

Review: Dr Sandra Cabot, Margaret Jainska ND, *Type 2 Diabetes: You Can Reverse it Naturally*, Health Direction Pty Ltd, Sydney, NSW, 2007 (2016 edn.)

Pages: 167

A Lurking Killer

With 415M suffering from diabetes worldwide, quadrupling in the last forty years (i.e., the same period during which childhood vaccine schedules have exploded), it is a serious threat to anyone's health.

This book give a basic but sufficient explanation of the three types of diabetes, the pathways of causation, symptoms, and natural treatments. Taken together, these promote self-awareness and prophylaxis measures against this disease.

Related medical information is also given where relevant which rounds this out as more than just a 'diabetes' book.

Introduction (pp. 5-13)

415M people suffer from diabetes worldwide, with 56% in the 40-59 year age bracket.

Type 1 develops in childhood¹ and required insulin injections. It is not preventable, seeing as the immune system has irrevocably damaged the pancreatic cells which produce insulin.

Type 2 is a result of poor diet, obesity, and lack of exercise. It is preventable.

A high carbohydrate and low fat diet always has elevated blood sugar levels.

Insulin is a hormone which controls fats and sugars. It is secreted by the pancreas into the bloodstream.

When sugar cannot get into cells via insulin and the insulin receptors it goes to the liver which turns it into fat.

Traditional weight-loss ‘treatment’ are fat-absorption reducing drugs which cause diarrhoea!

Brown underarm pigment is a sign of diabetes.

“Syndrome X” causes Type 2. These have a higher risk of gout.

Normal blood glucose is 4mmol/L.

¹I.e., the same time when vaccines are being administered!

I) Basic Information About Diabetes (pp. 14-20)

The pancreas is about 15cm long and weighs between 85 and 100g. It manufactures and secretes digestive enzymes into the small intestine, and releases insulin and glucagon into the blood.

Insulin is released in response to the presence of blood sugar.

Glycogen (from glucose) is stored in a limited capacity on the muscles, meaning extra glucose is stored as a triglyceride fat.

Glucagon is released in times of low blood glucose and converts fat into and protein into glucose.

Brain and liver cells are the only ones not requiring insulin to take up glucose.

Type 1 patients must inject daily.

Type 2 patients produce insulin but the cells no longer respond to it.

The fitter you are, the better able muscles can store glycogen.

Insulin increases water and salt retention, stimulates hunger, and inhibits muscle growth.

Growth hormone is thought to delay aging.

About 15% are Type 1, Type 2 80%, and gestational only in pregnant women.

Asians develop Type 2 diabetes at a much lower body weight.

II) Risk Factors and Symptoms of Diabetes (pp. 21-32)

The healthy secrete 31 insulin units each day, a Type 2 diabetic 114 units!

Fasting blood sugar above 5.5mmol/L is pre-diabetic.

A quarter of people have insulin resistance which is easier to nip in the bud than reverse Type 2 diabetes.

Consuming excess sugar is quite easy.

The two fibre types are soluble (e.g. fruits, vegetables, and oats) and insoluble.

Trans fatty acids (as found in margarines and cooking oils) in cell membranes reduce insulin's ability to bind.

Monounsaturated fats and omega 3 oils (as found in olive oil and almonds) improve insulin action.

Chromium helps cells communicate.

Magnesium increases insulin sensitivity.

Toasting glycolates food.

Aboriginal and Hispanics are 2-6 times more prone to Type 2 diabetes.

Thiazide diuretics and beta blockers used on high blood pressure medication slow the heart.

Zyprexa is used for schizophrenia.

Diabetes symptoms include: hunger, thirst, fatigue, nighttime urination, non-healing sores, blurred vision, numbness in extremities, skin tags, and acanthosis nigricans (on the back of the neck or on underarms).

III) Tests to Diagnose and Monitor Diabetes (pp. 33-45)

A healthy blood sugar level is 3.6-5.4mmol/L, but a non-fasting one (i.e. at least twelve hours prior to testing) is 3.6-7.7.

A glucose challenge test involves consuming 75g of sugar.

Urine glucose tests were popular in the 70s since some unabsorbed circulating glucose gets urinated out (at about 10mmol/L+).

The glycosylated haemoglobin (HbA1c) determines a three-month average glucose level. Since red blood cells live about three months, the amount of glucose accreted on the cells' surfaces is testable.

The pancreas produces a large protein pro-insulin, from which C-peptide is 'excised' by enzymes and enters the blood with insulin.

Over half of all diabetics have high blood pressure and are at risk of heart attack, stroke, and kidney damage.

Total cholesterol should range 3.9-5.5 mmol/L

HDL cholesterol should range 0.9-2.1 mmol/L

LDL cholesterol should range 1.7-3.5 mmol/L

Triglycerides should range 0.5-1.69 mmol/L

Urine contains the protein albumin if nephropathy is present.

Creatinine is a waste product of protein digestion and should be 0.05-0.11mmol/L.

Diabetics are very prone to foot problems.

Ketoacidosis occurs in sick or injured diabetics.

V) The Health Complications of Diabetes (pp. 46-56)

Small and large blood vessels can be damaged, as can nerves.

Fatty plaques from the transformed excess glucose can clog the blood (peripheral vascular disease) causing cramps while walking, cold feet, loss of hair on the lower.

Arterial blockage can cause ischaemic stroke, while ruptures are haemorrhagic.

Diabetics also get retinopathy (damaged retinas from micro haemorrhages), cataracts (causing lens damage which needs artificial replacement), and glaucoma (eye pressure).

Anti-oxidants can help with retinopathy.

Kidney nephrons have a glomerulus filter of blood vessels which, if damaged, will leak the protein albumin into the blood.

Any region of the brain deprived of oxygen for more than four minutes dies.

Uraemia is a toxified bloodstream.

Half of diabetics have erectile dysfunction.

Retrograde ejaculation causes cloudy urine but is not dangerous.

Testosterone deficiency causes hypogonadism.

Peripheral neuropathy and in extreme cases amputations may occur.

Glucose-damaged proteins (Advanced Glycosylation End-Products-AGEs) cause advanced ageing.

A subdued immune system results in feet and skin infection and delayed wound healing.

BPH is benign prostatic hypertrophy.

V) Medication Used in the Treatment of Type 2 Diabetes (pp. 57-60)

Sulfonylureas lower blood sugar by stimulating the pancreas to release more insulin. They lose effectiveness over time and promote weight gain.

Biguanides like metformin stops the liver from releasing glucose (and so also promotes weight loss). They cause vitamin B12 deficiency and cause a metallic taste in the mouth.

Thiazolidinediones cause weight gain, raise triglycerides, and decrease bone formation.

Alpha-glucosidase inhibitors block enzymes that digest carbohydrates.

VI) Reversing Type 2 Diabetes Through Diet (pp. 61-80)

There are eight essential amino acids (i.e. must be gotten from diet).

A protein is “complete” if it contains all eight, e.g. red meat, chicken, and eggs.

The body *cannot* convert carbohydrates or fat into protein.

Protein has two to three times the satiety value than carbohydrates or fats.

After a meal, energy expenditure increases to three percent for fat, ten for carbohydrates, and twenty to thirty for protein.

People with severe kidney disease must restrict protein intake since the kidneys are not available to remove waste products of digestion.

Triglycerides are three fatty acid molecules paired to a glycerol.

Saturated fats like coconut oil are stable, monounsaturated like olive oil are liquid at room temperature, and polyunsaturated liquid even when refrigerated. The two types are omega 6 (e.g. margarine, sunflower oil) and omega 3 (i.e. alpha-linolenic acid which converts into eicosapentaenoic [EPA] and docosahexaenoic acid [DHA]). Salmon, sardines, and mackerel are high in Omega 3 acid.

Transfatty acids are made by forcing hydrogen atoms into existing fat carbon-hydrogen chains resulting in hydrogenated vegetable oils. These are cheap and remain solid at room temperature. They inhibit communication between insulin and cells, also clog the liver.

Inflammation is promoted by being overweight, diabetes, stress, smoking, infections, and autoimmune disease.

Men who have heart attacks eat double the amount of sugar.

Carbohydrates are basically sugar linked in chains. Simple carbohydrates are sucrose, fructose (fruit sugar), glucose, and dextrose.

Complex carbohydrates include bread, potatoes and pasta.

In reality, all carbohydrates are eventually broken down into glucose and there are no essential carbohydrates.

The glycaemic index (GI) is a rating based on a 100-point reference. High is above 70, medium 56 to 70, and below 56 is low.

Glycaemic load (GL) is the GI as a decimal multiplied by the food's carbohydrate content in grams (over 20 is high, between 11 and 19 is medium, and under 11 is low).

Aspartame is made of phenylalanine, aspartic acid, and methanol (which breaks down into formaldehyde), and dikeopiperazine (linked to brain tumours).

Sucralose is formed by chlorinating sucrose (three chlorine atoms are substituted for three hydroxyl groups). This shrunk the thymus gland of rats by 40 percent.

Stevia was discovered in 1931 and contains no calories.

Xylital is a sugar alcohol.

Fructose only has a GI of 20.

Nuts contain fibre and magnesium and almonds reduce damage done to proteins by glucose.

Cherries contain anthocyanins which increase insulin production by 50 percent.

Coffee contains large amounts of the antioxidant chlorogenic acid, however, it is often heavily sprayed with pesticides.

VII) Conventional Dietary Recommendations for Diabetics and Why They'll Make You Worse (pp. 81-84)

The standard recommendation for diabetics is a low fat, high carbohydrate diet. This is terrible advice since carbohydrates promote insulin production (e.g. in Type 2 diabetics) as blood sugar levels rise. The cells cannot utilise the blood sugar so it is taken to the liver to be converted into fat.

Most cholesterol is made by the liver, not eaten.

VIII) Reversing Type 2 Diabetes Through Lifestyle Changes (pp. 85-92)

The sleep-deprived have lower leptin hormone levels, which is an appetite suppressant. At the same time the stomach releases more grehlin which is a hunger promoter.

Sleeping in total darkness aids the pineal gland to produce melatonin which helps deep sleeping.

Late eating causes unstable blood sugar levels and a restless sleep.

Magnesium is the “great relaxer”.

IX) Reversing Type 2 Diabetes Through Nutritional and Herbal Medicine (pp. 93-102)

Gymnema sylvestre is an Indian plant which promotes pancreas beta cell regeneration as a dosage of 400mg/day.

Bitter melon and berberine also help, the latter activates an enzyme called AMP-activated protein kinase and is at least as effective as metformin.

The berberine action is to improve insulin sensitivity and reduce intestinal permeability.

The body need chromium to digest carbohydrates (vitamin c increases chromium absorption).

Lipoic acid acts in the cell mitochondria and facilitates glutathione production.

Sixty percent of the body's magnesium is stored in the skeleton.

Adipocytes are fat cells.

Neopuntia is a patented fibre extract from the cactus plant and reduces insulin resistance.

X) Specific Recommendations for Avoiding Diabetic Complications (pp. 103-105)

Tumeric is a good blood thinner.

Egg yolks are an excellent source of zeaxanthin.

Sugar is an immune suppressant.

Selenium can inhibit virus replication.

XI) Eating Plan to Reverse Type 2 Diabetes (pp. 107-155)

The omega 3 acids in nuts are easily damaged with heating.

Hypoglycemia is under 3.3mmol/L blood sugar and includes hunger, weakness, headache, cold sweating, pounding heart, brain fog, numbness in extremities. Tiredness lingers for hours after an episode.

Glossary and Conclusion (pp. 156-167)

Diabetes has quadrupled in the last forty years with most cases resulting from immune system malfunction.

Casein and gluten in cow's milk protein are similar to beta cells so that milk allergies could theoretically affect the pancreas.

The gluten intolerant are three times as likely to be diagnosed with Type 1.

Gastrointestinal tract viruses can also hurt the beta cells.

Damaging nitrates and nitrosamines are from nitrogen fertilisers and cured meats.

A further complication of Type 1 diabetics is that they can become insulin resistant to the insulin they are injecting!

Ketacidosis is severe high blood sugar.

Prandial refers to meals.