DISCLAIMER
Information and advice published in this e-Book is designed to provide helpful and useful advice regarding diabetes in general. The author and company do not engage in diagnosing any health problem or to replace the healthcare professional's treatment or advice.
This book contains descriptive information on the subject of diabetes and we are giving healthy and sound advice regarding sensible lifestyle changes to manage diabetes.
It’s been proven that type 2 diabetes can be reversed with a disciplined healthy lifestyle, diet & exercise. It is your choice to seek a second opinion if you are uncomfortable or have any unanswered questions about the treatment recommended by your health care provider. Please talk to your health care practitioner before making any drastic lifestyle changes.

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What is diabetes?

Diabetes is an illness that relates to problems with the hormone insulin. When functioning correctly, the pancreas releases insulin which then lets the body retain or utilize sugars and fats taken in through the food we eat.

**Diabetes occurs when:**

- No insulin is produced
- Insufficient amounts of insulin is produced
- The body does not react to insulin in the correct way, a disorder known as “insulin resistance”
- Suitable management regarding the disease is needed after an individual has been diagnosed with diabetes.

Generally three types of diabetes are referred to, namely:

**Type 1 Diabetes:**

This is when the beta cells (Insulin-producing cells) are killed by the body’s immune system. As a result the body does not produce any insulin. Subsequently insulin injections must be used to regulate the blood sugar levels.

Type 1 diabetes may occur from as early as the age of 20 and makes up roughly 10% of all people suffering from diabetes.

**Type 2 Diabetes:**

In this case the pancreas does produce insulin, but it is either an inadequate amount or the body is resistant to it. Both of these cases result in glucose not being able to enter the body’s cells. It is most commonly found in people who are overweight and usually older than 40 years of age.

There are however instances of type 2 diabetes where this is not the case, and these instances are rising due to the increase in child obesity.

Usually type 2 diabetes is controlled by making healthy lifestyle choices. Sometimes medication is used in addition to a healthy way of living.

Pre-Diabetes is when an individual has higher blood sugar levels than normal, but not yet as high as type 2 diabetes. Pre-diabetes can develop into type 2 diabetes but this can be prevented by living a healthy lifestyle.

Type 2 diabetes can even be completely reversed by means of: A strict eating plan, regular exercise, the correct health supplements, controlling stress, getting sufficient sleep and drinking a healthy amount of water.

Type 2 diabetes accounts for up to 90% of all diabetes patients.
**Gestational Diabetes:**

Gestational diabetes is caused by pregnancy. During pregnancy the effectiveness of insulin is impaired due to hormone changes. This happens in about 4% of pregnancy cases.

Factors that increase the chance of gestational diabetes are: being over 25 when pregnancy occurs, being over the recommended body weight before the pregnancy or when having a family history of diabetes.

During the pregnancy, a screening test can be done for gestational diabetes. If not treated, gestational diabetes leads to an increased risk of complications to the mother as well as her unborn child.

Normally, blood sugar levels return to normal within 6 weeks of giving birth.

Women who have suffered from gestational diabetes during pregnancy have a higher risk of developing type 2 diabetes later in their lives.

Medication cannot be used during pregnancy to manage gestational diabetes, but with the correct diet and a supplement like the Manna Blood Sugar Support, women can ensure better blood sugar levels, thus controlling gestational diabetes more effectively.

**Why Is It Called Diabetes Mellitus?**

Diabetes originates from Ancient Greek, meaning a “siphon”. Aretus the Cappadocian – a Greek physician during the second century A.D. – named the ailment diabainein. This described sufferers, who were passing too much water – like a siphon. The word developed into “diabetes” from the English adoption of the Medieval Latin “diabete”.

In 1675, Thomas Willis attached mellitus to the name, although it is usually only called diabetes. Mel in Latin means “honey”; the urine and blood diabetes sufferers contain an excessive amount of glucose, and glucose is sweet like honey. Diabetes mellitus could literally translate to: “siphoning off sweet water”.

In ancient China people discovered that ants were drawn to some people’s urine, as it was sweet. The term “Sweet Urine Disease” was invented.

**What Are the Symptoms of Diabetes?**

In most cases symptoms develop gradually over time or there are no clear symptoms. However, in some cases symptoms appear rapidly and are usually then quite severe.
Symptoms of diabetes include:

- **Frequent Urination**
  Diabetes causes excess glucose (sugar) to build up in the blood. This results in the kidneys having to work harder to filter and absorb the excessive amount of glucose. If the kidneys cannot keep pace with processing the glucose being built up, the excess glucose as well as fluids drawn from your body tissue is excreted through urination.

- **Increased Thirst**
  The above mentioned process leads to the body being dehydrated, thus causing a constant thirst. When more fluid is taken in to satisfy the thirst, it adds to the frequent urination.

- **Dry mouth**
  This is a symptom of the above mentioned dehydration where there is a lack of moisture in the mouth.

- **Fatigue**
  Fatigue is when a person feels very tired and physically weak. This is due to more than one factor. Factors include the constant urination and subsequent dehydration as well as the body’s inability to operate as it should due to it not being to use sugar properly to produce energy.

- **Unexplained weight loss**
  Weight loss occurs during diabetes as a result of frequent urination as glucose and therefore calories are lost during urine excretion. Consistent hunger may also be experienced as diabetes keeps the glucose from reaching your cells.
  The combined effect is possible dramatic weight loss, which is especially the case during type 1 diabetes. Type 2 diabetes sufferers do not tend to lose as much weight. A doctor should be consulted if you lose weight without altering previous eating habits.

- **Blurred vision**
  Blurry vision is often a sign of diabetes. This is due to extended dehydration where high levels of blood sugar draw the fluid from the lenses of the eyes. This results in the eyes not being able to focus properly. If not treated, diabetes can damage the retina and lead to a loss of vision.

- **Headaches**
  Diabetes affects different systems in the body which can cause conditions that result in headaches. Examples of such conditions are: problems relate to eyes, high blood pressure levels, high blood sugar levels, and neuropathy.
• **“Fruity” Breath**
  Because sugar is not absorbed properly into the cells due to the ineffectiveness of insulin, the body uses fat to produce energy instead. A specific type ketone, acetone, causes the breath to have a fruity scent, almost like that of nail polish remover.

• **Increased hunger** - (especially after eating)
  Insulin helps in the transportation of glucose to cells. When the cells become resistant to insulin, glucose cannot reach the cells and the cells become deprived of glucose. This causes constant hunger, even directly after a meal.

• **Long healing time for sores, bruises and cuts**
  This is due to high blood sugar levels damaging nerves and retarding blood circulation, especially in the feet and legs.

• **Yeast Infections**
  Diabetes can cause many infections such as: yeast infections, skin infections, urinary infections, or gum and mouth infections. This is due to diabetes damaging the circulatory and nervous systems.

• **Itchy skin**
  This itching is usually felt in the vaginal or groin area. Itching should be reported to your doctor. Causes of Itching can be: infection, dryness, or poor blood circulation. It is not uncommon to experience an itchy feeling in the genital area when high blood sugar levels are present. A tell-tale sign of early diabetes is itching in the lower part of the legs.

• **Irritability**
  This is caused by fluctuation in the blood sugar levels as this can cause mood swings.

• **Numbness or tingling of limbs**
  High blood sugar levels can cause a tingling sensation due to damage caused to the nervous system. This is known as neuropathy. This symptom often only appears after a few years.

• **Erectile dysfunction or impotence**
  Type 2 diabetes can cause sexual related problems which affect the sex drive, cause erectile dysfunction in men, and cause difficulty, discomfort, or pain during sex for women. This is once again due to damaged nervous- or circulatory systems which are important during sexual intercourse.

• **Skin Complications**
  Due to the dehydration skin irritation is very common. Bacterial and fungal infections are a problem among diabetes sufferers. A common one of these is an infection known as “acanthosis nigricans”. Symptoms of this are velvet dark skin in bodily creases such as the neck, genitals, and underarms.
What Causes Diabetes?

Type 1 diabetes is an autoimmune disorder. It’s believed that a combination of genetic predisposition and additional (as yet unidentified) factors provoke the immune system into attacking and killing the insulin-producing cells in the pancreas.

Type 2 diabetes is mainly caused by insulin resistance. This means no matter how much or how little insulin is made, the body can’t use it as well as it should. As a result, glucose can’t be moved from the blood into cells. Over time, the excess sugar in the blood gradually poisons the pancreas causing it to make less insulin and making it even more difficult to keep blood glucose under control.

Obesity is a leading cause of insulin resistance – at least 80% of people with type 2 diabetes are overweight. Genetic factors are also likely to be involved in the cause of type 2 diabetes. A family history of the disease has been shown to increase the chances of getting it.

Other risk factors for the development of type 2 diabetes include:

- being 40 years of age or older
- blood vessel disease (e.g., damage to blood vessels in the eyes, nerves, kidneys, heart, brain, or arms and legs)
- First Nation, Hispanic, South Asian, Asian, or African descent
- giving birth to a large baby
- high blood pressure
- high cholesterol
- a history of gestational diabetes
- HIV infection
- mental health disorders (e.g., bipolar disorder, depression, schizophrenia)
- obstructive sleep apnea
- polycystic ovary syndrome
- pre-diabetes or impaired fasting glucose
- use of certain medications (e.g., corticosteroids such as prednisone, certain antipsychotic medications, certain antiviral medications for HIV)
Problems caused by poorly controlled diabetes

- **Eye problems:** Cataracts, glaucoma, diabetic retinopathy, as well as others.

- **Foot problems:** Neuropathy, ulcers and diabetes can even cause gangrene which might lead to the feet being amputated.

- **Skin problems:** Diabetes sufferers are prone to skin infections and other skin conditions.

- **Heart problems:** A common example is ischemic heart disease, which means there is a decrease in the blood supply to the heart.

- **High blood pressure (Hypertension):** A person with diabetes will often suffer from high blood pressure which increases the chance of it leading to more ailments such as eye problems and kidney disease.

- **Mental health:** When diabetes is not properly managed, it raises the risk of becoming depressed, anxious and developing mental disorders.

- **Loss of hearing:** Diabetes often leads to hearing problems.

- **Gum disease:** Diabetes leads to an increased chance of developing a gum disease.

- **Gastroparesis:** This is when the muscles in the stomach do not function properly.

- **Ketoacidosis:** When a combination of ketosis and acidosis takes place. This means there is a buildup of ketone bodies and acidity in the blood.

- **Diabetic Neuropathy:** Damage to the nerves caused by the effects of diabetes. This can lead to numerous other problems.

- **Hyperosmolar Hyperglycemic Non-ketotic Syndrome (HHNS):** Blood sugar levels spike dramatically high, and there are no ketone bodies present in the blood or urine. This is an emergency condition.

- **Nephropathy:** Kidney disease due to the effects of diabetes on the body.

- **Peripheral Arterial Disease (PAD):** Narrow blood vessels restrict the blood supply to the limbs. Symptoms include discomfort in the limbs, tingling and sometimes it causes difficulty in walking.

- **Stroke:** If diabetes is not correctly managed, there is a high increase in the risk level of suffering from a stroke.

- **Erectile dysfunction:** Male sexual impotence.

- **Infections:** Diabetes can lead to various infections if not controlled properly.

- **Healing of wounds:** The healing time of wounds is much longer than it should be.
### What should Normal Blood Glucose levels be?

#### Fasting Blood Glucose Levels

<table>
<thead>
<tr>
<th>Blood Glucose Levels</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 70 tot 99 mg/dL</td>
<td>Normal fasting glucose levels (3.9 to 5.5 mmol/L)</td>
</tr>
<tr>
<td>From 100 tot 125 mg/dL</td>
<td>Weakened fasting glucose levels (pre-diabetes) (5.6 to 6.9 mmol/L)</td>
</tr>
<tr>
<td>126 mg/dL (7.0 mmol/L) and higher with more than one fasting glucose test.</td>
<td>Diabetes</td>
</tr>
</tbody>
</table>

#### Oral Glucose Tolerance Test (OGTT) [except pregnancy]

<table>
<thead>
<tr>
<th>Glucose Levels</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2 hours after a 75-gram glucose drink)</td>
<td>Normal glucose tolerance</td>
</tr>
<tr>
<td>Lower than 140 mg/dL (7.8 mmol/L)</td>
<td>Normal glucose tolerance</td>
</tr>
<tr>
<td>From 140 to 200 mg/dL (7.8 to 11.1 mmol/L)</td>
<td>Weakened glucose tolerance (pre-diabetes)</td>
</tr>
<tr>
<td>More than 200 mg/dL (11.1 mmol/L) with more than one test</td>
<td>Diabetes</td>
</tr>
</tbody>
</table>
Diabetes Treatment

The main objective in the treatment of diabetes is to reduce high blood sugar levels, manage normal blood sugar levels and reduce the body’s insulin requirement, while not letting the levels become too low either.

- **Type 1 diabetes** is treated with insulin, a special diabetic diet and the right exercise.

- **Type 2 diabetes** is normally treated with oral medication, but this ailment can be treated and reversed with exercise, supplements and a diabetic diet which often includes a weight loss plan. This increases the body’s responsiveness to insulin, which then helps control blood sugar levels.

What you can do to regulate your blood sugar levels?

**Food:**

Healthy eating is always the first step to controlling diabetes. It’s not only what you eat, but also how much and when you eat that plays a role in the blood sugar levels.

**What to do:**

Make use of an eating program. Your blood sugar levels are at a peak an hour or two after you have eaten, where after they begin to fall. You can use this pattern to your advantage.

**You can control the fluctuations in blood sugar levels by:**

- Eating at the same time every day.

- Eating several small meals a day or eating healthy snacks regularly between meals.

- Eating a well-balanced diet.

- Try to plan for each meal to have the right combination of starches, fruits and vegetables, fats and proteins.

- It is very important to ensure that the amount of carbohydrates is similar in your meals as it is a big factor in the rise and fall of blood sugar levels.

- Portion size must also be controlled well. Use measuring cups or a scale to determine consistent portion sizes.

- It is easy to simplify your eating plan by writing down the portion sizes of type of food you eat often.

- Your choice of diet can help you to manage or reverse type 2 diabetes.
Synchronize your meals with your medication.

Too little food relative to diabetes medication can cause hypoglycemia – when blood sugar levels drop too low. The opposite counts for too much food, where hyperglycemia is the outcome, which means the blood sugar levels rise too high. Consult your diabetes health care team to find out exactly how to coordinate your diet and medication effectively.

**Exercise:**

Getting proper exercise is equally important as following the correct diet. During exercise, the muscles use sugar for energy. Regular exercise allows the body to respond better to insulin and use it more effectively. The more intense the training session, the more you benefit from it. Everyday activities such as household chores, gardening or doing things that require some sort of physical effort can also lower a person’s blood sugar level.

**What to do:**

- Select any kind of exercise that you really enjoy and do this for at least 30 minutes per day, 5 days per week.
- If you have not been doing exercise for a while, let your doctor do a health assessment on your heart and feet to determine which level of exercise your body is fit for.
- Ask your health care provider to help you work out an exercise schedule that is coordinated with your meals and medication.
- Check your blood sugar levels prior to, and immediately after exercise. This is especially important if you take insulin or medications that lower blood sugar levels, because blood sugar levels can drop too low, which can make you feeling shaky, weak, confused, lightheaded, moody, anxious, fatigued or hungry.
- It is important to stay hydrated while exercising since dehydration can have an effect on blood sugar levels. Drink water and not energy drinks as the high sugar contents in sports energy drinks contribute to blood sugar level spikes.
- Always have a small snack or glucose pill with you during exercise in case the blood sugar levels drop too low. Always wear a medical identification bracelet when doing exercise.
- Adjust your diabetes treatment plan as necessary. In the case of taking insulin, you may need to change your insulin dosage before exercising or wait a couple of hours to exercise after injecting insulin. It is advised to consult a doctor before making changes to the insulin dosage.
**Medication:**
When exercising and eating correctly are not completely effective at managing the diabetes, medication such as insulin is used to help regulate the blood sugar levels. The effectiveness of these medication types rely on the timing and size of the dosage. Medications taken for other reasons than diabetes, can also have an effect on the blood sugar levels.

**What to do:**
- Insure that insulin is stored properly. If this is not done or the insulin has expired it will not be as effective as it should be.
- If your diabetes medications cause your blood sugar levels to drop too low, the dosage or timing may need to be changed. Consult your doctor if there are such problems.
- If you are given a new type of medication, as for cholesterol or blood pressure, ask your doctor or pharmacist if it might have an effect on your blood sugar levels. If so, using an alternative medication is advisable.

**Factors which have a negative impact on blood sugar levels**

**Illness:**
When you are ill, your body generates hormones which help it to fight the illness; however this can also increase the blood sugar levels. Your blood sugar levels may also be affected by the irregularity of your exercise and eating patterns due to the illness.

**What to do:**
Work with your health care team to create a sick-day plan. Include:
- instructions on what medicines to take
- how often to determine your blood sugar and urine ketone levels
- how to alter your medicine dosages
- when to contact your doctor
- Keep on taking your diabetes medication. In case you are not able to eat due to nausea or vomiting, contact your doctor. You may need to temporarily stop taking your medication due to the danger of hypoglycemia (low blood sugar levels).

Follow your diabetes diet routine. If possible, eating normally will help control your blood sugar levels. Try and eat food that is easy on your stomach, such as soup. Drink lots of water or a warm alternative is tea, to make sure you stay hydrated.
**Alcohol:**
The liver usually secretes stored sugars to balance out dropping blood sugar levels. However, if the liver has to process alcohol, the blood sugar levels may not improve as needed. Alcohol can cause low blood sugar immediately after you drink and for as long as 8 to 12 hours more.

**What to do:**
- If your doctor confirms that your diabetes is under control, an occasional alcoholic beverage with a meal is fine.
- Too much alcohol can aggravate issues such as eye problems and nerve damage.
- Light beer and dry wines have less calories and carbs than other alcoholic beverages. If you favor mixed drinks, go with sugar-free mixers such as: diet soda, diet tonic, club soda or seltzer. Include the calories from any alcohol you consume in your daily calorie count.

**Menstruation and menopause: (women)**
Changes in hormone levels the week before and during menstruation can cause considerable fluctuations in blood sugar levels. Also, in the few years leading up to and during menopause, hormone changes may cause unpredictable changes in blood sugar levels that complicate diabetes management.

**What to do:**
- Keep a close record of your blood sugar levels month-to-month. You might be able to anticipate changes related to your menstrual cycle. Adjust your diabetes treatment plan accordingly.
- Check blood sugar levels more often.

**Stress:**
If you are stressed, it’s easy not to stick to your usual diabetes management program. Furthermore, the hormones a person’s body secretes in reaction to prolonged stress may prevent insulin from functioning properly.

**What to do:**
- Rate your stress level on a scale of 1 to 10 every time you record your blood sugar level.
- A pattern may soon appear.
- Once you know the effect stress has on your blood sugar level, react to the problem. Learn relaxation methods, prioritize your...
responsibilities and set boundaries. Whenever possible, avoid common causes of stress.

- Learn new ways to deal with stress. Working with a psychologist or clinical social worker may assist you in identifying stressors, solve stressful challenges or learn new coping techniques.
- Regular exercise is also a very good method to reduce stress.

**Smoking:**
Smoking is a health hazard for anyone, but for people with diabetes or a high risk of developing the disease, smoking cigarettes can contribute to serious health complications.

Diabetes patients who smoke have higher blood sugar levels, making their disease more difficult to control and putting them at greater danger of developing complications such as blindness, nerve damage, kidney failure and heart problems.

A new study found that nicotine, when added to human blood samples, raised levels of hemoglobin A1c (HbA1c) by as much as 34%.

Hemoglobin A1c — a combination of hemoglobin (which ferries oxygen) and glucose — is a standard indicator of blood sugar content in the body.

This study also implies that if you are a smoker, and not diabetic, that your chances of developing diabetes is higher.

But perhaps more importantly, the results also suggest that nicotine replacement products such as patches and nicotine-containing electronic cigarettes aren’t a safe option for diabetes patients either. Because they still contain nicotine, these products are just as likely to boost A1c levels as cigarettes are.

*Image source:*
www.stopsmokingchichester.co.uk
Foot care & Diabetes:

The main reason for diabetic foot complications is poor blood circulation. The correct foot care is particularly important for diabetes sufferers as they are inclined to develop foot problems such as:

- Numbness in their feet
- Irregularities in the shape of their feet
- Ulcers or sores on the feet that take very long to heal
- Daily foot care can prevent major problems.

The 10 easy steps to follow for daily foot care are as follows:

1. Manage Your Diabetes Properly:
   Make healthy lifestyle decisions to regulate your blood sugar levels. Consult your health care team to develop a diabetes plan that meets your lifestyle characteristics.

2. Examine Your Feet Each Day:
   You can develop foot problems that you are not aware of. Check your feet for cuts, sores, red spots, inflammation, or infected toenails. Checking your feet should be included in your daily routine. If you find it difficult to bend over to examine your feet, use a small mirror, or ask somebody to help you. Contact your doctor right away if a cut, sore, blister, or bruise on your foot does not start healing after one day.

3. Wash Your Feet Daily:
   - Wash your feet in warm water. Do not soak your feet as it will cause your skin to dry out. Use a thermometer or your elbow to test the temperature of the water, as it should not be too hot.
   - Dry your feet well, especially between your toes. Use talcum powder to keep the skin dry among your toes.

4. Keep the Skin Soft and Smooth:
   Rub a small amount of skin cream on the entire foot. Do not rub lotion between your toes, because this may cause infection.

5. Wear Shoes and Socks At All Times:
   - Do not walk barefoot, not even in the house. You might step on something and damage your feet.
   - Always wear seamless socks, stockings or nylons with your shoes to help avoid getting blisters and sores. Make sure that the material helps absorb moisture from the feet so that the feet remain dry.
   - Always make sure there is nothing inside the shoe such as pebbles.
   - Wear shoes that fit well and protect your feet.
6. Protect Your Feet From Hot and Cold:
   - Wear shoes when walking on a hot surface such as a sidewalk or the beach. If the tops of your feet will be exposed to the sun for some time, rub a little bit of sunscreen on them.
   - Keep your feet away from heaters or open fires. Do not use hot water bottles or heating pads on your feet.
   - If your feet get cold, wear seamless socks when you sleep. Lined boots help keep your feet warm during winter. Ensure that you always keep your feet warm during cold weather.
   - Do not wear socks with seams or uneven areas. Go for padded socks which protect your feet and make walking more comfortable.

7. Keep the Blood Flowing to Your Feet:
   - Put your feet on a foot rest when sitting down.
   - Wiggle your toes for about 5 minutes, 2 or 3 times daily. Move your ankles in all directions to improve blood flow in your feet and legs.
   - DO NOT cross your legs for lengthy durations of time.
   - DO NOT wear tight fitting socks, elastic or garters around your legs.
   - DO NOT wear restrictive shoes or foot products. Products such as those with elastic, should not be worn by diabetics as it reduces the blood circulation to the feet.
   - DO NOT smoke. Smoking decreases blood circulation to the feet. If you suffer from high blood pressure or high cholesterol, work with your health care team to get it under control.

8. Be More Active:
   Ask your doctor to develop an exercise schedule that is suited for you. Walking, dancing, swimming, and cycling are good forms of exercise that are not strenuous on the feet.
   Avoid all exercises that are strenuous on the feet, such as running and jumping. Always include a short warm-up or cool-down time.
   Wear protective walking or sports footwear that fit properly and provide good support.

9. Follow the Manna Step-by-Step Diabetic Program to control blood sugar levels.

10. Use the Manna Blood Circulation Support tablets to assist in better blood flow.

   Image Source: http://www.tnfamilyfootcenter.com/
**Dietary Supplements:**
A dietary supplement is exactly what the word mean: (a supplement to your diet)
However, the suggested supplements are formulated to assist the body in a holistic way to supplement the diet, enhancing certain bodily functions.

**Manna Health Products** can assist in the following diabetic health problems:

- **Manna Blood Sugar Support**
  If you struggle to get your blood sugar levels under control, you can take the Manna Blood Sugar Support supplement with each meal, to assist in the reduction of the blood sugar levels. You can take the product in conjunction with your current diabetic medication, but need to monitor blood sugar levels carefully, because the levels can get too low, which mean that you need to adjust your medication or supplement intake.
  If you need to lose weight, you can download the free Manna Weight Loss e-book from the website.

- **Manna PH Balance**
  Most diabetics suffer with gout, because of a buildup of excess uric acid in the body. If you are a gout sufferer, the Manna PH Balance product can help to excrete the excess uric acid for a gout-free lifestyle. However, it is important to change your diet to include more alkalinizing food and to eat less acidic foods. *(see list at the end of this book)*

- **Manna GUT Support**
  Poor gut health can be the cause of your insulin resistance and/or type 2 diabetes. Antibiotics, chronic medication, cortisone, stress and alcohol can damage the food flora and digestive enzymes in the gut.
  When you struggle to lose weight, have abnormal sugar cravings and are prone to diarrhea and infections, you might have imbalanced gut microbes.
  Improve digestion and immune function with the assistance of the Manna GUT Support supplement and a diet free of sugar, sugary drinks, alcohol and starchy and refined foods like bread, pasta, white rice and potato.

- **Manna Candida Support**
  One of the side effects of damaged gut health is the overgrowth of the candida fungus. Candia overgrowth can lead to serious health problems and the fungus can get into the blood stream which can lead to an early death. See the Manna Candida e-book if you want to learn more on this subject and what you can do to reverse the problem.

- **Manna Blood Circulations Support**
  Diabetics generally have a problem with poor blood flow to the extremities. This supplement can help to enhance blood flow without any side effects.
Diet Suggestions

**Good Fats / Bad Fats**

To understand good and bad fats, you need to know the names of the players and some information about them. There are four major types of fats:

**Monounsaturated fats and polyunsaturated fats** are known as the “good fats” because they are good for your heart, your cholesterol, and your overall health.

**Saturated fats and trans fats** are known as the “bad fats” because they increase your risk of disease and elevate cholesterol.

Appearance-wise, saturated fats and trans fats tend to be solid at room temperature (think of a stick margarine), while monounsaturated and polyunsaturated fats tend to be liquid (think of olive or corn oil).

<table>
<thead>
<tr>
<th>Monounsaturated fat</th>
<th>Polyunsaturated fat</th>
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<tbody>
<tr>
<td>Olive oil</td>
<td>Soybean oil</td>
</tr>
<tr>
<td>Canola oil</td>
<td>Corn oil</td>
</tr>
<tr>
<td>Sunflower oil</td>
<td>Safflower oil</td>
</tr>
<tr>
<td>Peanut oil</td>
<td>Walnuts</td>
</tr>
<tr>
<td>Sesame oil</td>
<td>Sunflower, sesame, and pumpkin seeds</td>
</tr>
<tr>
<td>Avocados</td>
<td>Flaxseed</td>
</tr>
<tr>
<td>Olives</td>
<td>Fatty fish (salmon, tuna, mackerel, herring, trout, sardines)</td>
</tr>
<tr>
<td>Nuts (almonds, peanuts, macadamia nuts, hazelnuts, pecans, cashews)</td>
<td>Soymilk</td>
</tr>
<tr>
<td>Peanut butter</td>
<td>Tofu</td>
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<table>
<thead>
<tr>
<th>Saturated Fat</th>
<th>Trans Fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-fat cuts of meat (beef, lamb, pork)</td>
<td>Commercially-baked pastries, cookies, doughnuts, muffins, cakes, pizza dough</td>
</tr>
<tr>
<td>Chicken with skin</td>
<td>Packaged snack foods (crackers, microwave popcorn, chips)</td>
</tr>
<tr>
<td>Whole-fat dairy products (milk and cream)</td>
<td>Stick margarine</td>
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<tr>
<td>Butter</td>
<td>Vegetable shortening</td>
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<tr>
<td>Cheese</td>
<td>Fried foods (French fries, fried chicken, chicken nuggets, breaded fish)</td>
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<td>Ice cream</td>
<td>Candy bars</td>
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<td>Palm and coconut oil</td>
<td></td>
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<tr>
<td>Lard</td>
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</table>
General Guidelines

With so many different sources of dietary fat—some good and some bad—the choices can get confusing. But the bottom line is simple: **don’t go no-fat, go good fat.** If you are concerned about your weight or heart health, rather than avoiding fat in your diet, try replacing saturated fats and trans fats with good fats. This might mean replacing some of the meat you eat with beans and legumes, or using olive oil rather than butter.

- **Try to eliminate trans fats from your diet.** Check food labels for trans fats. Avoid commercially-baked goods. Also limit fast food.
- **Limit your intake of saturated fats** by cutting back on red meat and full-fat dairy foods.
- Try replacing red meat with beans, nuts, poultry, and fish whenever possible, and switching from whole milk and other full-fat dairy foods to lower fat versions.
- **Eat omega-3 fats every day.** Good sources include fish, walnuts, ground flax seeds, flaxseed oil, canola oil, and soybean oil.

**Good “Carbs” / Bad “Carbs” - (Carbohydrates)**

Between 45 and 60 percent of the calories we consume each day should come from carbohydrates. However, that doesn’t mean that the carbs you’ll find in candy, cookies and other highly processed foods are the same as those in vegetables and whole grains.

If you had to make a list of carbs that you should eat more of versus carbs you should avoid, it basically breaks down into simple carbs being "bad" and complex carbs being "good."

Complex and simple are terms that deal with how food is broken down into energy (sugar) in the body.

**Complex Carbs Are Good**

Complex carbs are the ones that give your body the best fuel.
They are usually found in foods high in fiber, which breaks down more slowly, giving you a steady blood sugar level through the day and making you feel less hungry and irritable when mid-afternoon rolls around.

It’s a great idea to get more of these carbs into your daily diet:

- Fresh fruit, ideally those with a low glycemic Index like apricots, raspberries, strawberries and blackberries
- Non-starchy vegetables
- Whole grains and foods made from whole grains, such as certain types of bread and cereal (not refined, processed wheat and flour products)
• Nuts & Legumes
• Dairy products that are not sweetened with sugar, such as yogurt, sour cream and cheese.

**Simple Carbs are Bad and Should Be Avoided**

Your body quickly breaks down simple carbs, giving your blood sugar a spike and sending you running back to the kitchen or snack machine within hours of your last fix. Unless you’re an athlete or need a sudden rush of energy for some reason, it’s usually best to avoid these carbs in your daily diet:

- Refined grains like white bread, white rice and white pasta.
- Processed foods such as cake, candy cookies and chips
- Potatoes and fries
- Sweetened soft drinks, processed fruit juices
- Sugar

The following graph shows what good carbs and bad carbs does to your blood sugar and insulin levels.
Protein

Along with fats and carbohydrates, protein is an essential nutrient that your body needs to function properly every day. Eating protein does not make you gain weight. However, because protein-rich food isn’t calorie-free, eating it in excess will lead to weight gain.

To prevent the protein from settling as fat, monitor your total calorie intake and cut down if necessary.

Many high-protein foods and protein supplements are marketed as weight loss aids, so it seems counterintuitive that they could actually cause weight gain. The problem lies in overdoing it. Consuming too much protein can actually make losing weight more difficult.

For weight loss, the average protein intake per day should not be more than 2 grams protein per 1 Kg of body weight. (Roughly 200g protein per day)

Vitamin D (Sunshine)

Vitamin D is known to play a major role in the health of humans. The many functions of vitamin D include its ability to control blood pressure, its role in calcium absorption and its involvement in the development of healthy bone and teeth.

More recently, it has been suggested that Vitamin D is also necessary for maintaining a healthy weight.

Vitamin D Deficiencies Research suggests that inadequate levels of vitamin D not only causes many health related problems but is associated with weight gain.

Insufficient vitamin D in the blood interferes with the hormone leptin, which signals to the brain when the stomach is full. The most common source of Vitamin D comes from ultraviolet sun rays and is absorbed through the skin.

A daily 10 minute exposure to direct sunlight on bare skin is sufficient to produce the much needed vitamin D for ultimate health.

Age, skin color, clothing, exposure time and where you live all determine the amount of Vitamin D your body will be able to produce.
**Diabetic Food List**

Here are some good examples of the choices you can make as part of your new lifestyle to manage and reverse type 2 diabetes.

### Grains and Breads

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole-grain flours, such as whole wheat flour</td>
<td>White flour</td>
</tr>
<tr>
<td>Whole grains, such as brown rice</td>
<td>Processed grains, such as white rice</td>
</tr>
<tr>
<td>Cereals containing whole-grain ingredients and little added sugar</td>
<td>Cereals with little whole grain and lots of sugar</td>
</tr>
<tr>
<td>Whole-grain bread</td>
<td>White bread</td>
</tr>
<tr>
<td>Whole-grain flour or corn tortillas</td>
<td>Fried white-flour tortillas</td>
</tr>
</tbody>
</table>

### Vegetables

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh vegetables, eaten raw or lightly steamed, roasted, or grilled</td>
<td>Canned vegetables with lots of added sodium</td>
</tr>
<tr>
<td>Frozen vegetables, lightly steamed</td>
<td>Vegetables cooked with lots of added butter, cheese, or sauce</td>
</tr>
<tr>
<td>Fresh cucumbers</td>
<td>Pickles (only if you need to limit sodium; otherwise, pickles are a good choice)</td>
</tr>
<tr>
<td>Fresh shredded cabbage or coleslaw</td>
<td>Sauerkraut, (same as pickles; limit only if you have high blood pressure)</td>
</tr>
</tbody>
</table>

### Fruits

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen fruit</td>
<td>Canned fruit with heavy sugar syrup</td>
</tr>
<tr>
<td>Fresh fruit</td>
<td>Chewy fruit rolls</td>
</tr>
<tr>
<td>Sugar-free or low-sugar jam or preserves</td>
<td>Regular jam, jelly, and preserves (unless portion is kept small)</td>
</tr>
<tr>
<td>No-sugar-added applesauce</td>
<td>Sweetened applesauce</td>
</tr>
<tr>
<td>100% fresh, pure fruit juice</td>
<td>Fruit punch, fruit drinks, fruit juice drinks, sweetened soda</td>
</tr>
</tbody>
</table>
### Meat and other Protein

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baked, broiled, grilled, or stewed meats</td>
<td>Fried meats</td>
</tr>
<tr>
<td>Lower-fat cuts of meat, such as top sirloin</td>
<td>Higher-fat cuts of meat, such as ribs</td>
</tr>
<tr>
<td>Turkey bacon</td>
<td>Pork bacon</td>
</tr>
<tr>
<td>Low-fat cheeses</td>
<td>Regular cheeses</td>
</tr>
<tr>
<td>Skinless breast of chicken or turkey</td>
<td>Poultry with skin</td>
</tr>
<tr>
<td>Baked, broiled, steamed, or grilled fish</td>
<td>Fried fish</td>
</tr>
<tr>
<td>Tofu lightly sautéed, steamed, or cooked in soup</td>
<td>Fried tofu</td>
</tr>
<tr>
<td>Baked or stewed beans</td>
<td>Beans prepared with lard</td>
</tr>
</tbody>
</table>

### Dairy

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% or skim milk</td>
<td>Whole milk</td>
</tr>
<tr>
<td>Low-fat yogurt</td>
<td>Regular yogurt</td>
</tr>
<tr>
<td>Low-fat cottage cheese</td>
<td>Regular cottage cheese</td>
</tr>
<tr>
<td>Non-fat sour cream</td>
<td>Regular sour cream</td>
</tr>
<tr>
<td>Frozen low-fat, low-carb yogurt</td>
<td>Regular ice cream</td>
</tr>
</tbody>
</table>

### Fats, Oils

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olive oil, Grape seed oil, canola oil, butter</td>
<td>Lard, hydrogenated vegetable shortening, margarine, vegetable oil</td>
</tr>
<tr>
<td>Reduced-fat mayonnaise</td>
<td>Regular mayonnaise</td>
</tr>
<tr>
<td>Light salad dressings</td>
<td>Regular salad dressings</td>
</tr>
<tr>
<td>Air-popped or calorie-controlled popcorn</td>
<td>Butter-flavoured stove-top popcorn</td>
</tr>
</tbody>
</table>

### Drinks

<table>
<thead>
<tr>
<th>Best Choices</th>
<th>Worst Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water, still or sparkling water</td>
<td>Regular sodas, energy and sport drinks, flavoured &amp; sweetened water, processed fruit juices</td>
</tr>
<tr>
<td>Light beer, small amounts of wine or non-fruity mixed drinks</td>
<td>Regular beer, fruity mixed drinks, dessert wines</td>
</tr>
<tr>
<td>Unsweetened tea (add a slice of lemon)</td>
<td>Sweetened tea</td>
</tr>
<tr>
<td>Coffee, black or with added low fat milk and sugar substitute</td>
<td>Coffee with sugar and cream</td>
</tr>
<tr>
<td>Home-brewed coffee and hot chocolate</td>
<td>Flavoured coffees and chocolate drinks</td>
</tr>
</tbody>
</table>
**Acid / Alkaline Foods**

The following is an indication of the foods which cause the body to become more or less acidic. If you do have a problem with acidity, try to reduce or eliminate the acid forming foods from your diet.

<table>
<thead>
<tr>
<th>Eat More</th>
<th>Moderately Alkaline</th>
<th>Mildly Alkaline</th>
<th>Neutral/ Mildly Acidic</th>
<th>Moderately Acidic</th>
<th>Highly Acidic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly Alkaline</td>
<td>pH 9.5 alkaline water</td>
<td>Avocado</td>
<td>Artichokes</td>
<td>Black Beans</td>
<td>Alcohol</td>
</tr>
<tr>
<td></td>
<td>Himalayan salt</td>
<td>Beetroot</td>
<td>Asparagus</td>
<td>Chickpeas/Garbanzos</td>
<td>Coffee &amp; Black Tea</td>
</tr>
<tr>
<td></td>
<td>Grasses</td>
<td>Capsicum/Pepper</td>
<td>Brussels Sprouts</td>
<td>Kidney Beans</td>
<td>Fruit Juice (Sweetened)</td>
</tr>
<tr>
<td></td>
<td>Cucumber</td>
<td>Cabbage</td>
<td>Cauliflower</td>
<td>Seitan</td>
<td>Butter</td>
</tr>
<tr>
<td></td>
<td>Kale</td>
<td>Celery</td>
<td>Carrot</td>
<td>Cantaloupe</td>
<td>Apple</td>
</tr>
<tr>
<td></td>
<td>Kelp</td>
<td>Collard/Spring Greens</td>
<td>Chives</td>
<td>Currants</td>
<td>Honey</td>
</tr>
<tr>
<td></td>
<td>Spinach</td>
<td>Endive</td>
<td>Courgette/Zucchini</td>
<td>Fresh Dates</td>
<td>Apricot</td>
</tr>
<tr>
<td></td>
<td>Parsley</td>
<td>Garlic</td>
<td>Leeks</td>
<td>Nectarine</td>
<td>Banana</td>
</tr>
<tr>
<td></td>
<td>Broccoli</td>
<td>Ginger</td>
<td>New Baby Potatoes</td>
<td>Plum</td>
<td>Jelly</td>
</tr>
<tr>
<td></td>
<td>Sprouts (soy, alfalfa etc)</td>
<td>Beetroot</td>
<td>Peas</td>
<td>Sweet Cherry</td>
<td>Blackberry</td>
</tr>
<tr>
<td></td>
<td>Sea Vegetables (Kelp)</td>
<td>Green Beans</td>
<td>Rhubarb</td>
<td>Watermelon</td>
<td>Blueberry</td>
</tr>
<tr>
<td></td>
<td>Green drinks</td>
<td>Beetroot</td>
<td>Swede</td>
<td>Amaranth</td>
<td>Cranberry</td>
</tr>
<tr>
<td></td>
<td>All Sprouted Beans/</td>
<td>Mustard Greens</td>
<td>Watercress</td>
<td>Millet</td>
<td>Grapes</td>
</tr>
<tr>
<td></td>
<td>Sprouts</td>
<td>Okra</td>
<td>Grapefruit</td>
<td>Oats/Oatmeal</td>
<td>Mango</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Onion</td>
<td>Coconut</td>
<td>Spelt</td>
<td>Mango &amp;goose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radish</td>
<td>Buckwheat</td>
<td>Soybeans</td>
<td>Rice Syrup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Red Onion</td>
<td>Quinoa</td>
<td>Rice/Soy/Hemp Protein</td>
<td>Soy Sauce</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rocket/Arugula</td>
<td>Spelt</td>
<td>Freshwater Wild Fish</td>
<td>Mango</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tomato</td>
<td>Lentils</td>
<td>Rice &amp; Soy Milk</td>
<td>Vinegar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lemon</td>
<td>Tofu</td>
<td>Brazil Nuts</td>
<td>Yeast</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lime</td>
<td>Other Beans &amp; Legumes</td>
<td>Pecan Nuts</td>
<td>Orange</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Goat &amp; Almond Milk</td>
<td>Hazel Nuts</td>
<td>Peach</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Most Herbs &amp; Spices</td>
<td>Sunflower Oil</td>
<td>Papaya</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Avocado Oil</td>
<td>Grapeseed Oil</td>
<td>Pineapple</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Coconut Oil</td>
<td></td>
<td>Strawberry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flax Oil/ Udo’s Oil</td>
<td></td>
<td>Farm Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Brown Rice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Oats</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shellfish</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rye Bread</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cheese</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wheat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Crust Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Brown Rice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wholemeal Bread</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wild Rice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wholemeal Pasta</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ocean Fish</td>
</tr>
</tbody>
</table>

Display showing low fat and/or high fiber foods, which are generally encouraged for diabetics.

Display showing refined, high fat/carbohydrate foods, which are generally discouraged for diabetics.
Portion Size

We have been told repeatedly that portion sizes of many restaurant foods are too large.
We know that our portion sizes need to be reduced for weight control, but how do we determine what the proper portion size is?
There are a few general portion rules for the food groups, but it always depends on how many calories you need to eat in the day, which varies based on the individual's needs. Some may need to only eat one portion while others may need to eat five or ten for optimal health.

Portion control is an important concept when you're trying to lose weight and keep it off. But you don't need to memorize a food list or carry around measuring cups to get a better handle on serving sizes.
Instead, use common visual cues to remind yourself of appropriate serving sizes.

How?

Many foods match up to everyday objects.
For example, a medium pepper is about the size of a baseball and equals one vegetable serving.
While not all foods perfectly match visual cues, this method can help you better judge serving sizes and practice portion control, which may help with weight loss.
If you think the servings seem small, don't panic. Remember that you can eat multiple servings every day from each food group.

Fruits

One small apple is about the same size as a tennis ball and equals one fruit serving, or about 60 calories. The same is true for a medium orange, which is also the size of a tennis ball and about 60 calories.

Other fruit servings

Fruit - 1 serving size (60 calories)

- Banana - 1 small
- Cherries - 15 whole
- Strawberries, whole - 1½ cups
- 100 percent pure fruit juice, unsweetened - 1/2 cup
Vegetables
Half a cup of cooked carrots is about the same as half a baseball and equals one vegetable serving, or about 25 calories. You can eat even more raw leafy vegetables. Two cups of spinach — think of two baseballs — are about 25 calories.

Other vegetable servings

<table>
<thead>
<tr>
<th>Vegetable</th>
<th>1 serving (25 calories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus, cooked</td>
<td>1/2 cup (6 spears)</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>1 cup florets (about 8)</td>
</tr>
<tr>
<td>Green beans, canned or frozen</td>
<td>2/3 cup</td>
</tr>
<tr>
<td>Tomato sauce, canned</td>
<td>1/3 cup</td>
</tr>
<tr>
<td>Zucchini, cooked or fresh</td>
<td>3/4 cup</td>
</tr>
</tbody>
</table>

Carbohydrates
Half a cup of whole-grain cooked pasta is about the same size as a hockey puck and equals one carbohydrate serving, or about 70 calories. If pasta isn’t your thing, picture brown rice instead. You can have 1/3 cup of cooked brown rice for 70 calories. Try to stay away from pasta if you want to lose weight.

Other carbohydrate servings

<table>
<thead>
<tr>
<th>Carbohydrate</th>
<th>1 serving (70 calories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bun or roll, whole-grain</td>
<td>1 small</td>
</tr>
<tr>
<td>Cereal, cold, flake-type</td>
<td>3/4 cup</td>
</tr>
<tr>
<td>Crackers, whole-wheat</td>
<td>8</td>
</tr>
<tr>
<td>Muffin, any flavor</td>
<td>1 small</td>
</tr>
</tbody>
</table>

Protein/Dairy
40 to 55 gram of low-fat hard cheddar cheese are about the same size as three to four dice and equal one protein/dairy serving, or about 110 calories.

Other protein/dairy servings

<table>
<thead>
<tr>
<th>Protein/dairy</th>
<th>1 serving (110 calories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese, ricotta, part-skim</td>
<td>1/3 cup</td>
</tr>
<tr>
<td>Cheese spread</td>
<td>30 gram</td>
</tr>
<tr>
<td>Cottage cheese, low-fat</td>
<td>2/3 cup</td>
</tr>
<tr>
<td>Milk, skim or 1%</td>
<td>1 cup</td>
</tr>
<tr>
<td>Soy milk, low-fat</td>
<td>1 cup</td>
</tr>
<tr>
<td>Yogurt, plain, unsweetened</td>
<td>2/3 cup</td>
</tr>
</tbody>
</table>
Protein

A 70 gram piece of cooked skinless chicken is about the same size as two-thirds of a deck of cards and equals one protein/dairy serving, or about 110 calories. The same is true for a 55 gram patty of cooked lean hamburger, which equals one serving and has about 110 calories.

Other protein/dairy servings

<table>
<thead>
<tr>
<th>Protein/dairy</th>
<th>1 serving (110 calories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baked beans, canned</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>Egg</td>
<td>1 whole</td>
</tr>
<tr>
<td>Fish (haddock), grilled or broiled</td>
<td>85 gram</td>
</tr>
<tr>
<td>Pork sausage, smoked</td>
<td>2 small links</td>
</tr>
<tr>
<td>Tofu, firm or silken soft</td>
<td>2 slices (25mm width)</td>
</tr>
</tbody>
</table>

Fats

Two teaspoons of regular mayonnaise are about the same size as two dice and equal one fat serving, or about 45 calories.

Other fat servings

<table>
<thead>
<tr>
<th>Fat</th>
<th>1 serving (45 calories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almonds</td>
<td>7 almonds</td>
</tr>
<tr>
<td>Avocado</td>
<td>1/6 section of fruit</td>
</tr>
<tr>
<td>Butter, regular</td>
<td>1 teaspoon</td>
</tr>
<tr>
<td>Peanut butter, chunky or smooth</td>
<td>1½ teaspoons</td>
</tr>
<tr>
<td>Salad dressing, ranch, regular</td>
<td>2 teaspoons</td>
</tr>
<tr>
<td>Vegetable oil (olive, canola, safflower)</td>
<td>1 teaspoon</td>
</tr>
</tbody>
</table>

Putting it all together

It may take some practice to become a better judge of serving sizes and portions, especially as you put entire meals together. But the more you practice visualizing the cues, the more control you'll have over portion sizes. Controlling portion sizes also means controlling calories — and that's key to achieving your weight-loss goals.

(Food Portion Size – Source and pictures: www.mayoclinic.com)
**Type 2 Diabetes**

You only have one body, and whatever damage you have inflicted, you still remain responsible. You cannot shift your responsibility to a doctor or health care professional and let them take charge of it. You, and only you, can make the decision to take charge of your own health.

**Diabetes Diet:**

Correct nutrition is critical for anyone that has diabetes. Apart from controlling blood sugar levels, a diabetic diet can also help to reach and maintain a healthy body weight. Such a diet can also help to prevent heart and vascular disease, which are common problems of diabetes.

There is no prescribed diet plan for diabetes sufferers. Eating plans are adapted to suit a person’s needs, schedules, eating patterns and religion.

A diabetes diet plan must also be coordinated with the intake of insulin and/or oral diabetes medication.

The general principles of a good diabetes diet are the same for all people, which include eating a variety of foods including: whole grains, fruits and veggies, non-fat dairy products, beans, and lean meats (or vegetarian substitutes), poultry and fish is advised to attain a healthy diet.

**Note:**

As you make adjustments to your lifestyle with a healthy diet, exercise, supplements, etc., taking control of your blood sugar levels, you would need to adjust your medication; otherwise your blood sugar level might drop too low.
Step-by-Step Program to help manage and reverse Type 2 Diabetes

Here are a few simple steps to follow if you want to manage and reverse type 2 diabetes. As most type 2 diabetics are overweight, this program can also help you to lose weight while you regain control of your blood sugar levels.

You can always download the free Manna Weight Loss e-book from the www.mannaplus.co.za website for more information on weight loss.

1. Follow the 7-Day Damage Control Program to get rid of toxins and to get the body’s insulin requirement as low as possible as well as to reduce sugar in the blood.
   - Exchange poor food choices for good food choices (bad carbs vs good carbs)
   - Fats – Good vs Bad
   - Drinks

2. After the 7-day damage control program, continue with the correct food choices and control portions (see food list)

3. Exercise
4. Sleep
5. Vitamin D (sunlight)
6. Supplements

7-Day Damage Control Program (Detox)

The 7-day Program is crucial to rid your body of toxins, reduce blood sugar levels and to assist the body to require less insulin from the pancreas.

**The main objective is to get your insulin and blood sugar levels back to normal.**

The – 7 day damage control program is designed to start repairing the damage done over years of poor insulin management and to detoxify your body from accumulated toxins trapped in the fat cells.

The first 7 days is very important to prepare your body for a complete recovery.

**The program can help to re-balance...**

1. blood sugar levels
2. Insulin Levels
3. Serotonin levels for a "feel good mood”.
4. energy levels and
5. gut flora

After the re-balancing process, your body will be ready to take healthy living to the next level.
Weight Loss can occur

Normally one lose weight fast when detoxing, because you are avoiding fats, sugars and all the other foods and drinks which pile on calories. By altering your diet, you also lose a lot of excess water during the first 7-days.

Note: If you return to your previous eating patterns after the seven days, you will soon replace any lost kilogrammes. However, you can choose to regain complete health and continue with a healthy lifestyle.

By making healthy food choices after completion of the 7-day program, is just as important in the process to repair damaged health and reverse type 2 diabetes. Doing so, you can also expect to continue losing excess fat.

Golden rule: Stay off processed and packaged foods and keep eating fresh as much as possible. You probably will not need to calorie-count or reduce your portions - few people overeat on such a healthy diet. The only danger is slipping back to old ways of eating.

Tip: Fill your stomach with food that can fill you up without it making you fat.

Foods to Avoid during the first 7 days

- No - caffeine, alcohol, sugary drinks (even artificial sweetened and diet drinks) allowed.
- No - fruit juices, because it contains too much carbohydrates (sugar)
- No - dairy foods are permitted on the 7-day detox. Milk and cheese increase mucus production and are difficult to digest. Lactose causes a common food allergy. You can replace milk with almond milk, rice milk, oat milk or soya milk. Sheep and goat milk products are easier to digest if you really cannot do without dairy. However, plain or Greek yogurt is permitted, because it is fermented products.
- No - wheat or gluten-containing grains, which have an acid causing effect on the digestion. This means no bread, pasta or white rice. Rather choose rolled oats, brown rice, millet and quinoa.
- No - processed or ready-made foods whatsoever. Everything should be fresh and cooked with salt, but no sugar or sweeteners. Use fresh herbs for seasoning.
What can I eat?
Always keep your diet as fresh as possible. Protein, Vegetables and Salads.
Your food doesn’t need to be bland – look at the nice and tasty recipes towards the end of the book.
Try to drink 2 liters of water per day and have cups of herbal (non-caffeine-containing) teas without sugar, whenever you feel like it.
Put some flavor into your drinking water with lemon, a slice of orange, cucumber or some mint leaves.

Foods to include in the plan and make it part of your new lifestyle

- **Fruit** – your plan can include any fresh fruit. This includes apples, bananas, pears, oranges, grapefruit, satsumas, sultanas, raisins, pineapple, mango, kiwi fruit, strawberries, raspberries, blackcurrants, nectarines, peaches, melons, star fruit etc. Please keep track of portion size and the amount of calories you will be consuming.

- **Fruit & Vegetable Juice** – either make homemade fruit & vegetable juices or smoothies from fresh fruit. Processed juices are not an option, because the juice has to be heated to have a shelf life and this process destroys all goodness. Only if the juice is freshly squeezed, it is suitable, but please beware of the amount of extra sugar you will be consuming.

- **Vegetables** – eat any fresh vegetables. This includes carrots, onions, turnip, sprouts, cabbage, peppers, mushrooms, sweetcorn, peppers, leeks, broccoli, cauliflower, salad, tomatoes, cucumber, spring onions, sweet potatoes, baby marrow, bringles, etc., **but not potatoes**.

- **Beans and lentils** – eat any beans, including those that have been dried or canned in water. This includes red kidney, haricot, cannellini, butter, black eye, pinto, red lentils, green lentils and brown lentils.

- **Rolled Oats** – sprinkle rolled oats (not jungle oats) over fresh fruit or use it to make porridge. Cooked rolled oats with fresh fruit and nuts. Oats is the most underrated food on earth, especially for weight loss and if you want to restore your health.

- **Brown rice** (only after day 7) – no white rice

- **Fresh fish** – eat any fresh fish including cod, hake, mackerel, salmon, lobster, crab, trout, haddock, tuna, prawns, sole, red mullet, halibut, monkfish, swordfish etc. Canned fish in water is suitable too eg. salmon or tuna

- **Unsalted nuts** – eat almonds only – one handful per day.

- **Unsalted seeds** – eat any including sunflower and pumpkin
- Plain popcorn – with a little salt
- Live natural yoghurt – Greek or Plain – No sweetened or flavored yogurts
- Extra virgin olive oil, grape seed oil, avocado oil
- Garlic, ginger and fresh herbs
- Ground black pepper
- Herbs and spices - without msg, stabilizers, sugars or modified starch (read the label)

The food Pyramid for this lifestyle will look something like this.

What can you expect on the 7-day program?
Headaches and fatigue are normal in the first few days of detox. Some people even feel as though they are coming down with the flu, a syndrome that complementary therapists call a 'healing crisis'. Some people break out in spots or pimples as their body sheds toxins through the skin; others get constipation, diarrhea or bad breath with the change in digestive routine; yet more feel giddy and nauseous.
Take it easy and keep drinking 1.5 to 2 liters of water throughout the day. If symptoms don't pass in four days, consult a doctor to rule out any underlying illness.
Although you won't purge a lifetime's worth of toxins during your first-ever detox, you will have made a significant difference.
Next time you try a detox, the healing crisis won’t be so severe and will probably not last so long.

The 7-day damage control program is a step towards better health but you should find that by the end of it, your skin looks clearer and glowing, and you feel more energetic and clear-headed.

Your bowel and liver should function more efficiently and you’ll have given your immune system a mini-boost.

**Where to Start with the 7-Day Damage Control Program?**

Start your day with a glass (250ml) of cold or warm water with fresh lemon juice squeezed into it. Please stay away from coffee and sugar for the duration of the Program. Drink fresh water and herbal teas throughout the day. **NO** sugar or artificial sweeteners!

Water is just as important as the right food in order to control blood sugar levels. Whenever you feel hungry or when you crave for certain foods, it might be that your body requires moisture instead of food. **Drink water and herbal teas as and when you feel like it** –  

Note: too much water can wash out essential nutrients.

**Tip:** Keep a bottle of purified water at hand - sip as often as possible.

**Why lemon juice in the water?**

1. **Boosts your immune system:** Lemons are high in vitamin C, which is great for fighting colds. They’re high in potassium, which stimulates brain and nerve function. Potassium also helps control blood pressure.
2. **Balances pH:** Drink lemon water every day and you’ll reduce your body’s overall acidity. Lemon is one of the most alkaline foods around. Yes, lemon has citric acid but it does not create acidity in the body once metabolized.
3. **Helps with weight loss:** Lemons are high in pectin fiber, which helps fight hunger cravings. It also has been shown that people who maintain a more alkaline diet (see #2) lose weight faster.
4. **Aids digestion:** Lemon juice helps flush out unwanted materials. It encourages the liver to produce bile which is an acid required for digestion. Efficient digestion reduces heartburn and constipation.
5. **Is a diuretic:** Lemons increase the rate of urination, which helps purify the body. Toxins are, therefore, released at a faster rate which helps keep your urinary tract healthy.
6. **Clears skin:** The vitamin C component helps decrease wrinkles and blemishes. Lemon water purges toxins from the blood which helps keep
skin clear as well. It can actually be applied directly to scars to help reduce their appearance.

7. **Freshens breath:** Not only this, but it can help relieve tooth pain and gingivitis. The citric acid can erode tooth enamel, so you should monitor this. Please be careful not to drink too much lemon juice.

8. **Relieves respiratory problems:** Warm lemon water helps get rid of chest infections and halt those pesky coughs. It’s thought to be helpful to people with asthma and allergies too.

9. **Keeps you zen:** Vitamin C is one of the first things depleted when you subject your mind and body to stress. As mentioned previously, lemons are loaded with vitamin C.

10. **Helps kick the coffee habit:** After having a glass of hot lemon water, you should not crave for coffee in the morning.

The reason why the water has to be warm and not boiling hot. Either too hot or too cold water is a shock on your system so early in the morning. Water that is more or less body temperature is the best for your lemon juice regimen.

How much lemon is recommended in the water? 1 or 2 teaspoons of freshly squeezed lemon juice to a glass or cup of warm water.

**Tip:** Drink your warm lemon water in coffee cups.

**Tip:** Grind the used lemon rinds in your garbage disposal to help deodorize it.

**When is the Best Time to Drink Lemon Water?**

While lemon water may be taken at any time of the day, the best time is first thing in the morning. Unlike coffee which is loaded with the diuretic caffeine, lemon water can re-hydrate your body within minutes of drinking it. Lemon water should also energize you, while it helps to stimulate your bowel to eliminate accumulated waste.

Try to detoxify over the weekend (you can start on Friday morning)
7-Day Damage Control - Daily Regimen & Tips

1. Have 1 glass of water (with or without lemon juice) after waking up in the morning.
2. 1 Glass of water 30 minutes before each meal.
3. Use olive oil only in salads, but rather use canola oil to cook with.
4. Eliminate coffee, soft drinks and alcohol for the duration of the program. Drink only herbal teas and water when thirsty. (at least 1.5 liter of water per day)
5. Get enough sunlight exposure every day, because it is the best way to get vitamin D.
6. Exercise – Plan your day to get at least 30 to 45 minutes of good exercise of choice.
7. Try to eat your evening meal by 7 pm, but not later than 8 pm.
8. Evening snacks are optional, and should only be taken if you feel you need them.
9. Sleep – 6 to 8 hours sleep per night is crucial to revitalize your body. If you don’t get enough quality sleep, you tend to crave carbohydrates the next day.
10. Try to stick to the program. Plan ahead if you have a hectic lifestyle and you know that you might fail. It is your health that we are talking about and nobody else can do it except you!

The detox process must not feel like self-punishment, but rather as a stepping stone to regain your health.

"The Choice is yours, whether to reverse type 2 diabetes or just manage it."

Start: 7-Day Detox

Juice Example during Detox Period (don’t buy ready-made juices, because it has been processed and lost it’s goodness)
It is crucial that - before or during your detox - you get plenty of green vegetable juice, like....
Carrot Juice

Ingredients
500g large carrots (washed and peeled)
½ lemons (peeled)
1 apple

Directions
Put all ingredients in your juicer. (A centrifuge juicer is easiest for carrots.) Mix. Drink immediately.

NOTE: Peel the carrot for taste (otherwise it tastes too earthy).
If you don’t have a juicer, you can always grate these ingredients and eat it as part of your breakfast.

Health benefits of carrot juice: It provides Vitamin A, B Vitamins, Vitamin E and many Minerals including calcium).
Try not to take any supplements during the first 3 days of the detoxifying process

**Example: Day 1 of 7**

**Early Morning**

1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot Juice blend and immediately drink 250 tot 300ml of the blend (or eat the grated mix with your breakfast)

3rd **Breakfast**

- **Oats, Fruit and Nuts**
  
  **Ingredients:**
  3 to 5 tbsp cooked rolled oats
  1 tbsp raisins
  2 tbsp almonds
  (you can add sesame, seeds, pumpkin seeds, sunflower seeds)
  1 pinch cinnamon (optional)
  3 strawberries, sliced (when in season)

- **Mid Morning Snack**
  1 fruit with 50 gram of unsalted nuts (almonds)

**Lunch**

- **Chicken salad**
  (this you can take in a lunch box to work)

  **Ingredients** (serves 4)
  Olive oil spray
  2 (about 200g each) chicken breast fillets (free range chicken)
  2 baby lettuces, trimmed, leaves separated, coarsely torn
  ½ cup fresh parsley leaves
  6 cocktail tomatoes (halved)
  2 hard-boiled eggs, peeled, quartered
  Dressing: Sprinkle with a mix of olive oil, lemon juice and spices

  **Method**
  Spray a non-stick frying pan with oil. Heat over medium-high heat. Cook the chicken for 4-5 minutes each side or until golden and cooked through. Set aside to cool slightly. Thinly slice.
  Combine the chicken, lettuce, parsley and egg in a serving bowl. Drizzle over the dressing.

  **Mid afternoon Snack**
  1 Fruit + 50 gram almonds
Dinner

**Lemon fish with sautéed beans and tomatoes**

**Ingredients** (serves 4)
- 4 (150g each) white fish fillets (such as hake),
- 1 lemon, rind finely grated, juiced
- 2 teaspoons olive oil
- 250g green beans, trimmed
- 250g cherry tomatoes, halved
- 1 garlic clove, crushed
- 150g baby spinach leaves
- 2 tablespoons red wine vinegar

**Method**
Place fish in a shallow ceramic dish. Place lemon rind, 2 tablespoons lemon juice and 1 teaspoon oil in a small jug. Whisk to combine. Season with pepper. Pour lemon mixture over fish and turn to coat. Cover. Set aside for 10 minutes.

Preheat grill on medium heat. Line a grill tray with foil. Heat remaining oil in a large, non-stick frying pan over medium-high heat. Add beans to pan. Cook, tossing often, for 2 to 3 minutes or until bright green. Add tomatoes and garlic. Cook for 1 to 2 minutes or until tomatoes soften. Add spinach and vinegar. Toss until spinach just starts to wilt.

Meanwhile, place fish on grill tray. Cook for 4 to 5 minutes (depending on thickness) or until just cooked through.

Divide bean mixture among serving plates. Top with fish. Season with cracked black pepper.

Day 2 of 7 (Detoxifying process)

**Early Morning**

1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot Juice blend and immediately drink 250 tot 300ml of the blend

3rd **Breakfast**

**Veggie Omelette**

**Ingredients** (serve 2)
- 2 tablespoons butter
- 1 small onion, chopped
- 1 green bell pepper, chopped
- 1 cup of chopped button mushrooms
- 4 eggs
- 2 tablespoons milk
- 3/4 teaspoon salt
- 1/8 teaspoon freshly ground black pepper
- 8 cocktail tomatoes

**Method**
Melt one tablespoon butter in a medium skillet over medium heat. Place onion and bell pepper and mushrooms inside of the skillet. Cook for 4 to 5 minutes stirring occasionally until vegetables are just tender.
While the vegetables are cooking beat the eggs with the milk, ½ teaspoon salt and pepper.
Remove the vegetables from heat, transfer them to another bowl and sprinkle the remaining 1/4 teaspoon salt over them.
Melt the remaining 1 tablespoon butter (in the skillet just used to cook the vegetables) over medium heat. Coat the skillet with the butter. When the butter is bubbly add the egg mixture and cook the egg for 2 minutes or until the eggs begin to set on the bottom of the pan. Gently lift the edges of the omelette with a spatula to let the uncooked part of the eggs flow toward the edges and cook. Continue cooking for 2 to 3 minutes or until the centre of the omelette starts to look dry.
Spoon the vegetable mixture into the centre of the omelette. Using a spatula gently fold one edge of the omelette over the vegetables. Let the omelette cook for another two minutes. Slide the omelette out of the skillet and onto a plate. Cut in half and serve.

**Mid Morning Snack**
1 Fruit with almonds or 50 gram lean biltong

**Lunch**

**Tuna Salad**

**Ingredients (serves 2-4)** (works good for lunch box)
1 baby lettuce, leaves torn
200g red cocktail tomatoes, halved
1 small red onion, halved, thinly sliced
1 English cucumber, cut into 2cm cubes
1 green bell pepper (capsicum), cut into 2cm cubes
2/3 cup pitted kalamata olives
2 tablespoons chopped fresh oregano
2 x 185g cans Tuna in brine
Lemon Juice / Spices and Olive oil dressing

**Method**
Place lettuce, tomatoes, onion, cucumber, bell pepper (capsicum), olives and oregano in a large bowl. Add tuna. Drizzle with suggested dressing. Season with pepper. Toss gently to combine. Serve.

**Mid afternoon Snack**
1 Fruit with 50 gram of almonds or 50 gram of lean biltong

**Dinner**

**Roasted ratatouille chicken**
A classic chicken recipe that will keep the crowds coming back for more.

**Ingredients** (serves 4)
1 onion, cut into wedges
2 red bell pepper, seeded and cut into chunks
1 large baby marrow, cut into chunks
1 medium sweet potato, cut into chunks
4 tomatoes, halved
4 tbsp olive oil, plus extra for drizzling
4 chicken breasts, skin on
few rosemary sprigs (optional)
Method
Heat oven to 200C/fan 180C/gas 6. Lay all the vegetables and the tomatoes in a shallow roasting tin. Pour over the olive oil and give everything a good mix round until well coated (hands are easiest for this). Put the chicken breasts, skin side up, on top of the vegetables and tuck in some rosemary sprigs, if using. Season everything with salt and black pepper and drizzle a little oil over the chicken. Roast for about 35 mins. until the vegetables are soft and the chicken is golden. Drizzle with oil before serving.

Day 3 of 7 (Detoxifying process)

Early Morning
1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot Juice blend and immediately drink 250 tot 300ml of the blend

3rd Breakfast
Oats, Fruit and Nuts
Ingredients:
3 to 5 tbsp cooked rolled oats
1 tbsp raisins
2 tbsp almonds
(you can add sesame, seeds, pumpkin seeds, sunflower seeds)
1 pinch cinnamon (optional)
3 strawberries, sliced (when in season)

Mid Morning Snack
1 Fruit plus 50 gram of Almonds or lean Biltong

Lunch
Chicken Salad
Ingredients (serves 4)
1 cup almonds;
1 cup diced celery
1 cup cubed roasted/fried chicken breast
2 red apples, cored and sliced
¼ cup green onions
2 tbsp lemon juice
Sprinkle with salad dressing
lettuce leaves for serving;
Salt and pepper to taste.
Method
Add the almonds, celery, apples, green onions, chicken and mix it all together.
Sprinkle enough salad dressing.
Serve the salad on a bed of romaine lettuce.

Mid afternoon Snack
1 Fruit plus 50 gram of Almonds or lean Biltong
Dinner

Cabbage & apple stir-fry
This stir-fry is a little bit different in that it features prominently the cabbage and also makes use of stir-fried apple. This is a great example of a sweeter stir-fry, which is also mixed with fresh and crunchy almonds. The apple cider vinegar bring a nice and tangy touch to it and add to the apple undertone of the dish. Eat it as a meal or serve as a side dish to your main course.

Ingredients
- canola oil for cooking
- ±750g cabbage (a mix of red and green is ideal);
- 1 large apple;
- 1 thinly sliced onion;
- 1 finely chopped red chili;
- 1 tbsp chopped thyme;
- 1 tbsp apple cider vinegar;
- ¾ cup chopped almonds;

Method
Chop the cabbage finely and dry with a towel. Core and slice the apple. Stir-fry the apple for a minute in clarified butter or coconut oil until it just barely starts to soften. Remove the apple from the wok and set aside. Reheat the wok and stir-fry the onion for another minute with a little bit more cooking fat. Add the cabbage and stir-fry for another 3 minutes. Return the apple slices, add the thyme and cider vinegar and cover to steam for a minute. Add the almonds and stir well. Serve and enjoy!

DAY 4 of 7

1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot Juice blend and immediately drink 300ml of the blend

3rd Breakfast

Tuscan Scrambled Eggs

Ingredients (serves 2 to 3)
- 3 Tbsp extra virgin olive oil
- 1 large yellow onion, peeled and chopped
- 600g plum tomatoes, peeled and chopped or 400g can of diced tomatoes
- 6 eggs
- Salt and freshly ground pepper

Method
Heat olive oil on medium heat in a nonstick skillet. Add the onions and cook until translucent, just starting to turn golden in color, about 6 minutes. Add the tomatoes and cook over low heat until the liquid evaporates, about 40 minutes. Whisk the eggs in a bowl until well blended. Season with a little salt and pepper. Add the eggs to the tomato and cook over medium heat, stirring constantly, and scraping from the bottom with a wooden spoon. Remove from heat as soon as the eggs begin to set, but are still moist, about 3 minutes. Turn out onto a serving plate. Serve immediately.

Snack
1 Fruit plus 50 gram of Almonds or lean Biltong
**Lunch**

**Shredded chicken salad**

**Ingredients** (serves 4)  
2 chicken breast fillets  
2cm piece ginger  
1 clove garlic  
1 shallot, chopped  
250ml (2 cups) water  
½ baby cabbage, shredded  
1 small red onion, finely sliced  
1 carrot  
1 English cucumber, sliced and halved  
1 bunch coriander leaves  
1 chili, chopped  
1/3 cup chopped almonds  
Limes and extra coriander, to serve

**Method**  
Poach 2 chicken breast fillets with a 2cm piece ginger, 1 clove garlic and 1 chopped shallot in 2 cups water for 12 mins until cooked through. Cool then shred into a large bowl.  
Add ½ baby cabbage, shredded, 1 small red onion, finely sliced, 1 carrot and 1 cucumber, sliced and halved. Toss well to combine. Add 1 bunch coriander leaves, 1 chopped chili, top with 1/3 cup chopped almonds and sprinkle with salad dressing.  
Serve with limes and extra coriander.

**Snack**  
1 Fruit plus 50 gram of Almonds or lean Biltong

**Dinner**

**Tuna-Stuffed Tomatoes**

**Ingredients** (serves 4)  
8 small tomatoes (or 4 large tomatoes)  
2 X (±85g cans) tuna in brine, drained  
10 pitted kalamata olives, minced  
2 tablespoons minced fresh parsley  
1 tablespoon capers, drained, rinsed  
1 tablespoon olive oil  
½ teaspoon minced fresh thyme leaves  
Salt and pepper

**Method**  
Line a baking sheet with paper towels. Cut a thin slice off the top of each tomato. Gently scoop out tomato seeds and pulp, leaving shell intact. Set shells cut side down to drain on paper towels.  
Mix tuna, olives, parsley, capers, olive oil, thyme and pepper, breaking up large chunks. Season with salt and additional pepper, if desired. Spoon tuna mixture into tomatoes and serve.

**2 Manna Blood Sugar Support Tablets with each meal, helps to prevent insulin spikes**
DAY 5 of 7

1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot Juice blend and immediately drink 300ml of the blend

3rd Breakfast

**Fruit Shake with flax seed**

½ cup Paw Paw - diced  
½ cup Apple – diced  
½ cup berries of choice  
2 heaped table spoons of flax seed  
1 banana  
1 cup fat & sugar free yogurt  
Mix everything in blender and enjoy  
(Use any fruit in season – see the Acid Alkaline chart at the end of this book)

Snack  
1 Fruit plus 50 gram of Almonds or lean Biltong

Lunch

**Chicken, spinach and soft-boiled egg salad**

**Ingredients** (serves 4)  
650g chicken breasts, thickly sliced  
1 lemon, halved  
80ml (1/3 cup) extra virgin olive oil  
2 sprigs rosemary, leaves picked  
1 large clove garlic, thinly sliced  
2 tbs wholegrain mustard  
1 tsp honey  
4 eggs, at room temperature  
250g baby spinach  

**Method**  
To marinate the chicken, place in a large bowl and squeeze over the juice of half a lemon. Add 1 tbs oil, rosemary and garlic to the bowl, and toss to coat the chicken.  
To make dressing, squeeze juice from remaining lemon half into a small bowl. Add mustard, honey and remaining 60ml (1/4 cup) oil. Whisk to combine. Season with salt and pepper.  
Bring a saucepan of water to the boil. Gently add eggs and stir until water returns to the boil. Cook for 4½ minutes for soft-boiled eggs. Drain and refresh under cold water.  
Preheat a chargrill pan over high heat, then cook chicken, in 2 batches, for 1 minute each side or until cooked through. Transfer to a large bowl. Add spinach and dressing to the bowl and toss to combine. Divide salad among bowls.  
To gently crack egg shells, roll eggs on a counter. Peel shells, then carefully tear eggs in half and divide among salads.

Snack

1 Fruit plus 50 gram of Almonds or lean Biltong
Dinner

Grilled fish with Mustard & Herb
Fish cooks over a bed of lemon and fresh herbs to infuse it with flavor and keep the fish tender and moist. We like a blend of thyme, tarragon and oregano, but any of your favorite herbs will work.

Ingredients
2 lemons, thinly sliced, plus 1 lemon cut into wedges for garnish
20 to 30 sprigs mixed fresh herbs plus 2 tablespoons chopped, divided
1 clove garlic
¼ teaspoon salt
1 tablespoon Dijon mustard
500g fish (salmon, hake or any other fish of your choice to grill)

Method
Preheat grill to medium-high.
Lay two 9-inch pieces of heavy-duty foil on top of each other and place on a rimless baking sheet.
Arrange lemon slices in two layers in the center of the foil.
Spread herb sprigs over the lemons.
With the side of a chef’s knife, mash garlic with salt to form a paste.
Transfer to a small dish and stir in mustard and the remaining 2 tablespoons chopped herbs. Spread the mixture over both sides of the fish.
Place the fish on the herb sprigs.
Slide the foil and fish off the baking sheet onto the grill without disturbing the fish-lemon stack.
Cover the grill; cook until the fish is done in the center, 18-24 minutes.
Wearing oven mitts, carefully transfer foil and fish back onto the baking sheet.
Cut the fish into 4 portions and serve with lemon wedges (discard herb sprigs and lemon slices).

Mixed tomato salad

Ingredients (serves 4)
400g tomato medley mix
2 small red tomatoes, cut into wedges
1/2 small red onion, finely diced
1 tablespoon extra-virgin olive oil
2 teaspoons red wine vinegar
1/4 teaspoon caster sugar
1/4 cup small fresh basil leaves

Method
Cut half the medley tomatoes in half. Place in a large shallow dish. Add remaining tomatoes and onion.
Place oil, vinegar and sugar in a screw-top jar. Season with salt and pepper. Secure lid. Shake to combine. Add oil mixture to tomato mixture. Gently toss to combine. Set aside at room temperature for 20 minutes for flavours to develop.
Top with basil. Toss to combine. Serve.

2 Manna Blood Sugar Support Tablets with each meal, helps to prevent insulin spikes
Day 6 of 7

1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot or tomato Juice blend and immediately drink 250 to 300ml.

3rd Breakfast

Oats, Fruit and Nuts

Ingredients:
- 3 to 5 tbsp cooked rolled oats
- 1 tbsp raisins
- 2 tbsp almonds
- (you can add sesame, seeds, pumpkin seeds, sunflower seeds)
- 1 pinch cinnamon (optional)
- 3 strawberries, sliced (when in season)

Snack
1 Fruit plus 50 gram of Almonds or lean Biltong

Lunch

Greek Salad with Grilled Chicken

Ingredients (serves 4)
- 3 tablespoons extra-virgin olive oil
- 2 tablespoons fresh lemon juice
- 1 teaspoon honey
- ¼ teaspoon salt, divided
- ¼ teaspoon ground black pepper, divided
- Olive oil cooking spray
- ± 350 gram chicken fillets
- 50 gram plum tomatoes, halved, seeded, and quartered (about 6–8 tomatoes)
- ½ large seedless cucumber, halved lengthwise and thinly sliced
- ½ small red onion, thinly sliced
- 1/3 cup pitted kalamata olives, halved
- 3 tablespoons chopped fresh mint, divided
- 4 cups torn lettuce

Method
Whisk together the olive oil, lemon juice, and honey. Add ½ teaspoon salt and 1/8 teaspoon pepper; set aside.

Heat a grill pan to high. Lightly coat chicken with olive oil spray, and season with remaining salt and pepper; cook over high heat 2 minutes per side or until just cooked through. Transfer to a cutting board; let stand 5 minutes.

In a serving bowl, toss tomatoes, cucumber, onion, olives, and half the mint with vinaigrette. Slice chicken into ± 12mm strips, add to salad, and toss gently. Place 1 cup lettuce on each of 4 plates, top with chicken mixture and remaining mint.

Snack
1 Fruit plus 50 gram of Almonds or lean Biltong
Dinner

**Grilled snoek with green salsa**

**Ingredients**

**Green salsa**
- 1 clove granulated garlic
- 3 large sweet and sour gherkins, roughly chopped
- 180 ml flat-leaf parsley
- 1 lemon peel, grated
- 1 tsp Dijon mustard, (optional)
- 1 tbsp extra-virgin olive oil
- 1 dash milled pepper

**Snoek**
- 1 Medium Size Snoek
- 1 tbsp extra-virgin olive oil
- 60 ml lemon juice

**Method**

Roughly chop salsa ingredients
Season and set aside
Place fish on a baking tray or on the braai grid, drizzle with olive oil and season with lemon juice and milled pepper.
Cook under a preheated grill for about 10 minutes, or until cooked to your liking on the braai.
Serve fish topped with green salsa

**Roasted Sweet Potatoes with Balsamic Drizzle**

**Ingredients** (Serves 4)
- 150g sweet potatoes, (about 3 medium), peeled
- 1 tablespoon extra-virgin olive oil
- 1/4 teaspoon salt
- Freshly ground pepper, to taste
- 1 cup balsamic vinegar
- 2 tablespoons honey
- 1 teaspoon butter

**Method**

Preheat oven to 225°C. Line a rimmed baking sheet with foil. Cut sweet potatoes into 12mm-thick wedges. Place on the prepared baking sheet, drizzle with oil and toss well. Spread out in a single layer. Bake until tender when pierced with a knife, 25 to 30 minutes. Season with salt and pepper.

Meanwhile, combine vinegar and honey in a small saucepan. Bring to a boil over medium-high heat and cook until syrupy and reduced to 1/3 cup, 12 to 15 minutes. (Watch the syrup carefully during the last few minutes of reducing to prevent burning.) Swirl in butter. Drizzle the sauce over the sweet potatoes.

**Tips & Notes**

Make Ahead Tip: The balsamic drizzle (Step 2) will keep in the refrigerator for up to 4 days. Reheat in the microwave or on the stovetop, adding a little water if the syrup has thickened too much, before drizzling over the roasted sweet potatoes.

**2 Manna Blood Sugar Support Tablets with each meal, helps to prevent insulin spikes**
DAY 7 of 7

1st Drink 1 glass of water after waking up in the morning

2nd Prepare your Carrot or tomato Juice blend and immediately drink 250 to 300m.

3rd Breakfast

Veggie Omelette

Ingredients (serve 2)
2 tablespoons butter
1 small onion, chopped
1 green bell pepper, chopped
1 cup of chopped button mushrooms
4 eggs
2 tablespoons milk
3/4 teaspoon salt
1/8 teaspoon freshly ground black pepper
8 cocktail tomatoes

Method
Melt one tablespoon butter in a medium skillet over medium heat. Place onion and bell pepper and mushrooms inside of the skillet. Cook for 4 to 5 minutes stirring occasionally until vegetables are just tender.
While the vegetables are cooking beat the eggs with the milk, ½ teaspoon salt and pepper.
Remove the vegetables from heat, transfer them to another bowl and sprinkle the remaining 1/4 teaspoon salt over them.
Melt the remaining 1 tablespoon butter (in the skillet just used to cook the vegetables) over medium heat.
Coat the skillet with the butter. When the butter is bubbly add the egg mixture and cook the egg for 2 minutes or until the eggs begin to set on the bottom of the pan.
Gently lift the edges of the omelette with a spatula to let the uncooked part of the eggs flow toward the edges and cook.
Continue cooking for 2 to 3 minutes or until the centre of the omelette starts to look dry.
Spoon the vegetable mixture into the centre of the omelette. Using a spatula gently fold one edge of the omelette over the vegetables. Let the omelette cook for another two minutes. Slide the omelette out of the skillet and onto a plate. Cut in half and serve.

Snack
1 Fruit plus 50 gram of Almonds or lean Biltong

Lunch

Tuna, rocket & tomato salad

Ingredients (serves 4)
2 x 185g cans tuna in brine, drained
1 x 400g can cannellini beans, rinsed, drained
2 ripe tomatoes, coarsely chopped
1 red onion, halved, thinly sliced
60g drained pitted kalamata olives, halved lengthways
Salt & freshly ground black pepper
1½ tbs olive oil
2 bunches rocket, trimmed, washed, dried
12 fresh basil leaves

Method
Place the tuna, cannellini beans, tomato, onion and olives in a large bowl. Season with salt and pepper. Add the oil and toss to combine. Add the rocket, croutons and basil leaves and gently toss to combine.
**Snack**
1 Fruit plus 50 gram of Almonds or lean Biltong

**Dinner**

**Key West Chicken**

**Ingredients**
- 3 tablespoons soy sauce
- 1 tablespoon honey
- 1 tablespoon vegetable oil
- 1 teaspoon lime juice
- 1 teaspoon chopped garlic
- 4 skinless, boneless chicken breast halves

**Method**
In a shallow container, blend soy sauce, honey, vegetable oil, lime juice, and garlic. Place chicken breast halves into the mixture, and turn to coat. Cover, and marinate in the refrigerator for at least 30 minutes. Preheat an outdoor grill for high heat or on a grill with hot coals. Lightly oil the grill grate. Discard marinade, and grill chicken 6 to 8 minutes on each side, until juices run clear.

**Bean and roast vegetable salad**

**Ingredients** (serves 6)
- 1 medium red bell pepper (capsicum), thickly sliced
- 1 medium yellow bell pepper (capsicum), thickly sliced
- 2 medium baby marrow (zucchini), cut diagonally into 1cm-thick slices
- 100g button mushrooms, halved
- 1 medium red onion, cut into wedges
- 1 tablespoon olive oil
- 2 tablespoons balsamic vinegar
- 2 garlic cloves, crushed
- 250g cherry tomatoes
- 200g green beans, trimmed
- 2 tablespoons pine nuts, toasted (optional)

**Method**
Preheat oven to 200°C/180°C. Place bell peppers (capsicum), baby marrow (zucchini), mushrooms and onion in a large baking dish. Combine oil, vinegar and garlic in a bowl. Drizzle over vegetables. Toss to coat. Roast for 20 minutes. Add tomatoes. Roast for 15 minutes or until vegetables are tender and tomatoes are starting to collapse. Meanwhile, bring a large saucepan of water to the boil over high heat. Cook beans for 3 minutes or until bright green and just tender. Drain. Refresh in a bowl of iced water. Drain. Pat dry with paper towel. Add beans to vegetable mixture. Toss to combine. Sprinkle with pine nuts. Season with salt and pepper. Serve.

**Notes**
Serves 6 as a side.

2 Manna Blood Sugar Support Tablets with each meal, helps to prevent insulin spikes
## Diabetic Meal Plan Example - after the 7-day detox program

Take 2 of the Manna tablets with your meals to reduce the GI of the food you eat. This will help to control cravings, stabilise blood sugar levels and suppress appetite.

Drink a Glass of water with fresh lemon juice first thing in the morning. (no coffee or tea)

Drink a Glass of purified, clean and fresh water before each meal. (no sugar added)

### Breakfast - Option A
- 1 cup skimmed milk
- 1 cup rolled oats (cooked)
- ±20 Almonds (raw unsalted)

Cook rolled oats with the skimmed milk.

Add water if necessary.

Tip: add sliced banana for sweetness.

**2 Blood Sugar Caplets with each meal**

### Lunch - Option A
- 150g tot 250g Grilled skinless chicken
- 1 cup cooked brown rice
- Make a salad of the following...
  - Tomato, cucumber, lettuce, avo, olives
  - Dress salad with lemon juice and herbs

Add 2 Blood Sugar Caplets with each meal.

### Dinner - Option A
- 200 to 300g Hake - steamed
- 1 Sweet Potato - slice thinly and bake in oven with 2 teaspoons olive oil.
- Seasoned with sea salt
- 1 cup cooked peas

**2 Blood Sugar Caplets with each meal**

### Breakfast - Option B
- 1 slice of seadloaf toast with baked beans
- or
- 1 to 2 slices of toast with thin slice of cheese & ½ avo

**2 Blood Sugar Caplets with each meal**

### Lunch - Option B
- Make a salad of the following...
  - 1 tin of Tuna in water
  - 1 cup cooked wholegrain pasta
  - 1 cup cooked peas + tomato & lettuce
  - 4 Teaspoons of low fat mayonaisce

Add 2 Blood Sugar Caplets with each meal.

### Dinner - Option B
- 150g to 250g baked cubed leg of lamb
- 1 cup stir-fry vegetables
- Green salad...

Add 2 Blood Sugar Caplets with each meal.

### Breakfast - Option C
- 1 to 3 whole cooked eggs
- 1 to 2 slices sead loaf toast
- ¼ to ½ avocado
- ¼ to ½ tomato

**2 Blood Sugar Caplets with each meal**

### Lunch - Option C
- 1 to 2 roasted lamb chop - without fat
- 1 Medium sweet potato
- 2 cup mixed vegetables (cooked)
- 2 Teaspoon olive oil to stir-fry vegetables

Add 2 Blood Sugar Caplets with each meal.

### Dinner - Option C
- 2 chicken kebab
- Brown Rice with salad of the following...
  - ¼ cup of cooked brown rice
  - 1 cup mixed vegetables of choice
  - 2 teaspoons low-fat mayonaise

Add 2 Blood Sugar Caplets with each meal.

### Breakfast - Option D
- Make a smoothie with the following:
  - 1 Banana
  - ½ small pawaw
  - 1 cup plain yogurt
  - ± 20 nuts of choice

**2 Blood Sugar Caplets with each meal**

### Lunch - Option D
- 150 tot 200g snoek (baked)
- 1 Medium sweet potato in skin & ½ butternut -small
- Bake butternut & sweet potato in oven with 2 Teaspoons olive oil, fresh rosemary

Add 2 Blood Sugar Caplets with each meal.

### Dinner - Option D
- Make a sandwich of the following:
  - 1 whole wheat roll
  - 2 to 3 thin slices pastrami
  - 2 to 3 thin slices cheese

Add 2 Blood Sugar Caplets with each meal.

### Breakfast - Option E
- Vegetarian omelette
- Stir-fry thinly cut mixed veggies
- Mix 2 to 3 eggs with skimmed milk
- Make omelette in stick free pan
- Add stir-fried veggie mix - spice and enjoy

**2 Blood Sugar Caplets with each meal**

### Lunch - Option E
- 150g to 250g Extra lean beef mince
- 1 cup cooked brown rice
- 1 cup mixed vegetables, example.
  - baby marrow, broccoli, carrots(cooked)
  (can be prepared as a curry dish)

Add 2 Blood Sugar Caplets with each meal.

### Dinner - Option E
- 150g to 250g roast skinless chicken breast
- 1 cup cooked corn
- Stir-fry ¼ red, yellow, green pepper, onion, 1 cup mushrooms with 2 teaspoons olive oil

Add 2 Blood Sugar Caplets with each meal.

### NOTE:
Menu options can be mixed and match to suit your lifestyle - Portion Control is of utmost importance

### SNACKS: CHOOSE ANY OF THE FOLLOWING - 2 x PER DAY (only if you need to snack)
1. 1 Medium fruit of your choice and ± 10 nuts
2. 1 Medium fruit of your choice and 25g lean biltong
3. 2 Provitas with 25g lean biltong or Marmite or cottage cheese
4. See the GI tabels on the website for low GI snacks
Exercise

There is an old proverb that says:

“Those who do not find time for exercise will have to find time for illness.”

What exercise mean for a diabetic person...

Research has shown that physical activity can:

- lower your blood glucose and your blood pressure
- lower your bad cholesterol and raise your good cholesterol
- improve your body's ability to use insulin
- keep your heart and bones strong
- keep your joints flexible
- lower your risk of falling
- help you lose weight
- reduce your body fat
- give you more energy
- reduce your stress levels

What kinds of exercise can you do?

- aerobic exercise
- strength training
- stretch

Aerobic Exercise

Aerobic exercise is activity that requires the use of large muscles and makes your heart beat faster. You will also breathe harder during aerobic exercise. Doing aerobic exercise for 30 minutes a day at least 5 days a week provides many benefits.

You can even split up those 30 minutes into several parts.

For example, you can take three brisk 10-minute walks, one after each meal.

If you haven't exercised lately, see your doctor first to make sure it's OK for you to increase your level of physical activity. Talk with your doctor about how to warm up and stretch before you exercise and how to cool down after you exercise.

Then start slowly with 5 to 10 minutes a day.

Add a little more time each week, aiming for at least 150 minutes per week.
Types of Aerobic exercises

- walking briskly
- hiking
- climbing stairs
- swimming or taking a water-aerobics class
- dancing
- riding a bicycle outdoors or a stationary bicycle indoors
- taking an aerobics class
- playing basketball, volleyball, or other sports
- in-line skating, ice skating, or skate boarding
- playing tennis

Strength Training

Doing exercises with hand weights, elastic bands, or weight machines three times a week builds muscle. When you have more muscle and less fat, you'll burn more calories because muscle burns more calories than fat, even between exercise sessions. Strength training can help make daily chores easier, improving your balance and coordination, as well as your bones’ health.

You can do strength training at home, at a fitness center, or in a class.

Stretch

Stretching increases your flexibility, lowers stress, and helps prevent muscle soreness after other types of exercise.