



# Diabetes: Caused Infections and Types of Diabetes

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## Abstract

Infectious diabetes, also known as type 1 diabetes, is a chronic autoimmune disease that affects millions of people worldwide. It is caused by the destruction of insulin-producing beta cells in the pancreas, leading to a deficiency in insulin production and resulting in high levels of glucose in the blood. Diabetes is a chronic disease that affects millions of people around the world. It is a metabolic disorder in which the body is unable to produce or properly use insulin, a hormone that regulates blood sugar levels.

There are several types of diabetes, and one of them is infectious diabetes. Infectious diabetes, also known as type 1 diabetes or juvenile-onset diabetes is a condition in which the body's immune system attacks and destroys the insulin-producing cells in the pancreas. This results in a complete deficiency of insulin and an inability to regulate blood sugar levels. Infectious diabetes is called so because it is thought to be triggered by a viral infection, such as a cold or flu. While the exact cause of type 1 diabetes is not known, it is believed to be caused by a combination of genetic and environmental factors. Certain viruses, including the Coxsackie B virus, have been implicated as a possible trigger for the autoimmune response that leads to the destruction of beta cells.

**Keywords:** Diabetes, Virus, Autoimmune, Beta cells

## INTRODUCTION

The Coxsackie B virus is a member of the enterovirus family and is commonly found in the digestive and respiratory tracts. It is highly contagious and can be spread through contact with contaminated feces, saliva, or respiratory secretions. In some cases, it can cause mild flu-like symptoms, while in others; it can lead to more severe complications such as meningitis or myocarditis. Studies have shown that individuals who are infected with the Coxsackie B virus may have an increased risk of developing type 1 diabetes. It is believed that the virus may trigger an autoimmune response in susceptible individuals, leading to the destruction of beta cells in the pancreas (Agarwal KI, 1988).

Type 1 diabetes usually develops in childhood or adolescence, although it can occur at any age. It is estimated that about 10% of all diabetes cases are type 1. The exact cause of type 1 diabetes is unknown, but it is thought to be

a combination of genetic and environmental factors. People with a family history of the disease are at a higher risk of developing it. The symptoms of type 1 diabetes include increased thirst and urination, constant hunger, weight loss, blurred vision, and fatigue. If left untreated, type 1 diabetes can lead to serious complications such as heart disease, kidney damage, nerve damage, and blindness. The treatment of type 1 diabetes involves insulin therapy, which means administering insulin through injections or an insulin pump. People with type 1 diabetes need to monitor their blood sugar levels regularly and adjust their insulin dose accordingly. They also need to follow a healthy diet and exercise regularly to manage their blood sugar levels (Anand CI, 1983).

## DISCUSSION

Another type of diabetes is type 2 diabetes, which is the most common form of diabetes. Unlike type 1 diabetes, type 2 diabetes is a progressive condition in which the body

becomes resistant to the effects of insulin, and the pancreas gradually loses its ability to produce insulin. Type 2 diabetes is strongly linked to lifestyle factors such as obesity, physical inactivity, and an unhealthy diet. It can be prevented or managed through lifestyle changes, such as weight loss, exercise, and a healthy diet, as well as medication if necessary. There are also other types of diabetes, such as gestational diabetes, which occurs during pregnancy, and monogenic diabetes, which is caused by mutations in a single gene. These types of diabetes are less common than type 1 and type 2 diabetes (Achenbach Thomas M, 1978) (Agarwal K, 2006) (Anshu S, 1986).

Other viruses, including the rubella virus and cytomegalovirus, have also been implicated in the development of type 1 diabetes. However, the exact mechanisms by which these viruses may contribute to the development of the disease are not fully understood. Prevention of infectious diabetes is challenging, as there is currently no vaccine or cure for the disease. However, individuals who have a family history of type 1 diabetes or who are at increased risk of developing the disease may be able to reduce their risk by avoiding exposure to potential triggers such as viral infections. Once diagnosed, individuals with infectious diabetes require lifelong insulin therapy to manage their blood glucose levels. They must also closely monitor their blood glucose levels and follow a healthy diet and exercise regimen to prevent complications associated with the disease (Block, 1976) (Bossard Boll, 1955) (Burt FI, 1962).

## CONCLUSION

Infectious diabetes is a chronic autoimmune disease that is caused by the destruction of insulin-producing beta cells in the pancreas. While the exact cause of the disease is not known, viruses such as the Coxsackie B virus have been implicated as possible triggers. Prevention of the disease is challenging, and there is currently no cure. However, with proper management, individuals with infectious diabetes can live long, healthy lives (Caldas SJ et al., 1997).

Diabetes is a complex and chronic disease that affects millions of people worldwide. Infectious diabetes, also known as type 1 diabetes, is a condition in which the immune system attacks and destroys the insulin-producing cells in the pancreas. This type of diabetes is thought to be triggered by a viral infection. Type 1 diabetes is managed

through insulin therapy, regular blood sugar monitoring, and lifestyle changes. Type 2 diabetes, the most common form of diabetes, is linked to lifestyle factors and can be prevented or managed through lifestyle changes and medication if necessary (Chauhan NS et al., 1980).

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## CONFLICT OF INTEREST

None

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