy lifestyle is very important in these times. Viral infections tend to release stress in the human body and this results in the blood sugar levels to spike. Covid has had a major impact on the whole world especially people from low income or middle income groups belonging to South Asian region who

have been diagnosed with diabetes. Post covid it has become mandatory to adapt to lifestyle changes which includes self-management strategies like healthy eating, being active, monitoring health, taking medicine on time, problem solving and reducing the stress in our daily lives. Physical activities are very important for healthy living. Staying indoors for so many months has reduced physical activities and has increased the usage of electronics which is hazardous to our health. We should consider physical activities like walking, jogging, swimming, aerobics or going to the gym.

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