Dear Maccabi Members,

Diabetes is a chronic disease. This means that it is very important to make the right choices in your everyday life. Diabetes can be effectively managed and controlled through medication and maintaining a healthy lifestyle, including proper nutrition, exercise, stopping smoking, and coping with stress. Optimal management helps to ensure the proper balance and helps prevent future complications.

When properly treated, people with diabetes can lead a normal life without giving up their occupations and favorite things.

At Maccabi, your diabetes is handled by a physician and a multidisciplinary team of nurses, nutritionists, social workers, fitness advisors, and other experts from the field, all with the goal of helping you lead a healthy lifestyle and daily routine. In addition, a variety of workshops are held by professionals in order to provide support and guidance in coping with this disease.

You can take action to positively affect your health and manage your diabetes. In this booklet, you will find a range of helpful information and tools for managing your diabetes correctly. We hope that it will help you lead a healthy and active daily life.

If you have any questions, please contact your family doctor or the team at your local Maccabi Diabetes Clinic.

Best wishes,

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Diabetes Coordinator

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What is diabetes?

Diabetes is a disease that results in high blood sugar levels and metabolic disorders.

When your blood sugar is higher than normal, vital internal organs can be damaged and stop working properly.

An ongoing state of excess glucose (sugar) in the blood is called hyperglycemia.

There are two main types of diabetes, type 1 and type 2. The causes of each disease are different, but both types are characterized by an increase in blood glucose levels.

**Type 1 Diabetes**

This type of diabetes is caused by a defect that prevents the body from producing the insulin hormone in the pancreas. Insulin is responsible for regulating blood glucose levels. In the past, this type has been referred to as “insulin-dependent diabetes”, as well as “juvenile diabetes”, because it usually develops at a relatively young age.

**Type 2 Diabetes**

In this type of diabetes, the body is unable to efficiently utilize existing insulin. Insulin production drops, and the body also develops high insulin resistance, so blood glucose levels rise. More than 90% of diabetes patients are diagnosed with type 2 diabetes, but despite its prevalence, some patients are unaware of their condition. This is because the disease develops gradually, and its signs are less obvious than those of type 1 diabetes. Type 2 diabetes is more common in adults.

Diabetes that is not properly treated may cause later complications that can damage blood vessels, affecting the eyes, kidneys, and nervous system, as well as causing heart disease. Any deviation from normal blood glucose levels can cause cumulative damage. It is therefore important to control your blood sugar level primarily through lifestyle changes, including regular exercise and proper nutrition, combined with medication and healthy behavior that leads to good quality of life.
Who do I contact at Maccabi?

You can receive personal guidance in any of the following ways:

- Contact your family doctor, or a doctor at a diabetes clinic
- Consult the diabetes nurse at your local Maccabi medical center or diabetes clinic
- Consult a dietitian at the medical center or diabetes clinic
- Get in touch with a variety of therapists / consultants, as needed
- Participate in diabetes workshops

For appointments and information, and to register for diabetes workshops, consult:

- The Maccabi Non-Stop Call Center - dial *3555
- Maccabi medical centers
- The Maccabi website: www.maccabi4u.co.il
What affects blood sugar levels?

Diabetes is a disease in which the body is unable to maintain normal glucose levels and reaches a state of hyperglycemia (high blood sugar level) or hypoglycemia (low blood sugar level).

What are normal blood sugar levels?

Your blood sugar is usually determined by three factors:

1. Fasting glucose levels: your blood glucose level after a night without eating or drinking anything (except water) for at least 8 hours.
2. Blood sugar levels after eating: about two hours after the start of your main meal, without snacking in between.
3. Glycated hemoglobin (HbA1c): a single blood test that allows the patient’s average glucose levels to be estimated for the last three months.

The normal ranges for a person without diabetes are generally lower than those for a person with diabetes.

<table>
<thead>
<tr>
<th>Normal range for a person without diabetes</th>
<th>After fasting</th>
<th>70-100 mg/dL</th>
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<tbody>
<tr>
<td></td>
<td>2 hours after eating</td>
<td>Up to 140 mg/dL</td>
</tr>
<tr>
<td></td>
<td>Glycated hemoglobin</td>
<td>Up to 5.7%</td>
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<table>
<thead>
<tr>
<th>Range for a person with diabetes</th>
<th>After fasting</th>
<th>80-130 mg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 hours after eating</td>
<td>140-180 mg/dL</td>
</tr>
<tr>
<td></td>
<td>Glycated hemoglobin</td>
<td>6.5%-8%, and sometimes even more</td>
</tr>
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</table>

*The optimal range for each patient will be determined by the attending physician.*
How can I affect my blood sugar levels?

There are many factors that can affect changes in glucose levels. A healthy lifestyle that includes proper nutrition, physical activity, and stress management in our lives is a major factor in controlling blood sugar. Usually, when you start to change your lifestyle and take medication, your blood sugar will change. New goals will then be determined in accordance with the extent of the change, and the willingness of each person to improve his or her lifestyle.
Sugar imbalances and treatment methods

There are two conditions resulting from an imbalance in blood sugar: hypoglycemia and hyperglycemia.

Hypoglycemia
This is caused when blood sugar is too low, less than 70% per mg, and can cause impaired functioning. Hypoglycemia can be felt even when blood glucose levels are higher, such as in a diabetic person whose glucose levels are consistently high. Some diabetic patients do not experience hypoglycemia.

It is important to treat hypoglycemia, because the imbalance may worsen, even to the point of losing consciousness.

Symptoms of hypoglycemia (too little sugar in the blood)

- Cold sweat
- Blurred vision and dizziness
- Hunger
- Weakness
- Jitters
- Heart palpitations
- Confusion and balance problems
- Shivering
- Slurred speech

Causes of hypoglycemia
- Unplanned, intense physical activity
- Eating less, or skipping a meal
- Drinking alcohol on an empty stomach
- Taking too much insulin or medication
Treating hypoglycemia

The most important thing is to supply the body with sugar immediately!
This can be done in two ways:

1. Drink half a cup of a sugary drink (not diet), or take 3 cubes/teaspoons of sugar, or sugar tablets / metered drinks for diabetics (available over the counter in pharmacies).

2. Patients taking insulin should have a glucagon treatment with them. It is important that a family member receives training from a nurse and knows how to administer the injection correctly.

After immediate treatment, eat a meal that includes complex carbohydrates as well as protein or fat, such as a sandwich with cheese or tahini, to prevent hypoglycemia from recurring. You should check your blood sugar and consult your healthcare professional for further treatment.

Hyperglycemia

A blood sugar level that is too high - over 250% per mg after fasting - is accompanied by the symptoms listed below. Taking medication in accordance with your doctor’s instructions and maintaining a healthy lifestyle helps to prevent these conditions from occurring.

<table>
<thead>
<tr>
<th>Symptoms of hyperglycemia (too much sugar in the blood)</th>
<th>Causes of hyperglycemia</th>
<th>Treating hyperglycemia</th>
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<td>Thirst</td>
<td>Eating more carbohydrates than recommended</td>
<td>Exercise may bring mild hyperglycemia under control</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>Not taking medication at the recommended dosage</td>
<td>If your blood sugar is over 400% per mg, immediately contact a nurse via the Maccabi Non-Stop call center!</td>
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<tr>
<td>Frequent urination</td>
<td>Illness accompanied by fever or inflammation</td>
<td></td>
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<tr>
<td>Weakness and fatigue</td>
<td>Stressful situations</td>
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Measuring blood sugar levels

What is self-monitoring of blood sugar?

Your blood sugar levels change rapidly. It is important for you to measure them several times a day using a home device - a glucometer. You need to know how to check your body’s sugar levels at different times during the day, be aware of situations where there is an imbalance, and correct imbalances in the best way.

Advantages of self-monitoring

- Fast, reliable, and easily-accessible
- Increases self-awareness of changes and symptoms
- Helps you to plan in advance and cope with situations outside your normal routine
- Maximum control for coping with the disease
The goal of self-monitoring: Identifying changes in blood sugar levels throughout the day

1. To adjust your treatment: start a new treatment and adjust the medication dosage.
2. To detect and treat hyperglycemia.
3. To detect, prevent, and treat hypoglycemia (a drop in blood sugar levels below 70% per mg).
4. To identify and plan various events that affect your blood sugar, such as parties, sick days, exercise, and more.
5. To receive immediate feedback on the effect various foods have on your sugar levels.

Principles of self-monitoring
- The measurement should be carried out according to the manufacturer's instructions
- The device's date and time must be updated
- Check the expiration date on the test strips
- Rinse your hands before each test
- The pricking should be done at the fingertips
- Place enough blood onto the strip
- The results should be noted and reported, according to the medical team's recommendations
- Check and calibrate your device regularly

By self-monitoring your blood sugar levels as part of your daily routine, you can maintain your health and significantly reduce the risk of complications.
Learning to live well with insulin

What is insulin?
Insulin is a hormone produced in beta cells in the pancreas and from there it is secreted into the bloodstream. Today, insulin is produced through genetic engineering and can be administered via a subcutaneous injection. Insulin reduces blood sugar in two main ways:
1. It helps glucose (sugar) in the blood to enter the organs that use it as a source of energy.
2. It encourages the formation of energy stores, called glycogen, which are found in the liver.

There are two main types of diabetes:
- **Type 1:** People with this type of diabetes have had their beta cells destroyed, so they cannot produce insulin. They therefore need insulin injections when the disease occurs. It is the most common type found among young patients.
- **Type 2:** People with diabetes of this type cannot effectively utilize insulin in their bodies. These people need to change their lifestyle and also need to take both oral medications and insulin injections. This type of disease is more common and accounts for about 90% of all adult diabetes patients.

When should insulin treatment begin?
1. Type 1 diabetes – upon diagnosis of the disease.
2. Type 2 diabetes – in the following cases:
   - Severe hyperglycemia, when sugar levels are much higher than normal
   - Diabetes that cannot be controlled over the long term with oral medication
   - When oral medication cannot be taken for various reasons (kidney disease, liver disease)
   - A woman who develops diabetes during pregnancy and cannot control it through diet alone
A side effect of insulin
Hypoglycemia, a very low level of blood sugar (less than 70% per mg). It is important to treat hypoglycemia, because the imbalance may worsen and even lead to unconsciousness. You should give yourself injections in accordance with your doctor's instructions and maintain a healthy lifestyle in order to avoid hypoglycemia.

Storing insulin
- Insulin should be refrigerated until the expiration date on the bottle
- For immediate use, it should be kept at room temperature, in a cool, shaded place
- Non-refrigerated insulin can be used for up to six weeks

What types of insulin are available, and how should they be used?

A. Basic long-term insulin (Lantus / Levemir / Degludec)
   This should be injected at a fixed hour of the day, regardless of mealtimes, and at a fixed dose, regardless of your current blood sugar level.

B. Insulin combinations (Novomix / Humalog mix)
   1. This should be injected up to 10 minutes before you begin eating a meal.
   2. It is important to check your blood sugar levels before each injection.
   3. It is important to ensure your injections are regular and in accordance with instructions.
   4. It is recommended to adjust the insulin dose to the meal, depending on your blood sugar level before the meal and the amount of carbohydrates contained in the meal.
C. Fast-acting, short-term insulin (Apidra / Novorapid / Humalog)
1. This should be injected up to 10 minutes before you begin eating a meal.
2. The insulin dose can be adjusted in accordance with your doctor’s prescribed treatment plan.
3. It is important to check your blood sugar levels before each injection.
4. It is recommended to adjust the insulin dose to the meal, depending on your blood sugar level before the meal and the amount of carbohydrates contained in the meal.
5. It is important to learn the carbohydrate counting technique.
6. In order to adjust the dose of fast-acting insulin, it is important to study the following two formulas, with the help of a dietitian:
   - **Insulin-Carbohydrate Ratio:** The amount of carbohydrates in each food type and how many units should be in each insulin dose in order to achieve the desired blood sugar level.
   - **Correction Factor:** How many insulin units are required to lower your blood sugar in order to achieve the desired level.

**Recommended insulin injection areas:**
1. Abdomen, around the navel
2. Upper arms
3. Outer thighs
4. Buttocks
Proper nutrition for diabetes control

Adopting the right diet to control your diabetes
The rules for eating a balanced diet for optimal diabetes control are no different from the rules everyone should follow for good nutrition. Make sure that your diet contains a combination of all the food groups, and you will achieve a good balance in your blood sugar levels.

What is important to know?
You must take care to plan ahead, in line with your personal lifestyle and daily routine. It is important to know in advance what to eat and where, so you can ensure that you will always eat varied, healthy and tasty meals. Needless to say, extreme hunger generally leads to poor dietary choices. When your blood sugar level drops, your feeling of hunger increases. In this kind of physiological situation, it is difficult to opt for good-quality, balanced meals. Most of us tend to choose foods that are high in carbohydrates and fat.

Unbalanced eating following low blood sugar (hypoglycemia) or extreme hunger often leads to a significant increase in sugar levels (hyperglycemia). Such sharp fluctuations can harm your health and overall balance. It is therefore important to maintain a balance of "a little hungry, a little full." You can only do this by planning your meals in advance.

Medication
Some medications require you to eat at regular times. It is important to receive personal advice from a dietitian so you can adapt your daily schedule and diet accordingly.

You are eligible to meet with a dietitian upon presentation of a referral from a doctor/nurse.
## 10 Golden Rules for Good Nutrition – For Diabetes and Overall Health

1. **Learn to recognize and identify the carbohydrates in different foods, and work with your dietitian to adjust the amount of carbohydrates you should consume at each meal.**

2. **Try to get your carbohydrates from whole grains, like whole wheat bread, buckwheat, quinoa, oatmeal, and legumes.**

3. **It is important to limit your sugar intake, including foods like fruit, milk, yogurt, and candy. These can be added to your diet in limited quantities, following consultation with your dietitian.**

4. **Eat high-fiber foods, including: vegetables and fruits (not peeled), whole wheat bread, legumes (dried beans, chickpeas, dried peas, lentils, and fava beans), brown rice, and oatmeal. Dietary fiber has health benefits that include balancing your blood sugar and lipid levels.**

5. **Eat vegetables with every meal. Vegetables help to balance your blood sugar levels and can be eaten without restrictions, either fresh, baked or boiled, but preferably not fried.**

6. **It is better to get your fats from vegetables, such as: olive oil, canola oil, avocado, tahini, seeds, and nuts.**

7. **Reduce the amount of animal fat in your diet, such as: butter, chocolate, whipped cream, dairy products containing more than 5% fat, sausages, fatty cuts of meat, and high-fat snacks and cakes. It is recommended to use low-fat cooking methods, such as steaming, roasting, and baking, rather than frying.**

8. **It is important to avoid foods containing trans fat, such as cookies, burekas, malawach, jachnun, snacks, and foods containing margarine.**

9. **Pay attention to the amount of salt in processed foods. It is recommended to choose low-sodium foods and cook with a variety of spices to reduce your use of table salt.**

10. **Make sure you drink enough water during the day. You can drink soda water and carbohydrate-free diet drinks.**
Main food groups and their effects on blood sugar levels

Our diets are based on 5 food groups:

1. **Carbohydrates** – the "fuel" that supplies the main, primary energy for our bodies. Carbohydrates are found in simple sugars or starches.

2. **Protein** - made up of amino acids. These are the building blocks of the body and sometimes a source of energy.

3. **Fat** - an energy-rich substance that serves as a "calorie reserve" for emergency situations. It helps the body to grow and function properly.

4. **Vitamins** - have many different roles in different vital processes.

5. **Minerals** - fulfill many functions in the body's various processes.

Carbohydrates, protein, and fat all affect the body's blood sugar levels:

**Carbohydrates**

Carbohydrates have the greatest impact on blood sugar levels, and identifying the carbohydrates in your diet is crucial to balancing your sugar. We divide carbohydrates into two types – simple sugars and starches:

1. **Simple sugar** - (white sugar). It has a very fast, significant effect on blood sugar levels. You should reduce your consumption of foods with a lot of simple sugar, including:
   - Confectionery, cakes, candies, honey, jam, date honey, sugary drinks
   - Fruit
   - Dairy products such as milk, leben (fermented milk), yogurt, and buttermilk

2. **Starch** is a complex carbohydrate. Usually its rate of digestion and absorption is slower, and therefore its effect on blood sugar levels is both slower and reduced. A balanced diet includes starches on a regular basis. Starch is usually found in:
   - Rice, corn, quinoa, buckwheat, potato, and sweet potato
   - Wheat and its products, such as bread, crackers, and breakfast cereal
   - Legumes like lentils, dried beans, chickpeas, and peas
**Protein**
Protein is found in animal products, like beef, chicken, fish, turkey, eggs, and dairy products.
A large amount of protein is also found in plants, such as legumes, almonds, and nuts.
There is usually no shortage of protein in the Western diet. Protein is digested and absorbed at a slow rate. Therefore its effect on sugar levels is very slow, and negligible in most cases.

**Fat**
Fats are divided into vegetable fat, which is recommended for regular consumption, and animal fats, which should be minimized because they contain very high levels of saturated fat and cholesterol.

Vegetable fat is found in foods such as olive oil, sesame seeds (tahini), canola oil, avocado, almonds, and nuts.

Animal fat is found in foods such as butter, cream, fatty cuts of meat, chicken skin, and dairy products containing over 5% fat.

Fats do not break down into carbohydrates after eating, and therefore do not raise blood sugar levels.

The different food groups have a combined effect on the rate of carbohydrate uptake, slowing the rise in sugar levels and bringing about an ongoing sense of satiety. Therefore, a balanced meal contains all the food groups, which helps to regulate blood sugar levels.
Controlling blood sugar with carbohydrates

Carbohydrates are one of the most important tools for controlling your blood sugar levels

What are carbohydrates?

Carbohydrates can be divided into two groups: obvious and hidden.

1. In some foods, carbohydrates can be identified and recognized relatively easily. Carbohydrates are found in:

   A. The starch group (complex carbohydrates) contains:
      - Grains: wheat and its products, such as bread, crackers, pasta, couscous, semolina, bulgur and various pastries
      - Rice, crackers, oats, rye products, pearl barley, buckwheat and quinoa
      - Starchy vegetables: corn, potato, and sweet potato
      - Legumes: lentils, peas, all colors of beans, mung beans, fava beans, chickpeas, soybeans, and related products, and black-eyed peas

   B. Simple sugars (processed white sugar and natural sugars)
      - Fruits: all fresh and cooked fruit (compote), dried fruits, and fruit juices
      - Sweet products: white sugar, brown sugar, jam, honey, date honey
      - Dairy products: animal milk and milk substitutes, such as soy milk and rice milk, yogurt, buttermilk, and puddings

2. There are foods that need to be checked to see if they contain carbohydrates. It is important to know the clues and read the food labels in full:

   - "No added sugar": processed products that have no added white sugar may have another carbohydrate added as a sweetener, such as honey or date honey
   - Sugar-free pastries will definitely contain flour or oatmeal, or other carbohydrate sources
   - "Natural juices without added sugar" or "jam with no added sugar" contain significant amounts of fruit, which contains carbohydrates
How can I identify hidden carbohydrates?

1. Read the list of ingredients printed on the product packaging. The ingredients are in order, from largest to smallest, so the first ingredient on the list is used most in the product. If, for example, a carbohydrate sweetener (sugar, honey, date honey, etc.) is found at the beginning of the list, you should know that there is a significant amount in the product.

2. Check the nutritional values table. This table lists the amount of carbohydrates in 100 grams of the product. The higher the value, the greater the amount of carbohydrates. For example, one slice of bread contains 15 grams of carbohydrates.

The amount of carbohydrates you should have in a meal is not fixed, and depends on many factors. It is recommended to consult a dietitian about the amounts you should eat at each meal.
What if there is no information about ingredients? (at a restaurant or dinner party)

Recognize foods most likely to contain sugar:
- Salad dressings and pasta sauces usually contain sugar
- Salads, such as cabbage, matbucha, pickled vegetables, and others contain sugar
- Asian cuisine, such as noodles, sushi, or stir-fries, contains sugar
- Of course there is a lot of sugar in cakes and sweet pastries

It is important to remember: there is no sweeping recommendation to avoid all these foods. When your diabetes is under control, you can add them to your diet occasionally. The main goal is to identify the carbohydrates. If you recognize them, you can control them.
Physical activity for diabetics

Exercise helps to prevent diabetes and is a major factor in managing the disease:

- Inhibits progression by improving blood sugar control
- Has a beneficial effect on lipid levels
- Contributes to reducing cardiovascular events
- Helps to improve mood and quality of life

Exercise is recommended for everyone with diabetes. It is important to consult a doctor before beginning an exercise routine. Consultation is especially important for patients with kidney, eye, balance, and foot problems.

Exercise recommendations for diabetics:

1. Blood insulin levels rise and fall daily. To help balance them, it is recommended to perform at least 150 minutes of aerobic exercise per week.
2. It’s best to have 2-3 strength training sessions a week, alongside aerobic exercise.
3. Avoid sitting continuously for over 90 minutes during the day.
4. It is important to find an activity you enjoy, because you're more likely to keep it up. You can choose walking, swimming, cycling, various classes, dancing, and more. Walking is especially recommended because it is convenient, cheap (only good walking shoes are required), easy to start, and safe.

Benefits of being physically active:

1. Exercise increases glucose absorption in muscle cells. This absorption increases as aerobic activity continues and intensifies.
2. Aerobic and strength exercises cause blood sugar to decrease for at least 24 hours following exercise.
3. Physical activity increases fat burning and balances the blood lipid level.
Safe exercise guidelines for diabetics

1. **Recommended frequency:** 4-6 times per week. It is best to exercise at the same time every day to help control your blood sugar. Try to exercise at least 3 times a week, so there will not be a gap of more than two days between workouts.

2. **Recommended duration:** 30-60 minutes. Start with 10-15 minutes, and gradually increase the duration of your workouts. Even daily activities like walking for more than 10 minutes help to improve your health.

3. **Nutrition while exercising:** If you exercise for more than an hour, it is recommended to eat some carbohydrates during the workout.

4. **Intensity:** It is best to exercise at a light to moderate level, so that you can still hold a conversation while exercising. Exercising too hard may cause musculoskeletal injuries.

5. **When is it best to exercise?**
   - One to two hours after eating.
   - It is best to avoid exercising in extreme climate conditions, including severe heat and cold.
   - It is recommended to avoid exercising if you feel unwell.

Before starting or altering your regular routine, it is recommended to consult with your treatment team – doctor, nurse, physiotherapist, fitness advisor, and dietitian – to adjust the training program to your personal medication and nutritional needs.

What is important to watch out for?

1. When your blood sugar is below 100, you should consume carbohydrates before starting the activity and wait for your blood sugar level to rise.

2. For type 1 diabetes, it is not recommended to exercise if you have a blood sugar level over 250, accompanied by ketones in the urine.

3. In any case, you should consult your treatment team regarding the range of blood sugar levels appropriate for the selected exercise.

You can receive personal advice from a physical fitness advisor. This service is provided by Maccabi physiotherapy institutes.
When should I stop exercising?

1. In cases of hypoglycemia, the following symptoms may occur: hunger, headaches, tremors in the limbs, dizziness, excessive sweating, increased pulse, impaired vision, and weakness. If these symptoms appear, stop the activity, eat 15 grams of a simple carbohydrate (3 teaspoons of sugar) or drink a sweet drink, and rest.

2. You should also stop exercising if you experience shortness of breath, chest tightness, heart palpitations, tremors, or a sharp pain in the arms or legs.

How should I prepare for exercise?

1. Try to choose a path that is well-lit, well-ventilated, and as flat as possible.

2. Do not exercise in extreme weather - when it is too hot or too cold.

3. Wear wide, comfortable shoes and white cotton socks for good ventilation and quick identification of foot injuries.

4. Prepare sugar water to take with you.

5. When you start a new exercise routine, you should check your blood glucose before, during, and after your workout.

Exercising if you inject insulin

1. Consult your physician regarding the appropriate insulin dosage for physical activity.

2. Consult a physiotherapist and dietitian regarding the exercise time and any nutritional supplements you should take.

3. It is advisable not to use muscles that have been injected with insulin less than 90 minutes before the workout. It is best to use an "inactive" area for an injection prior to a workout, such as the abdomen or upper arms.

4. Try to exercise 7 times a week for optimal diabetes control, as part of your daily routine.

5. For type 1 diabetes, the optimal blood sugar levels during exercise will be determined together with your doctor, physiotherapist, and nutritionist.
Diabetes can cause various health complications, harm your quality of life, and result in serious disabilities. These complications mainly occur when your diabetes is not under control over the long term. Risk increases with age, when patients have had diabetes for many years, and when other risk factors such as hypertension, hyperlipidemia, obesity, smoking, and increased mental stress are not treated. Complications are caused by damage to large and small blood vessels, as well as the nervous system.

**These are the organs that may be affected, and the complications that can arise as a result:**

- **Diabetic nephropathy (kidney disease):** Damage to the small blood vessels of the kidney that leads to decreased renal filtration capacity and later to renal failure in varying degrees, up to the need for dialysis.

- **Diabetic retinopathy (eye disease):** Damage to small vessels in the retina that can cause impaired vision and blindness.

- **Diabetic neuropathy (damage to the nervous system):** Damage to the small blood vessels in the peripheral and autonomic nervous system. This may result in changes in sensation, especially in the lower extremities, a feeling of "burning" or numbness, sexual dysfunction, gastrointestinal disorders, and bladder problems.

- **Diabetic foot:** A number of risk factors associated with vascular injury and nerve damage to the legs may cause poor circulation, loss of sensation, chronic wounds, ulcers, and even risk of amputation.

- **Cardiovascular diseases, especially myocardial infarction (heart attack) and heart failure**

- **Strokes**

- **Sexual dysfunction**
The changes that cause the development of complications in the blood vessels and nervous system are gradual. In their early stages, there are no external symptoms such as pain, sensory problems, vision changes, and so on. Therefore, all diabetic patients are advised to have regular medical check-ups. This is essential to reduce the risk of developing diabetes complications and to identify them as early as possible.

The risk of developing complications can be reduced through monitoring your own diabetes:

1. Maintaining a healthy lifestyle: proper nutrition, exercise, stopping smoking, and reducing stress.
2. Routine self-monitoring of blood sugar (glucose) levels.
4. Routine visits to the doctor, the nurse, dietitian, social worker, and fitness advisor.
5. Taking the correct medication, in accordance with your doctor’s instructions.
6. Preventive treatments for your feet.

Diabetic patients who make these checks a regular part of their routine can maintain their health and significantly reduce the likelihood of complications occurring.
Body, mind, diabetes and everything in between

Causes and warning signs

Overwhelmed at work? Daughter getting married?

Any change can make us feel stressed. At some level, stress is essential to our functioning, but prolonged, persistent stress can result in headaches, abdominal pain, rapid heart rate, and sleep and eating disorders. It can even lead to diseases such as hypertension, heart disease, and diabetes.

Stress, anxiety & diabetes

Physically, the body copes with stress by increasing the flow of blood to the muscles and oxygen to the lungs. In patients with diabetes, the liver releases more sugar to supply the muscles with energy. This high blood sugar is difficult for the cells to absorb.

From a behavioral perspective, stress disrupts the regular treatment program for a disease (taking medication, proper nutrition and regular exercise), and may even cause health-threatening behavior.

Physical warning signs

- Headaches
- Indigestion
- Muscle cramps
- Sweating
- Sleep disorders
- Changes in blood sugar levels
- Back pain

Mental warning signs

- Difficulty concentrating and focusing
- Anger and irritability
- Fatigue

You can consult the social worker at your local medical center or at the diabetes clinic, and with Maccabi mental health professionals.
What's a better way to cope with stress?

- It is important to be aware of the close link between stress and diabetes
- Learn to listen to your body and identify stress warning signs
- Identify sources of constant stress in your life, so you can prepare for them in advance and try to change them
- Develop a positive outlook: stress can be an opportunity for change
- Maintain a healthy lifestyle: rest, diet, exercise, and avoiding alcohol and smoking
- Adopt calming and relaxation techniques (for example, guided imagery)
- Do not hesitate to contact a professional or family member when you need support
- Do not keep your diabetes a secret, sharing helps to lessen the burden
- Learn to manage your personal time and devote part of it to activities you enjoy

Remember!

Coping with stress and tension has a significant effect on your physical and mental health, and on controlling your diabetes.
Diabetes and depression

What is depression?
Depression is a mood disorder lasting for more than two weeks.

Depression symptoms and warning signs:
- Concentration and memory problems
- Difficulty sleeping, sleep disorders
- Fatigue and lack of energy
- Loss of appetite
- Loss of libido
- Low self-esteem

The connection between diabetes and depression
- Diabetes affects not only the patient's physical condition but also his mental state and the state of those around him, especially his close family.
- Diabetics have a relatively high risk of developing depression and medical complications.
- There is a two-way relationship between depression and diabetes, so it is important to treat both issues.
- Early detection of depression and personalized treatment are essential for controlling diabetes and preventing complications.

Options for treating depression
- Antidepressant medication – to reduce symptoms and improve functioning
- Short-term cognitive behavioral therapy – changing perceptions of reality and supporting positive behavior

A combination of these two approaches is the most effective way to treat depression and prevent its recurrence.
Coping with diabetes outside your normal routine

Holidays, trips, family events, and similar situations create a special challenge for maintaining proper nutrition and a healthy lifestyle. How do you deal with diabetes in these breaks from your daily routine?

Some decide to stay at home and let the events pass them by. Some will decide to simply break the rules: "You only live once!"

As with everything else, there is of course a more balanced approach you can adopt.
You should remember a few important rules in these situations:

1. **Plan in advance** – usually we know in advance when a big meal, trip or vacation is coming up. Spend some time thinking about what food will be served and check whether there will be suitable food for you. If you are not sure there will be, bring your preferred food along.

2. **Avoid hunger** – if you're extremely hungry, it's very difficult to choose the right food. Make sure you eat on time and do not skip meals. Do not avoid eating before large meals. If you go on a trip to another country or do not know where your next meal will be, bring a small snack like whole wheat crackers, nuts, dried fruit, and so on.

3. **Glucometer** – in any new situation, use your glucometer to check your condition. Do not stop taking your medication. Try to avoid hypoglycemia and always carry a dose of sugar with you.

4. **Exercise** – integrate physical activity during your vacations and holidays. Take advantage of the break from routine to try new activities away from home.

5. **Relax and unwind** – take advantage of the break from routine to bring some peace and tranquility into your life. Reducing the tension from time to time can make it much easier for you to cope with stress on weekdays.

6. **Enjoy!** – don't give up the pleasures available to you, and don't avoid foods that you like or are important to you.
Who do I contact at Maccabi?
You can receive personal guidance in any of the following ways:
• Contact your family doctor, or a doctor at a diabetes clinic
• Contact the diabetes nurse at your local Maccabi medical center or a diabetes clinic
• Consult a dietitian at the medical center or diabetes clinic
• Get in touch with a variety of therapists / consultants, as needed
• Participate in diabetes workshops

For appointments and information, and to register for diabetes workshops, consult:
• The Maccabi Non-Stop Call Center - dial *3555
• Maccabi medical centers
• The Maccabi website: www.maccabi4u.co.il

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