



CARRYING EXCESS FAT AROUND THE WAISTLINE COULD QUADRUPLE THE RISK OF DIABETES

Ask Your Pharmacist

Anyone can develop type 2 diabetes, but some people may be more susceptible than others. Research now indicates that carrying excess fat around the waistline (a “spare tire” or “apple shape”) could quadruple the risk of diabetes and heart disease.

Scientists have discovered that before people develop type 2 diabetes, they often exhibit pre-diabetes symptoms – blood sugar levels that are higher than normal but not yet considered diabetic. According to the American Diabetes Association, dietary changes and exercise may delay or completely prevent the development of type 2 diabetes. In fact, recent research from Glasgow University shows that even 30 minutes of daily moderate exercise such as walking could reduce the risk for developing type 2 diabetes.

An early warning of diabetes development is metabolic syndrome – a new phrase used to describe a cluster of conditions including high blood pressure, high cholesterol, abdominal obesity, and high blood sugar (pre-diabetes). This syndrome affects at least one out of every five overweight people. Metabolic syndrome is increasing among American adults and could lead to further increases in diabetes and heart disease. Once detected, all of the conditions associated with metabolic syndrome can be managed or reversed.

The metabolic syndrome (also referred to as “insulin resistance syndrome” and “syndrome X”) is serious, because its components can lead to complications including hardening of the arteries and an increased risk for cardiovascular and kidney disease.

Because pre-diabetes and the conditions of metabolic syndrome may not exhibit symptoms, blood sugar testing and other screening procedures are vital for diabetes prevention and detection.

Our pharmacy offers comprehensive screening services.

Diabetes has reached epidemic proportions in the United States, with 21 million estimated patients, according to the diabetes association, and growing by one million every year. One in every three people born in 2000 in this country will develop diabetes. If unchecked, the disease also causes heart disease, kidney failure, blindness, dental disease and sexual dysfunction. People with Type 2 diabetes are twice as likely to develop Alzheimer's disease, recent research has shown.

The total costs are thought to be as much as \$132bn, with \$92bn being direct costs from medication, according to 2002 American Diabetes Association figures. According to the American Diabetes Association, complications from diabetes will overburden the health system and cost trillions of dollars unless more patients get better treatment now.

Responding to this ever growing market, each day, we hear of new products and medications for diabetes. Among the array of new products is an insulin pump that doesn't require a catheter; or a foot thermometer that measures inflammation to prevent ulcers. All the new drugs are second-line drugs and need to be taken with an existing generic drug, Metformin. But doctors caution that the current crop of drugs are treatments, not a cure, and can't replace a good diet and exercise.

Recently, Professor Jack Vanden Heuvel, of Penn State's Center of Excellence in Nutrigenomics, has suggested that incorporating Conjugated linoleic acids (CLA) as a dietary supplement or from enriched foods, in addition to a balanced diet, could be a suitable way of helping diabetics control their blood glucose and insulin levels.

CLA are found predominantly in dairy products such as milk, cheese and meat, and are formed by bacteria in ruminants that take linoleic acids – fatty acids from plants – and convert them into conjugated linoleic acids, or CLA.

for your best health

**Visit our pharmacy or website to learn more
about Diabetes.**

CARRYING EXCESS FAT (continued)

Researchers first became interested in CLA when it was shown to inhibit a variety of cancers such as breast, skin and colon in mice, and further research showed effects on circulating cholesterol and inflammation. These effects are the same as the newest generation of synthetic drugs used to treat diabetes in humans.

Early human trials indicate that when administered for longer than 8 weeks, CLA improves the body's misregulation of insulin and lowers the level of glucose in the blood in patients with adult onset, or Type-2 diabetes, the most common form of this disease.

Managing Diabetes

Experts agree that a healthy diet in combination with regular exercise is the best way to manage diabetes once it develops. Let's take a look at these treatment options for diabetes.

•**Diet.** People who suffer from diabetes must pay close attention to their diets, restricting refined sugars and eating a healthy balance of proteins, whole-grain breads, and fruits and vegetables.

•**Exercise.** Regular exercise promotes proper function of all body systems and stimulates weight management, both of which are important for diabetic patients. While most doctors recommend 30 minutes of daily aerobic exercise like walking, researchers now think that strength-training, in addition to regular aerobic exercise, may be more effective in controlling insulin levels than walking alone.

•**Weight Management.** Overweight diabetic patients should talk to their doctor or pharmacist about a weight loss program, since studies show that even modest amounts of weight loss can help to lower blood sugar levels in patients with type 2 diabetes.

Research has also shown that a number of other nutrients and herbs may help to control blood sugar or promote healthy circulation in diabetes. Along with lifestyle changes, medically supervised intake of nutritional supplements may be helpful for support of maintaining healthy blood sugar levels. Our pharmacist will be able to suggest a complete multivitamin and mineral supplement with added health specific ingredients designed to deliver many of the nutrients, herbs, and antioxidants known to support healthy blood sugar levels. These may include:

•**Chromium** is an essential trace mineral that plays a significant role in sugar metabolism and insulin function. Considered the most absorbable form of chromium is GTF (Glucose Tolerance Factor) chromium combined with glycine, glutamic acid, cysteine, and niacin

•**Gymnema Sylvestre** is an Ayurvedic herbal supplement that may also support healthy blood sugar levels.

•**Bitter Melon (momordica)** is an herb found to be useful in supporting healthy blood sugar levels.

•**Lipoic acid and Coenzyme Q10** - play important roles as antioxidants in preventing oxidative damage due to improper sugar metabolism. Alpha lipoic acid is known as the "master antioxidant" because it not only acts as an antioxidant itself, but it also restores other spent antioxidants such as vitamin C, vitamin E, and aids in the conversion of sugar into energy, thus improving metabolic fitness and energy levels

•**Magnesium, zinc, manganese, vanadium and selenium** are minerals

that play essential roles in activating enzymes which are used in the metabolism of glucose and other carbohydrates.

•**Niacin (vitamin B3)**, and its complement niacinamide, plays an important role in fat, cholesterol, and carbohydrate production. It is one of the essential GTF factors.

•**Vitamin C** is an important antioxidant which may help prevent some eye complications by decreasing a sugar-like substance called sorbitol which tends to accumulate in the in the cells of diabetics.

•**Essential Fatty Acids** – In addition to GLA and omega-3, Conjugated linoleic acid (CLA) a slightly altered form of the essential fatty acid linoleic acid may help with insulin regulation.

You should always seek the advice of your pharmacist before supplementing, because certain supplements may dangerously interact with your medications. Call us to set up a natural healthcare evaluation and medication review with our pharmacist.