World Health Day 2016 - Win the Battle against Diabetes

Diabetes: Global prevalence

- Nearly 350 million people across the world have diabetes, a number likely to double in the next 20 years[i].
- Over 80% of diabetes-related deaths occur in low- and middle-income countries[ii].
- Around 90% of all diabetes worldwide is Type 2 diabetes and incidences of Type 2 diabetes in children have increased worldwide[iii].
- As per the WHO, diabetes will be the seventh leading cause of death by 2030. It is the leading cause of kidney failure, amputation and blindness worldwide[iv].

Diabetes: India prevalence

- As per the WHO, people with diabetes in India doubled from 32 million in 2000 to 63 million in 2013 and this number is projected to increase to 101.2 million in the next 15 years[v].
- Around 7.8% people in India are afflicted with diabetes, which includes 7.9% males and 7.5% females. 75,900 males and 51,700 females in the age group of 30-69 years died due to diabetes in 2015, whereas 46,800 males and 45,600 females above 70 years of age died of the disease[vi].
- Overweight is the highest risk factor for diabetes in India, affecting 21.4% population (19 % males and 23.9% females)[vii]. Key factors are very high consumption of sugars and fats among affluent populations. Further due to increasing urbanization and mechanization, urbans Indians have a sedentary lifestyles with physical activity given low priority.

What is Diabetes? What are its symptoms?

- Diabetes is a chronic condition caused when the pancreas produces insufficient quantities of the hormone insulin, or when our body cannot effectively utilize the insulin it produces. Insulin is the hormone in our bodies that regulates blood sugar.
- **Type 1 Diabetes** is a condition where the body has deficient insulin production and requires daily doses of insulin. Why Type 1 diabetes occurs is not known and it is not preventable as on date. The main symptoms include frequent passage of urine, excessive thirst, constant pangs of hunger, unexplained weight loss, changes in vision and tiredness.
- **Type 2 Diabetes** is caused by the body's ineffective use of insulin due to overweight and lack of physical activity. 90% of people with diabetes around the world have Type 2 diabetes.
- Symptoms could be similar to Type 1 diabetes, but often latent or non-specific. Lately, Type 2 diabetes is also increasing among children.

- **Gestational Diabetes Mellitus** is defined as glucose intolerance with onset or first recognition during pregnancy[viii]. Women without previously diagnosed diabetic conditions exhibit high blood glucose levels during pregnancy mostly during their third trimester. Women with gestational diabetes are at an increased risk of complications during pregnancy and at delivery. They are also at increased risk of type 2 diabetes in the future.
- **Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG)** are intermediate conditions between being normal and having diabetes. People with IGT or IFG are at high risk of progressing to type 2 diabetes.

Are South Asians more prone to developing diabetes?

Several studies show that there exists a higher prevalence of Type 2 diabetes among South Asians as compared to other ethnic populations[ix]. Key /determinants are:

- Genetic factors such as higher rates of insulin resistance and postprandial glycaemia
- Tendency for fat deposits around the abdomen
- Metabolic syndrome
- Non-alcoholic fatty liver disease
- Lack of a balanced diet, higher consumption of starchy foods, low intake of vegetables and fruits, Deep rooted culture of consuming sweets during festivals and religious events.
- At the individual level, lack of physical activity; at the socio-economic level, lack of community facilities and open spaces in urban areas for exercise and sports, costs of gyms and exercise gear being beyond the means of the common citizens
- Low access to affordable and quality healthcare
- Higher rates of rural-urban migration and resultant changes in lifestyle with dependence on outside food
- Traditional practice of sedentary lifestyle and high calorie diet during pregnancy by women
- Delayed detection – fear of going to the doctor or undergoing blood tests

Dr Anoop Misra, Chairman, Fortis C-DOC Hospital of Diabetes and Allied Sciences, says, "*Indians suffer from an early onset of dysmetabolic state due to excess body fat, fatty liver and genetic predisposition. Proper diet and moderate physical activity should be part of the lifestyle consistently from early years to prevent diabetes. Once it develops, management must be followed in a vigorous and disciplined mode, and according to recently suggested India specific diabetes treatment algorithm. Finally, we should develop our own research agenda on diabetes, and not copy and paste from western based diktats, so as to benefit our population with unique diet and lifestyle charateristics* **"**

Diabetes Advisory – How can we prevent and help control diabetes?

- Eat a Healthy, balanced diet with 4-5 servings of fruits and vegetables (preferably green leafy) everyday
- Exercise regularly for 60 minutes daily (this includes 30-minute walk (leisure time physical activity), 15-minute walk included in work schedule) and 15 minutes resistance training with small weights
- Do not plan social outings and events around food, instead adopt sports and physical activity into your lifestyle
- Go for a health check, consult a medical professional if symptoms such as excessive thirst, hunger, weight loss, fatigue and blurred vision persist. Routine blood sugar check should be done in all adults above 30 years of age.
- If you have diabetes, control and manage it by eating healthy, being active, taking the prescribed medication as per medical advice, controlling blood pressure and avoiding tobacco and alcohol use.
- Manage stress through yoga, meditation, by having a positive outlook and taking time for leisure activities
- Stop smoking and tobacco, and limit alcohol intake

What are some of the new advancements in the research and treatment on diabetes?

- Management of type 2 diabetes has been improved by recent introduction of several drugs including those acting via GLP-1 pathways and through kidney specific receptors. There are 5 more classes of drugs under development. Several new long acting insulins have been discovered.
- University of Virginia researchers are focusing on a new method of creating an Artificial Pancreas (DiAs AP) algorithm that can be used continuously in individuals with type 1 diabetes to help monitor their blood glucose levels and keep them in range all day and night[x].
- A long term prevention programme including lifestyle measures and oral antihyperglycemic agents have shown up to 61% reduction in the development of type 2 diabetes in patients with prediabetes.
- Oil and nutrient changes in diets of Indian population has been researched to show potential for prevention of diabetes and management of fatty liver.

References:

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About Fortis Healthcare Limited

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