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Type 2 Diabetes Overview

Type 2 diabetes is also known as noninsulin-dependent diabetes mellitus (NIIDM). When you have NIIDM, your body is resistant to the effects of insulin. Your body produces some, but not enough, insulin to maintain a normal glucose level. Left untreated, the consequences of NIDDM can be life-threatening.

Signs & Symptoms:

Increased thirst and frequent urination – As excess sugar builds up in your bloodstream, fluid is pulled from your tissues. This may leave you thirsty.

Extreme hunger – Without enough insulin to move sugar into your cells, your muscles and organs become depleted of energy. This triggers intense hunger that may persist even after you eat.

Weight loss – Despite eating more than usual, you may lose weight. Without the energy sugar supplies, your muscle tissues and fat stores may simply shrink.

Fatigue – You become tired and irritable if your cells are deprived of sugar.

Blurred vision – If BS level is too high, fluid may be pulled from your tissues- including the lenses of your eyes. This may affect your ability to focus.

Slow healing sores or frequent infections – NIDDM affects your ability to heal and fight infections. Bladder and vaginal infections can be a particular problem with women.

Some people with NIDDM have patches of dark, velvety skin in the folds and creases of their bodies – usually in the armpits and neck. This condition, called acanthosis nigricans, is a sign of insulin resistance.

How is glucose normally processed in the body?

Glucose is a main source of energy for the cells that make up your muscles and other tissues. Glucose comes from 2 major sources: the food you eat and your liver. During digestion, sugar is absorbed into the bloodstream. Normally, sugar then enters cells with the help of insulin. The hormone, insulin comes from the pancreas, a gland located just behind the stomach. When you eat, your pancreas secretes insulin into your bloodstream. As insulin circulates, it acts like a key by unlocking microscopic doors that allow sugar to enter your cells. Insulin lowers the

amount of sugar in your bloodstream. As your blood sugar level drops, so does the secretion of insulin from your pancreas.

Your liver acts a glucose storage and manufacturing center. Your liver releases stored glucose when your insulin levels are low to keep your glucose level within a normal range.

In NIDDM, this process works improperly. Instead of moving into your cells, sugar builds up in your bloodstream. This occurs when your pancreas doesn't make enough insulin or your cells become resistant to the action of insulin. Exactly why this happens is uncertain, although excess fat – especially abdominal fat – and inactivity seem to be important factors.

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Risk Factors:

Overweight

Inactivity

Family history

Race – blacks, Hispanics, American Indians and Asian Americans are more likely to have NIDDM

Age – after age 45

Prediabetes

Gestational diabetes

Screening & diagnosis:

Random BS (Blood Sugar) test – Random test regardless of eating of 200mg/dl or higher suggests diabetes

Fasting BS (Blood Sugar) test – After an overnight fast- -normal would be between 70 and 100 mg/dl. If the level is 100-125 mg/dl it is considered prediabetes.

If it is 126 mg/dl or higher on 2 separate occasions, you'll be diagnosed with diabetes.

Short-term complications:

Requires immediate care. Left untreated, these conditions can cause seizures and loss of consciousness (coma).

Hyperglycemia – eating too much, being sick, or not taking enough glucose-lowering medication.

S&S (Signs & Symptoms) – frequent urination, increased thirst, dry mouth, blurred vision, fatigue, and nausea. If BS is 250 mg/dl or higher contact your physician.

Increased Ketones in your urine (diabetic ketoacidosis) – your body may begin to break down fat, if your cells are starved for energy.

S&S – Loss of appetite, nausea, vomiting, fever, stomach pain and a sweet, fruity smell on your breath – especially if your BS level has been consistently higher than 250 mg/dl.

Hypoglycemia – BS can drop for many reasons, including skipping a meal and getting more physical activity than normal. However, it is most likely if you take glucose-lowering medications that promote the secretion of insulin or if you're on insulin therapy.

S&S – Sweating, shakiness, weakness, hunger, dizziness, and nausea are early signs. Later signs and symptoms include slurred speech, drowsiness, and confusion.

If you develop hypoglycemia during the night, you might wake with sweat-soaked pajamas or a headache. Thanks to a natural rebound effect, nighttime hypoglycemia might cause an unusually high blood sugar reading first thing in the morning.

Long-term Complications –
Heart & Blood Vessel disease
Neuropathy
Kidney damage
Eye damage

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Long-term Complications Cont. –
Foot damage
Skin and mouth conditions
Osteoporosis

Alzheimer's disease – The theory behind this is that cardiovascular problems caused by diabetes could contribute to dementia by blocking blood flow to the brain or causing strokes. Other possibilities are that too much insulin in the blood leads to brain-damaging inflammation, or lack of insulin in the brain deprives brain cells of glucose.

Self-Care:

Make a commitment to managing your diabetes

Identify yourself

Schedule yearly physical and regular eye exams

Keep your immunizations up-to-date

Take care of your teeth and gums

Pay attention to your feet – wash and pat dry thoroughly every day and inspect daily. Have physician inspect each office visit.

Get an Endocrinologist and a Podiatrist on your management team

Keep your blood pressure and cholesterol level under control

Stop using tobacco products

If you drink, do so responsibly

Learn to decrease stress

HbA1c Measurement

A1c (%)	mg/dl
6	135
7	170
8	205
9	240
10	275
11	310
12	345