

**Non-insulin Dependent Diabetes Mellitus**  
**By**  
**Khang Le**

**SWOSU at Sayre MLT Program**  
**409 E Mississippi**  
**Sayre, OK 73662**

## **Non-insulin Dependent Diabetes Mellitus**

**Non-insulin dependent diabetes mellitus (NIDDM), also known as Type 2 diabetes mellitus, is an endocrine disorder in which there is impaired insulin secretion or the cells of the body are resistant to the effects of insulin. This resistance causes a rise in blood glucose level leading to symptoms such as polyuria, polydipsia, and blurred vision. Although there are two main types of diabetes, Type 2 accounts for as much as 90% of all cases and the number of incidences is still increasing<sup>1</sup>. This disease state has a gradual onset and often occurs later in life. Other risk factors include a family history of diabetes, race or ethnicity, sedentary lifestyle, and obesity.**

**Type 2 DM is a chronic condition which requires regular screening and monitoring. According to the American Diabetes Association, screening should be done every 3 years in all adults beginning at age 45<sup>2</sup>. A simple fasting blood glucose test can reveal whether a person has diabetes, is pre-diabetic, or normal. A diabetes diagnosis requires a fasting glucose level of greater than 126 mg/dL on two separate occasions<sup>3</sup>. Once diagnosed, patients should use a glucometer to monitor pre- and post-prandial plasma glucose. Keeping a record of these measurements help patients see whether their diabetes is getting better or worse and whether their medications are**

**working or not. Furthermore, patients should get their hemoglobin A1C checked every 3 to 6 months. This test shows the average blood sugar during a three to four month period. The greater the amount of sugar in the patient's blood, the higher the A1C results will be. High blood sugar over a long period of time causes damage to large and small blood vessels<sup>4</sup>.**

**Damage to large vessels lead to macrovascular complications such as cardiovascular disease, coronary artery disease, and peripheral vascular disease. Damage to small vessels lead to microvascular complications such as retinopathy, nephropathy, and neuropathy. Both of these complications can be managed through tight control of blood glucose. Along with self-monitoring of blood glucose, all diabetic patients should get yearly eye and dental exams, limit alcohol consumption, keep blood pressure and cholesterol under control, and check their feet daily for calluses, sores, or injuries because nerve damage may cause them to lose sensation.**

**All diabetic patients should also be aware of the signs and symptoms of hypoglycemia. This occurs when the blood glucose level is too low and presents as hunger, shakiness, dizziness, headache, and sweating. It is imperative to increase the glucose immediately through ingestion of 5-6 pieces of hard candy, ½ cup of fruit juice, or glucose tablets. If left untreated, the condition will worsen causing the brain to be deprived of the much needed glucose and the patient may pass out. If the patient has loss**

**consciousness, do not try to give them candy or juice. Instead, apply glucose gel to their buccal pouch or give them a glucagon injection.**

**Although there is no cure for Type II DM, there are many ways to control and slow the progression of the disease. Since obesity is one of the major risk factors, patients should be encouraged to engage in aerobic exercise 30 to 40 minutes per day most days of the week. The more fatty tissue a patient has, the more resistant their cells become to their own insulin<sup>3</sup>, therefore lifestyle modifications such as weight loss, control of blood pressure, eating a well-balanced healthy diet, and exercise is key in managing this condition. This means that over weight patients can greatly improve their blood glucose simply through losing weight. For patients that do not get adequate control of blood glucose through lifestyle modifications alone, there are many oral medications that can help. As the disease progresses, insulin can also be added on as adjunctive therapy.**

## Bibliography

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