جامعة مصر للعلومو النكزولوبيا

## DiabAwPro <br> 

 "كتيب التُعليمات"






 تعططك عينة الهيموجلوبين السكري في المعمل معلومات حول ضبط السكر لليك لمدة شهرين او ثالاثة. عندما تكون



 الغذاء الصحي لمرضى السكر عموما هو نفسه الغذاء الصحي لأي شخص - قلليل الدهون، متندل في الملح والسكر،


 للـرضي السكر أكثر من الأشخاص غير المصابيّن بالسكر إن كان تناولها بكميات صغيرة و فقط في المناسبات
 طريقة الأكل الصحية تُني محاولة عدم تناول الكثّر من الططام، عدم الإكثار من نوع واحد من الغذاء، المباعدة بين








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- • إن كتت تعاني من مرض السكر من النوع الثاني و قال لك الطبيب أنك تحتّاج إلى استذام الأنسولين، فان هذا لا يعني














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- يجب ألا يتتصر العلاج علي خفض السكر بل يجب أيضا تصحيح عوامل الخطر كالتنخين والسمنة و الضغط العالي



 شستخذم عند درجة حرارة الغرفة

12 الحركة و الرياضة:

## 

 الالتمام بالقدتد:

- يضعف السكر تدفق الام في القم و الساق! لكن يمكاك تجنب بعض المسبيات لنلك كالتنخين وضغط الام و الكولسترول
 (! مضاعفات السكر:
- Imp INTS






 ان كنت تأذذ الانسولين فلا تتنسي تعديل الجر عة بناء علي نتائج قياس السكر اذا نصحك الطبيب بذلكّ
 مرة فى الثهر. فيجب عليك معر فة وزنك الحالى و الوزن المثّلى لك و أكبر وزن وصلت إليه


 احرى! وصع صميك باهرب من المدفاة في الطسس البارد لا يحسن من تدفق الالم


# Diabetes Awareness Program 

"Instruction booklet"

Learning about diabetes and actively participating in the treatment is vital for diabetic patients, since the complications of diabetes are far less common and less severe in people who have well-managed blood sugar levels. In this booklet you will find general information and advice that fit most diabetic patients. Please consult with your doctor if you are in doubt about their suitability for you. Our target is to guide you through lowering your HbA1c levels as glycemic control can prevent or reduce diabetes complications.

## Diabetes knowledge:

- Diabetes is a serious disease but managing it properly can prevent or delay its complications.
- Diabetes can be managed by having a healthy diet, regular physical exercise, not smoking, staying at a normal body weight, blood pressure control, proper foot care and taking your medications on time.
- For good diabetes control your fasting/pre-meals sugar levels should be kept in the normal range (between 70 and 130), random/2 hours post-meals under 180, and according to the American Diabetes Association, HbA1c levels around 7 (optimal=6.5). These ranges may change depending on your age, years of diabetes and whether you suffer from diabetes complications.
- Smoking, elevated cholesterol levels, obesity, high blood pressure, and lack of regular exercise can make diabetes worse.
- Lowering your HbA1c levels can reduce your chance of suffering diabetes complications such as stroke, kidney and eye disease.
- The HbA1c test is a lab test that provides you with information on your blood sugar levels in the past 2-3 months. If your HbA 1 c is less than $7 \%$, this means that you have optimal diabetes control. If it is between 7 and $7.5 \%$, it means that you have good control. The target range is set individually based on your age and other factors determined by your doctor.
- Do not hesitate to ask your doctor if there is anything you would like to learn or know about diabetes.
- Diabetes is not contagious but it is a chronic disease. Cure is not to be expected after a short course of treatment. You have to learn to live with and control it.


## Diet:

- A healthy diet for diabetic patients is generally the same as a healthy diet for anyone; low in fat, moderate in salt and sugar, with meals based on lean protein, non-starchy vegetables, whole grains, and fruit.
- Starchy foods can still be part of a healthy meal plan, but in appropriate portions! Whole grain breads, pasta, rice and starchy vegetables like potatoes and corn can be included in your meals and snacks.
- Sweets and desserts can be eaten as part of a healthy meal plan and combined with exercise. They are no more "off limits" to diabetics than they are to people without diabetes. The key to sweets is to have a very small portion and save them for special occasions so that you can focus your meals on healthier foods.
- Fruits are healthy, but this does not mean you can have as much as you wish! Talk to your doctor about the amount, frequency and types of fruits you should eat.
- Healthy eating means trying not to eat too much food; trying not to eat too much of one type of food; spacing your meals evenly throughout the day; and not skipping any meals.
- Eat at regular intervals (e.g., every $4-5 \mathrm{hrs}$ ) and if you feel hungry between meals, take a snack. Agree with your doctor on a healthy meal plan and the proper snacks for you.
- Avoid sugary drinks like regular soda, fruit punch, fruit drinks, energy drinks, sweet tea, etc. These will raise your blood glucose and provide several hundred calories in just one serving!
- An ideal meal consists of foods containing starches with fresh vegetables and low-fat meat or fish, a few of fatty substances, and a dairy product with fruit and mineral water or a soft drink.
- Good nutrition depends on shopping for the right things. Special foods must not be prepared for diabetics, but the whole family is invited to eat in a healthy way!
- If you are eating out, keep the ground rules of good nutrition in mind and follow the guidelines you've agreed on with your doctor.
- It is necessary to know how to identify and measure the quantity of sugar in your meals. Ask your doctor about the way to measure.
- Things that are healthy may not be good for you. Honey is healthy but it is not good for diabetes control. Also, dates are healthy but they cannot be eaten in large quantities. Ask your doctor if you're having doubts about what's good and healthy for you.


## Physical activity:

- Being active is another part of managing your diabetes. Any type of physical activity you do helps lower your blood glucose.
- Regardless of the type of diabetes you have, regular physical activity is essential.
- Talk to your doctor if you have questions about which activities are right for you. Examples of different types of physical activity include walking, swimming, taking the stairs instead of an elevator, etc.
- If you're not used to being active, you can start with 10 minutes of walking each day and add five minutes each week. A good goal is 30 minutes per day.
- You can also split up your activity, e.g. walk 10 minutes before or after meals instead of 30 minutes at once, or 15 minutes of aerobics in the morning before work and another 15 minutes when you get home.
- Walking is a great way to get fit. It improves blood pressure, cholesterol, stress, and depression. It also promotes weight loss and reduces your risk of heart disease. Invite others to join you to make it more pleasant!
- Ask your doctor about what you should do so that your blood sugar won't drop during physical exertion.
- Do not exercise if your blood sugar is low. Also, do not exercise if your blood sugar is high (> 240) and your urine contains ketones.


## Smoking cessation:

- Treatment should not only consider lowering blood glucose levels but should also correct other risk factors such as smoking, obesity and hypertension.
- Smoking is one of the biggest threats to your feet! It makes arteries harden faster and causes decreased blood flow to the feet which makes wounds heal slowly. Many diabetics who need amputations are smokers.
- Careful! Your chances of suffering diabetes complications such as strokes get higher if you smoke or if you are not physically active.


## Medications and side effects:

- If you have type 2 diabetes and your doctor says you need to start using insulin, it does not mean you're failing to take care of your diabetes properly. It only means that your body is gradually starting to produce less insulin, and oral medications are not any longer adequate to keep your blood glucose at normal levels. Using insulin to get your blood glucose to a healthy level is a good thing, not a bad one.
- If you are starting new medications, ask your doctor the following questions: How many pills should I take? At what times should I take them? Should I take my medicine on an empty stomach or after eating? What if I forget to take my medicine and remember later? What side effects could I have? What should I do if I suffer side effects? Will my diabetes medication cause problems with any of my other medications?
- Call your doctor if you think you are having side effects from your medicine. Do not stop taking it unless the doctor tells you to. Remember, your medicine will work best if you also make healthy changes to how you eat and if you are daily active.
- Medications cannot replace a healthy diet and regular exercise. That's why diabetes treatment depends more on you than on the medications prescribed by your doctor. The medications will not be of benefit if they are not combined with healthy eating, as they will lose a great part of their effectiveness.
- The strength and efficacy of oral medications does not depend on the cost of the drug.
- Unused insulin should be kept in the fridge and must not be frozen. Used insulin should be kept at room temperature.


## Tests and blood sugar measurement:

- Blood glucose levels are usually tested before and after meals, at bedtime, and prior to exercise.
- Home blood sugar testing is an important part of controlling your diabetes.
- Checking your blood sugar tells you how food, activity and medicine are affecting your blood glucose and helps you make sure your blood glucose isn't going too high or too low.
- Keep a record of your measurements. Talk to your doctor about how often you should check your blood glucose and about what your target numbers should be. He will advise you based on your type of diabetes and treatment plan. Those on insulin should test at least 3 times a day while those who are not should decide on the frequency with their doctor.
- As part of your day-to-day routine, self-monitoring of blood glucose can help with necessary lifestyle and treatment choices and monitor for symptoms of hypo- or hyperglycemia. Monitoring can also help your doctor to alter treatment which in order to prevent any long-term complications from developing.
- The way you feel is not always a good or accurate guide to what is really happening. Test regularly and not only when you feel bad!
- Consider purchasing a glucometer at home if you can. It helps you follow up on your blood sugar levels and adapt yourself to treatment based on the results.
- It is recommended to take the HbA1c test every 3 months and take a diabetic eye exam, a urine test, and measure your kidney function yearly even if you have no complaints.
- Treatment should not be stopped prior to blood sugar measurement or before taking any lab tests.
- Blood glucose testing is more informative and safer than urine testing.


## Foot care:

- Diabetes causes poor blood flow in the feet and legs. But you can avoid some of the things that cause poor circulation such as smoking, blood pressure and cholesterol.
- Proper shoes should be and seemingly minor skin injuries should be attended to promptly avoid serious infections.
- Ulcers may not hurt. Yet every ulcer should be immediately seen by your doctor in order to avoid infections that can lead to the loss of a limb.
- Diabetics are far more likely to have a foot or leg amputated than other people. But it can be prevented by regular diabetes care.
- The best way to take care of your feet is to look at them and wash them every day.


## Diabetes complications:

- Poorly controlled diabetes accelerates hardening of arteries (atherosclerosis), which may lead to coronary heart disease, strokes, and foot problems.
- Poorly controlled diabetes can lead to eye damage, vision impairment, and dental problems.
- Poorly controlled diabetes can cause kidney damage eventually requiring dialysis.
- Poorly controlled diabetes can cause nerve damage leading to loss of sensation in the feet. Patients then fail to notice foot injuries which may lead to serious infections necessitating surgical amputation of the feet or toes.
- Diabetes complications can be prevented or slowed by better control of blood sugar levels.
- Reducing your HbA1c levels results in a significant decrease in the relative risk of foot problems. Further, aggressive control of elevated blood sugar levels decreases the complications of the kidneys, nerves, eyes, and heart. Aggressive control means achieving fasting glucose levels between $70-120 \mathrm{mg} / \mathrm{dl}$; glucose levels of less than 160 $\mathrm{mg} / \mathrm{dl}$ after meals; and HbA 1 c levels below $7 \%$.


## Reminders:

- Commit to seeing your doctor regularly at the preset times. Also make sure to see your dentist every six months.
- Measure your blood glucose regularly at home. If you do not have a device at home, then go to the nearest pharmacy or come to MUST hospital once a week. Do not forget to record your measurements.
- Make sure to take the right medication or insulin dose at the right preset times. Do not be careless with regard to medication times and avoid skipping doses.
- If you are on insulin, make sure to adjust your insulin dose based on your blood sugar readings if so instructed by your doctor.
- Do not forget to ask your doctor about possible side effects of the medications you take and what should be done in case you experience any of them.
- Observing your body weight is a necessary element in monitoring your blood sugar levels. Do not forget to check your body weight either once a week or at least once a month. You should always know what your current weight is, what your ideal weight is, and the biggest weight you've ever reached.


## Warnings:

- If you have diabetes, your chances of having a stroke are higher than those who do not have diabetes.
- Careful while exercising if you have other diseases such as high blood pressure or if you suffer from diabetes complications. Consult with your doctor about the appropriate types and durations of exercise for you.
- Obesity is the biggest enemy to your diabetes! So keep a healthy diet and stay at the normal body weight set by your doctor.
- Lack of diabetes care may lead to injury of the small blood vessels which affects the eyes, kidneys and nerves.
- Careful! Taking your medication or insulin on time does not mean you can eat what you like.
- Careful! Obesity is not a sign of good health and social prosperity.
- Careful! Placing your feet near the fire in cold weather does not improve blood flow.


## Advice:

- Always carry something that will quickly raise your blood glucose like juice or glucose tabs, especially if you are walking or exerting physical effort.
- If you sit for long hours at work or at home, try to get up once every hour and take a quick walk around the room.
- Do not stop taking your medications if you feel better or worse. Talk to your doctor about the way you feel and what you should do next.
- Ask your doctor about possible diabetes complications. Learning about your disease is an essential step to actively engage in your treatment process.
- If you're having trouble managing your diabetes, involve your doctor or a family member. They could provide you with great help and support.
- Ask your doctor about what you should do in cases of hyper- or hypoglycemia.
- Exercise regularly as instructed by your doctor. Ask your doctor about proper exercises for you and about the benefits of exercise to your diabetes.
- Unless otherwise instructed by your doctor, a good exercise schedule is $4-5$ times a week 15-30 minutes a day.
- Ask your doctor about exceptional cases when you must go see him.
- Have the will to control your diabetes so that you won't suffer its complications.
- If you take an overdose of insulin then start to sweat and feel weak, you should drink some juice.
- Depend on yourself in order to get better. For instance, follow a healthy diet, exercise daily, and of course quit smoking if you are a smoker. Your target should be fewer medications and more exercise and healthy foods.
- Daily movement is necessary for all and not just for diabetics. It helps you lose weight and strengthens the heart vessels.
- It is recommended to self-monitor your blood sugar at home or at the nearest pharmacy. The lab test is then meant to ensure the accuracy of your device or your ability to selfcheck.
- Always keep a pack of urine testing strips at home!
- Always keep an insulin dose at home for emergencies.


## Hyper- and hypoglycemia:

- High blood sugar measurements occur when you do not commit to your medication times, your meal plan or your exercise schedule and include: fasting glucose > 130, 2 hours after meals > 180, random > 180 , and HbA1c > $7 \%$. They are associated with increased thirst and urination.
- Low blood sugar (hypoglycemia) can occur due to excessive use of insulin or medications, skipped meals, or excessive physical exertion. Measurements are then $\leq 70$ associated with shakiness and increased sweating.
- Severely high or low blood sugar levels can lead to a diabetic coma.
- Glucagon can be lifesaving. Every patient with diabetes who has a history of hypoglycemia (particularly those on insulin) should have a glucagon kit at home.
- It is recommended to drink some juice or eat something sweet when you experience a sudden blood sugar drop. It is also advised to drink a lot of water and take an emergency dose of insulin when your blood sugar levels are suddenly elevated. Ask your doctor about this emergency insulin dose. And do not worry if you are normally not on insulin! Insulin is not addictive so taking an emergency dose does not mean that you will have to start taking insulin. But careful! If your suddenly elevated blood sugar levels are accompanied with excessive vomiting, then you have to go to the hospital immediately!


## Care during illness:

- Infection such as cold or flu can raise your blood sugar levels.
- Check your blood glucose more often if you have a cold or flu.
- Medications should not be stopped during illness unless so advised by your doctor.
- Urine ketones should be tested during intercurrent illnesses and periods of poor control.


## Diabetes effects on social and personal life:

- If your diabetes causes you fear, anger or stress, remember that this is normal. You can talk to your doctor, family or friends and include them in your healthy lifestyle. You can also invite them to attend your doctor's appointments with you.
- Have the will to commit to your meal plan even when eating with others that are not diabetic.
- Have the will to control your diabetes so that it won't stop you from doing the things you like.
- Diabetes is not an obstacle to normal life and marriage.


#  "ملحق النظام الغذائي المقترح" <br>  





- ربع رغيف خبز بلدي أو ( نوست رجيم - طماطم أو خيار أو ثمرة فاكهة
(الغذاء:

النشويات: ६/ז ر غيف خبز بلدي أو 7 ملاعق أرز أو 7 ملاعق مكرونة
الخضروات: كرنب - قرنبيط - بـاذنجان - فاصوليا خضر اء - ملوخية - سبانخ - كوسة - خرشوف - بامية - خبيزة
- فاكهة طازجة
(لعشـاء:

> • • • • جم جبن أبيض قلبل الدسم
> • فول مدمس (r ملعقة) أو طبق عدس
> • كوب زبادي نصف أو منزو ع الدسم • نصف رغيف خبز بلدي أو Y توست رجيم
> الفاكههة (نوع واحد فی اليوم):


## مـأكو لات مسموح بـها دون تّحفظ:

> الفلفل الأخضر - الخس - الفجل _ الخبار - الكرفس - البقدونس - الجرجير - البصل
> اللنو ابل مـا عدا اللمح فير اعي عدم الإكثار منه
(الممنوعات (لا تضاف ثلوجبات و يمكن تناولّها حسب ثوجيهات الطبيب):

الحلويات الثنامية و المكسرات و حلوي المولد
العسل الأسود - الثوكو لاتة - الحلاوة الطحينية ـ الطحينة
التورتة - الجاتوه - المربي
المشروبات الغازية

- العنب - الثين - المانجو - البلح



## Diabetes Awareness Program

"The proposed diet leaflet"

## Breakfast:

- Fava beans (2 tablespoons) or a boiled egg
- 50-100 g low-fat white cheese or 30 g Gouda
- A cup of yogurt or $2 / 3$ cup of low-fat or skimmed milk ( 120 ml )
- A quarter of a loaf of pita or a piece of diet toast
- Tomato or cucumber or a piece of fruit


## Lunch:

- Meat: 100 g red meat or chicken or 200 g fish without skin and fat, preferably boiled or grilled
- Starches: $3 / 4$ loaf of pita or 6 tablespoons of rice or pasta
- Vegetables: cabbage - cauliflower - eggplants - green beans - Molokhia - spinach zucchini - artichoke - okra - mallows
- Fresh fruit


## Dinner:

- 100 g low-fat white cheese
- Fava beans (2 tablespoons) or a lentil dish
- A cup of low-fat or fat-free yogurt
- Half a loaf of pita or 2 pieces of diet toast


## Fruit (one type per day)

- Apple (1 fruit) - Orange (2 fruits) - Guava (2 fruits) - Pear (2 fruits) - Tangerine (2 fruits) Peaches (2 fruits) - Watermelon or Cantaloupe (2 medium-sized pieces) - plum or apricot (3 fruits)


## Foods allowed without reservation:

- Green paprika - lettuce - radish - cucumber - celery - parsley - watercress - onions
- Spices except salt


## Foods not allowed (not added to the meals but could be taken as directed by your doctor)

- Sweets, nuts and candy
- Molasses - chocolate - halva - tahini
- Pies - cakes - jam
- Soda drinks
- Grapes - figs - mango - dates

