**The Main Cause of Diabetes**

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According to the International Diabetes Federation (IDF) Diabetes Atlas.10th edition, it is estimated that 537 million people have diabetes, and this number is projected to reach 643 million by 2030, and 783 million by 2045. The report further indicated that 541 million people were estimated to have impaired glucose tolerance and that over 6.7 million people aged 20-79 died from diabetes-related causes in 2021 Sun et al., (2022). If this report is anything to go by, then diabetes is one of the chronic diseases that affect millions of people worldwide. It is characterized by high levels of blood sugar, either because the body does not produce enough insulin (Type 1 diabetes) or because the body’s cells do not respond properly to insulin (Type 2 diabetes). There are also other less common types of diabetes, such as gestational diabetes, which occurs during pregnancy. We are going to see the main causes of diabetes which is a combination of genetic and environmental factors. While genetics play a big role in determining an individual’s risk of acquiring diabetes, lifestyle choices such as nutrition and exercise also play a key role in the development of the disease (American Diabetes Association, 2021).

Genetic predisposition is one of the primary causes of diabetes; studies have demonstrated that people with family history of the disease are more likely to develop the condition themselves; for instance, a study published in the journal Nature Genetics found that specific genetic mutations are linked to an increased risk of Type 2 diabetes, suggesting that genetics can be a major factor in determining an individual (Scott et al., 2017).

Obesity is another major factor that leads to the development of diabetes. Being overweight, especially in the abdominal area, increases the risk of Type 2 diabetes because excess fat cells can impede the body’s ability to use insulin properly, which raises blood sugar levels. A study that was published in the journal Diabetes Care found that people who had a body mass index (BMI) of 30 or higher had a significantly higher risk of developing diabetes than people who had a lower BMI (Church et al., 2018).

The development of diabetes is also significantly influenced by eating a diet heavy in sugar and unhealthy fats. Overtime, insulin resistance might develop as a result of eating foods high in refined carbohydrates, such as sugary drinks and snacks. In contrast to people who had a diet low in sugar, those who consumed a diet low in sugar, those who consumed a diet in sugar were shown to be more likely to develop Type 2 diabetes, according to a study published in the journal PLOS One (Church et al., 2018).

Another important risk factor for diabetes is physical inactivity. Not exercising can result in weight gain and decreased insulin sensitivity, which raises the risk of Type 2 diabetes. A study published in the journal Diabetologia found that people who regularly exercised had a lower risk of developing diabetes than people who were sedentary. This finding emphasizes the significance of including exercise in one’s daily routine to lower the risk of diabetes ( Willi et al., 2019).

Smoking is a significant additional risk that contributes to the development of diabetes. In a study published in the journal Diabetologia, it was shown that smoking increased the risk of Type 2 diabetes by as much as 40%. This is due to the fact that smoking can lead to oxidative stress and inflammation in the body, which can result in insulin resistance and high blood sugar. Giving up smoking can enhance general health and drastically lower diabetes (Willi et al., 2019).

In addition, there is a higher chance of developing diabetes in people who have certain medical conditions. Polycystic ovary syndrome (PCOS), a common hormonal disorder in women, can cause insulin resistance and elevated blood sugar levels. Hypertension, or high blood pressure, can damage blood vessels and organs, which increases the risk of developing diabetes. A study that was published in the journal Diabetes Care found that people with PCOS had a higher chance of developing diabetes that people without the condition (Orio and Palomba, 2020).

Diabetes can also be brought on by environmental factors, such as exposure to specific toxins and pollutants. Studies have indicated that exposure to chemicals like bisphenol A (BPA) phthalates, which are frequently found in plastics and personal care products, can disrupt the body’s hormonal balance and raise the risk of developing diabetes. One study, which was published in the journal Environmental Health Perspectives, found that people who had higher levels of BPA in their urine were more likely to develop Type 2 diabetes compared to those with lower levels (Rajan and Patel, 2021)

**Conclusion**

Diabetes is a complex disease with multiple causes. While genetics play a significance role in determining an individual’s risk of developing diabetes, lifestyle factors such as obesity, unhealthy diet, lack of exercise, and smoking, also play a crucial role in the development of the disease. Environmental factors, certain medical conditions, and aging can also increase the risk of diabetes. By understanding the main causes of diabetes and taking steps to address these risk factors, individuals can reduce their risk of developing the disease and improve their overall health.

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