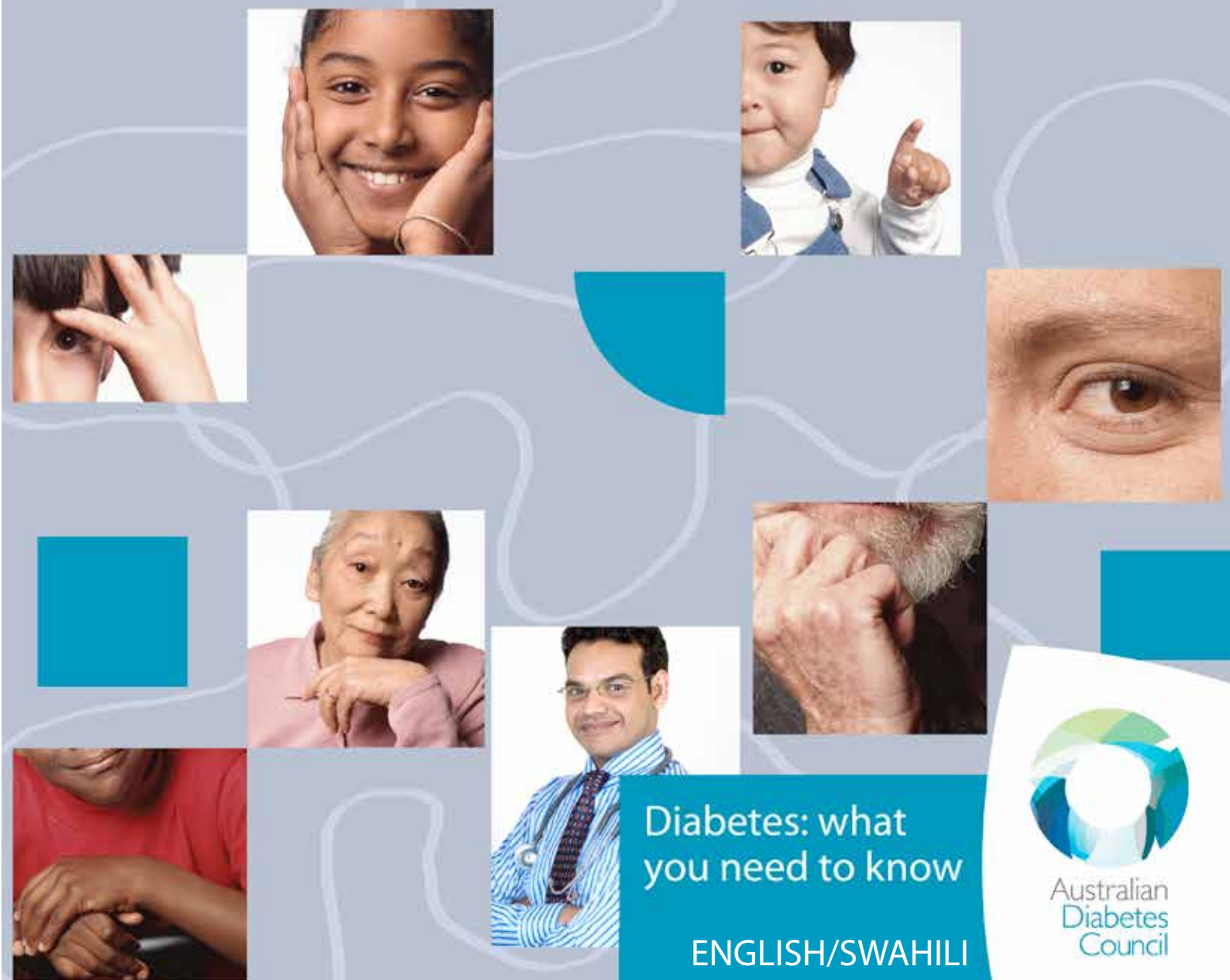




KISUKARI

UNACHOHITAJI KUJUA



Diabetes: what
you need to know

ENGLISH/SWAHILI



Australian
Diabetes
Council

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Foreword

Diabetes –What you need to know has been written for people with diabetes and for people who would like to learn more about the condition.

Health professionals with skills and knowledge in a variety of specialised areas have contributed to the content and presentation.

This book has been reviewed by diabetes educators, dietitians and exercise physiologists.

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Dibaji

Ugonjwa wa kisukari - Unachohitaji kujua kimeisha andikiwa watu wote walio na kisukari na pia wale ambao wangetaka kujifahamisha zaidi kuhusu hali hii.

Wafanyi kazi wa afya walio na uzoefu na elimu katika sekta mbalimbali za utaalamu wa afya, wamechangia katika mpangilio na yaliyomo katika kitabu hiki.

Kitabu hiki, kimepitiwa na waalimu wa kisukari, wataalamu wa vyakula na mtaalamu wa saikolojia ya mazoezi ya viungo.

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Nakala hii ni chapa sahihi. Mbali na kuisoma kwa manufaa ya kibinafsi, utafiti, uhakikisho au kupitia kulingana na kifungu 68 cha sheria za uchapishaji kilichoruhusiwa, ni marufuku, kuhifadhi au kupigisha chapa sehemu yoyote ya kitabu hiki bila idhini ya Halmashauri ya Ugonjwa wa kisukari Australia

Introduction

One in four people in Australia have either diabetes or are at high risk of diabetes. Diabetes prevalence is considerably higher in Aboriginal and Torres Strait Islander and certain culturally and linguistically diverse (CALD) groups.

So far there is no cure for diabetes but with proper management most people can lead a full and active life and delay or prevent long term complications. To ensure best possible health, people with diabetes and their families need to understand a great deal about diabetes.

Being diagnosed with diabetes can be frightening and overwhelming. It's a lot easier when you understand it and develop a lifestyle plan to manage it. For this reason it is very important to have information about food, medicines, exercise, community resources and diabetes self care.



This book has been produced by Australian Diabetes Council. It has been written in English and several other languages to explain what you need to know about diabetes.

Utangulizi

Mmoja kati ya wa Australia wanne, aidha ana kisukari au yuko katika hali ya hatari ya kupata Ugonjwa wa kisukari. Uwepo wa Ugonjwa wa kisukari ni wa kiwango cha juu kati ya jamii za Aboriginal na wale wa kutoka kisiwa cha Torre Strait na pia baadhi ya jamii zenye utamaduni na lugha mbalimbali culturally and linguistically (CALD).

Kufikia sasa, hakuna tiba kamili ya kisukari, lakini watu wengi wanaweza kuishi maisha yenye afya na ukamilifu, iwapo wanaweza kuwa wakifuatalia mbinu na njia bora za kuzuia hali inayoweza kuhatarisha maisha, ili kuhakikisha hali njema ya afya

Kutambulika kuwa na ugonjwa wa kisukari huenda ukaleta mshangao na kuvunjika moyo. Ni rahisi zaidi unapoelewa hali hii na kufanya mpango wa jinsi ya kuudhibiti katika maisha. Kwa sababu hii, ni muhimu sana kuwa na habari kuhusu vyakula, Madawa, mazoezi, rasilimali za jamii na uangalizi wa kibinafsi wa hali hii.



Kitabu hiki kimetolewa na Halmashauri ya Kisukari ya Australia. Kimeandikwa kwa lugha ya kiingereza na lugha zingine ili kuelezea yale unayohitaji kujua kuhusu ugonjwa wa kisukari.

1

What is diabetes?

Diabetes is a condition where the amount of glucose (sugar) in the blood is too high. Glucose is your body's main energy source but when blood glucose is too high over long periods it can damage certain organs.

Glucose comes from carbohydrate foods that are broken down and released into the bloodstream. Carbohydrate foods include bread, rice, potatoes, fruit and milk. The pancreas, a part of the body that is found behind the stomach, releases a hormone called insulin into the blood stream. Insulin allows the glucose to move from the blood stream into certain cells of the body, where it is changed into energy. We use this energy to walk, talk, think, and carry out many other activities.

Diabetes occurs when there is either no insulin, not enough insulin or the insulin that is produced is not working properly to move the glucose out of the blood. .

Currently there is no cure for diabetes.

Symptoms of high blood glucose (sugar)

1. Frequent urination (both night and day)
2. Thirst / dry mouth
3. Tiredness / lack of energy
4. Blurred vision
5. Slow healing of wounds
6. Infections e.g. urine and skin
7. Tingling sensation in feet
8. Itchy skin

2

Types of diabetes

The most common types of diabetes include:

- Type 1 diabetes
- Type 2 diabetes
- Gestational Diabetes (GDM)

1

Ugonjwa wa Kisukari ni nini?

Ugonjwa wa Kisukari ni hali ya mwili pale ambapo kiwango cha sukari (glukosi) katika damu kipo juu zaidi. Sukari hii ndio chanzo cha nishati mwilini, lakini kiwango hiki kikiwa juu zaidi, na kwa muda mrefu, huenda kikadhuru viungo fulani vya mwili.

Glukosi hutokana na aina ya vyakula vijulikanavyo kama uwanga (carbohydrates), ambacho huchanwa mwilini na kuingizwa kwenye damu. Vyakula hivi ni kama vile, mkate, mchele, viazi, matunda na maziwa.

Kongosho, kiungo cha mwili ambacho kinapatikana sehemu za nyuma tumboni, huachilia homoni iitwayo insulin kuingia kwenye damu. Insulin huruhusu glukosi kutoka kwenye damu na kuingia kwenye seli (cells) fulani katika mwili, ambako hugeuzwa na kuwa nishati mwilini. Tunatumia nishati hii kutuwezesha kutembea, kuongea, kufikiria, na kufanya kazi zinginezo. Ugonjwa wa kisukari hutokea iwapo kuna ukosefu wa insulin, kiwango cha chini cha insulin, au insulin iliyotengenezwa mwilini haifanyi kazi ya kutoa glukosi kutoka kwenye damu itakikanavyo.

Kufikia sasa, hakuna tiba ya ugonjwa wa kisukari.

Dalili za kiwango cha juu cha glukosi kwenye damu

1. Wingi wa kukojoa kooa (usiku na mchana)
2. Kuhisi kiu kingi au mdomo mkavu
3. Uchovu au kutokuwa na nguvu mwilini
4. Kutoona vizuri
5. Kupona pole pole kwa vidonda
6. Maradhi kwa mfano kwenye, mkojo na ngozi
7. Hali ya msisimko kwenye miguu
8. Muasho kwenye ngozi

2

Aina za Kisukari

Aina za Kisukari zinazojulikana sana ni:

- Aina 1 ya Kisukari
- Aina 2 ya Kisukari
- Aina ya Kisukari kipindi cha uja uzito

Type 1 diabetes

This type of diabetes usually occurs in children and young people, but it can occur at any age. In type 1 diabetes the body's immune (defence) system has destroyed the cells that make insulin. As a result no insulin is produced by the pancreas. The development of type 1 diabetes is NOT linked to lifestyle e.g. eating too much sugar, not exercising enough or being overweight.

Symptoms of type 1 diabetes usually happen very quickly and include:

- Feeling very thirsty
- Passing a lot of urine frequently
- Sudden weight loss (despite normal or increased appetite)
- Tiredness
- Generally feeling unwell
- Abdominal pain, nausea and vomiting
- Mood changes.



If undetected, blood glucose levels become very high. When the body cannot get enough glucose from the blood to use as energy it will begin to breakdown fat. When the body is breaking down too much fat, ketones are produced. High ketone levels and high blood glucose levels are very serious and need immediate medical treatment.

If untreated, the person will become very ill and may develop:

- Rapid or deep breathing
- Dehydration and vomiting, leading to
- Coma.

The treatment for type 1 diabetes is insulin which must be commenced immediately and must be taken for life. The management of type 1 diabetes also includes:

- Balancing exercise, food and insulin
- Regular blood glucose monitoring
- Healthy lifestyle.

Aina 1 ya Kisukari

Kwa kawaida, aina hii ya Kisukari, huadhiri watoto na vijana, lakini unaweza pia kutokea katika umri wowote. Katika aina 1 ya Kisukari, kinga za mwili ndizo huwa zimeangamiza seli zinazotengeneza insulin. Hii inapelekea kutokuwa na insulin iliyozalishwa na kongosho. Kutokea kwa aina ya 1 ya kisukari HAISABABISHWI au kuhusishwa na mtindo wa maisha kama vile; kula sukari zaidi, kutofanya mazoezi ya kutosha au uzito kupita kiasi.

Dalili za aina 1 ya kisukari kwa kawaida hutokea kwa haraka sana na ni;

- Kuhisi kiu kingi
- Kukojoa mkojo mwingi mara nyingi
- Kupungua ghafla kwa uzito wa mwili (hata mtu akiwa na hamu ya kawaida au kubwa ya chakula)
- Uchovu
- Kusikia kuumwa kwa ujumla
- Maumivu tumboni, kinyefu nyefu na kutapika
- Kubadilika badilika kwa hali ya kutokuwa na uchangamvu



Ikiwango cha sukari kwenye damu kisipojulikana, huenda kikapanda juu zaidi. Mwili usipopata glukosi ya kutosha kwenye damu ili kupata nishati, utanza kuchana ufuta ulio mwilini. Wakati mwili unapochana ufuta huu mwingi, seli zijulikanazo kama “ketones” huzalishwa. Kiwango cha juu cha seli hizi na kiwango cha juu cha sukari kwenye damu, ni hali ya hatari sana na inahitaji matibabu ya haraka.

Iwapo hali hii haitatibiwa, mtu huyu anaweza kuugua zaidi na kupelekea:

- Kupumua haraka na kwa uzito,
- Kupungukiwa na maji mwilini na kutapika, na kupelekea,
- Kuwa katika hali ya kuzimia,

Matibabu ya aina 1 ya kisukari ni matumizi ya insulin ambayo yanafaa kuanzishwa mara moja na kuendelezwa maishani mwote mwa mgonjwa. Uangalizi wa aina 1 wa kisukari unajumulisha. Tiba ya aina 1 ya Kisukari ni:

- Kusawasisha utumizi wa chakula, mazoezi na insulin
- Kuangalia kiwango cha sukari kwenye damu mara kwa mara
- Kuzingatia maisha yenye afya bora.

Type 2 diabetes

This type of diabetes is usually diagnosed in people over 40 years of age. However it is now being diagnosed in younger people, including children. Poor lifestyle choices are a major reason for this increase in young people .

Inactivity and poor food choices can result in weight gain, especially around the waist. This prevents the body from being able to use insulin properly (insulin resistance) so blood glucose levels rise. Type 2 diabetes has a slow onset.

Type 2 diabetes runs in families so children and grandchildren are at risk. The good news is that type 2 diabetes can be delayed or prevented when healthy lifestyle choices that focus on increasing physical activity, healthy food choices and weight loss are made. For this reason it is important to know your risk for type 2 diabetes.

Symptoms of type 2 diabetes may include frequent urination, thirst, blurred vision, skin infections, slow healing, tingling and numbness in the feet. Often, there are no symptoms present, or symptoms are not recognised.

Once diagnosed, it is very important to maintain good blood glucose (sugar) levels as soon as possible to avoid complications.

Management should begin with healthy food choices and regular physical activity. However, diabetes is a progressive disease and over time, oral medications and/or insulin may be needed.

Aina 2 ya Kisukari

Aina hii ya ugonjwa wa kisukari hupatikana katika watu wa umri zaidi ya miaka 40. Hata hivyo, kwa sasa, unapatikana pia katika vijana, pamoja na watoto. Uchaguzi duni wa mitindo ya maisha ndio chanzo kuu cha kuongezeka kwa ugonjwa huu katika watu wachanga.

Kutofanya kazi, na vyakula duni, vinaweza kupelekea kuongezeka kwa uzito wa mwili, hasa sehemu za kiunoni. Hii huzuia mwili kutoweza kutumia insulin vizuri (mwili kuwa na kinga zaidi dhidi ya insulin) na kupelekea viwango vya glukosi kupanda. Aina 2 ya Kisukari inachelewa kuanza.

Aina 2 ya ugonjwa wa kisukari huwepo katika familia, hivi kwamba hata watoto na wajukuu huwa katika hali ya kuambukizwa. Habari njema ni kwamba aina 2 ya kisukari inaweza kucheleweshwa au kuzuiwa iwapo maisha bora ya afya yanazingatia uwingi wa mazoezi ya mwili, chakula bora na kupunguza uzito.

Dalili za aina 2 ya kisukari zinajumulisha mkojo wa mara kwa mara, kiu kingi, Kutoona vizuri, maradhi ya ngozi, kupona kwa pole pole, msisimko na kufa ganzi miguuni. Mara nyingi, huwa hakuna dalili zozote, au dalili hazionekani.

Mara ugonjwa wa kisukari unapotambulika, ni muhimu sana kuzingatia viwango salama vya sukari (glucose) kwenye damu kwa haraka iwezekanavyo, ili kuepukana na hali inayohatarisha maisha.

Uangalizi wa hali hii, unabidi kuanzia na chaguo la chakula bora na mazoezi ya mwili ya kila wakati. Hata hivyo, kisukari, ni ugonjwa sugu sana na baada ya muda, unahitaji matibabu ya kutumia madawa au ikihitajika, utumiaji wa insulin.

Type 2 Management Plan

- Be physically active (e.g. walking) – aim for 30 minutes of moderate physical activity every day of the week. Check with your doctor first
- Adopt a healthy eating plan
- Lose weight or maintain a healthy weight
- Reduce salt intake
- Drink plenty of water
- See your diabetes health care team for regular health checks –, blood glucose levels, blood pressure, cholesterol, kidneys and nerve function, eyes and dental health
- Take care of your feet - check daily
- Stop smoking
- Regular dental care to avoid teeth and gum problems.

Encourage your family to adopt a healthy lifestyle



Smoking and diabetes

Tobacco has many unhealthy effects, especially for people with diabetes. People with diabetes who smoke are three times more likely to die of heart disease or stroke than people with diabetes who do not smoke.

Smoking raises blood glucose levels, reduces the amount of oxygen reaching the body's tissues, increases fat levels in the blood, damages and constricts blood vessels and increases blood pressure. All of these contribute to the risk of heart attack and stroke. Smoking can also worsen blood supply to feet.

For those who quit smoking, more frequent monitoring of blood glucose levels is important. This is because blood glucose levels may get lower when they quit smoking and can require changes to medication doses.

It is advisable that people with diabetes discuss with their doctor, the products and services available to help them quit smoking.

Aina 2 ya Mpango wa Uangalizi

- Uwe mtendaji (k.m kutembea) – Nuia kutembea walau dakika 30 katika mazoezi ya kila siku ya wiki. Muone daktari wako kwanza
- Zingatia afya bora katika mpango wako wa kula
- Punguza uzito wako au dumisha uzito wenye afya kiadili
- Punguza utumiaji wa chumvi
- Kunywa maji mengi
- Tembelea tume yako ya afya ya ugonjwa wa kisukari kupata uangalizi wa mara kwa mara – viwango vya sukari kwenye damu, shinikizo la damu, helemu (cholesterol), figo na utenda kazi wa viungo vyake, macho na afya ya meno
- Angalia afya ya miguu yako-kila siku
- Acha uvutaji wa sigara
- Tembelea daktari wa meno ili uangaliwe afya ya meno na matatizo ya fisi zako.

Himiza familia yako kuzingatia maisha yenye afya bora katika mitindo yao ya maisha.



Uvutaji wa sigara na ugonjwa wa kisukari

Tumbako ina madhara mengi ya afya, hasa katika watu wenye ugonjwa wa kisukari. Watu walio na ugonjwa wa kisukari, wako katika hali ya hatari ya kufa mara tatu zaidi kutokana na ugonjwa wa moyo au tikizo la moyo kuliko watu walio na kisukari na sio wavutaji wa tumbako.

Uvutaji wa tumbako, hupandisha viwango vya sukari kwenye damu, hupunguza kiwango cha oxijeni inayofikia viungo vidogo vya mwili, huongeza viwango vya mafuta kwenye damu, huharibu na kufinya misha ya damu na kuzidisha shinikizo la damu.

Kwa wale wanao acha kuvuta tumbako, ni muhimu Kuangalia viwango vya sukari kwenye damu mara kwa mara. Hii ni kwa sababu, viwango vya sukari kwenye damu hushuka mtu aachapo kuvuta tumbako na hii ina maana kwamba unaweza hitaji kubadilishiwa mahitaji ya dawa.

Watu walio na ugonjwa wa kisukari, wanashauriwa kujadiliana na daktari wao, kuhusu Madawa na Huduma zinazopatikana ili kuwawezesha kuacha uvutaji wa tumbako.

Gestational Diabetes

This type of diabetes occurs during pregnancy and usually goes away after the baby is born.

In pregnancy, the placenta produces hormones that help the baby to grow and develop. These hormones also block the action of the mother's insulin. As a result, the need for insulin in pregnancy is two to three times higher than normal. If the body is unable to produce enough insulin to meet this extra demand, gestational diabetes develops.

Screening for gestational diabetes occurs around the 24th to 28th week of pregnancy. Gestational diabetes may re-occur at the next pregnancy.

Blood glucose (sugar) levels that remain above target range may result in bigger babies, which can make birth more difficult. It can also increase the risk to the baby of developing diabetes in later life.



What do you need to do if you have been diagnosed with gestational diabetes?

It is necessary to see a diabetes educator, dietitian, endocrinologist and obstetrician. The management includes healthy eating for the mother, moderate exercise plus regular monitoring of blood glucose levels.

It is a good idea to have small frequent meals throughout the day that are nutritious for you and your baby, rather than three big meals. This will ease the insulin demand on the pancreas.

Those most at risk for developing gestational diabetes are:

- Women over 30 years of age
- Women with a family history of type 2 diabetes
- Women who are overweight
- Aboriginal or Torres Strait Islander women
- Certain ethnic groups, in particular Pacific Islanders, people from the Indian subcontinent and people of Asian origin
- Women who have had gestational diabetes during previous pregnancies.

Women who have had gestational diabetes are at increased risk of developing type 2 diabetes. It is strongly recommended to have a follow up Oral Glucose Tolerance Test 6-8 weeks after the baby is born, then every 1-2 years.

Ugonjwa wa Kisukari kipindi cha uja uzito

Aina hii ya kisukari hutokea katika kina mama wakati wa uja uzito na kwa kawaida, huisha baada ya kujivungua. Katika kipindi cha uja uzito, kizalio (placenta) huzalisha homoni ambazo humsaidia mtoto kukuwa na kukomaa. Homoni hizi pia huzuia hitilafu kutoka kwa insulin ya mama. Hali hii hupelekea mwili kuhitaji kiwango zaidi cha insulin katika kipindi cha uja uzito kupanda na kufikia mara mbili hadi tatu zaidi ya kile cha kawaida. Iwapo mwili utashindwa kuzalisha insulin ya kutosha ili kukithi mahitaji haya ya ziada, huenda, ugonjwa wa kisukari kipindi cha uja uzito ukaendelea kukomaa.

Upimaji wa ugonjwa wa kisukari kipindi cha uja uzito, hufanyika katika wiki ya 24 hadi ya 28 ya uja uzito. Ugonjwa wa kisukari kipindi cha uja uzito unaweza ukatokea tena katika mimba itakayofuata.



Viwango vya sukari (glucose) katika damu vinavyozidi viwango salama huenda vikapelekea kukuwa kwa watoto wanene, ambao wanaweza kufanya ugumu kujifungua. Hali hii pia inaweza kusababisha ongezeko la uwezekano wa mtoto kupata ugonjwa wa kisukari katika maisha yake ya baadaye.

Ni nini unachopaswa kufanya mara unapotambulika kuwa una ugonjwa wa kisukari kipindi cha uja uzito?

Ni jambo la lazima, kumuona mtaalamu wa elimu ya ugonjwa wa kisukari, mtaalamu wa lishe bora, mtaalamu wa tezi (endocrinologist) na daktari wa uzazi. Uangalizi wa ugonjwa huu unahitaji lishe bora kwa mama, mazoezi ya wastani na pia kupimwa kwa viwango vya sukari kwenye damu kila mara.

Ni wazo jema, kula vipimo vidogo vidogo vya chakula kila mara katika siku kwa manufaa yako na ya mtoto, kuliko vipimo vitatu vikubwa vya chakula. Hii itapelekea kupunguzwa kwa hitaji la insulin kwenye kongosho.

Walio kwenye hatari zaidi ya kupata ugonjwa wa kisukari kipindi cha uja uzito ni:

- Wanawake wenye umri zaidi ya miaka 30.
- Wanawake walio katika familia yenye historia ya aina 2 ya ugonjwa wa kisukari.
- Wanawake walio uzito wa mwili kupita kiasi
- Wanawake wa jamii za waaboriginal au wale wa kisiwa cha Torre Strait.
- Jamii fulani, hasa wale wa visiwa vya Pasifiki, watu tokea bara ya hindi na wale wa asili ya Asia.
- Wanawake ambao wamekuwa na ugonjwa wa kisukari kipindi cha uja uzito katika mimba zilizopita.

Wanawake ambao wamekuwa na ugonjwa wa kisukari kipindi cha uja uzito hapo awali, wako katika hatari kubwa ya kupata aina 2 ya ugonjwa wa kisukari. Wanashauriwa kufuatilia utumiaji wa majaribio ya madawa ya Glukosi, katika wiki ya 6 – 8 baada ya kuzaliwa kwa mtoto, hatimaye baada ya kila mwaka 1 – 2.

3

Risk Factors

Risk factors for developing type 2 diabetes include:

- Family history of diabetes
- Overweight and over 45 years of age
- Heart disease, heart attack or stroke
- High blood pressure and over 45 years of age
- Anyone over 55 years of age
- High blood cholesterol
- High blood glucose levels during pregnancy (gestational diabetes)
- Higher than normal blood glucose levels
- Aboriginal, Torres Strait Islander, Pacific Islanders, Indian sub-continent or Chinese cultural background
- Women with Polycystic Ovarian Syndrome.

The Australian Diabetes Risk Assessment Tool (AUSDRISK) should be used to identify your risk of developing type 2 diabetes. You can get this risk assessment tool from your doctor or from www.health.gov.au. Discuss your results with your doctor.

Children and adolescents who are overweight, experiencing increased thirst, urinary frequency, tiredness and/or who may have a family history of diabetes should also be tested for diabetes.

One of the main risk factors for developing diabetes is a family (hereditary) link. This means that if a person has diabetes, there is an increased risk that other members of their family (e.g. brother, sister, children, grandchildren) will develop diabetes.

Your family needs to be aware of the importance of a healthy lifestyle to delay or prevent type 2 diabetes. Regular physical activity and healthy food choices will help reduce the risk of developing type 2 diabetes.

PREVENTION - THE TIME TO ACT IS NOW

People at high risk of type 2 diabetes should be tested by their doctor every year to check for the possible onset of diabetes.

3

Hali zinazochangia hatari ya Ugonjwa wa kisukari

Hali zinazochangia hatari ya kupata aina 2 ya ugonjwa wa kisukari

- Historia ya Familia yenye Kisukari
- Uzito uliozidi na umri zaidi ya miaka 45
- Ugonjwa wa moyo, pigo la moyo na mshituko wa moyo
- Shinikizo la juu la damu na umri wa zaidi ya miaka 45
- Mtu yeyote wa umri zaidi ya miaka 55
- Kiwango cha juu cha lehemu (cholesterol) kwenye damu
- Viwango vya juu vya glukosi kwenye damu kipindi cha uja uzito (ugonjwa wa kisukari kipindi cha uja uzito)
- Viwango vya glukosi vinavyozidi vya kawaida kwenye damu
- Waaborigino, wana kisiwa cha Torre Strait, wana kisiwa cha Pasifiki, Bara Hindi au wale wa asili ya Kichina
- Wanawake walio na shida lenye uvimbe Ovarian Syndrome .

Kifaa kijulikanacho kama “Australian Diabetes Risk Assessment Tool (AUSDRISK)” kinatumika kutambua uwepo wa hatari ya aina 2 ya ugonjwa wa kisukari. Unaweza kupata kifaa hiki kutoka kwa Daktari wako au www.health.gov.au. Jadiliana na daktari wako kuhusu matokeo yako.

Watoto na vijana walio zidisha uzito wa mwili, walio na kiu kingi, kukojoa mara nyingi, uchofu na/au wale walio na historia ya kisukari katika familia, wanafaa kupimwa iwapo wana ugonjwa wa kisukari.

Chanzo kimoja kikuu cha hali zinazoweza kusababisha ukuaji wa ugonjwa wa kisukari, unahusishwa na uridhi wa kifamilia. Hii ina maana kwamba iwapo mmojawapo wa familia ana ugonjwa huu, basi, kuna uwezekano mkubwa na wengine katika familia (k.m. ndugu, watoto, wajukuu) kupata ugonjwa huu.

Familia yako inahitaji kutambua umuhimu wa maisha yenye afya bora ili kuchelewesha au kuzuia uwezekano wa aina 2 ya ugonjwa wa kisukari. Mazoezi hatari ya kupata aina 2 ya ugonjwa wa kisukari.

KUZUIA –WAKATI WA KUTENDA NI SASA

Watu walio katika hatari kubwa ya kupata aina 2 ya ugonjwa wa kisukari ni lazima wapimwe na daktari wao kila mwaka ili kuchunguzwa ni wakati upi ugonjwa huu unaweza kuibuka.

4

The Diabetes Health Care Team

Diabetes is a lifelong condition. Your health care team is available to support, advise and answer your questions.

The most important member of this team is you!

You are the one who will be at the centre of your diabetes management. Your family, friends and co-workers might also be part of your team.

The Diabetes Health Care Team includes:

- **Your family doctor** who looks after your diabetes and refers you to other health professionals as needed. Your family doctor is responsible for organising your diabetes tests.
- **An Endocrinologist** is a specialist in diabetes. Many people with type 1 diabetes see an endocrinologist. People with type 2 diabetes may see an endocrinologist if they are having

problems with their diabetes management or when insulin therapy is needed.

- **A Diabetes Educator** is usually a registered nurse who has done special training in diabetes. Educators can assist with teaching you about diabetes in many of the important areas such as blood glucose monitoring, medications, insulin, sick days, travel and stress.

- **A Dietitian** can answer questions about healthy eating for you and your family.

- **An Exercise Physiologist** can help to develop a physical activity plan suitable for you - regardless of age, ability or disability.

- **An Optometrist** will do a diabetes eye check and a vision check. Some people with diabetes need to see an Ophthalmologist, a doctor with special training in diseases and problems with the eye.

- **A Podiatrist** is a health professional who deals with the feet. Many podiatrists have advanced training in caring for the 'diabetic foot'.

- **A Dentist** will check your teeth and gums.

Sometimes people with diabetes have trouble coping with the day to day burden of their disease. **Social workers** and **psychologists** can help in this area. Your family doctor or diabetes educator can often refer you to these services.

Other specialists are sometimes needed. Children and adolescents with diabetes should see a **paediatric endocrinologist** or a **paediatrician**.

Women with diabetes who are planning a pregnancy, who are pregnant or women who develop gestational diabetes should see an **obstetrician** and endocrinologist. If complications of diabetes are present, referral to other health professionals may be required.

Pharmacists are also very important in your diabetes management. They have special knowledge of how medicines work and which medications may interact with each other.

Ask your doctor or diabetes health care team about any structured **diabetes education** classes/programs in your area. Diabetes education programs, either individual or as part of a group, will help you set some healthy lifestyle goals and assist you with managing your diabetes.



4

Tume ya Afya ya uangalizi wa Ugonjwa wa Kisukari

Ugonjwa wa kisukari ni hali ya muda mrefu katika maisha. Tume ya afya ya uangalizi ipo kukusaidia, kukushauri na kujibu maswali yako. Mwanachama aliye muhimu sana katika tume hii ni wewe!

Wewe mwenyewe ndiye utakaye kuwa katika mstari wa kwanza katika uangalizi wa ugonjwa wa kisukari. Familia yako, marafiki na wafanya kazi wenzako wanaweza pia kuwa katika tume yako.

Tume ya uangalizi wa afya inajumuisha:

- Daktari wa familia, ambaye anakuuguza ugonjwa wa kisukari na kukushauri kuona wataalamu wengine wa afya panapo hitaji. Daktari wako wa familia ndiyo anawajibu wa kuaanda kipimo ya kisukari
- Daktari wa tezi na homoni (endocrinologist) ni mtaalamu wa ugonjwa wa kisukari. Watu walio na aina 1 ya

Kisukari humuona mtaalamu huyu. Watu walio na aina 2 ya kisukari wanaweza kumuona daktari wa lehemu na homoni iwapo wana matatizo na uangalizi wa hali yao ya kisukari au wanapohitaji uangalizi wa insulin

- Mhudumu wa elimu ya Ugonjwa wa Kisukari kwa kawaida huwa ni muuguzi (nurse) aliyesajiliwa na ambaye amepokea mafunzo maalum kuhusu ugonjwa wa kisukari. Wahudumu hawa wanaweza kukupa mafunzo kuhusu ugonjwa wa kisukari na sehemu muhimu husika kama vile uangalizi wa sukari katika damu, madawa, insulin, siku za kuugua, usafiri na usumbufu wa akili.
- Mtaalamu wa lishe bora anaweza kujibu maswali kuhusu matumizi ya vyakula bora kwako na kwa kwa familia yako
- Mtaalamu wa saikolojia ya mazoezi anaweza kukusaidia kubuni mpango wa mazoezi ambao unakufaa-bila kujali umri, uwezo au ulemavu
- Daktari wa macho atakupima ili kujua iwapo kuna uwezekano wa kuwa na kisukari na pia uwezo wa kuona. Watu wengine wenye ugonjwa wa kisukari huenda wakahitaji kumuona



mtaalamu mwingine aliye na taaluma zaidi ya matatizo na magonjwa ya macho

- Podiatrist ni mtaalamu wa magonjwa ya miguu. Wengi wa wataalamu hawa wa miguu wamepokea mafunzo ya juu katika uangalizi wa ugonjwa wa "miguu ulio na kisukari"
- Daktari wa meno atakuangalia meno na fisi zako.

Wakati mwingine, watu walio na ugonjwa wa kisukari hupata wakati mgumu katika uangalizi wa ugonjwa huu siku baada ya siku. **Wafanyi kazi wa jamii** na **wanasaikolojia** wanaweza kusaidia katika hali hii. Daktari wako wa familia na mhudumu wa elimu wa kisukari wanaweza kukutuma mara kwa mara kupata hudumu hiyo.

Wakati mwingine, wataalamu wengine wanaweza kuhitajika. Watoto na vijana walio na ugonjwa wa kisukari wanafaa kumuona daktari wa tezi na homoni au yule wa watoto.

Wanawake walio na ugonjwa wa kisukari na ambao wana mpango wa kupata mimba, na wale wajawazito au wanawake ambao hupata aina ya ugonjwa wa kisukari kipindi cha uja uzito, wanashauriwa kumuona daktari wa familia na mtaalamu wa lehemu na homoni. Iwapo hali mbaya ya ugonjwa wa kisukari itakuwepo, basi wagonjwa wanaweza kutumwa kuwaona wataalamu wengine wa afya.

Wataalamu wa madawa (pharmacists) pia ni muhimu sana katika uangalizi wa ugonjwa wa kisukari. Wanayo elimu sheseli kuhusu jinsi madawa yanavyo fanya kazi na mchanganyiko upi wa madawa unaofaa.

Muulize daktari wako au tume ya afya ya ugonjwa wa kisukari kuhusu mpango wowote maalum wa elimu ya kisukari katika eneo unakoishi. Elimu kuhusu ugonjwa wa kisukari, kwa mtu binafsi au katika kikundi, inaweza kusaidia kuweka malengo ya afya bora na pia kufadhili uangalizi kabambe wa ugonjwa wako wa kisukari.

5

Annual Cycle of Care

What regular health checks are recommended?

Regular health checks help to reduce your risk of developing diabetes complications.



The recommended health checks are:

What needs to be checked?	How often?	Who do you need to see?
Blood pressure	Every visit to your doctor	Your family doctor
Weight, height and waist circumference Body Mass Index (BMI): if required – this helps determine if you have a problem with your weight	Every six months/ more often if required	Your family doctor
<u>Feet</u>	Daily self check and Six monthly health professional checkups	Podiatrist or family doctor
<u>Kidneys</u> : a blood and urine test, to make sure your kidneys are working well	Once a year/ more often if required	Your family doctor
HbA1c: this blood test shows your average blood glucose level over the past 2 - 3 months	At least six monthly or more often if not on target	Your family doctor
Lipids: blood fats	Once a year/ more often if required	Family doctor
<u>Eyes</u>	At diagnosis and at least every two years/ more often if required	Optometrist / Ophthalmologist
<u>Healthy eating plan</u>	Once a year	Dietitian
<u>Physical activity</u>	Once a year	Your family doctor / exercise physiologist
Medication	Once a year/ more often if required	Your family doctor
Review self care education	Once a year	Diabetes educator
Review smoking status	Once a year	Your family doctor

Your family doctor, with the help of your health care team, should develop a care plan to manage your diabetes. This will allow you to access additional Medicare services for people with chronic conditions.

5

Msunguko wa uangalizi katika mwaka

Ni uangalizi upi wa afya wa mara kwa mara unashauriwa kufanya?

Uangalizi wa mara kwa mara unasaidia kupunguza hatari ya ugonjwa wa kisukari kukomaa na kufikia kiwango kibaya.



Afya inapendekeza kwaagaliwa ni

Ni nini kinahitaji kuangaliwa?	Ni kwa mara ngapi?	Unahitaji kumuona nani?
Shinikizo la damu	Kila unapomuona daktari wako	Daktari wako wa familia
Uzito, urefu na kimo cha kiuno. Kipimo cha uzito wa mwili: Uwapo unahitajika- utasaidia kujua iwapo una tatizo na uzani wako.	Kila baada ya miezi 6/ mara nyingi panapo hitajika	Daktari wako wa familia
<u>Miguu</u>	Ujiangalie kila siku na kwa miezi 6 upate uangalizi wa kitaalamu	Daktari wa magonjwa ya miguu ama familia
<u>Figo</u> : kupimwa damu na mkojo, kuhakikisha figo zako zinafanya kazi vyema	Mara moja kwa mwaka/ mara kwa mara panapo hitajika	Daktari wako wa familia
HbA1c: Aina hii ya upimaji huonyesha kiwango wastani cha glukosi katika damu kwa miezi mitatu iliyopita	Walau miezi sita au mara nyingi zaidi iwapo haujafikisha kiwango kinachohitajika	Daktari wa familia yako
Lipidi: Ufuta kwenye damu	Mara moja kwa mwaka/mara kwa mara panapo hitaji	Daktari wako wa familia
<u>Macho</u>	Unapopimwa na walau mara moja kwa miaka miwili/ mara kwa mara panapo hitaji	Daktari wa macho na mtaalamu wa mgonjwa na macho
<u>Mpango wa lishe bora</u>	Mara moja kwa mwaka	Mtaalamu wa lishe
<u>Mazoezi ya mwili</u>	Mara moja kwa mwaka	Daktari wako wa familia / mwana saikolojia wa mazoezi
Utumiaji wa madawa	Mara moja kwa mwaka/mara kwa mara panapo hitaji	Daktari wako wa familia
Rudia mafunzo ya uangalizi ya wewe mwenyewe	Mara moja kwa mwaka	Mhudumu wa elimu ya ugonjwa wa kisukari
Rudia uangalizi wa hali yako ya kuvuta tumbako	Mara moja kwa mwaka	Daktari wako wa

Daktari wako wa familia, akisaidiana na tume yako ya uangalizi wa afya, wanahitajika kubuni mpango wa uangalizi wa ugonjwa wako. Hili litakusaidia kuweza kupokea huduma za afya zaidi ambazo zinalenga walio katika hali hatari ya ugonjwa.

6

Healthy eating for diabetes

Eating does more than just provide food and building materials for the body. Eating is a pleasurable and social experience.

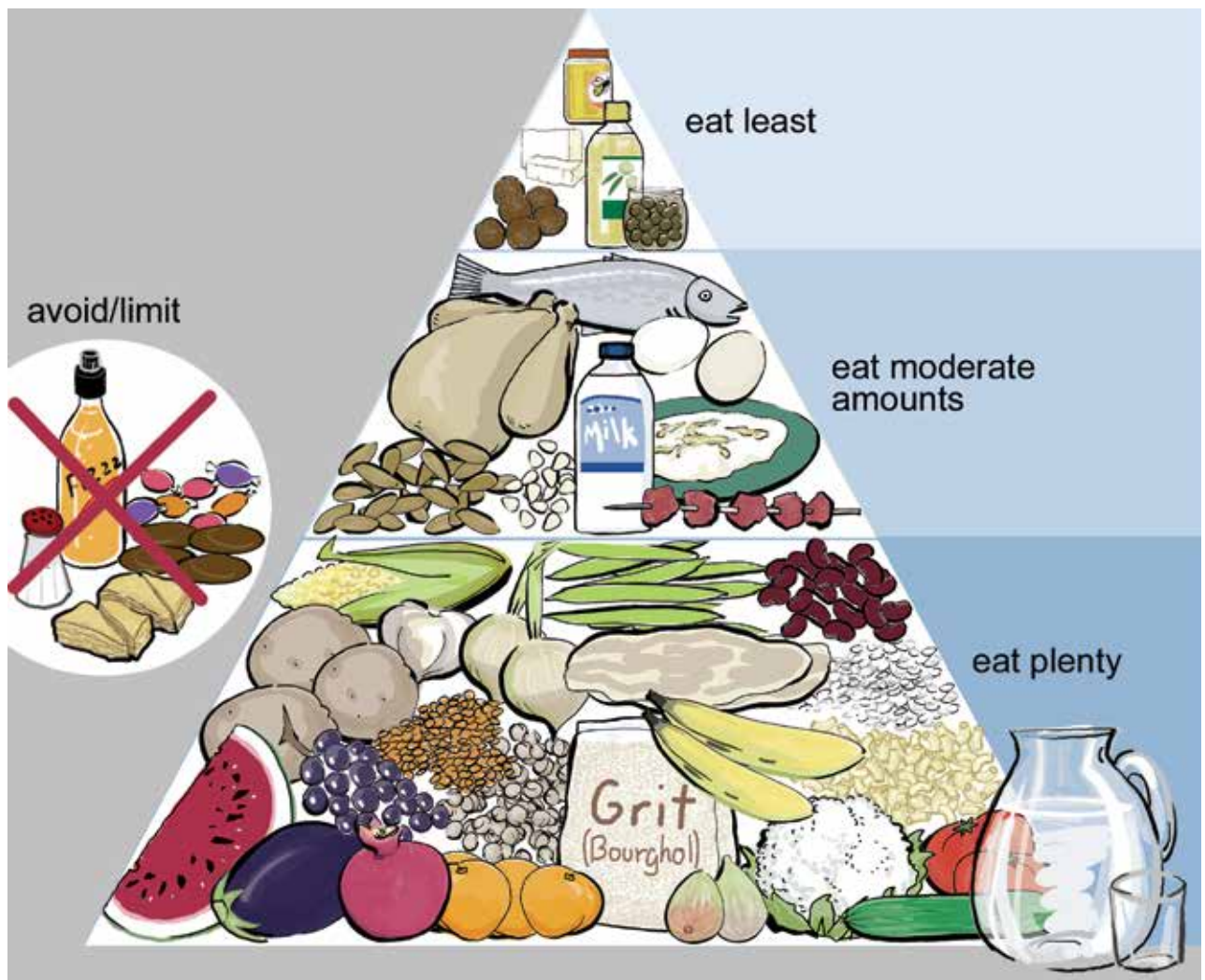
Diabetes should not stop you from enjoying food and eating with friends and family. You can still enjoy special occasions such as family, social, school and religious festivals. Tell your dietitian, diabetes educator and doctor what you eat and when. Your food and diabetes medications can be adapted to suit your lifestyle and normal family routine. However you may need to make changes to your eating habits to keep your diabetes under control and stay healthy.

Why is healthy eating important?

A healthy diet is one of the most important parts of diabetes management.

Eating well can help to manage your blood glucose (sugar) levels, cholesterol and blood pressure. Eating well can also help you to maintain a healthy body weight. Being overweight makes it harder to manage your diabetes. It is therefore important to have a healthy diet to help you lose excess weight and improve your diabetes management.

It is important that any dietary advice is tailored to your needs. That is where your dietitian is helpful.



6

Ulaji bora kwa walio na ugonjwa wa Kisukari

Chakula kinapotumiwa, kina manufaa zaidi ya kuupa mwili chakula na mahitaji mengine ya kuujenga. Ulaji ni kitu cha kupendeza na starehe.

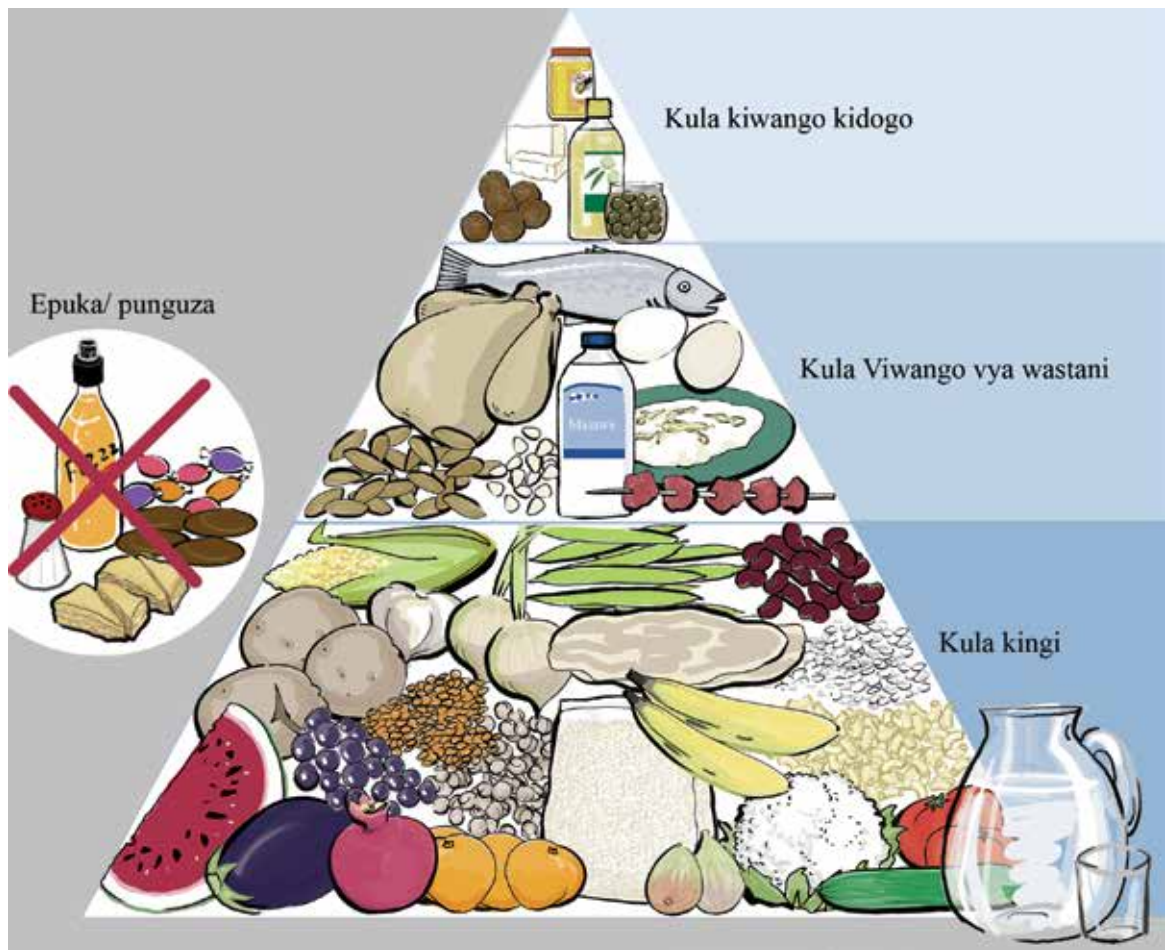
Ugonjwa wa kisukari haufai kukuzuia kufurahia chakula na kula pamoja na marafiki na familia. Unaweza kufurahia chakula nyakati za sherehe kama vile familia, marafiki, shule na sherehe za dini. Waarifu wataalamu wa chakula, elimu ya kisukari na Daktari, chakula na wakati ukitumiacho. Chakula chako na madawa unayotumia yanaweza kujumulishwa katika mpango wako wa maisha na ule wa kawaida katika familia. Hata hivyo, unaweza kuhitajika kubadilisha tabia zako za ulaji ili kuweza kudhibiti hali yako ya kisukari na kuishi maisha yenye afya bora.

Kwa nini ulaji wenye afya ni muhimu?

Lishe bora ni moja wapo ya sehemu muhimu sana katika uangalizi wa ugonjwa wa kisukari.

Kula vizuri kunaweza kukusaidia katika uangalizi wa viwango vya glukosi, helemu na shinikizo la damu. Kula vizuri pia kunaweza kukusaidia kuwa na uzito ulio salama na afya yako. Uzito wa mwili kupita kiasi hufanya uangalizi wa ugonjwa wa kisukari kuwa mgumu. Kwa hivyo, ni muhimu kula vyakula bora ili kukusaidia kupunguza uzito uliozidi na pia kuboresha uangalizi wa kisukari.

Ni muhimu kwamba, ushauri wowote kuhusu chakula uambatanishwe na mahitaji yako. Na hapo ambapo mshauri wako wa lishe bora anasaidia.



What is healthy eating for diabetes?

Healthy eating for diabetes is the same as healthy eating for everyone. A healthy eating pattern encourages:

- High fibre cereals including wholegrain breakfast cereals, wholemeal or grainy breads, wholemeal pasta and brown rice
- Two serves of fruit and five or more serves of vegetables every day. Include legumes such as baked beans, white beans, kidney beans, lentils, chickpeas and split peas
- One to two serves of lean meat, fish, skinless poultry or alternatives each day. Alternatives include legumes, eggs, nuts and seeds
- Dairy foods (e.g. milk, cheese and yoghurt) that are low fat or skim for everyone over the age of two
- Limit saturated fat (e.g. butter, coconut milk, cream and pastries)
- Have a low–moderate fat intake
- Avoid adding salt to food. Choose low salt or reduced salt foods. Limit salty foods such as salted anchovy, salted curd tuna and stuffed olives.
- Eat only moderate amounts of sugars and limit or avoid foods high in added sugars (e.g. fruit pies and sweetened pastries)
- Drink plenty of water
- If you drink alcohol, limit your intake to 2 standard drinks a day. It will also be a good idea to include alcohol free days each week.

How can I keep my blood glucose (sugar) levels in the healthy range?

It is very important that people with diabetes aim to keep their blood glucose levels in target range with regular physical activity, healthy eating and appropriate treatment (medications and/or insulin if required).

You can help to do this by spreading your food intake out over the day, not overdoing your serve sizes and choosing mostly high fibre, low fat and lower glycemic index carbohydrates.

Regular reviews with your dietitian are important to help you get the balance right between your blood glucose levels, the food you eat, exercise and your diabetes medication, if you take them. A dietitian may suggest you make changes to the types of food you eat and how much you eat to help keep you healthy. Your dietitian will try to work within the foods and cooking methods that you traditionally use.

Kula kwa njia yenye afya katika ugonjwa wa kisukari ni nini?

Kula kwa njia yenye afya katika ugonjwa wa kisukari ni sawa na kula vyema kwa kila mtu. Kula kwa njia yenye afya husaidia ulaji wa:

- Nyuzi nyuzi za kiwango cha pamoja na mtama usiokobolewa au mkate wenye mbegu mbegu, pasta na mchele usiokobolewa
- Pakua matunda sehemu mbili na mboga walau sehemu tano au zaidi kila siku. Ongezea aina ya maharage kama vile maharage yaliyookwa, maharage meupe, maharage ya figo, na maharage njugu
- Vyakula kutokana na mifugo wa maziwa (k.m. maziwa, cheese na maziwa yaliyo ganda)
- Punguza mafuta yaliyo na nguvu zaidi (k.m. Butter, maziwa ya mnazi, vitavunwa vya krimu na vile vya keki)
- Tumia viwango vya chini vya wastani vya mafuta
- Epukana na kuongeza chumvi kwenye chakula. Tumia viwango vya chini vya chumvi kwenye chakula. Punguza vyakula vyenye chumvi nyingi kama vile, samaki walio loweshwa kwenye chumvi
- Tumia tu viwango vya wastani vya sukari na upunguze au uache vyakula vilivyo ongezwa na viwango vya juu vya sukari (k.m. vitafunwa vya matunda au keki zilizo na sukari nyingi)
- Kunywa maji mengi
- Iwapo unatumia pombe, hakikisha unatumia viwango visivyosidi viwili vya pombe ya wastani kwa siku. Itakuwa ni wazo jema pia, kuwa na siku kadhaa bila kutumia pombe kila siku kwa wiki.

Nawezaje kuwa na viwango vya sukari (glukosi) kwenye damu katika viwango salama vya afya?

Ni muhimu sana watu walio na ugonjwa wa kisukari kunuia kuwa na viwango salama vya sukari kwenye damu kwa njia ya kufanya mazoezi ya mwili, kula vyakula bora na utumiaji wa madawa sahihi (dawa na/au insulin inapohitajika).

Unaweza kurahisisha haya kwa kula chakula kidogo kidogo kwa siku, kwa kutozidisha viwango vya chakula vya kila siku na kwa kuchagua chakula kilicho na manufaa ya juu zaidi, kiwango cha chini cha mafuta na carbohydrate ya kiwango cha chini.

Uangalizi wa mara kwa mara na mtaalamu wako wa lishe bora ni muhimu ili kuweza kuhifadhi viwango sawa vya sukari kwenye damu, chakula unachotumia, mazoezi na dawa zako japo inazitumia. Mtaalamu wako wa lishe bora anaweza kukushauri kubadilisha aina ya chakula unachotumia na ni ya kiasi gani unachofaa kutumia ili kuwa na afya njema. Mtaalamu huyu atajaribu kupanga kadiri ya vyakula na mitindo ya upishi unayotumia nyumbani.

7

What's in food?

You may have heard about:

- Carbohydrates
- Fibre
- Protein
- Fat
- Vitamins and Minerals.

These are called nutrients and they help your body to work properly and stay healthy. A nutrient is a substance found in food. You can find more information on each of these nutrients below.

Carbohydrates

Carbohydrates are the best energy source for your body. When they are eaten they breakdown to form glucose in the bloodstream. Eating regular meals and spreading your carbohydrate foods evenly over the day can help to maintain your energy levels without causing blood glucose levels to go too high or too low.

Carbohydrate foods include:

- Cereals and breads (e.g. rice, Biryani (rice-based dish), Uji (millet based porridge), Ugali (maize meal) and Chapatti (flat bread))
- Milk and yoghurt
- Fruit (e.g. banana, mango, papaya, guava, passion fruits, oranges, and pineapple)
- Starchy vegetables and legumes (e.g. potatoes, cassava, plantain, sweet potatoes and corn (maize))
- Sugar and sugary foods (e.g. honey, sugar cane, brown sugar, sweet biscuits and soft drink).

Most of these foods, except sugar and sugary foods, also provide other important nutrients to help keep you healthy. It is important to include these foods every day.

Eating a large serve of carbohydrate (e.g. a large plate of rice, Pilau (pilaf), plantain or potato) may cause your blood glucose levels to rise too high. Also, eating too much food all the time, even if it is healthy food, will cause you to put on weight. Being overweight makes it harder to manage your blood glucose levels.

As everyone is different, talk to your dietitian about the amount of carbohydrate food you need to eat.

Sometimes testing your blood glucose level two hours after a meal can help you to work out if you ate too much carbohydrate at a meal. If this happens a lot speak to your dietitian or diabetes educator who can give you advice on what to do. Cutting down carbohydrates is not always the answer.

Glycemic Index

All carbohydrate foods will breakdown to form glucose. Some carbohydrates break down to glucose fast and some break down slowly. The Glycemic Index (GI) is a way of measuring how fast or slow a carbohydrate food affects blood glucose levels.

Low glycemic index foods raise your blood glucose levels more slowly than high glycemic index foods. Eating mostly low glycemic index foods may help people with diabetes to reduce average blood glucose levels, lower blood fats and raise healthy cholesterol. They may also

Ni nini kilichomo ndani ya chakula?

Huenda umeisha sikia kuhusu:

- Carbohydrates – vyakula vya nafaka
- Fibre – nyuzinyuzi (fibre)
- Protein – Utomwili (protini)
- Fat – Mafuta
- Vitamins and minerals, Vitamini na madini.

Hivi vinaitwa virutubisho na vinasaidia mwili kufanya kazi vyema na kuwa na afya imara. Kirutubisho ni kitu kinachopatikana katika chakula. Unaweza kupata habari zaidi kuhusu kila kirutubisho hapa chini.

Carbohydrates

Carbohydrates ndizo chanzo muhimu zaidi za nguvu kwa mwili wako. Zinapokuliwa, zinapunguzwa na mwili na kufanywa kuwa glukosi kwenye mfumo wa damu. Kula chakula mara kwa mara na kutumia vyakula vya carbohydrate kwa mgao sawa katika siku inaweza kukusaidia kuwa na viwango vya nguvu vilivyo sawa bila kusababisha kupanda au kushuka zaidi kwa viwango vya sukari katika damu.

Vyakula vya carbohydrate ni kama vile:

- Vyakula kutokana na mimea kama mahindi na mkate (k.m. mchele, biriyani (kutokana na mchele), Uji, Ugali na chapati).
- Maziwa na maziwa ya mgando.
- Matunda (k.m. ndizi, embe, papai, pera, pesheni, machungwa na nanazi)
- Mboga zilizo na stachi na aina za maharagwe (k.m. viazi, mihogo, viazi vitamu na mahindi)
- Sukari na vyakula vitamu (k.m. asali, muwa, sukari ya rangi ya udongo, biskuti tamu na vinywaji visivyoleweshwa).

Mbali na sukari na vyakula vitamu, nyingi ya vyakula hivi, pia huchangia virutubisho vingine muhimu vinavyo kufanya kwendelea kuwa na afya njema.

Ukitumia kiasi kikubwa cha carbohydrate (k.m. lisahani likubwa la wali, Pilau, plantain au viazi) kinaweza kusababisha viwango vyako vya sukari kwenye damu kupanda juu zaidi. Na pia ulapo kiasi kikubwa cha chakula kila wakati hata iwapo ni chenye manufaa, kitasababisha kuongezeka kwa uzito wako wa mwili. Uzito wa mwili uliozidi, hufanya uthibiti wa viwango vya sukari kwenye damu kuwa mgumu.

kwa sababu kila mtu ni tofauti na mwingine, ni vema kusungumza na mshauri wako wa lishe bora kuhusu viwango vya carbohydrate unavyohitaji.

Wakati mwingine, kupima kiwango cha sukari kwenye damu saa mbili baada ya mlo, inaweza kusaidia kujua iwapo umetumia mlo wenye carbohydrate zaidi au la. Iwapo hili linafanyika wakati mwingi, ni vyema kusungumza na mshauri wako wa lishe bora au yule wa ugonjwa wa kisukari ili kupata ushauri kuhusu unachofaa kufanya. Kupunguza carbohydrate pekee siyo suluhisho kila wakati.

Glycemic Index

Kipimo cha jinsi carbohydrate huadhiri viwango vya sukari kwenye damu (Glycemic Index) (GI) .

What's in food? - *continued*

help you feel fuller for longer which may help with weight control. It is still important to not overdo your serve sizes.

Not all low glycemic index foods are healthy. You still need to consider if the food fits into the healthy eating recommendations listed earlier. Try to eat mostly high fibre low fat and lower glycemic index foods. Including a lower glycemic index food at every meal is a good start.

Some healthy lower glycemic index foods include legumes (e.g. chick peas and lentils), pasta, wholegrain cereals (oats), sweet potato, sweet corn, low fat milk and yoghurt, most fruit (e.g. banana, guava, papaya and mango) and many high fibre grainy breads.

Rice is usually a high glycemic index food. However, there are some varieties of rice that have a lower glycemic index. These include Basmati rice and Doongara rice.

What about sugar?

Sugar is also a carbohydrate. Eating small amounts of sugar will not affect your diabetes, e.g. 1-2 teaspoons of sugar in your cup of tea or a thin spread of jam on your toast.

Some foods that contain sugar are also healthy foods. For example fruit and milk naturally contain sugar. Other healthy foods have had small amounts of sugar added to them (e.g. some high fibre breakfast cereals and yoghurts). We know these foods are good for us so we can include them in our diet.

However eating or drinking large amounts of foods that are very high in sugar (e.g. Mandazi (a form of fried bread) and soft drink) can cause your blood glucose levels to rise too high. They can also cause you to put on weight. These foods are best eaten in small amounts. Choose diet soft drinks and cordials instead of standard varieties.

If you are using sugar in recipes, think about how much sugar you will end up eating. If the recipe is very high in sugar and you will be having a large serve, try reducing the amount of sugar, have a smaller serve or replace some of the sugar with an alternative sweetener. Try to choose recipes that are low in fat (particularly saturated fat) and contain some fibre.

Fibre

Fibre is important for everyone, including people with diabetes. Fibre can help keep your digestive system healthy and prevent constipation.

Fibre is also very useful for people with diabetes. It can help to lower "bad" cholesterol (LDL-cholesterol) which helps to keep your heart healthy. Also many foods that are high in fibre have a low glycemic index. This is because some types of fibre can slow down digestion of the food. Eating foods high in fibre can also keep you feeling fuller for longer so may help with weight control.

High fibre foods include whole fruits (not juice), vegetables, legumes, nuts and seeds, grainy and wholemeal breads and high fibre cereals (e.g. millet).

Fat

Fat is an essential nutrient. However many of us eat too much fat or eat the wrong types of fat. Fat is high in kilojoules. Eating too much fat can cause you to put on weight or make it harder for you to lose weight.

Some fats (saturated fats and trans fats) can increase your risk of heart disease and make it harder to manage your diabetes. Avoid these types of fats (e.g. coconut oil, butter, palm oil, full fat dairy foods, fatty meats and fried foods).

Ni nini kilichomo ndani ya chakula? - ukurasa unaendelea

Vyakula vyote vya carbohydrate hupunguzwa na kuwa glukosi. Baadhi ya carbohydrate hupunguzwa kwa mwendo wa haraka na nyingine pole pole. Kipimo cha Glycemic Index (GI), ndio njia inayo tumiwa kujua ni kwa mwendo upi carbohydrate huadhiri viwango vya sukari kwenye damu.

Vyakula vyenye kipimo cha chini cha glycemic index, hupandisha viwango vya glukosi kwenye damu pole pole zaidi kuliko vile vya vipimo vya glycemic index vya juu. Kutumia vyakula vyenye vipimo vya chini vya glycemic index vinaweza kusaidia watu wenye ugonjwa wa kisukari, kupunguza vipimo vyao vya wastani vya sukari kwenye damu, kushusha viwango vya mafuta kwenye damu na kuimarisha viwango vya afya imara vya helemu. Na pia vinaweza kukufanya kujihisi mzima sana kwa muda mrefu na kupelekea kuthibiti uzito wa mwili. Ni muhimu kwako kutozidisha vipimo vya mgao wako wa vyakula.

Siyo vyakula vyote vyenye vipimo vya chini vya glycemic index ni salama kwa afya yako. Bado itakubidi uchunguze iwapo chakula ukitumiacho kinaingiana na mpango wa afya ulioshauriwa hapo awali. Jaribu kula vyakula vilivyo na fibre ya juu, kiwango cha chini cha mafuta na glycemic index. Kutumia chakula chenye kiwango cha chini glycemic index ni mwanzo mwema.

Baadhi ya vyakula vyenye afya vya kiwango cha chini cha glycemic index ni kama vile aina ya maharage (k.m. njugu na dengu), pasta (ngano), aina ya mtama/mahindi n.k, viazi vitamu, mahindi matamu, maziwa yenye viwango vya chini vya mafuta na mgando, matunda (k.m. ndizi, mapapai na maembe na mikate iliyo na viwango vya juu vya fibre.

Mchele kwa kawaida ni chakula chenye kiwango cha juu cha glycemic index. Ni kama vile, Basmati na mchele wa Doongara (Basmati) and Doongara.

Na sukari je?

Sukari pia ni carbohydrate. Utumizi wa kiasi kidogo cha sukari hauwezi kuadhiri hali yako ya kisukari, k.m. Kijiko kidogo cha chai 1 – 2 cha sukari katika chai yako au mpako mwembamba wa jam kwenye mkate.

Baadhi ya vyakula vilivyo na sukari pia ni vyakula vyenye afya bora. Kwa mfano, matunda na maziwa huwa na sukari ya asili. Vyakula vingine vyenye afya bora vina viwango vidogo vya sukari vilivyoongezewa (k.m. baadhi ya vyakula vyenye fibre ya juu kama mtama na mgando wakati wa chakula cha asubuhi).

Lakini, kula au kunywa kiasi kikubwa cha chakula kilicho na Viwango vya juu vya sukari (k.m. Mandazi (mfano wa mkate uliokaangwa) na vinywaji kama soda) vinaweza kusababisha kupanda juu zaidi kwa kiwango cha sukari kwenye damu. Vinaweza pia kusababisha kuongezeka kwa uzito wa mwili. Vyakula hivi, ni vyema kuliwa kwa Viwango vidogo vodogo. Tumia vinywaji vilivyoratibishwa kuwa salama kuliko vile vya kawaida.

Iwapo unatumia viongezeo vya sukari kwenye chakula, fikiria ni Viwango vipi vya sukari huenda ukaongezea mwilini mwako. Iwapo chakula kina kiwango cha juu cha sukari na utapakuliwa kiasi kikubwa, jaribu sana kupunguza kiwango cha sukari, kwa kutumia chakula kisicho kingi au badilisha sehemu fulani ya sukari kwenye chakula na vitamu vingine. Jaribu kuchagua vyakula vilivyo na mafuta madogo na pia nyuzinyuzi (fibre).

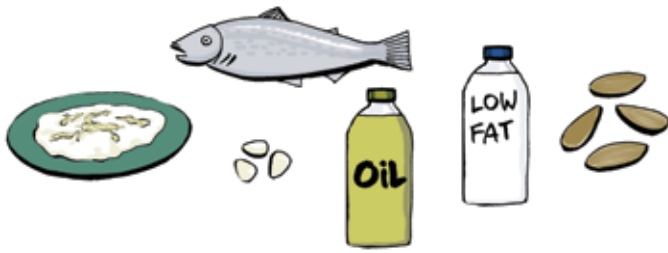
What's in food? - *continued*

Polyunsaturated fats (e.g. oily fish, safflower and sunflower oils) and monounsaturated fats (e.g. avocado, canola and olive oils) can help reduce your risk of heart disease. They are better choices than saturated fat. Both of these fats have benefits for your health so vary between them. These fats are still high in kilojoules, so if you are overweight, eat them in moderation.

To help you get the right type of fat and avoid eating too much fat;

Choose:

- Meat trimmed of fat or use the lean cuts
- Chicken trimmed of fat and skin
- Low fat cooking methods such as barbequing, grilling, dry frying, baking, steaming or poaching
- Low fat dairy foods
- To eat more fish including oily fish (e.g. tuna, salmon, mackerel, herring, sardines)
- Olive, canola, sesame, peanut, corn, safflower or sunflower oils for cooking, marinades and dressing
- Margarines made from olive, canola, safflower or sunflower oils
- Alternatively, use a plant sterol enriched margarine (i.e. Proactive™ and Logicol™), but speak to your dietitian and/or doctor about it before you decide to use it
- To include small amounts of avocado, unsalted nuts and seeds in your diet
- To cook with evaporated milk with coconut essence instead of coconut milk
- Spices, such as cinnamon, saffron and star anise, in cooking to add flavor to your dish rather than salt.



Avoid/Limit:

- Fatty, untrimmed or processed meats
- High fat cooking methods such as frying or roasting in fat
- Full fat dairy foods
- Butter, ghee, palm oil, lard, vegetable shortening, coconut oil, coconut milk and coconut cream
- Fried foods (e.g. fried fish and battered vegetables)
- Cakes, Mandazi (a form of fried bread), pastries, biscuits, crisps and high fat crackers.

Protein

Protein is essential every day to repair old or damaged body parts. Most people living in Australia already eat enough protein and do not need to eat more.

Choose protein foods that are also low in fat. Foods that are a good source of low fat protein are lean meat, poultry without the skin, fish and seafood, eggs, low fat dairy products, unsalted nuts, legumes (dried beans, dried peas and lentils) and soy products such as tofu.

Speak to your dietitian if you are not sure if you are eating enough protein.

Vitamins and minerals

Vitamins and minerals are important for a healthy body. Eating a wide variety of foods from all five food groups will help you get all the vitamins and minerals your body needs.

The food groups are:

- Breads and cereals
- Vegetables
- Fruit
- Dairy foods
- Meat or meat alternatives (e.g. poultry, seafood, eggs, tofu, legumes, nuts and seeds).

Nyuzi nyuzi

Nyuzi nyuzi ni muhimu kwa kila mtu, hata pia na wale walio na ugonjwa wa kisukari. Nyuzi nyuzi zinaweza kusaidia mfumo wa chakula mwilini kuwa na afya na pia kuzuia vimbizi (constipation)

Nyuzi nyuzi pia ni muhimu sana kwa watu wenye ugonjwa wa kisukari. Inaweza kusaidia kupunguza cholesterol “mbaya” (helemu) ambayo itasaidia afya bora ya moyo. Vyakula vingi vilivyo na fibre zaidi, pia vina viwango vya chini vya glycemic index. Hii ni kwa sababu, aina fulani za nyuzi nyuzi vinaweza kusababisha kupunguka kwa umeng’enywaji wa chakula mwilini. Ulaji wa vyakula vyenye kiwango cha juu cha nyuzi nyuzi pia husaidia wewe kujihisi umeshiba kwa muda mrefu na kwa hivyo kusaidia katika kuthibiti uzito wa mwili.

Vyakula vyenye kiwango cha juu cha nyuzi nyuzi ni kama matunda (sio juisi), mboga, jamii za maharage, njugu na mbegu, nafaka na mikate isiyokobolewa na nafaka yenye Viwango vya juu vya nyuzi nyuzi (k.m. wimbi).

Mafuta

Mafuta ni kirutubisho muhimu. Hata hivyo, wengi wetu hutumia mafuta mengi au aina ya mafuta yasiyo sawa.

Mafuta yanayo kiwango cha juu cha nishati. Utumiaji wa mafuta mengi unaweza kusababisha kuongezeka kwa uzito wa mwili au hata kupelekea ugumu kupunguza uzito mwilini.

Baadhi ya mafuta (yanayoganda-saturated fats) yanaweza kuongezea uwezekano wa kupata ugonjwa wa moyo na kufanya ugumu uthibiti wa ugonjwa wa kisukari. Epukana na aina hizi za mafuta (k.m. mafuta kutokana na nazi, siagi, mafuta kutokana na mchikichi (palm oil), mafuta kutokana na vyakula vya maziwa, nyama yenye ufuta na vyakula vilivyokaangwa)

Mafuta kama (samaki wenye mafuta, mafuta ya alizeti (sunflower) na yale yatokanayo na (parachichi, kanola na zeituni) yanaweza kupunguza kupata ugonjwa wa moyo. Haya mafuta ni chaguo bora kuliko yale yanayogandamana. Mafuta haya yana manufaa mbali mbali kwa afya yako na kwa hivyo kati ya hayo, uyatumie kwa utaratibu ufaao. Hata hivyo mafuta haya bado yanayo kiwango cha juu cha nishati, na kwa hivyo iwapo una uzito mkubwa wa mwili, uyatumie kwa wastani.

Ili kukusaidia kupata mafuta yafaayo na kuepukana na utumiaji wa mafuta mengi;

Chagua:

- Nyama iliyotolewa mafuta au isiyo na mafuta
- Kuku iliyotolewa mafuta na ngozi ya juu.
- Mitindo ya upishi inayotumia mafuta madogo k.m. kuchoma, kuweka kwenye oven, kukaanga bila kuweka mafuta, uokaji, kuchemsha au kutumia upepo wenye joto.
- Chakula chenye mafuta madogo kutokana na mifugo wa maziwa.
- Ulaji wa samaki zaidi pamoja na wale wenye mafuta (k.m tuna, samoni, heringi, dagaa, n.k)
- Mafuta ya zeituni, kanola, sesame, njugu, nafaka kama mahindi au yale ya alizeti katika upishi, kuongezea na kupaka.
- Siagi kutokana na zeituni, kanola, mafuta ya upishi ya alizeti.
- Au utumie mafuta yenye asili ya mimea kama vile (Proactive™) na Logic™ , lakini kwanza, zungumza na mshauri wako wa lishe bora au daktari wako kabla ya kuchukua hatua ya kuyatumia.



What's in food? - *continued*

Protein

Protein is essential to your body everyday to repair old or damaged parts. Most people living in Australia already eat enough protein and do not need to eat more.

Choose protein foods that are also low in fat. Foods that are a good source of low fat protein are lean meat, poultry without the skin, fish and seafood, eggs, low fat dairy products, unsalted nuts, legumes (dried beans, dried peas and lentils) and soy products.

Speak to your dietitian if you are not sure if you are eating enough protein.

Vitamins and minerals

Vitamins and minerals are important for a healthy body. Eating a wide variety of foods from all five food groups will help you get all the vitamins and minerals your body needs.

The food groups are:

- Breads and cereals
- Vegetables
- Fruit
- Dairy foods
- Meat or meat alternatives (e.g. poultry, seafood, eggs, legumes, nuts and seeds).

Ni nini kilichomo ndani ya chakula? - ukurasa unaendelea

- Ongezea Viwango vidogo vya parachichi, njugu isiyo na chumvi na mbegu mbegu katika mlo wako.
- Katika upishi wako, tumia maziwa kutokana na mnazi yaliyochemshwa na kutolewa maji badala ya maziwa ya mnazi ya moja kwa moja.
- Viungo vya chakula k.v. dalasini, na zafarani katika upishi badala ya chumvi ili kuongezea ladha kwenye mlo wako.

Epuka/Punguza

- Nyama yenye mafuta au iliyo pikwa tayari.
- Mtindo ya upishi ya hali ya juu kama vile; kuchemsha au kuchoma ndani ya mafuta.
- Vyakula vyenye mafuta kutokana na mifugo wa maziwa.
- Siagi, mafuta ya mnazi, nyama ya kondoo, mafuta ya kawaida, mafuta kutokana na mchikichi, maziwa na krimi kutokana na mnazi.
- Vyakula vilivyokaangwa (k.m. samaki na mboga)
- Keki, Mandazi, vitafunwa vingine kutokana na ngano (chapati, biskuti, krisp na vingine vyenye mafuta mengi).

Protini (Utomwili)

Protini ni muhimu katika mwili kila siku kwa manufaa ya kujenga viungo vikuukuu na vilivyo umia. Watu wengi wanaoishi Australia, hutumia protini ya kutosha na kwa hivyo hawahitaji nyingine zaidi.

Chagua vyakula vya protini vilivyo na viwango vidogo vya mafuta. Vyakula vilivyo na protini na viwango vidogo vya mafuta ni kama vile, nyama isiyo na mafuta, nyama ya kuku isiyo na ngozi, samaki na vyakula vya ziwani, mayai, vyakula kutokana na mifugo wa maziwa na vyenye mafuta madogo, njugumawe bila chumvi, familia za maharage (maharage na njugu zilizokaushwa) na bidhaa za soya.

Zungumza na mshauri wako wa ulezi bora iwapo hauna uhakika iwapo unatumia protini ya kutosha.

Vitamini na madini

Vitamin na madini ni muhimu ili kuwa na mwili wenye afya bora. Kula vyakula mbalimbali kutokana na vikundi vitano vya vyakula vikuu vitakusaidia kupata vitamini na madini unayohitaji mwilini.

Vikundi vikuu vya chakula ni;

- Mikate na aina za nafaka kama mahindi
- Mboga
- Matunda
- Vyakula kutokana na maziwa
- Nyama au chaguo lingine la nyama (k.m Kuku, vyakula kutokana na bahari, mayai, familia za maharage, njugu na mbegu mbegu).

8

Common Questions about Food and Diabetes

How often should people with diabetes eat?

It is important for all people with diabetes to eat regular meals over the day. This helps to spread food intake out and prevent blood glucose levels going too high or low.

Some people with diabetes take tablets or insulin to help manage their diabetes. These medications may mean that you need to eat at certain times, eat a small snack between meals or have a snack before bed. Discuss with your dietitian, diabetes educator or doctor whether you need to eat at certain times or need to eat snacks.

If you keep irregular hours (or you do shift work) it is important to discuss this with your dietitian, diabetes educator or doctor as your medications may need to be adjusted to fit in with when you are able to eat. It is important that you do your best to have a regular eating pattern from day to day.

Why is it important to manage my weight?

Being overweight can make it harder to control your blood glucose levels. Carrying too much fat around your middle is especially bad for diabetes and heart disease. If you are overweight, ask your dietitian for advice on how to adjust your food intake to lose weight. Also speak to your doctor or an exercise physiologist about exercise.

Can I eat fruit? What type of fruit can I eat and how much?

Yes, people with diabetes can eat fruit. Fruit is an excellent source of fibre, vitamins and minerals. All fruit can be included as part of a healthy diet for people with diabetes. Fruit contains natural sugar therefore it is important to spread fruit over the day.

The recommendation for fruit is the same as the general population. That is, two servings of fruit each day.

One serve of fruit equals:

- 1 medium piece of fruit (e.g. 1 apple or 1 orange or 1 pear)
- 2 smaller pieces of fruit (e.g. 2 plums or 2 kiwifruit)
- 1 cup chopped or canned fruit (not in syrup)
- 20 grapes
- 1 large peach
- 1 tablespoon of sultanas or 4 dried apricots*
- 1 small banana or ½ large banana.

Fruit juice is high in kilojoules and does not contain fibre. It is much better to eat the whole fruit rather than drink the juice. Drinking too much juice raises blood glucose levels and may contribute to weight gain. If you must drink juice, limit to a maximum of 1 small glass a day.

*Dried fruit contains a lot of concentrated natural sugar. If you eat dried fruit limit to a small quantity e.g. 1 tablespoon of sultanas, 2 dried figs or 4 pitted dates.

8

Maswali ya mara kwa mara kuhusu Chakula na Ugonjwa wa Kisukari

Ni mara kwa mara ngapi watu wenye ugonjwa wa kisukari wanaafaa kula?

Ni muhimu watu wote wenye ugonjwa wa kisukari kula mara kwa mara katika siku. Hii husaidia kutambaza chakula ndani ya mwili kwa uthabiti na kuzuia viwango vya sukari kwenye damu kupanda juu zaidi au kushuka.

Baadhi ya wagonjwa wa kisukari hutumia tembe tembe au insulin kusaidia kuthibiti hali yao ya kisukari. Madawa haya huenda yakamaanisha kwamba unahitaji kula wakati fulani, kula vitafunwa vidogo vidogo kati ya mlo au kula kitafunwa kabla ya kulala. Jadiliana na mshauri wako wa lishe bora, yule wa ugonjwa wa kisukari au daktari wako kuhusu iwapo unahitaji kula kwa wakati fulani tu au unahitaji kula vitafunwa.

Iwapo unafanya kazi muda mfupi (ama mpangilio wa kazi), ni muhimu kujadiliana na mshauri wako wa ulezi bora, Yule ya ugonjwa wa kisukari au daktari wako, kwa sababu huenda mpango wako wa kutumia madawa ukabadilishwa ili kuenda sawa na ule wa chakula. Ni muhimu kwako wewe kuwa na mpangilio wa saa ya kula usiobadilika siku baada ya siku.

Kwa nini muhimu kuthibiti uzito wa mwili?

Uzito uliozidi unaweza kufanya uthibiti wa viwango vya sukari kwenye damu kuwa mgumu. Kuwa na mafuta mengi zaidi kwenye sehemu za tumbo na kuelekea kiunoni ni hatari hasa kwa ugonjwa wa kisukari na ule wa moyo. Iwapo una uzito zaidi wa mwili, muulize mshauri wako wa ulezi bora, mawaidha kuhusu jinsi ya kuthibiti ulaji wako ili kupunguza uzito wa mwili. Ongea pia na dakatri wako au mwanasaikolojia wa mazoezi kuhusu mazoezi ya mwili.

Je naweza kula matunda? Ni aina gani ya matunda na kipimo kipi naweza kutumia?

Ndio, watu wenye ugonjwa wa kisukari wanaweza kula matunda. Matunda ni chanzo cha juu cha nyuzi nyuzi, vitamin na madini. Aina yote ya matunda yanaweza kujumulishwa katika mpango wa malezi bora kwa wote walio na ugonjwa kisukari. Matunda yanayo sukari asilia na kwa hivyo ni muhimu kuyatumia kwa mgao sawa katika siku.

Viwango vya utumizi wa matunda ni sawa na vya watu wengine katika jamii. Yaani, vipimo viwili vya matunda kwa siku. Kipimo kimoja cha matunda ni sawa na:

- Tunda moja la wastani (k.m. tofaa moja, chungwa moja au pera moja)
- Matunda mbili madogo (k.m. zambarau mbili au matunda mbili ya kiwi)
- Kikombe moja cha matunda yaliyo katwa katwa au kupakiwa kwenye mkebe (sio juisi).
- Zabibu 20
- Fyulisi moja kubwa
- Kijiko moja cha sultana au aprikoti nne* zilizokaushwa
- Ndizi ndogo moja au nusu ya ndizi kubwa.

Maji au juisi ya matunda inayo kiwango cha juu cha nishati na haina nyuzi nyuzi. Ni vyema zaidi kula tunda nzima, kuliko kunywa juisi. Unywaji wa juisi nyingi zaidi, husababisha kupanda kwa viwango vya sukari kwenye damu na huenda ikasababisha kuongezeka kwa uzito wa mwili. Iwapo ni lazima utumie jusi, punguza na kutumia hadi bilauri (glasi) moja tu kwa siku.

*Matunda yaliyokaushwa yanayo sukari nyingi ya asili. Ukitumia matunda yaliyokaushwa, tumia kiwango kidogo tu k.m. kijiko moja cha sultanas, kuyu mbili iliyokaushwa au tende nne.

Can I eat unlimited vegetables?

Vegetables provide an excellent source of fibre, vitamins and minerals. Recommendations for vegetables are five or more servings a day.

One serve of vegetables equals:

- ½ cup cooked vegetables
- 1 cup salad
- 1 medium potato*
- ½ cup cooked legumes*.

Most vegetables have very little impact on blood glucose levels and weight (i.e. salads, eggplants and artichokes). These vegetables are referred to as free foods and can be included in unlimited quantities.

*Starchy vegetables (potato, sweet potato, corn and legumes) do contain carbohydrate. This means they are broken down into glucose to provide the body with energy. Starchy vegetables can be included as part of a healthy eating plan in moderate amounts to help manage blood glucose levels.

Are “diet” foods suitable?

Not all diet foods or foods marked “suitable for people with diabetes” are useful for people with diabetes. Often they can be quite high in kilojoules or may have a lot of fat in them. Also they can often be quite expensive.

Diet foods that you should avoid are:

- Diabetic chocolate. These are usually high in fat.
- Diet or low carbohydrate beer. These beers are still high in alcohol. It is the alcohol that is more of a problem than the carbohydrate content.

Some diet foods are fine for people with diabetes. These are foods that normally may be high in added sugar. Replacing the sugar with a sweetener such as Equal™, Splenda™ and Sugarine™ means you do not have to worry that they will raise your blood glucose level too high. These include:

- Diet soft drinks
- Diet cordials
- Diet jellies.

What foods can I eat if I am always hungry?

If you are often hungry, make sure you are not overly restricting how much you eat just to keep your blood glucose levels down. This is especially important for children, adolescents and the elderly. Speak to your dietitian about what is the right amount of food for you.

If you are eating the right amount of food and are still hungry, try to include high fibre, low fat and low glycemic index foods in your meals and snacks. They can help to keep you feeling fuller for longer.

Some foods can be eaten without affecting your blood glucose level or body weight. These are the kind of foods you should aim to eat if you are still hungry. These foods are often called “free” foods. They include:

- Most vegetables except the starchy vegetables (potato, sweet potato, corn, legumes), avocado and olives.
- Some fruits e.g. lemon, lime, cumquats, loquats, passion fruit, berries and rhubarb.
- Black or green tea* (without milk or sugar)

Ninaweza kula mboga bila kipimo?

Mboga ni chanzo cha juu cha nyuzi nyuzi, vitamini na madini.

Vipimo vya mboga vinavyopendekezwa ni tano au zaidi kwa siku.

Kipimo kimoja cha mboga ni sawa na:

- Kikombe nusu cha mboga zilizopikwa
- Kikombe moja cha salad
- Kiazi moja cha wastani
- Kikombe nusu cha familia ya maharage* yaliyopikwa.

Mboga Nyingi hazina adhara kwa viwango vya sukari katika damu na uzito wa mwili (k.m salad, bilingani n.k). Mboga hizi zinafahamika kama vyakula huru na zinaweza kujumulishwa kwa kiasi chochote kile.

*Mboga zilizo na wanga (Viazi, viazi vitamu, mahindi na maharage) huwa na carbohydrate. Hii ina maana kwamba zinamengenywa na kuwa glukosi na kuupa mwili nishati. Mboga zilizo na wanga zinaweza kujumulishwa kwa viwango vya wastani na kuwa sehemu ya mpango wa ulezi bora na kusaidia uthibiti wa viwango vya sukari katika damu.

Je “vyakula maalum” vinafaa?

Sio vyakula vyote vyenye lebo ya “Infaa kwa watu wenye Ugonjwa wa kisukari” ambazo ni muhimu kwa walio na kisukari. Mara nyingi huenda vikawa na kiwango cha juu vya nishati au mafuta mengi. Na pia zinaweza kuwa na bei ya juu.

Vyakula maalum ambavyo unafaa kuepukana navyo.

- Chokoleti ya kisukari. Kwa kawaida, hii huwa na kiwango cha juu cha mafuta.
- Vyakula maalum au bia yenye kiwango cha chini cha carbohydrate. Pombe hizi bado zinayo kiwango cha juu cha pombe. Ni pombe hii ambayo ni tatizo kuliko kiasi cha carbohydrate kilichomo.

Baadhi ya vyakula maalum ni sawa kwa watu wenye ugonjwa wa kisukari. Hivi ni vyakula ambavyo huenda vikawa na kiasi kikubwa cha sukari kilichoongezwa. Kubadilisha sukari na bidhaa za kuongezea utamu kama vile Equal™, Splenda™ na Sugarine™, Splenda™ na Sugarine™ inamaanisha kuwa usijali kwamba zitapandisha kiwango cha sukari kwenye damu na kuwa juu zaidi. Vitamu hivi ni kama:

- Vinywaji nyororo (diet soft drinks)
- Diet cordial
- Diet jellies.

Ni vyakula vipi ambavyo naweza kula iwapo ninasikia njaa?

Iwapo unasikia njaa mara mingi, hakikisha kwamba haujifungi sana kuhusu ni kiasi gani cha chakula unachotumia ili kuthibiti viwango vya sukari kwenye damu kubakia chini. Hii ni muhimu hasa kwa watoto, vijana na wazee. Ongea na mshauri wako wa lishe bora, ili kujua ni kiasi gani cha chakula kinachofaa kwako.

Iwapo unatumia kiasi cha chakula kilicho sawa na bado unasikia njaa, jaribu kuongezea viwango vya juu vyuzi nyuzi, vyakula vyenye viwango vya chini vya mafuta na glycemic index katika mlo na vitafunwa. Vinaweza kukusaidia kujihisi umeshiba kwa muda mrefu.

Vyakula fulani vinaweza kuliwa bila kuadhiri viwango vyako vya sukari kwenye damu au uzito wa mwili. Hivi ndivyo vyakula unapaswa kujaribu kula iwapo bado unaona njaa hata baada ya kula. Vyakula hivi mara nyingi huitwa “vyakula huru”. Ni kama vile:

-
- Herbal teas
 - Coffee* (without milk or sugar)
 - Water including soda water and plain mineral water
 - Diet soft drinks and cordials
 - Clear broth
 - Tomato juice
 - Fresh lemon juice
 - Diet jelly
 - Herbs and spices

* It is best to limit tea and/or coffee to 4 cups a day

What can I add to food to give it more flavour?

It is important to limit salt and foods containing salt. This is because a high salt intake can cause high blood pressure.

Herbs, spices, chilli, garlic, lemon, lime and vinegar can all be used to add flavour to food without affecting blood glucose levels or blood pressure. Use your traditional herbs and spices to maintain the traditional flavour of meals (e.g. mint, marjoram, black peppercorns, parley, coriander seeds, cloves, anise seeds and cinnamon).

Why should I see a dietitian?

An Accredited Practising Dietitian (APD) is a health professional who can help you manage food and diabetes. Make an appointment to see a dietitian when you are first diagnosed with diabetes. You will need a referral from your doctor. When you are first diagnosed, your dietitian will need to see you a few times. Continue to see a dietitian once or twice a year from then on.

Your doctor might also suggest you see a dietitian if you are prescribed with medications or change your medications. This is because medications can affect the balance between food and your blood glucose levels.

Call Australian Diabetes Council on 1300 342 238 for more information.

If you cannot speak English well, call the free Telephone Interpreter Service (TIS) on 131 450 and ask them to help you to speak to a dietitian from Australian Diabetes Council.

-
- Aina nyingi ya mboga na sio mboga zenye uwanga (viazi, viazi vitamu, mahindi na familia za maharage)
 - Baadhi ya matunda k.v. limau, ndimu, na zabibu)
 - Chai ya mdalasini au "green tea"* (bila kuongezea maziwa au sukari)
 - Chai ya kutokana na miti ya kienyeji (chai ya mitishamba)
 - Kahawa* (bila kuongezea maziwa au sukari)
 - Maji pamoja na yale ya soda water na yale ya madini
 - Vinywaji maji maji maalum vya wenye kisukari
 - Mchuzi usio mzito
 - Juisi ya nyanya
 - Juisi mabichi ya limau
 - Kitomvu maalum
 - Miti ya kienyeji na virutubisho.

* Ni vyema zaidi kupunguza chai na/au kahawa na kufikia vikombe 4 kwa siku.

Ni nini naweza kuongezea kwenye chakula ili kuongeza ladha zaidi?

Ni muhimu kupunguza chumvi na vyakula vyenye chumvi. Hii ni kwa sababu utumizi wa chumvi nyingi unaweza kusababisha kupanda kwa shinikizo la damu.

Vibaazi (herbs), viungo, pilipili, kitunguu saumu, limau, chokaa na siki vinaweza kutumika kuongezea ladha katika chakula bila kuadhiri Viwango vya sukari kwenye damu au shinikizo la damu. Tumia vibaazi na viungo vya kikwenyu ili kudumisha ladha asili ya chakula (k.m. nanaa, pilili nyeusi, giligilani, karagu, "marjoram" na mdalasini)

Kwanini nimuone mshauri wa lishe bora?

Mshauri wa lishe bora aliyehitimu na kusajiliwa (APD) ni mtaalamu wa afya ambaye anaweza kukusaidia katika uangalizi wa chakula na ugonjwa wa kisukari. Andikisha wakala kuonana na mshauri wa lishe bora mara ya kwanza upatikanapo na ugonjwa wa kisukari. Utahitaji barua kutoka kwa daktari wako. Ukipimwa mara ya kwanza, mshauri wako wa lishe bora anahitaji kukuona mara kadha. Endelea kumuona mshauri wako wa lishe bora walau mara moja au mbili kwa mwaka baada ya hili.

Daktari wako anaweza pia kupendekeza umuone mshauri wa lishe bora iwapo umeandikiwa au kubadilishiwa madawa. Hii ni kwa sababu, madawa yanaweza kuadhiri ulaini kati ya chakula na Viwango vyako vya sukari katika damu.

Piga simu kwa Halmashauri ya Ugonjwa wa Kisukari-Australia kupitia 1300 342 238 kwa habari zaidi.

Iwapo huwezi kuongea kiingereza vizuri, pigia Huduma ya Mtafsiri ya Simu (TIS) kupitia 131 450 na uwaulize wakusaidie ili usungumze na mshauri wa lishe bora kutoka kwa Halmashauri ya Ugonjwa wa Kisukari-Australia.

9

Diabetes and Alcohol

Too much alcohol is harmful for everyone, including people with diabetes. However, people with diabetes may still drink some alcohol. If you drink alcohol, drink in moderation and be aware of the following:

- Alcohol can increase body weight, blood pressure and some blood fats. This can make it harder to manage your diabetes and increases your risk of heart disease.
- People who use insulin or take some diabetes tablets can have a very low blood glucose level (hypoglycaemia) after drinking alcohol.
Always eat carbohydrate food when drinking alcohol. Ideally drink alcohol with a meal but if this is not possible snack on carbohydrate foods like low fat crackers, pretzels or bread.
- The symptoms of drunkenness and hypoglycaemia are similar. People may not offer you help if they think that you are just drunk. Let the people with you know that you have diabetes and what to do if you have hypoglycaemia.

Drink alcohol in moderation

Moderate drinking means no more than 2 standard drinks for both women and men per day.



A standard drink equals:

- 285 ml of full strength beer
- 375 ml mid-strength beer
- 425 ml of light beer (less than 3% alcohol)
- 100ml wine
- 60 ml sherry
- 30ml spirits (incl. whisky and brandy)



It's a good idea to include alcohol free days each week.

To help reduce how much alcohol you drink try diluting it by adding water, soda water or diet soft drink. You could also try alternating between alcoholic and non-alcoholic drinks.

9

Ugonjwa wa Kisukari na Pombe

Unywaji wa pombe kupita kiasi ni hatari kwa kila mtu, hata wale wenye ugonjwa wa kisukari. Hata hivyo, watu wenye ugonjwa wa kisukari wanaweza kutumia kiasi fulani cha Pombe. Kila utumiapo pombe, kunywa kwa wastani na uwe makini kuhusu yafuatayo:

- Pombe inaweza kupandisha uzito wa mwili, shinikizo la damu na baadhi ya mafuta katika damu. Hii inaweza kupelekea ugumu katika uangalizi wa ugonjwa wa kisukari na kuongeza uwezekano wa adhara ya ugonjwa wa moyo.
- Watu wanao tumia insulin au tembe za ugonjwa wa kisukari wanaweza kuwa na viwango vidogo sana vya glukosi kwenye damu (hypoglycaemia) baada ya kunywa Pombe. Jaribu kila wakati kula carbohydrate mara unapokunywa Pombe. Kwa kawaida, kunywa Pombe ukiandamanisha na chakula, lakini iwapo hili haliwezekani, tumia, vyakula vya carbohydrate kama vitafunwa vyenye mafuta yasiyo mengi, au mkate.
- Dalili za ulevi na viwango vidogo sana vya glukosi kwenye damu, vinafanana. Watu huenda wasikusaidie iwapo wanafikiria kwamba umelewa tu. Wafahamishe watu mlilo nao kuhusu hali yako ya ugonjwa wa kisukari na jambo la kufanya iwapo utapata hypoglycaemia.

Tumia pombe kwa kiasi



Unywaji wa pombe wa wastani kwa wanawake na waume unamaanisha usizidi vinywaji mbili vya wastani kwa siku. Kinywaji cha wastani ni sawa na:



- 285 ml ya pombe yenye nguvu zaidi
- 375 ml ya pombe yenye nguvu ya wastani
- 425 ml ya pombe yenye nguvu hafifu (chini ya asilimia tatu ya pombe)
- 100 ml ya pombe ya zabibu au kutoka matunda mengine
- 60 ml ya sheri
- 30 ml ya tindi kali (k.m whisky na brandy)

Ni wazo jema usitumie pombe kila siku kwa wiki.

Ili kukusaidia kupunguza kiasi cha pombe unachokitumia jaribu kutia maji kwenye pombe, maji ya soda au kinywaji maalum cha wagonjwa wa kisukari. Jaribu pia kubadilisha vinywaji kati ya vilevya na visivyolevya. Weka picha ya Pombe hapa ukiandamanisha na viwango vya ubora vilivyopendekezwa.

10 Physical activity

Daily physical activity is an important part of maintaining a healthy lifestyle. Everybody receives great benefits from exercise, but for people with diabetes; there are some extra, more significant benefits as well.

Why it is good for you

Regular physical activity can:



- Lower your blood glucose (sugar) levels and improve your blood glucose control
- Help make your tablets and/or insulin work better
- Help you to manage your weight or reduce your weight
- Lower blood pressure and blood fats such as cholesterol
- Improve the health and strength of your heart
- Reduce stress and anxiety
- Reduce your risk of developing diabetes complications
- Help you sleep better
- Improve your balance and coordination
- Make you feel great!

What should I be aiming for?

Regular physical activity plays a large part in helping you to manage and control your diabetes. The amount of activity you should be doing is the same as everybody else!

Following these four simple guidelines can help put you on the path to good health:

- Think of physical activity as an opportunity, rather than an inconvenience
- Be active in as many ways as you can.
Create opportunities for activity within your day. For example, walk to the shops instead of driving, take the stairs over the lift, or get off the bus one stop early and walk the extra distance.

It is also important to make these changes within the workplace. Try walking the longer way to the photocopier, visiting a colleague rather than emailing, stand up when talking on the phone or going for a walk during the lunch break.



- Put together at least 30 minutes of moderate intensity physical activity every day. Guidelines suggest we aim to do a minimum of 30 minutes every day of physical activity; but remember these don't have to be all at once. 30 minutes can be divided into 15 or 10 minute blocks, and they have the same effect. Try exercises that use your whole body in the movement, such as brisk walking, swimming, dancing or cycling. These activities should be performed at a level that makes you breathe harder but that you can still talk.
- If possible, do some regular vigorous exercise for extra health and fitness. Vigorous means that you are now exercising at a level that makes you huff and puff. Only do this type of activity if you have your doctor's okay and are managing your current exercises well.

10 Mazoezi ya mwili

Mazoezi ya kila siku ni sehemu muhimu ya kuthibiti maisha yenye afya bora. Kila mtu anapokea manufaa mengi kutokana na mazoezi, lakini kwa wale walio na ugonjwa wa kisukari; kuna manufaa ya ziada pia.

Kwanini ni muhimu kwangu?

Mazoezi va kila wakati yanaweza:



- Kupunguza kiwango cha sukari kwenye damu (glukosi) na kuimarisha uthabiti wa sukari kwenye damu.
- Kukusaidia kuimarisha ufanya kazi wa dawa na/au insulin.
- Kukusaidi kuthibiti au kupunguza uzito wa mwili
- Kupunguza shinikizo la damu na mafuta kwenye damu kama vile helemu.
- Kuimarisha afya na nguvu za moyo
- Kupunguza usumbufu wa akili na wasiwasi
- Kupunguza adhara ya kuwa na hali ngumu za ugonjwa wa kisukari
- Kukusaidia kulala vyema zaidi
- Kuimarisha uthabiti na uratibu wa mambo
- Kuhakikisha kwamba inajihisi vizuri zaidi!

Ni lengo lipi au nini ninachonua kufikia?

Mazoezi ya kila wakati yanachangia kwa kiasi kikubwa usimamizi na uthibiti wa ugonjwa wa kisukari. Kiwango cha mazoezi unayofaa kufanya ni kama ya mtu mwingine yule.

Kwa kufuata taratibu hizi nne, mwongozo huu unaweza kukusaidia kuafikia mwelekeo wa afya bora:

- Chukulia mazoezi kuwa ni fursa, bali si kisingiti kwako.
- Kuwa mchangamvu kwa njia nyingi iwezekanavyo. Buni fursa za mazoezi katika kila siku. Kwa mfano, tembea madukani, badala ya kuendesha gari, tumia njia ya ngazi kwenye orofa badala ya mfumo wa umeme (lift), au shuka basi kituo kimoja kabla ujafika sehemu unayoelekea ili utembe umbali uliosalia.

Ni muhimu pia, kuwa na mabadiliko haya katika sehemu ya kazi. Jaribu kutumia njia iliyo ndefu, ili kufikia sehemu ya mashine ya chapa, kutembelea mfanya kazi mwenzio kuliko kumwandikia ujumbe mfupi, simama unapopiga simu au tembea wakati wa chakula cha mchana.



- Weka akiba ya walau dakika 30 ya kufanya mazoezi machangamvu ya wastani kila siku. Muongozo unatuelekeza kufanya mazoezi ya mwili ya walau dakika 30 kila siku; lakini kumbuka kwamba, sio lazima ufanye kwa wakati mmoja. Huu muda wa dakika 30 unaweza kugawanywa sehemu mbili; dakika 15 au 10, na sehemu hizi 2 zitakuwa na motokeo sawa. Jaribu mazoezi yanayolenga msukosuko wa mwili mzima kama vile, kutembea chapuchapu, kuogelea, kucheza dansi au kuendesha baiskeli. Mazoezi haya ni sharti yafanywe katika hali inayokupelekea kupumua kwa kazi na wakati huo huo unaweza kusungumza.

- Ikiwezekana, fanya mazoezi yaliyochangamka mara kwa mara ili kudumisha afya na ubora wa mwili. Mazoezi yaliyochangamka yanamaanisha kwamba, unafanya mazoezi yanayofikia kiwango cha kupumua ndani na nje ya mapafu. Yafanye mazoezi ya aina hii, kwa rukhsa ya daktari wako tu na wakati huo huo mazoezi yako ya kawaida yamekuwa yakienda sawa.

What about Resistance Training?

You should also aim to include some kind of weight or resistance training during the week. Resistance training means any exercise or activity where you use your body to lift something or to work against a weight, force or gravity. Resistance training is great for helping you to keep active and independent for longer and has additional benefits for people with diabetes.

Resistance training can:

- Improve the way your body uses and stores insulin
- Increases your muscle mass. This increases how much energy you burn which helps with weight loss/ management and improving blood glucose control.
- Decrease your risk of falling and the risk of fractures
- Improve strength, power, balance and coordination

How much resistance training do I need to be doing for good health?

- Try to lift weights (e.g. cans of food, hand weights) two - three times a week
- Include exercises that target all of your large muscle groups including your arms and legs
- Aim to do each exercise eight - twelve times (repetitions), and perform two - three lots (sets) of each exercise
- Start at a light weight till you learn the correct technique. After you have mastered this weight, try lifting a heavier weight
- Ideally, aim to lift a weight that only allows you to do eight - twelve repetitions each time.



Precautions to take before initiating an exercise program:

If you plan to start an exercise program for the first time, or you are doing something new, visit your doctor for medical clearance before you begin.

It is also important to understand how your medications work together with physical activity. Exercise works like insulin and lowers your blood glucose levels (sugar). In people who are taking insulin or some oral medications the combined effect with exercise can cause hypoglycemia. To avoid this, it is important to regularly test your blood glucose levels (sugars) before, sometimes during, immediately after and again a couple of hours after exercise, so you understand how your body responds to different activities. If you find that your blood glucose is falling too low, you may need to alter your diabetes medication or eat extra carbohydrates to account for this effect. However, consult with your doctor, diabetes educator or dietitian before making these changes.

There are also some times when you should avoid exercise; if your blood glucose levels (sugars) are above 15 mmol/L, if you are feeling unwell or lightheaded (dizzy) or if you are unsure how to perform an exercise correctly.

Most important!

Enjoy the activities you chose. Be active in as many ways as you can, every day and remember you don't have to take it seriously, just regularly.

Always speak with your doctor before beginning a new physical activity program. If you require more guidance or advice about exercising with diabetes, speak with an accredited exercise physiologist.

Je! na kuhusu mazoezi mazito?

Nuia kuongeza pia mazoezi yanayohusisha uzani au uzito katika wiki. Mazoezi mazito ni yale yanayohusisha mwili wako kuinua vitu au kufanya mazoezi dhidi ya shinikizo la uzito fulani au kitu. Mazoezi mazito ni mazuri katika kusaidia kukufanya kuwa mchangamvu na huru na yanayo manufaa ya ziada kwa wagonjwa wa kisukari.

Mazoezi mazito yanaweza:

- Kuimarisha jinsi mwili wako utumiavyo na kuhifadhi insulin
- Kuongeza uzito kwenye misuli. Hii inaongeza kiasi cha nishati inayotumika kusaidia kupunguza uzito/ uangalizi na uimarishaji wa glukosi kwenye damu
- Kupunguza adhara ya kuanguka na kupata majeraha
- Kuimarisha nguvu, adhama, uthabiti na ushirikiano wa mwili.

Ni mazoezi mazito kiasi gani ninayohitajika kufanya ili kuwa na afya bora?

- Jaribu kuinua vitu (k.m. mkebe ya chakula, chuma zenye uzani) mara 2 hadi 3 kwa wiki
- Ongezea mazoezi ambayo yanalenga sehemu zote zenye misuli mizito na pia mikononi na miguuni
- Nuia kufanya kila zoezi mara 8 hadi 12 (ukirudia), na katika kila zoezi ufanye seti 2 hadi 3
- Anzia na uzito mwepesi hadi utakapo pata uzoefu wa kufanya mazoezi. Baada ya kuzoea uzito huu, endelea na ujaribu uzito zaidi
- Kwa kawaida nuia kuinua uzito unaokuruhusu kurudia mara 8 hadi 12 kwa kila wakati.



Tahadhari kabla ya kuanza mpango wa mazoezi:

Ikiwa unanuia kuwa na mpango wa mazoezi kwa mara ya kwanza, au anaanza jambo lolote jipya, muone daktari wako kwanza ili akupe uhakikisho kuhusu afya yako kabla ya kuanza.

Ni muhimu pia kuelewa jinsi madawa yako yanavyo enda na mazoezi ya mwili. Mazoezi yanafanya kazi mwilini sawa na insulin na hupelekea kupunguka kwa viwango vya sukari kwenye damu. Kwa wale wagonjwa wanao tumia insulin au baadhi ya madawa, ushirikishaji wa mazoezi huenda ukasababisha kushuka kwa kiwango cha sukari kwenye damu. Ili kuzuia hili kutotendeka, ni muhimu kupima viwango vya sukari kwenye damu mara kwa mara unapofanya mazoezi, mara tu baada ya mazoezi na saa chache baadaye, ili uweze kuelewa jinsi mwili wako unavyoenda katika hali tofauti za mazoezi. Iwapo ukiona kwamba kiwango cha sukari kwenye damu kimeshuka zaidi, huenda ikakubidi kubadilisha mpango wako wa Madawa au kutumia carbohydrate ya ziada ili kuthibiti hali hii. Hata hivyo, shauriana na daktari wako, mwalimu wako wa ugonjwa wa kisukari au mshauri wa lishe bora kabla ya mabadiliko haya.

Na pia kunao wakati mwingine, unapohitaji kujiepusha na mazoezi; iwapo viwango vya sukari (glukosi) kwenye damu ni zaidi ya 15 mm katika kila lita moja, iwapo unaumwa au unahisi kusinzia (kisungusungu) au iwapo hauna uhakika kuhusu jinsi ya kufanya mazoezi kwa njia iliyo sawa.

Ya muhimu zaidi!

Furahia mazoezi uliyoyachagua. Kuwa mchangamvu kwa njia zozote unazoweza, kila siku na ukumbuke kwamba usiichukulie kwa uzito, bali liwe ni jambo la kawaida na mara kwa mara tu. Daima, Zungumza na daktari wako kabla ya kuanzia mpango mpya wa mazoezi. Iwapo utahitaji ushauri au maelezo zaidi kuhusu ugonjwa wa kisukari, muone mwanasaikolojia wa mazoezi aliyesajiliwa.

11

Oral Medications

Type 2 diabetes is a progressive disease. Even though you can be doing all the right things to manage your diabetes, it may be necessary to start medication to keep healthy blood glucose (sugar) levels.

When starting new medication you need to ask your doctor and pharmacist:



- How many tablets you should take
- How often you should take your tablets
- What time of the day you should take your tablets - whether before food, with food or after food
- How your tablets work
- The side effects
- How your tablets affect or are affected by other medications you are taking.

Over time your medications may not work as well. For this reason it is recommended to have your medications reviewed by your doctor every year.

Your local pharmacist can also help you understand your medications.

Do not stop, decrease or increase your medication without first discussing it with your doctor or diabetes educator.

Do not share your medications with anyone else.

Certain diabetes medication can increase the risk of a low blood glucose level (hypoglycaemia). It is essential to know how to recognise and treat low blood glucose or hypoglycaemia. Ask your doctor, pharmacist or diabetes educator if this applies to you. If you are having frequent episodes of hypoglycaemia it is very important to speak with your family doctor or diabetes health care team.

Further assistance with your medications:

Home Medication Review:

If you are taking five or more different medicines, talk to your doctor about arranging a home medication review by your local pharmacist.

National Prescribing Service:

For information over the phone regarding the expert use of any of your medications you can contact the National Prescribing Service consumer enquiry line "Medicines Line" on 1300 633 424.

Madawa ya kumeza/kunywa

Aina 2 ya kisukari ni ugonjwa endelevu. Hata iwapo unafanya mambo yote kisasawa kuangalia hali ya ugonjwa, huenda ikakulazimu kuanzia matumizi ya dawa ili kudumisha viwango bora vya afya vya sukari kwenye damu.

Unapo anza kutumia dawa mpya, unahitaji kumwuliza daktari na mtaalamu wa madawa:



- Ni tembe ngapi unafaa kutumia
- Ni mara ngapi unahitaji kutumia tembe zako
- Ni wakati gani wa siku unafaa kutumia dawa-iwapo ni kabla ya kula, ukiandamanisha na chakula au baada ya mlo.
- Ni jinsi gani madawa yako yanavyofanya kazi
- Madhara ya dawa
- Jinsi madawa yako yanavyoadhiri au athiriwa na madawa mengine unayotumia.

Kadiri ya wakati, madawa unayotumia huenda yasifanye kazi vizuri. Kwa sababu hii, inapendekezwa kwamba madawa utumiayo yaangaliwe na daktari walau mara moja kwa mwaka.

Daktari wa madawa katika sehemu unayoishi pia anaweza kukusaidia kufahamu zaidi kuhusu madawa yako.

Usiache, usipunguze au kuongeza madawa bila ya kushauriana kwanza na daktari au mwalimu wako wa ugonjwa wa kisukari.

Usitumie madawa yako na mtu yeyote mwingine.

Madawa fulani ya ugonjwa wa kisukari yanaweza kuongeza uwezekano wa adhara ya kuwa na viwango vya chini vya sukari katika damu (hypoglycaemia). Ni muhimu kujua jinsi ya kutambua na kutibu viwango vya chini vya sukari katika damu. Muulize Daktari, mtaalamu wa madawa au mwalimu wa kisukari iwapo hili linakuhusu.

Iwapo una shida za mara kwa mara za viwango vya chini vya sukari katika damu, ni muhimu uongee na Daktari wako wa familia au tume ya afya ya ugonjwa wa kisukari.

Msaada zaidi kuhusiana na madawa yako:

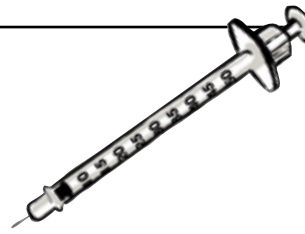
Uangalizi wa madawa nyumbani:

Iwapo unatumia aina tano au zaidi tofauti za madawa, ongea na Daktari wako ili kuwa na mpango wa mtaalamu wa madawa kuja na kuangalia upya madawa unayotumia nyumbani.

Huduma ya kitaifa ya kutoa madawa

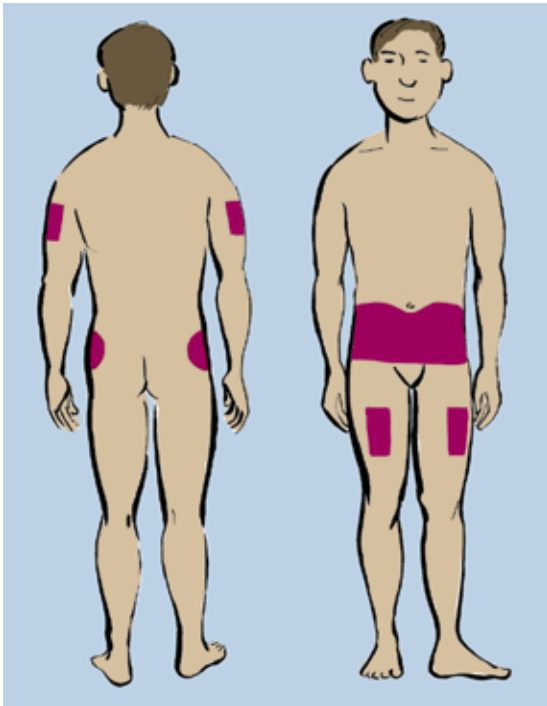
Kwa Habari kupitia njia ya simu kuhusu matumizi ya kitaalamu ya madawa yako, unaweza kupigia Huduma ya kitaifa ya kutoa madawa kupitia "Laini ya madawa" nambari 1300 633 424.

12 Insulin



The pancreas is a part of the body situated behind the stomach that produces a hormone called insulin.

Without insulin, the cells in our bodies would not be able to use the glucose (sugar) to provide energy.



In type 1 diabetes the pancreas does not make any insulin and glucose levels build up in the blood. Insulin by injection or by insulin pump is required for life. A person with type 2 diabetes or gestational diabetes may also require insulin to keep their blood glucose levels within the recommended range.

Your doctor may decide that insulin is needed as well as oral medications, or that insulin may be better than oral medications. This does not mean that you have failed in your diabetes management. It has been decided that insulin is necessary to maintain good diabetes management.

All insulins lower blood glucose levels. Low blood glucose or hypoglycaemia can be a side effect of insulin treatment. It is essential to know how to recognise and treat low blood glucose or a hypoglycaemic episode.

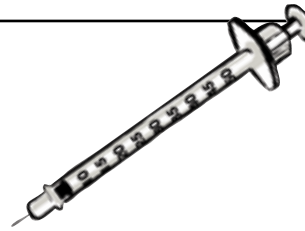
There are many types of insulins available, you and your doctor will discuss which is right for you. If you have any questions or concerns about starting on insulin you can also contact your diabetes educator.

Key points to know are:

- Type and amount of insulin to be used
- Time to take your insulin and when to eat
- The time your insulin has it's greatest effect and how long it stays in your body
- When to test your blood glucose (sugar) level
- When to contact your doctor or diabetes health care team.

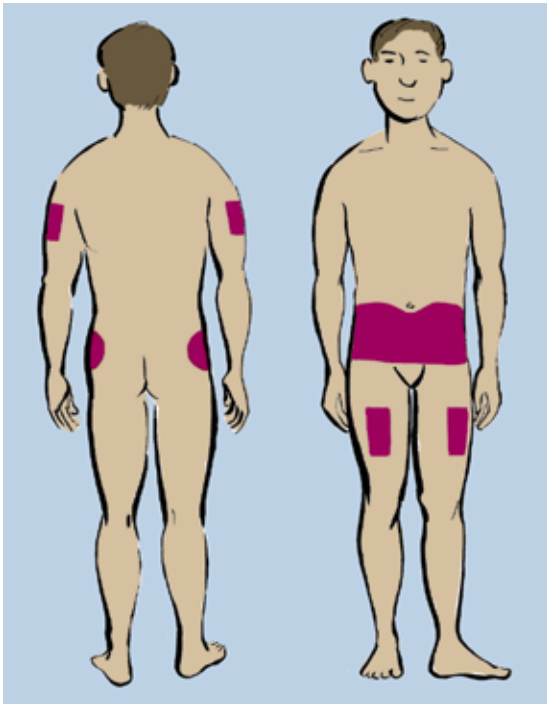
Tell your doctor or diabetes educator of any changes in your lifestyle, working hours, physical activity or meal times. They will advise you if you need to change your insulin treatment .

12 Insulin



Kongosho ni sehemu ya mwili inayopatikana upande wa nyuma tumboni na huhusika na kusalisha homoni iitwayo insulin.

Bila insulin, seli (cells) katika mwili haziwezi kutumia sukari (glukosi) ili kuzalisha nishati.



Katika aina 1 ya ugonjwa wa kisukari, kongosho haiwezi kuzalisha insulin yoyote na viwango vya glukosi kwenye damu. Kuongezewa insulin kwa njia ya sindano au bomba ya insulin, itahitajika ili kudumisha uhai. Mtu aliye na aina 2 ya ugonjwa wa kisukari au aina ya kisukari kipindi cha uja uzito huenda pia wakahitaji insulin ili kuthibiti viwango vya sukari kwenye damu katika viwango vilivyopendekezwa.

Daktari wako anaweza kuamua kwamba insulin inahitajika pamoja na madawa ya kumeza, au kwamba insulin huenda ikawa ni afadhali uliko madawa. Hii haimaanishi kwamba umeshindwa katika uangelizi wa ugonjwa wako wa kisukari. Ni kwamba tu, maamuzi yametolewa ya kuwa insulin ni ya muhimu ili kuthibiti uangelizi bora wa hali ya ugonjwa wa kisukari. Insulin zote hupunguza viwango vya sukari kwenye damu. Viwango vya chini vya sukari katika damu au hypoglycaemia vinaweza kuwa ni adhari kutokana na kutibiwa na insulin. Ni muhimu kujua jinsi ya kutambua na kutibu viwango vya chini vya sukari katika damu.

Zipo aina nyingi za insulin na wewe na daktari wako mtajadiliana ili kujua ni ipi inayokufaa. Iwapo una swali lolote au mashtaka kuhusu kuanzia matumizi ya insulin, unaweza kuwasiliana na mshauri wako wa ugonjwa wa kisukari.

Mambo muhimu kujua ni:

- Aina na kiasi cha insulin kinachofaa kutumika
- Muda wa kutumia insulin na pia wakati wa kula
- Nyakati ambazo insulin inayo nguvu zaidi na ni muda upi inakaa mwilini
- Wakati gani wa kupima kiwango cha glukosi (sukari) kwenye damu
- Wakati gani wa kuwasiliana na daktari wako au tume ya afya ya ugonjwa wa Kisukari.

Mwambie daktari wako au mshauri wa ugonjwa wa Kisukari kuhusu mabadiliko yoyote ya maisha, nyakati za kufanya kazi, mazoezi ya mwili au nyakati unazokula. Watakushauri iwapo utabadilisha matibabu yako ya insulin.

Sharps disposal

What are “community sharps”?

Community sharps are medical devices that penetrate the skin and are used in the home.

They include:

- Needles – used to give injections, draw blood or insert insulin pump tubing
- Syringes (even if needle removed)
- Pen needles for insulin pens
- Blood glucose or finger pricker lancets.

Your used sharps must be secured in a strong puncture resistant container, Australian Standard Sharps containers (available from the Australian Diabetes Council and some pharmacies) or a puncture resistant plastic container with a screw top lid are suitable.



Sharps must NOT be placed in any rubbish or recycling bins.

How do I dispose of my community sharps?

Place sharps in an appropriate container. Dispose of containers only into community sharps disposal facilities found at:

- Public hospitals
- Participating pharmacies
- Community sharps disposal bins
- Needle and syringe program outlets.

For a list of sharps disposal facilities in your area contact your local council or phone the Australian Diabetes Council on 1300 342 238.

Uzoaji au utupaji wa taka (vitu) vyenye makali

“Vitu vyenye makali katika Jamii” ni nini?

Vitu vyenye makali katika Jamii ni vitu vya kudunga vinavyopatikana hospitalini na vinatumika nyumbani.

Vinahusisha:

- Sindano - hutumika kudunga watu, kutoa damu au kuingiza mpira wa bomba ya insulin.
- Bomba ya sindano au sirinji (hata iwapo sindano imeondolewa)
- Sindano maalum za insulin zenye mfano wa kalamu
- Sukari kwenye damu au vifaa maalum vya kudunga kidole.

Vitu vyenye makali ulivyovitumia, ni lazima zilimbikwe ndani ya kifaa kigumu, kifaa maalum kutoka kwa Halmashauri ya Ugonjwa wa kisukari - Australia au kifaa cha plastiki chenye kifuniko na kinachoweza kugomea makali.



Vitu vyenye makali ni sharti ZISITUPWE ndani ya mabomba ya taka yoyote.

Ni jinsi gani ninapaswa kutupa Vitu vyenye makali kwenye Jamii?

Weka vitu vyenye makali katika kifaa kinachofaa. Limbika vifaa hivi kwenye suhula za Jamii zinazopatikana:

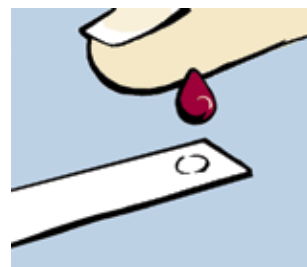
- Hospitali za Uma
- Maduka ya madawa
- Vifaa vya kulimbika vitu vyenye makali vinavyotolewa vya Jamii
- Sehemu maalum za mpango wa huduma ya sindano na bomba za sindano.

Kwa orodha ya suhula za kulimbika vitu vyenye makali katika eneo lako, wasiliana na manispaa au piga simu kwa Halmashauri ya Ugonjwa wa Kisukari_Australia kupitia nambari 1300 324 238.

13 Blood Glucose (Sugar) Monitoring

Monitoring blood glucose levels is important to help you manage your diabetes. Self blood glucose testing is a way of measuring how much glucose is in your blood.

A drop of blood is obtained by pricking the finger with a needle called a lancet. The blood is applied to a test strip, and inserted into a blood glucose machine (meter). The blood glucose(sugar) level is then displayed.

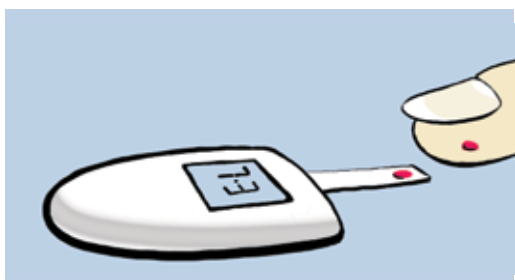


There are many types of meters available. Ask your doctor or diabetes educator which meter suits you. You will also need to be shown how to use your meter.

Why you should monitor your blood glucose (sugar) level

Blood glucose levels respond to food, particularly carbohydrates. Other factors like physical activity, diabetes medication, changes in your daily routine, stress and illness will also cause blood glucose levels to go up or down.

Visits to a doctor or health professional may be weeks or months apart. It is important to know and understand the readings/blood glucose levels and make some self-management decisions in between doctors visits.



The benefits of using a meter include:

- Seeing if your blood glucose level is too high or too low
- Gives you a picture of your day to day diabetes management
- Shows you whether your blood glucose levels are within your recommended target range
- Shows you the effects of food, physical activity and medication on your blood glucose (sugar) level
- Gives you confidence to self-manage your diabetes.

This gives you and your diabetes health care team the information needed to help you manage your diabetes.

When you should monitor your blood glucose (sugar) level

Blood glucose monitoring is usually done before meals or two hours after the start of a main meal. Ask your doctor or diabetes educator for advice on when and how often you need to check your blood glucose level.

It is safe practice to check your blood glucose level before driving and on long journeys, especially for those people who are at risk of hypoglycaemia.

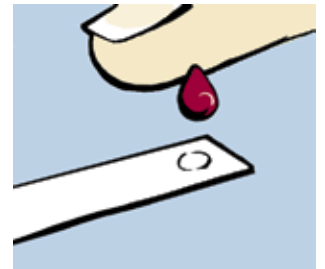
Monitor your blood glucose level more often:

- If you are sick
- When adjusting tablets or insulin doses
- When blood glucose levels are high -for example over 15 mmol/L
- After exercise
- After alcohol intake.

13

Uangalizi wa Sukari (Glukosi) kwenye damu

Uangalizi wa viwango vya sukari kwenye damu ni muhimu katika kusaidia uthibiti wa Ugonjwa wa kisukari. Kujipima viwango vya sukari mwenyewe ni njia ya kujua ni kiasi gani cha glukosi kilicho ndani ya damu.



Tone la damu hutolewa kwa njia ya kudunga kwenye kidole kwa kutumia sindano ijulikanayo kama "lancet". Damu hii hatimaye huwekwa kwenye kikaratasi maalum ambacho, huingizwa kwenye mashine (kifaa) cha kupima glukosi kwenye damu. Kiwango cha glukosi (sukari) kwenye damu hatimaye huonyesha kwenye dira ya mashine.

Kunayo aina nyingi ya mashine (dira) za kupima glukosi kwenye damu. Muulize daktari wako au mshauri wa Ugonjwa wa kisukari ni kifaa kipi kinachokufaa wewe. Itabidi pia uonyeshwe jinsi ya kukitumia.

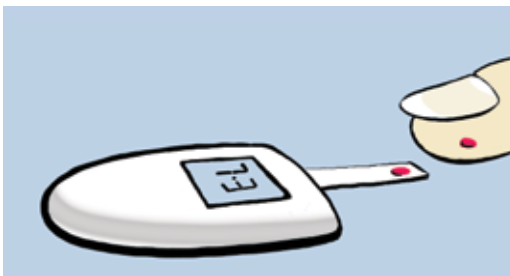
Ni kwanini uangalie kiwango chako cha sukari (glukosi) kwenye damu?

Viwango vya sukari kwenye damu huadhiriwa na chakula, na hasa carbohydrate (mahindi n.k). Hali zingine adhirifu ni kama vile, mazoezi ya mwili, madawa, mabadiliko katika ratiba zako za kila siku, usumbufu akilini na magonjwa pia yatasababisha viwango vya sukari kwenye damu kupanda au kushuka.

Tarehe uliyopewa ya kumuona Daktari au mtaalamu wa afya huenda ikawa ni wiki kadha au hata miezi kabla. Ni muhimu kujua na kuelewa vipimo/viwango vya sukari kwenye damu na kujiangalia kisawasawa kabla ya kumuona Daktari.

Manufaa ya kutumia dira ya kifaa ni:

- Kuona iwapo viwango vyako vya sukari kwenye damu vipo juu au chini zaidi.
- Inakupa ramani ya siku baada ya siku ya jinsi uangalizi wa ugonjwa wa kisukari ulivyo.
- Inakuonyesha iwapo viwango vyako vya sukari kwenye damu vipo katika vipimo vinavyokubalika.
- Kukuonyesha adhara za chakula, mazoezi na madawa dhidi ya viwango vyako vya sukari (glukosi) katika damu.
- Inakupa motisha ya kuendelea kujiangalia hali yako ya ugonjwa wa kisukari.



Hii inakupa wewe na tume ya afya ya ugonjwa wa kisukari, Habari zinazohitajika ili kukusadia katika uangalizi wa ugonjwa wako.

Wakati unaopaswa kuangalia kiwango chako glukosi (sukari) kwenye damu.

Viwango vya glukosi kwenye damu kwa kawaida hupimwa kabla ya kula au saa mbili baada ya kula chakula kikuu. Muulize Daktari wako au mwalimu wa ugonjwa wa kisukari, ushauri kuhusu ni lini na ni kwa mara ngapi unahitaji kupima viwango vya sukari kwenye damu.

Ni tabia nzuri kupima viwango vyako vya sukari kwenye damu kabla ya kuendesha gari na unaposafiri kwenda mbali, hasa kwa wale ambao wako katika adhara ya viwango vya sukari kwenye damu kupungua

Angalia viwango vya sukari kwenye damu mara nyingi:

- Iwapo wewe ni mgonjwa
- Unapobadilisha tembe zako au vipimo vya insulin
- Wakati viwango vya sukari kwenye damu vipo juu- kwa mfano zaidi ya 15mmol kwa lita.
- Baada ya mazoezi
- Baada ya kunywa pombe.

What my blood glucose levels should be?

For most people with type 2 diabetes the recommended range for blood glucose levels is 6 to 8 mmol/L fasting/before meals and 6 to 10 mmol/L two hours after the start of a main meal.

Your doctor will advise you on what blood glucose level will be best for you.

The Glycated Haemoglobin (HbA1c) Blood Test

Blood glucose monitoring with a meter gives you a picture of your day to day diabetes management. There is another important blood test called glycosylated haemoglobin – more commonly known as HbA1c. This blood test gives you a picture of your blood glucose control over the last two to three months and is arranged by your doctor.

The generally recommended HbA1c target level in people with type 2 diabetes is 7% or less. Your HbA1c should be checked at least every 6 months.

If your HbA1c is greater than 7% it should be checked every three months. You will need to speak to your diabetes health care team about your diabetes management goals and possible changes to your diabetes management and treatment.

Viwango vya sukari kwenye damu ninavyofaa kuwa nazo

Kwa wengi walio na aina 2 ya ugonjwa wa kisukari, vipimo vilivyopendekezwa vya sukari katika damu ni 6 hadi 8mmol kawa kila lita ya damu unapofunga kula/kabla ya kula na 6 hadi 10mmol kwa kila lita ya damu saa mbili baada ya kula chakula kikuu.

Dakatari wako atakushauri ni kiwango kipi cha sukari kwenye damu kinachokufaa zaidi.**Kipimo cha sukari kwenye damu katika muda wa miezi 2 hadi 3 (HbA1c)**

Uangalizi wa sukari katika damu kwa kutumia kifaa chenye dira, hukupatia picha ya siku kwa siku ya jinsi hali ya ugonjwa wako wa kisukari inavyoendelea. Kunacho kipimo kingine cha damu muhimu kiitwacho "glycosylated haemoglobin test" au kwa umaarufu HbA1c. Kipimo hiki hukupa dira au picha ya uthibiti wa hali na kipimo cha sukari kwenye damu katika muda wa miezi 2 hadi 3 na mpango wa upimaji huu hufanywa na daktari wako.

Kiwango cha HbA1c kinachopendekezwa kwa watu wenye aina 2 ya ugonjwa wa kisukari ni asilimia 7 au chini.

Kiwango chako cha HbA1c kinapaswa kuangaliwa walau baada ya kila miezi 6. Iwapo kiwango chako cha HbA1c ni zaidi ya asilimia 7, kinapaswa kuangaliwa baada ya kila miezi mitatu. Itakubidi kuzungumza na tume yako ya afya ya ugonjwa wa kisukari kuhusu malengo ya uangalizi wa hali yako ya ugonjwa wa kisukari na mabadiliko yoyote yawezekanayo kuhusu usimamizi na matibabu yako.

14 Short Term Complications – Hypoglycaemia

Hypoglycaemia (low blood glucose levels)

Hypoglycaemia is when the blood glucose (sugar) level drops below 4 mmol/L. It can happen very quickly.

Hypoglycaemia can occur in people who take certain oral diabetes medication or use insulin.

Ask your doctor or health care team if this applies to you.

It is essential to know how to recognise the signs and symptoms of having low blood glucose (sugar) and how to treat it.



Blood glucose levels can be low because of:

- Delayed or missed meals
- Not enough carbohydrate in the meal
- Extra activity or more strenuous activity
- Too much diabetes medication
- Alcohol.

Signs and Symptoms

These can vary from person to person and may include:

- Dizziness/light headedness
- Sweating
- Headache
- Weakness, shaking
- Tingling around the lips and fingers
- Hunger
- Mood changes, irritable/tearful
- Confusion/lack of concentration

If you feel any of these signs and symptoms, test your blood glucose level if possible.

Treatment for low blood glucose levels (hypos) in a person who is conscious, cooperative and able to swallow.

If you are unable to test, treat anyway.

Treatment for low blood glucose levels (Hypos)

Step 1

Take quickly absorbed carbohydrate such as:

- Half a glass of juice OR
- 6 to 7 jellybeans OR
- Half a can of regular (not diet) soft drink OR
- 3 teaspoons of sugar OR honey

Retest the blood glucose level after 10 - 15 minutes.

If still below 4 mmol/L repeat Step 1

14 Hatari za muda mfupi – Kiwango cha chini cha sukari

Hypoglycaemia (kiwango cha chini cha glukosi kwenye damu)

“Hypoglycaemia” ni hali ya kiwango cha glukosi kwenye damu kushuka chini ya 4 mmol/L. Kinaweza kushuka ghafla.

Kiwango cha chini cha glukosi kwenye damu kinaweza kuwatokea watu wanaotumia madawa ya kisukari ya kumeza/kunywa au insulin.

Muulize daktari au tume ya afya ya kisukari iwapo hili linakuhusu wewe.

Ni muhimu kujua jinsi ya kung’amua dalili na uwepo wa kuwa na kiwango cha chini cha glukosi (sukari) kwenye damu an jinsi ya kutibu.



Viwango vya sukari kwenye damu vinaweza kuwa chini kwa sababu ya:

- Kuchelewa kula au kutokula
- Kutokuwa na carbohydrate (wanga) ya kutosha katika mlo
- Mazoezi ya ziada au mazoezi magumu
- Kiwango cha juu cha insulin au Madawa mengi ya kisukari
- Pombe.

Ishara na Dalili

Ishara na Dalili za ugonjwa wa kisukari sinatofautiana kati ya mtu mmoja na mwingine na sinahusisha:

- Kuhisi kuzinzi/ Kichwa kizito
- Kutokwa na jasho
- Kuumwa na kichwa
- Unyonge, kutetemeka
- Msisimko kwenye midomo na vidole
- Kuona njaa
- Kubadilika kwa hali, kinyongo/machozi
- Kuchanganyikiwa/ kutokuwa na utulivu.

Ukiona au Kuhisi dalili hizi, kapime Viwango vyako vya sukari kwenye damu ikiwezekana.

If you are unable to test, treat anyway. Iwapo haiwezekani, endelea na kutibu mwenyewe.

Matibabu ya Viwango vya chini vya sukari (Hypos)

Hatua 1

Tumia carbohydrate zinazomeng’enywa kwa uharaka kama vile:

- Nusu glasi ya jusi AU
- Tembe 6 hadi 7 za peremende mfano wa maharage AU
- Nusu mkoba wa kinywaji kisicholevya AU
- Vijiko vya chai 3 vya sukari AU asali.

Pima tena kiwango cha sukari kwenye damu baada ya dakika 10 – 15.

Iwapo bado vimo chini ya 4mmol/L, rudia Hatua 1

Short Term Complications – Hypoglycaemia - continued

Step 2

If your next meal is more than 20 minutes away, follow up with more slowly absorbed carbohydrate such as:

- 2 plain biscuits e.g. 2 Arrowroot or 2 milk coffee biscuits OR
- 1 slice of bread OR
- 1 glass of milk or soy milk OR
- 1 piece of fruit
- 1 tub of low fat yoghurt.

If not treated the blood glucose levels can continue to drop, resulting in:

- Loss of coordination
- Confusion
- Slurred speech
- Loss of consciousness/fitting.

THIS IS AN EMERGENCY !!

Instructions for the person present during this emergency:

If the person having a hypo is unconscious they must not be given anything by mouth.

- Place the person in the 'recovery position' or on their side
- Make sure the airway is clear
- Ring 000 or if using a mobile ring 112 for an ambulance stating "diabetic emergency"
- An unconscious person must NOT be left alone
- If you are able and trained, give a Glucagon injection



Important points for the person at risk of hypoglycaemia

- Always carry 'hypo' food with you if you are on insulin or at risk of hypoglycaemia. Ask your doctor if this applies to you.
- Carry identification to say you have diabetes
- Test before driving, before and after exercising and after alcohol intake



Hatua 2

iwapo chakula chako kinachofuata ni baada ya zaidi ya dakika 20, fuatilia na carbohydrate zinazomeng'anya kwa upolepole kama vile:

- Biskuti 2 za kawaida k.m. Arrowroot 2 au coffee biscuit 2 AU
- Kipande 1 cha mkate AU
- Glasi 1 ya maziwa au maziwa ya soya AU
- Kipande kimoja cha tunda
- Kiroba 1 cha maziwa ya mgando yenye mafuta kiwango cha chini.

Kisipotibiwa, kiwango cha sukari kwenye damu kinaweza kuendelea kushuka, na kupelekea:

- Kupotea kwa uratibu wa mambo
- Kuchanganyikiwa
- Maneno yasiyoeleweka vizuri
- Kupoteza ufahamu/kifafa.

HII NI HALI YA DHARURA!!

Maagizo kwa mtu aliye karibu wakati wa dharura:

Mtu aliyeadhirika na amepoteza fahamu, asipewe chochote cha kula/kunywa.

- Mlaze muadhiriwa katika hali ya "kichalichali" au kwa upande
- Hakikisha mfumo wa kupumua upo sawa
- Piga nambari 000 au 112 ukitumia simu ya mkononi ili kuagiza gari la wagonjwa ukisema "dharura ya ugonjwa wa kisukari"
- Muathiriwa aliyepoteza fahamu kamwe ASIACHWE pekee yake
- Iwapo unaweza na umefunzwa, mdunge sindano ya "Glucagon".



Mambo muhimu kwa mtu aliye katika hatari ya kupata viwango vya chini vya sukari kwenye damu

- Beba chakula cha dharura (hypo) kila wakati iwapo unatumia insulin au upo katika hatari ya kuwa na viwango vya chini vya sukari kwenye damu
 - Beba kitambulisho kinachoelezea kwamba una ugonjwa wa kisukari
 - Jipime kabla ya kuendesha gari, kabla na baada ya mazoezi na baada ya kunywa pombe.



15 Short term complications – high blood glucose (sugar) level (hyperglycaemia, DKA, HONK/HHS, and sick days)

Hyperglycaemia or high blood glucose levels is when the blood glucose (sugar) levels are much higher than recommended – above 15mmol/L.

Blood glucose levels go high because of:

- Eating too much carbohydrate
- Not taking enough insulin or oral diabetes medications
- Sickness or infection
- Emotional, physical or mental stress
- Certain tablets or medicines, (including cortisone or steroids)
- A problem with your blood glucose meter, strips or testing technique
- Lumps present at the injection site (if on insulin)
- Fingers not clean when testing your blood
- Testing too soon after eating. (Check your blood glucose two hours after the start of a main meal).

Signs and Symptoms

You may feel:

- Tired
- Thirsty
- Pass urine more frequently
- Blurred vision
- Generally unwell.

If feeling unwell

- Test your blood glucose levels more often: at least every 2 – 4 hours
- Drink fluids and continue to eat normally if possible
- Treat the cause of the illness
- Tell someone and have them check on you.

Test for ketones if advised to do so by your doctor

When do I need to call my doctor?

Contact your doctor for advice during illness if:

- You can't eat normally
- You are not well enough to monitor your blood glucose levels
- Your blood glucose level is higher than 15 mmol/L for more than 12 hours
- Vomiting or diarrhoea continues for more than 12 hours
- You continue to feel unwell or become drowsy.

It is important to have a written sick day management plan prepared before you get sick or unwell. Talk to your diabetes health care team to arrange this.

Ketone Testing and Diabetic Ketoacidosis (DKA)

Ketones are chemicals in the blood which are produced from the breakdown of fat. If the body has no insulin present, glucose (sugar) can't be used for energy. Therefore the body makes ketones to provide a different source of energy. This may occur due to poor control of diabetes, not enough insulin or missed insulin doses, illness or infection.

15 Hatari za muda mfupi – Kiwango cha juu cha glukosi (sukari) (hyperglycaemia, DKA, HONK/HHS, na siku za kuumwa)

Kiwango cha juu cha sukari kwenye damu au hyperglycaemia ni hali ambapo kiwango cha sukari (glukosi) katika damu kipo **juu zaidi ya kile kilimependekezwa** – kuzidi 15mmol/L.

Kiwango cha sukari kwenye damu hupanda juu kwa sababu:

- Ya kula kiasi kingi zaidi cha carbohydrate
- Kutotumia kiwango cha insulin au Madawa ya kutosha
- Ugonjwa au maambukizo
- Usumbufu kutokana na hisia za mwili au akili
- Madawa au tembe fulani, (pamoja na zile zijulikanazo kama “cortisone” au “steroids”)
- Tatizo la mashine yako (dira) ya kupima sukari kwenye damu, kile kikaratasi maalum au jinsi unavyopima
- Bonge/uvimbe katika sehemu ya kudungwa sindano (iwapo unatumia insulin)
- Vidole vichafu wakati wa kupima damu
- Kupima muda mfupi tu baada ya kula. (Pima sukari kwenye damu, walau saa 2 baada ya kula chakula kikuu).

Ishara na Dalili

Unaweza kuwa unahisi

- Uchovu
- Kujikwa mara nyingi
- Kuumwa kwa ujumla.
- Kiu
- Kupunguka kuona kwa macho

Iwapo unaumwa

- Pima kiwango cha sukari kwenye damu mara nyingi: walau baada ya saa 2 - 4
- Tumia vinywaji na uendelea kula kama kawaida ikiwezekana
- Tibu chanzo cha wewe kuumwa
- Mfahamishe mtu na uwaombe wakuangalie.

Pima homoni ziitwazo ketone iwapo umeshauriwa kufanya hivyo na daktari wako.

Ni wakati gani nafaa kumpigia daktari wangu?

Wasiliana na daktari wako kwa ushauri katika kipindi cha kuumwa iwapo:

- Huwezi kula vizuri
- Hujisikii vizuri vya kutosha kuangalia viwango vyako vya sukari kwenye damu au kula au kunywa
- Kiwango chako cha sukari kwenye damu kipo juu zaidi ya 15mmol/L kwa muda wa zaidi ya saa 12
- Kutapika au kuharisha kukiendelea kwa muda unaozidi saa 12
- Ukiendelea kujisikia mgonjwa au kusinzia.

Ni muhimu kuwa na utaratibu tayari ulioandikwa wa uangalizi siku za kuwa mgonjwa kabla haujakuwa mgonjwa au kuumwa. Sungumza na tume yako ya afya ya ugonjwa wa kisukari ili kupanga hili.

Upimaji wa Ketone na tindi katika ketone inayohusishwa na kisukari (DKA)

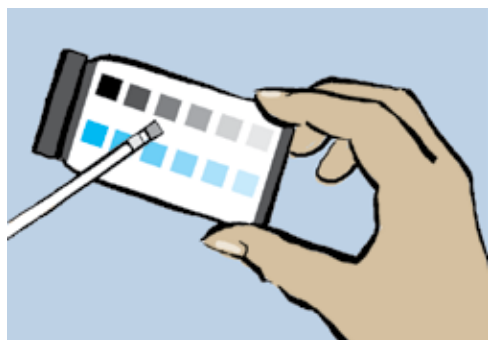
Ketones ni chemikali ipatikanayo ndani ya damu na ambayo husalishwa kutokana na umeng'enywaji wa mafuta mwilini. Iwapo mwili hauna insulin, glukosi (sukari) haiwezi kutumika kwa kutoa nishati. Kwa hivyo, mwili husalisha ketones ili kutoa hazina nyingine tofauti ya nishati mwilini. Hii inaweza kuwa inasababishwa na uangalizi mbaya wa ugonjwa wa kisukari, kutokuwa na insulin ya kutosha au kukosa kutumia kipimo ulichopewa cha insulin, ugonjwa au maradhi.

A build up of ketones can lead to a condition called ketoacidosis, requiring urgent medical attention. Diabetic ketoacidosis (DKA) is a life threatening condition that usually only occurs in people with type 1 diabetes. It causes dehydration and a buildup of acids in the blood. This results in vomiting and increased drowsiness.

DKA IS AN EMERGENCY AND REQUIRES URGENT MEDICAL ATTENTION

In very rare cases ketoacidosis can occur in people with type 2 diabetes and is usually caused by a serious infection.

With type 2 diabetes it is not usually necessary to test for ketones. Discuss with your diabetes health care team if you need to check for ketones.



There are two methods of testing for ketones – testing urine and testing blood :

Urine Ketone Test

Urine test strips are available to check for ketones. Ask your pharmacist about the types of urine ketone strips available and carefully follow the directions for testing. Urine ketone tests must be timed exactly using a watch or clock with a secondhand.

Blood Ketone Test meter

There are meters available to test blood for ketones. The same drop of blood to be tested for glucose can be used to test for ketones. Different test strips are used for testing glucose and ketones. Ketone test strips are not subsidised by the National Diabetes Services Scheme at present.

Seek URGENT medical attention if:

- The urine ketone test shows medium or high levels of urine ketones.
- The blood ketone test result is higher than 0.6 mmol/L.

Hyperosmolar Hyperglycaemic Syndrome (HHS) - previously known as Hyper Osmolar Non Ketotic coma (HONK)

HHS is a complication of type 2 diabetes that involves extremely high blood glucose (sugar) levels without the presence of ketones. This medical emergency occurs in anyone with type 2 diabetes, regardless of treatment.

When blood glucose levels are very high, the body tries to get rid of the excess glucose (sugar) in the urine. This significantly increases the amount of urine and often leads to dehydration so severe that it can cause seizures, coma and even death.

The main causes of HHS/ HONK are:

- Undiagnosed type 2 diabetes
- A current illness or infection e.g. pneumonia and urinary tract infection
- Other major illnesses e.g. stroke, heart attack
- Persistent physical or emotional stress
- Certain medication. This is another reason you need to talk to your diabetes health care team about the medications you are taking.

Signs and Symptoms include:

- Severe dehydration
- Shock
- Changes in consciousness
- Coma.

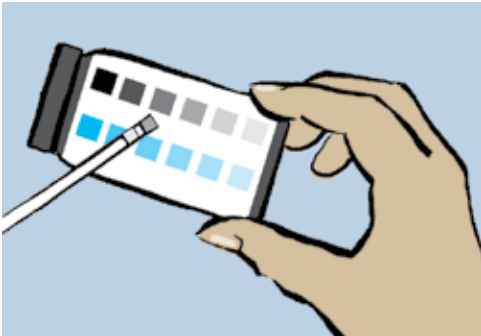
HHS/HONK requires URGENT medical attention.

Usalishaji mwingi wa chemikali ya ketones unaweza kupelekea kuwa na hali iitwayo ketoacidosis, na hapo kupelekea mtu kuhitaji matibabu ya dharura. Ketoacidosis inayohusishwa na kisukari (DKA) ni hali inayohatarisha maisha na kwa kawaida huwatokea watu walio na aina 1 ya ugonjwa wa kisukari. Hali hii inasababisha kupungua kwa kiasi kikubwa maji mwilini na pia kurundikana kwa wingi tindi kali (acid) kwenye damu. Hii inasababisha kutapika na kuongezeka kwa hali ya kusinzia.

DKA NI HALI YA DHARURA NA INAHITAJI MATIBABU YA HARAKA SANA.

Katika nyakati chache sana, ketoacidosis yaweza kutokea kwa watu wenye aina 2 ya ugonjwa wa kisukari na kwa kawaida huwa imesababishwa na maradhi mabaya.

Ukiwa na aina 2 ya ugonjwa wa kisukari, si lazima mtu apimwe ketones. Jadiliana na tume yako ya afya ya ugonjwa wa kisukari, iwapo unahitaji ketones kupimwa.



Kunao njia mbili za kupima ketones mwilini- kupima mkojo na kupima damu:

Upimaji wa ketone katika mkojo

Vikaratasi maalum vya kupima ketone kwenye mkojo vinapatikana. Muulize muuza dawa kuhusu aina zilizopo za vikaratasi vya kupima ketone kwenye mkojo na ufuate kwa makini maagizo yaliyotolewa. Upimaji wa ketone kwenye mkojo ni lazima ufanyike kwa muda ulio kamili na sawa kabisa kwa kutumia saa ya mkononi au ukutani.

Kifaa (dira) ya Kupima ketone kwenye damu

Kunavyo vifaa (dira) vinavyotumika kupima ketone kwenye damu. Tone la damu linalotumika kupima kiwango cha sukari kwenye damu, pia linaweza kutumiwa tena kupima ketone kwenye damu. Vikaratasi maalum tofauti tu ndivyo vinavyotumika kupima sukari na ketone. Kwa wakati huu, bei ya vikaratasi maalum vinavyotumika kupima ketones haijapunguzwa na [Hazina ya Kitaifa ya Huduma ya Ugonjwa wa Kisukari](#).

Tafuta msaada wa matibabu wa dharura iwapo:

- Ketone kwenye mkojo inaonyesha viwango vya kati na vile vya juu
- Viwango vya ketone katika damu ni zaidi ya 0.6 mmol/L.

Hali ya hatari ya viwango vya juu zaidi vya sukari kwenye damu bila ketone katika aina 2 ya ugonjwa wa kisukari (Hyperosmolar Hyperglycaemic Syndrome (HHS)) au HONK

HHS ni hali ngumu ya aina 2 ya ugonjwa wa Kisukari inayohusishwa na uwepo wa viwango vya juu zaidi vya sukari (glukosi) kwenye damu lakini bila uwepo wa kemikali ziiwazo ketones. Hii hali ya dharura inaweza kutokea kwa mtu yeyote aliye na aina 2 ya ugonjwa wa kisukari, hata iwapo nayo matibabu kamili. Wakati viwango vya sukari kwenye damu vipo juu zaidi, mwili hujaribu kuondoa sukari iliyozidi kutoka kwenye mkojo. Tendo hili husababisha kuongezeka maradufu kwa mkojo na kupelekea kupungua maji mwilini kiasi kwamba inaweza kusababisha kupata kifafa, kuzimia na hata kifo.

Vianzishi vikuu vya HHS/HONK ni:

- Aina 2 ya Kisukari ambayo haijagunduliwa
- Ugonjwa mpya au Maradhi k.m Nemonia na maradhi ya mfumo wa mkojo.
- Magonjwa mengine makuu k.m. kiharusi, pigo (mshtuko) la moyo
- Usumbufu wa kila wakati wa mwili au akili
- Baadhi ya Madawa. Hii ni sababu nyingine ambayo inakuhitaji wewe kuongea na tume yako ya afya ya ugonjwa wa kisukari kuhusu Madawa unayoyatumia.

Ishara na Dalili zinahusisha:

- Kungua kwingi kwa maji mwilini
- Mshtuko
- Mabadiliko katika fahamu
- Kuzimia.

HHS/HONK inahitaji matibabu ya dharura.

16 Chronic complications

Blood glucose (sugar) levels that remain high for long periods of time can cause diabetes related complications such as eye disease, kidney disease, nerve damage as well as heart disease and circulation problems. High blood glucose levels also increase the risk of infection and slow down recovery from infection. For these reasons it is very important that you try and keep your blood glucose levels within the ranges recommended by your doctor or diabetes health care team.

Diabetes and eye disease:

Damage can occur to the back of the eye (retina) where there are very fine blood vessels important for vision. This is called diabetic retinopathy. The development of retinopathy is strongly related to how long you have had diabetes and how well the blood glucose levels have been controlled.

High blood pressure, high cholesterol levels and kidney failure can also affect the severity of diabetic retinopathy.

Vision loss or blindness is preventable through early detection and treatment. The treatment for diabetic retinopathy can be laser therapy or surgery.

Glaucoma and cataracts can occur at an earlier age and more often in people with diabetes. Cataracts affect the eye's lens causing it to become cloudy with a loss of vision. The treatment for cataracts is surgery.

Glaucoma occurs when the pressure inside the eye becomes very high, causing damage to the optic nerve. The treatment for glaucoma can be eye drops, laser therapy or surgery.

Diabetes and kidney disease:

Your kidneys help to clean your blood. They remove waste from the blood and pass it out of the body as urine.

Over time diabetes can cause damage to the kidneys. If the kidneys fail to work properly, waste products stay in the body, fluids build up and the chemical balance is upset. This is called diabetic nephropathy.

You will not notice damage to your kidneys until it's quite advanced, however early signs of kidney problems can be detected through a urine test.

Finding out about early kidney damage is simple and painless and should be checked every year from the time of diagnosis of diabetes. Treatment at this time can prevent further damage.

In severe kidney disease dialysis treatment or a kidney transplant may be needed.

People with diabetes are also at increased risk of infection of the bladder, kidneys and urinary tract.

The good news is that the risk of developing kidney problems can be reduced by: stopping smoking if you smoke, managing your blood glucose levels, having regular kidney and blood pressure checks and leading a healthy lifestyle.

16 Hali tata za ugonjwa

Viwango vya sukari (glukosi) kwenye damu vikiendelea kuwa juu kwa muda mrefu, vinaweza kusababisha hali tata za ugonjwa wa kisukari kama vile ugonjwa wa macho, figo, kuharibika kwa mishipa na pia ugonjwa wa moyo na matatizo ya msunguko wa damu. Kiwango cha juu cha sukari kwenye damu pia huongezea hatari ya kupata maradhi na kupunguka kwa uwezo wa maambukizi hayo kupona. Kwa sababu hizi, ni muhimu sana ujaribu kuthibiti sukari kwenye damu kabakia katika viwango vilivyopendekezwa na daktari au tume yako ya afya ya ugonjwa wa kisukari.

Kisukari na Ugonjwa wa macho:

Uharibifu unaweza kutokea kataka sehemu ya nyuma ya jicho (retina) ambako kuna mishipa miembamba ya damu yenye umuhimu wa kuwezesha macho kuona. Hii inajulikana kama “diabetic retinopathy”. Ukuaji wa hali hii unahusishwa sana na muda ambao umekuwa na ugonjwa wa kisukari na pia ni jinsi gani umekuwa ukithibiti vyema viwango vya sukari kwenye damu.

Shinikizo la juu la damu, kiwango cha juu cha helemu na kushindwa kwa figo kufanya kazi vinaweza kuadhihi hali endelevi ya “diabetic retinopathy”.

Kupoteza kuona au upofu ni jambo linaloweza kuzuiwa kwa njia ya kupima na kutibu mapema. Matibabu yake yanaweza kuwa yale ya kuchoma au upasuaji.

Magonjwa ya macho kama glaucoma na cataract yanaweza kutokea katika umri mdogo na mara nyingi huwa ni kwa watu wenye ugonjwa wa kisukari.

Cataracts huadhihi kioo cha jicho na kupelekea kuwa na ukungu na kupoteza kuona. Tiba ya cataracts ni upasuaji.

Glaucoma hutoka wakati shinikizo ndani ya jicho limepanda juu zaidi, na kusababisha uharibifu wa mishipa wa macho. Matibabu ya glaucoma yanaweza kuwa ya dawa ya macho (maji maji), kuchoma au upasuaji.

Kisukari na ugonjwa wa figo:

Mafigo yako husaidia kusafisha damu mwilini. Yanaondoa uchafu kutoka kwenye damu na kuyatoa nje ya mwili kwa njia ya mkojo.

Baada ya muda, ugonjwa wa kisukari unaweza kuadhihi figo. Iwapo mafigo yakishindwa kufanya kazi kisasawa, uchafu hukaa mwilini, maji maji taka huongezeka na uthibiti wa kemikali mwilini huadhirika pakubwa. Hii inajulikana kama “diabetic nephropathy”.

Hauwezi ukaona uharibifu kwenye figo zako hadi baada ya kufikia hatua hatari, hata hivyo ishara za matatizo ya mafigo yanaweza kujulikana mapema kupitia upimaji wa mkojo.

Kujua mapema kuhusu matatizo ya figo ni rahisi na haisababishi maumivu yoyote na upimaji unafaa kufanywa walau kila mwaka baada ya kupatikana na ugonjwa wa kisukari.

Matibabu kwa wakati huu yanaweza kuzuia uharibifu zaidi wa mafigo.

Ugonjwa wa figo ulio dhorota zaidi huenda ukahitaji matibabu ya mashine ya kusafisha mkojo/uchafu au kubadilishwa kwa figo.

Watu walio na ugonjwa wa kisukari pia wako katika hatari kubwa ya maambukizi ya kibofu, figo na mfumo wa mkojo. Habari njema ni kwamba, hatari za kuwa na matatizo ya figo yanaweza kupunguzwa kwa njia ya:

Diabetes and nerve disease:

Diabetes over time can cause damage to nerves throughout the body. This damage is referred to as diabetic neuropathy.

Neuropathy leads to numbness, changes in sensation and sometimes pain and weakness in the , feet, legs, hands and arms. Problems may also occur in the digestive tract, heart and sex organs.

Diabetic neuropathy also appears to be more common in people who have:

- Problems controlling their blood glucose levels
- High levels of blood fat
- High blood pressure
- Excess weight
- An age greater than 40
- Had diabetes for a long time.

Signs and symptoms of nerve damage may include:

- Numbness, tingling, or pain in the toes, feet, legs, hands, arms, and fingers
- Muscle wasting of the feet or hands
- Indigestion, nausea, or vomiting
- Diarrhoea or constipation
- Feeling dizzy or faint due to a drop in blood pressure when standing
- Visual problems
- Problems with urination
- Erectile dysfunction (impotence) or vaginal dryness
- Sweating and palpitations
- Weakness
- Dry skin
- Dry mouth, eyes, nose.

Neuropathy can also cause muscle weakness and loss of reflexes, especially at the ankle, leading to changes in the way the person walks. Foot deformities may occur. Blisters and sores may appear on numb areas of the foot because pressure or injury goes unnoticed, leading to the development of an ulcer. If foot injuries or ulcers are not treated quickly, the infection may spread to the bone, and in extreme circumstances, may result in amputation. Due to neuropathy and its effect on daily living the person may lose weight and is more likely to suffer with depression.

The best way to minimise your risk for developing neuropathy is to keep your blood glucose levels as close to the recommended range as possible. Daily foot care is of great importance to reduce complications.

Treatment of neuropathy includes pain relief and other medications as needed, depending on the type of nerve damage. Discuss the options with your health care team.

Diabetes and heart disease/stroke:

People with diabetes are at increased risk of heart disease and stroke. Higher than recommended blood glucose and cholesterol levels and high blood pressure over long periods of time damage the large blood vessels. This can lead to heart disease (coronary artery disease), damage to the brain (cerebral artery disease) and other blood vessel disease (peripheral artery disease).

Blood vessel disease is progressive and causes hardening and narrowing of the arteries due to a gradual build up of plaque (fatty deposits).

Coronary artery disease is the most common form of heart disease. Blood carries oxygen and

Kuacha ufutaji wa sigara kwa waraibu wa sigara, uangalizi wa viwango vya sukari kwenye damu, upimaji wa mara kwa mara wa mafigo na shinikizo la damu na kuzingatia maisha yenye afya bora.

Kisukari na ugonjwa wa mishipa:

Ugonjwa wa kisukari baada ya muda, unaweza kusababisha uharibifu wa mishipa katika mwili mzima. Uharibifu huu unajulikana kama “diabetic neuropathy”.

Hali hii hupelekea kuwa na hali ya kufa ganzi, mabadiliko ya hisia na wakati mwingine Maumivu na ulegevu kwenye makanyagio, miguu, na mikono. Matatizo yanaweza pia kutokea kwenye mfumo wa umeng'enywaji wa chakula, moyo na viungo vya siri.

Hali hii pia hutokea mara nyingi kwa watu ambao wana:

- Hali ya kufa ganzi, msimko, au maumivu kwenye vidole vya miguuni, makanyagio, miguu, mikono na vidole vya mikono.
- Kudhorota kwa misuli ya miguu au mikono.
- Kutosaga chakula, kinyefu nyefu na kutapika
- Kuharisha au kiungulia
- Kuhisi kusinzia au kuzimia kwa sababu ya kushuka kwa shinikizo la damu unaposimama
- Matatizo ya kuona
- Matatizo ya kukojoa
- Matatizo ya kiume ya sehemu za uzazi (utasa) au ukavu katika sehemu za siri za mwanamke
- Kutokwa na jasho na kutatisika mapigo ya moyo
- Unyonge
- Ngozi iliyonyauka
- Mdomo mkavu, macho na pua.

“Neuropathy” pia inaweza kusababisha kulegea kwa nguvu za misuli na kupotea kwa ulaini katika kazi zake, hasa katika sehemu ya kiwiko, na kupelekea kubadilika kwa jinsi mtu anavyotembea. Mabadiliko ya miguu yanaweza kutokea. Lengelenge na vidonda chungu huenda vikachipuka katika sehemu zilizokufa ganzi miguuni kwa sababu ya shinikizo au jeraha ambalo halikujulikana, na kupelekea kupata kidonda ndugu. Iwapo majeraha ya miguuni au vidonda ndugu havitibiwi kwa uharaka, maradhi yanaweza kusambaa kwenye mfupa, na ikienda sana, huenda ikapelekea kukatwa mguu au sehemu iliyoadhiriwa.

Kwa sababu ya hali hii na madhara yake katika maisha ya kila siku, mtu anaweza kupungua uzito wa mwili na kuwa na uwezekano mkubwa wa kuambukia ugonjwa wa usumbufu mbaya wa mwili na akili.

Njia bora zaidi ya kupunguza hatari za kuwa na hali hii ni kulinda viwango vya sukari kwenye damu kubakia katika hali iliyopendekezwa iwezekanavyo. Uangalizi wa kila siku wa makanyagio/miguu ni muhimu sana katika kupunguza adhara ya ugumu wa hali hii. Matibabu ya “neuropathy” inajumulisha, kupunguza uchungu na madawa mengine pia yanahitajika, kadiri ya hali ya uharibifu wa mishipa. Jadiliana na tume yako ya afya ya ugonjwa wa kisukari kuhusu mpango wa matibabu unaofaa.

Kisukari na ugonjwa wa moyo / kiharusi

Watu walio na ugonjwa wa kisukari wako katika adhara ya juu ya kupata ugonjwa wa moyo na kiharusi. Viwango vya juu zaidi ya vile vilivyopendekezwa vya sukari kwenye damu na helemu na shinikizo la damu kwa muda mrefu, huadhiri mifumo mikubwa ya damu mwilini. Hii inaweza kupelekea kupata ugonjwa wa moyo, uharibifu wa ubongo (ugonjwa wa mishipa ya damu kwenye ubongo) na magonjwa mengine husika ya mishipa ya damu (periphery artery disease).

Chronic complications - *continued*

other important nutrients to your heart. Blood vessels to your heart can become partially or totally blocked by fatty deposits. Chest pain (angina) or a heart attack occurs when the blood flow supplying oxygen to your heart is reduced or cut off.

Over time, coronary artery disease can weaken the heart muscle and lead to heart failure preventing the heart from pumping blood properly to the rest of the body. This can also lead to abnormal beating rhythms of the heart.

A stroke occurs when blood supply to part of your brain is interrupted and brain tissue is damaged. The most common cause is a blocked blood vessel. Stroke can cause physical problems such as paralysis, problems with thinking or speaking, and emotional problems.

Peripheral artery disease occurs when blood vessels in your legs are narrowed or blocked by fatty deposits causing reduced blood flow to your legs and feet.

Many people with diabetes and peripheral artery disease do not have any symptoms.

Other people may have the following symptoms:

- leg pain, particularly when walking or exercising, which disappears after a few minutes of rest
- numbness, tingling, or coldness in the lower legs or feet
- sores or infections on feet or legs that heal slowly.

Certain exercises, such as walking, can be used both to treat peripheral arterial disease and to prevent it. Medications may help relieve symptoms. In advanced cases treatment may involve surgical procedures.

You can lower your risk of blood vessel damage by keeping your blood glucose, blood pressure and cholesterol in the recommended range with healthy eating, physical activity, and medication. Quitting smoking is essential to lower your risk.

Diabetes and infection:

High blood glucose levels can lower your resistance to infection and can slow the healing process.

Oral health problems and diabetes

When diabetes is not controlled properly, high glucose levels in saliva may increase the amount of bacteria in the mouth and may also cause dryness of the mouth. Blood glucose (sugar) levels that stay high for long periods of time reduces the body's resistance to infection, and the gums are likely to be affected.

Periodontal diseases are infections of the gums and bones that hold your teeth in place. Even if you wear dentures, you should see your dentist at least once a year.

Signs and symptoms of oral health problems include:

- Gums that are red and swollen, or that bleed easily
- Persistent bad breath or bad taste in the mouth
- Any change in the fit of dentures.

Fungal infections /Thrush

Thrush is the term used for a common infection caused by a yeast-like fungus.

Yeast infections are often associated with diabetes, especially when the blood glucose level is very high. Persistent cases of thrush may sometimes be an early sign of diabetes.

Thrush can occur in the mouth, throat, digestive tract, vagina or on the skin. It thrives in the moist areas of the body.

Oral thrush, a fungal infection in the mouth, appears to occur more frequently among people

Matatizo magumu - ukurasa unaendelea

Ugonjwa wa mshipa wa damu ni mwendelezi na unasababisha mshipa mikubwa ya damu kuwa migumu na miembamba na kupelekea kurundikana kwa ufuta mwingi humo.

Ugonjwa wa moyo/ mshipa mkubwa wa damu (Coronary artery disease) ndio mashuhuri zaidi kati ya aina ya magonjwa ya moyo. Damu husafirisha hewa na virutubisho vingine muhimu hadi moyoni. Mshipa ya damu kwenye moyo inaweza kuzibwa kiwango fulani au kabisa na mafuta yaliyotozwa humo. Maumivu kifuani (angina) au pigo la moyo hutokea wakati mtiririko wa damu inayosafirisha hewa (oxijeni) unapopungua au kusimama. Baada ya muda, aina hii ya ugonjwa wa moyo, unaweza kulegeza nguvu za misuli ya moyo na kupelekea kusimamisha utenda kazi wa moyo wa kusambaza damu vyema katika sehemu zote za mwili. Hii inaweza pia kusababisha mapigo yasiyo sawa ya moyo.

Kiharusi hutokea wakati usambazaji wa damu kwenye sehemu za ubongo unapohitilafiwa na kupelekea kuharibika kwa kiungo cha ubongo. Sababisho kuu huwa ni kuzibika kwa mshipa wa damu. Kiharusi kinaweza kusababisha Mmatatizo ya kimwili kama vile ulemavu, matatizo ya kufikiria au kuongea, na matatizo ya hisia za mwili.

Magonjwa mengine husika ya moyo hutokea mara mshipa ya damu kwenye miguu ikikuwa finyo au kuzibwa na mafuta yaliyotozwa kwenye damu na kusababisha kupunguka kwa mtiririko wa damu miguuni na kwenye makanyagio.

Watu wengi walio na ugonjwa wa kisukari na magonjwa mengine husika ya moyo hawaonyeshi dalili zozote. Wengine huenda wakawa na dalili zifuatazo:

- Maumivu miguuni, na hasa wanapotembea au kufanya mazoezi, na ambayo huisha baada ya kupumzika kwa muda mfupi.
- Kufa ganzi, msisimko, au ubaridi upande wa chini wa miguu au makanyagio
- Vidonda au maradhi kwenye makanyagio au miguu na ambayo yanapona polepole.

Mazoezi fulani, kama vile kutembea, yanaweza kutumika kutibu na kuzuia magonjwa husika ya moyo. Madawa yanaweza kupunguza maumivu na dalili za ugonjwa. Ugonjwa ukifikia kiwango hatari, matibabu yanaweza kuhusisha upasuaji.

Unaweza kupunguza adhari za uharibifu wa mshipa ya damu kwa kulinda viwango vya sukari kwenye damu, shinikizo la damu na helemu kubakia katika Viwango vilivyopendekezwa kwa kutumia chakula bora, kufanya mazoezi, na kutumia madawa. Kuacha uvutaji wa sigara ni muhimu katika kupunguza adhari hii.

Kisukari na maradhi ambukizi:

Viwango vya juu vya glukosi kwenye damu vinaweza kupunguza uwezo wako wa kuzuia maradhi na kupunguza uharaka wa kupona.

Kisukari na matatizo ya mwilini

Wakati ugonjwa wa kisukari haujathibitiwa vizuri, viwango vya juu vya glukosi kwenye mate huenda vikaongeze uwingi wa bacteria mdomoni na kupelekea kakauka kwa mdomo. Viwango vya glukosi (sukari) ambavyo hubakia juu kwa muda mrefu hupunguza kinga ya mwili dhidi ya maradhi, na fisi mdomoni huenda zikaadhirika.

Magonjwa ya mdomoni ni maradhi yanayoadhiri fisi na mifupa inayoshikilia meno. Hata iwapo unatumia meno maalum ya kuwekwa, ni sharti umuone daktari wa meno walau mara moja kwa mwaka.

Ishara na dalili za magonjwa ya mdomoni yanahusu:

- Fisi za rangi nyekundu na zilizovimba, au zinazotonesha damu kwa urahisi.
- Ufundo wa kila mara mdomoni au kuonja kubaya mdomoni
- Mabadiliko yoyote kwenye meno ya kuongezewa

with diabetes including those who wear dentures. Thrush produces white (or sometimes red) patches in the mouth. It may cause a painful, burning sensation on your tongue. It can affect your ability to taste foods and may make it difficult for you to swallow. In women, vaginal thrush is a very common infection. A common symptom is itching and soreness around the vagina.

Urinary tract infections are more common in people with diabetes. They are caused by micro-organisms or germs, usually bacteria.

Signs and symptoms include:

- Wanting to urinate more often, if only a few drops
- Strong smelling and cloudy urine
- Burning pain or a 'scalding' sensation on urination
- A feeling that the bladder is still full after urination
- Blood in the urine.

It is important to see your doctor immediately if any infection is suspected.

Maambukizi ya ukungu/mkesha

Mkesha ni jina linalotumika kwa ambukizo linalotokea mara nyingi na husababishwa na ukungu unaofananishwa na uyoga. Maambukizi ya uyoga mara nyingi yanahusishwa na ugonjwa wa kisukari, hasa wakati ule kiwango cha sukari kwenye damu kipo juu zaidi. Mfululizo wa maambukizi ya mkesha huenda wakati mwingine yakawa ni ishara ya ugonjwa wa kisukari.

Mkesha unaweza kutokea mdomoni, kinywani, mfumo wa umeng'enywaji, sehemu za siri za kike au juu ya ngozi. Hunawiri katika sehemu za mwili zilizo na unyevunyevu.

Mkesha wa mdomoni, ni ambukizo ndani ya mdomo, ambao hutokea mara nyingi kati ya watu walio na ugonjwa wa kisukari pamoja na wale wenye meno ya kuongezwa. Mkesha husababisha sehemu za uweupe (au uwekundu wakati mwingine) mdomoni. Unaweza kusababisha uchungu kwenye ulimi au ulimi unaochomeka chomeka. Unaweza kuadhi uwezo wako wa kuonja chakula na pia kufanya ugumu kumeza vitu.

Kati ya wanawake, mkesha katika sehemu za siri ni ambukizi la mara nyingi. Dalili ya mara nyingi ni muasho na uchungu kando kando na ndani ya sehemu za kike za siri.

Maambukizi ya mfumo wa mkojo huwatokea mara nyingi watu walio na ugonjwa wa kisukari. Maambukizo haya husababishwa na virusi au viini, kwa kawaida vile vya bacteria.

Ishara na dalili ni:

- Kutaka kukojoa mara nyingi, hata kama ni tone chache
- Mkojo wenye ukungu na ufundo mzito
- Uchungu unaochoma au kuchomachomeka unapokojoa
- Kuhisi kwamba kibofu bado kimejaa mkojo hata baada ya kukojoa
- Damu katika mkojo.

Ni muhimu kumuona daktari mara moja iwapo unashuku maambukizo yoyote.

17 Diabetes and your Feet

Diabetes may affect the feet in two ways.

Firstly, nerves which allow you to feel pain, temperature and give an early warning of possible injury, can be damaged.

Secondly, the blood supply to the feet can be reduced due to blockage of the blood vessels. Damage to the nerves and blood vessels is more likely if you have had diabetes for a long time, or if your blood glucose (sugar) levels have been too high for too long.

It is recommended that people with diabetes should be assessed by a podiatrist or doctor at least every six months. They will advise a common sense, daily care routine to reduce the risk of injuries and complications.

It is also essential to check your feet every day for any problems.

Caring for your feet

- Maintain blood glucose levels within the range advised by your doctor
- Help the circulation to your feet with some physical activity like walking
- Know your feet well
 - Look at your feet daily. Use a mirror if you need to. Check between your toes
 - Wash your feet daily in warm (not hot) water, using a mild soap. Dry gently and thoroughly
 - Never soak your feet
 - Use a moisturiser to avoid dry skin
 - Only cut your toenails if you can do so safely. Cut straight across – not into the corners – and gently file away any sharp edges.
- Choose footwear which is appropriate for your activity. Smooth out wrinkles in socks
- Check your shoes regularly for excess wear on the outside and for any rough spots on the inner lining
- Avoid foot injuries by wearing shoes or slippers around the house and footwear at the beach or pool
- Avoid contact with very hot or cold items, such as hot water bottles, heaters, electric blankets, hot sand/pathways and hot bath water
- Wear insulated boots to keep feet warm on cold days
- Corn cures and medicated pads can burn the skin. Do NOT treat corns yourself - see your podiatrist
- Get medical advice early if you notice any change or problems with your feet.



Kisukari na Miguu yako

Kisukari kinaweza kuadhiri miguu yako kwa njia mbili.

Kwanza kabisa, mishipa midogo inayoruhusu Kuhisi uchungu, joto na kutoa onyo ya mapema ya majeraha, inaweza kuharibiwa.

Pili, usambasaji wa damu miguuni unaweza kupunguka kwa sababu ya kuzibika kwa mishipa ya damu.

Uharibifu wa mishipa na mifumo ya damu ni rahisi kutokea iwapo umekuwa na ugonjwa wa kisukari kwa muda mrefu, au iwapo viwango vyako vya sukari kwenye damu (glukosi) vimekuwa juu zaidi kwa muda mrefu. Imependekezwa kwamba watu walio na ugonjwa wa kisukari waangaliwe na daktari wa miguu au wa kawaida walau baada ya kila miezi sita. Watakushauri lililo la hekima, na uangalizi wa kila siku ili kupunguza adhari ya majeraha na ugumu wa magonjwa.

Ni muhimu pia kuangalia miguu yako kila siku ili kujua iwapo kuna tatizo lolote.

Uangalizi wa miguu yako

- Hakikisha viwango vya sukari kwenye damu vinabakia katika vile vilivyo pendekezwa na daktari wako.
- Wezesha mtiririko wa damu miguuni mwako kwa njia ya kufanya mazoezi kama vile kutembea.
- Ifahamu miguu yako kisawasawa
 - Angalia miguu yako kila siku. Tumia kioo japo unakihitaji. Angalia katikati ya vidole
 - Osha miguu yako kila siku kwa kutumia maji vugu vugu (sio ya moto) na sabuni ya wastani Yakausha kwa utaratibu na ukamilifu
 - Usiloweshe miguu yako kwenye maji
 - Tumia sabuni maalum yenye unyevu ili kuepukana na ukavu wa ngozi
 - Punguza urefu wa makucha iwapo unaweza kufanya hivyo kwa usalama. Yakte makucha kilaini na sio katika pande na nyorosha pande zilizo kwaruzika
- Chagua viatu vinavyofaa kwa mazoezi yako. Lainisha vikwaruzo kwenye soksi zako
- Kagua viatu vyako mara kwa mara ili kuona kana kwamba ziko salama ndani na nje
- Epukana na majeraha miguuni kwa kuvaa viatu au kanda mbili ukiwa nyumbani na viatu ukiwa kwenye kidimbwi cha kuogelea
- Epukana na vitu vilivyo moto au baridi sana, kama vile maji kwenye viroba vya moto, majiko ya umeme, blanketi za umeme, udongo wa majini ulio moto/na maji ya kuoga ya moto
- Vaa viatu maalum vya kuinga miguu dhidi ya kushika baridi ili yabakie joto
- Matibabu ya vimbe miguuni na vipadi vya afya vinaweza kuibua ngozi. Usitibu vimbe mwenyewe - muone daktari wa miguu
- Pata ushauri wa afya mapema iwapo ukiona mabadiliko yoyote au matatizo yoyote kwenye miguu yako.



18 Diabetes and Pregnancy



The key to a healthy pregnancy for a woman with diabetes is planning. Before you become pregnant discuss your target blood glucose levels or other pregnancy issues with your doctor or diabetes educator.

Note: the target blood glucose levels are tighter during pregnancy. You will need a diabetes management plan that balances meals, physical activity and diabetes medication (usually insulin). This plan will change as your body changes during your pregnancy.

If your pregnancy is unplanned it is important to work with your medical team as soon as you know you are pregnant.

Why you need to keep your blood glucose levels within the recommended range for pregnancy

Having good blood glucose management reduces the risk of the baby having any abnormalities when all of its organs are being formed in the first 12 weeks of pregnancy. As your pregnancy progresses, it is very important that you maintain good blood glucose levels otherwise extra sugar in your blood will pass to the baby who can then become big. Delivery of big babies can cause problems.

Who will help you before, during and after your pregnancy?

Apart from your diabetes health care team, other health professionals that will support you are:

- an obstetrician (a specialist doctor that looks after pregnant women)
- a neonatal paediatrician (a specialist doctor that looks after babies)
- a midwife (a nurse, who assists women in childbirth).

Exercise, especially for people with type 2 diabetes, is a key part of diabetes management before, during and after pregnancy.

Discuss your exercise plans with your diabetes health care team.

In general, it's not a good idea to start a new strenuous exercise program during pregnancy. Good exercise choices for pregnant women include walking, low-impact aerobics or swimming.



18 Kisukari na Uja uzito



Kitu cha msingi kwa uja uzito wenye afya bora, ni mwanamke aliye na ugonjwa wa kisukari kuwa na mpango maalum. Kabla hujashika mimba, jadiliana na daktari wako kuhusu viwango vya sukari unavyotarajia kwenye damu au mambo mengine kuhusu mimba yako au muone mwalimu/mshauri wa ugonjwa wa kisukari. Tambua: Kiwango unacholenga cha sukari katika damu ni muhimu zaidi kwenye kipindi cha uja uzito.

Utahitaji mpango kabambe wa uangalizi kuhusiana na vyakula, mazoezi ya mwili na madawa ya kisukari (kwa kawaida utahitaji insulin).

Mpango huu utabadilika kadiri ya jinsi mwili unavyokuwa katika kipindi cha uja uzito.

Iwapo mimba yako imetokea tu bila kutarajia, ni muhimu kushirikiana na tume yako ya afya mara tu ukijua umeshika mimba.

Kwanini unapaswa kuweka viwango vyako vya sukari kwenye damu katika viwango vilivyopendekezwa kwa walio na mimba

Kuwa na uangalizi bora wa viwango vya sukari kwenye damu hupunguza adhari za mtoto kukuwa vibaya katika kipindi cha kwanza cha wiki 12 ya uja uzito pale ambapo viungo vyake vinaendelea kukomaa. Mimba yako ikiendelea kukomaa, ni muhimu sana kulinda viwango salama vya sukari kwenye damu, na usipofanya hivyo sukari iliyozidi kiwango katika damu itamwendea mtoto na kupelekea mtoto kukuwa mnene. Uzalishaji wa watoto wanene unaweza kusababisha matata.

Ni nani atakayekusaidia kabla ya kushika mimba, kipindi cha ujauzito na baada ya kuzaa?

Mbali na tume yako ya afya ya ugonjwa wa kisukari, wahudumu wengine wa afya ambao watakusaidia ni:

- Daktari wa Uzazi (Daktari Mtaalamu anayeshugulikia kina mama wazito)
- Daktari na mtaalamu wa maswala ya watoto.
- Mkunga (mhudumu, anayewasaidia wanawake katika uzalishaji)

Mazoezi, hasa kwa watu wenye aina 2 ya ugonjwa wa kisukari, ni sehemu muhimu ya uangalizi wa kisukari kabla ya kushika mimba, wakati wa ujauzito na baada ya kuzaa.



Sungumzia mipango yako ya mazoezi na tume yako ya afya ya Ugonjwa wa kisukari. Kwa ujumla, si wazo jema kuanzisha mpango wa mazoezi mazito katika kipindi cha uja uzito. Mazoezi mazuri ya kina mama waja wazito ni kutembea, mazoezi mepesi ya ndani ya nyumba au kuogelea.

19 Diabetes and your emotions



Chronic diseases such as diabetes can have a major impact on your emotions because they affect every aspect of your life. The physical, mental or emotional reactions to the diagnosis of diabetes and the ability to cope may impact on your diabetes, your family, your friends and your work colleagues.

When a person is diagnosed and living with diabetes there can be many emotions that may be experienced. These include:

- Guilt
- Frustration
- Anger
- Fear
- Anxiety
- Depression

Many people do not like the idea that they may have mental or emotional problems. Unfortunately, they find it embarrassing or

view it as a weakness. Having diabetes increases your risk of developing depression. Tell your doctor how you feel. If you feel you are more comfortable talking with other members of your diabetes health care team such as a diabetes educator or podiatrist, talk to them.

You need to tell someone. Then you will be referred to the right person who can help you move in the right direction.

Recommended websites:

www.australiandiabetescouncil.com
www.beyondblue.org.au
www.diabetescounselling.com.au
www.blackdoginstitute.org.au
www.diabeteskidsandteens.com.au



19 Kisukari na hisia za mwili



Magonjwa tata kama vile kisukari yanaweza kuleta adhari kubwa kwa hisia za mwili kwa sababu, yanaadhiri kila sehemu ya maisha yako.

Jinsi mwili, akili au hisia zinavyo sisimkia uwepo wa ugonjwa wa kisukari mwilini na uwezo wa mwili kustahimili, vinaweza kuadhiri hali ya ugonjwa wa kisukari, familia yako, marafiki na wafanya kazi wenzako.

Mara mtu akipatikana na pia anaishi na ugonjwa wa kisukari, panaweza kuwepo na hisia nyingi katika maisha yake. Hisia hizi ni kama:

- Majuto
- Kugadhabika
- Hasira
- Hofu
- Mahangaiko
- Usumbufu akilini.

Watu wengi hawapendi kuwa na wazo kwamba wanayo Matatizo ya akili au hisia. Kwa bahati mbaya, wanaona aibu kuwaza hivyo au kuona kana kwamba ni hali ya unyonge. Ugonjwa wa kisukari, unaongeza uwezekano wa kuwa na usumbufu wa akili. Mwambie daktari wako jinsi unavyojisikia. Iwapo ukisikia huru kusungumza na watu wengine katika tume yako ya afya ya ugonjwa wa kisukari kama vile, mshauri wa ugonjwa wa kisukari au daktari wa miguu, basi sungumza nao.

Unahitaji kumjulisha mtu mwingine. Hatimaye utapendekezewa mtu anayefaa na ambaye anaweza kukusaidia kufanya mambo kwa njia iliyo sawa.

Tovuti zilizopendekezwa ni:

www.australiandiabetescouncil.com
www.beyondblue.org.au
www.diabetescounselling.com.au
www.blackdoginstitute.org.au
www.diabeteskidsandteens.com.au



20 Diabetes and driving

High or low blood glucose (sugar) levels in people with diabetes can affect their ability to drive safely. People with diabetes may have developed complications such as vision problems, heart disease or nerve damage, which also can affect driving ability. It is vital that people with diabetes know what to do in order to keep themselves and others safe while on the road.



Austroads, the road transport and traffic safety authority for Australia and New Zealand, has developed guidelines for doctors to help assess their patient's fitness to drive. Diabetes and cardiovascular disease are just two of the many conditions for which there are specific medical standards and guidelines which must be met for licensing and insurance.

The main concern when driving is a low blood glucose (sugar) level. It can affect a driver's ability to react and concentrate. Low blood glucose can also cause changes in consciousness which could lead to losing control of the vehicle. People who are taking certain diabetes medication and/or insulin are at risk of hypoglycaemia.

Ask your doctor or diabetes educator if you are at risk.

Hyperglycaemia or high blood glucose levels can also affect driving ability as it can cause blurred vision, fatigue and decreased concentration.

Medical Standards for Licensing

Private and Commercial – People with diabetes who are managed without medication do not need to notify the Drivers Licensing Authority and may drive without license restriction. However, they should be reviewed regularly by their doctor for progression of the disease.

Private Licence – People with diabetes who are managed with medication, but **not insulin**, and do not have any diabetes complications do not need to notify the Drivers Licensing Authority. They need to be reviewed every five years (meeting all other Austroads criteria). If you do have any acute or chronic complications a conditional licence may be granted after review by your treating doctor.

Commercial Licence – People with diabetes who are managed with medication, but **not insulin**, need to notify the Drivers Licensing Authority in person. A conditional driver's licence may be granted subject to the opinion of the specialist, the nature of the driving task and at least an annual review (meeting all other Austroads criteria)

Private Licence – People with diabetes who are managed **with insulin** need to notify the Drivers Licensing Authority in person. A conditional licence may be granted subject to the opinion of the specialist/treating doctor, the nature of the driving task and at least a two yearly review (meeting all other Austroads criteria)

20 Kisukari na uendeshaji

Kiwango cha juu au chini cha glukosi (sukari) katika damu kwa wagonjwa wa kisukari kinaweza kuadhihi uwezo wa uendeshaji salama. Watu walio na ugonjwa wa kisukari wanaweza kuwa na hali tata kama vile Matatizo ya kuona, ugonjwa wa moyo au uharibifu wa mishipa, ambavyo vinaweza kuadhihi uwezo wa uendeshaji. Ni jambo la msingi, watu walio na ugonjwa wa kisukari kujua la kufanya ili kujilinda na kuwalinda wengine wanapoendesha magari barabarani.



Halmashauri ya usafiri na usalama wa magari barabarani ya Australia na New Zealand (Austroads), imebuni muongozo kwa madaktari ili kuwasaidia kujua ubora wa wagonjwa katika uendeshaji. Magonjwa ya kisukari na ya moyo ni baadhi tu ya mawili kati ya mengi, ambayo yana viwango vya ubora na miongozo maalum ya kiafya, na ambayo ubora ni lazima uwe wa kuridhisha ili kuweza kupewa kibali na bima ya uendeshaji.

Tatizo kuu la uendeshaji kwa wengi, ni kiwango cha chini cha sukari kwenye damu. Kinaweza kuadhihi uwezo wa dereva kutenda na kufikiria. Kiwango cha chini cha sukari kwenye damu kinaweza pia kusababisha mabadiliko katika dhamira na kupelekea

gari kupoteza mwelekeo. Watu wanaotumia Madawa fulani ya Ugonjwa wa kisukari na/au insulin wako katika adhara ya viwango vya chini vya sukari katika damu.

Muulize daktari wako au mshauri wa ugonjwa wa kisukari iwapo uko katika hali ya hatari.

Hyperglycaemia au Viwango vya juu vya sukari kwenye damu pia vinaweza kuadhihi uwezo wa uendeshaji kwa maana vinaweza kusababisha kupungua kwa uonaji, uchovu na kupunguka kwa uwezo wa kuwa makini.

Ubora wa afya unaotahitajika ili kupata leseni ya uendeshaji

Kibali kwa magari ya kibinafsi na ya kibiashara – Watu walio na ugonjwa wa kisukari na uangalizi wake hautumii Madawa, hawahitaji kutoa notisi kwa Halmashauri ya Uendeshaji na wanaweza kuendesha bila vikwazo vyovyote vya leseni. Hata hivyo, ni lazima waangaliwe mara kwa mara na daktari ili kuona jinsi ugonjwa unavyoendelea.

Leseni ya kibinafsi – Watu walio na ugonjwa wa kisukari na uangalizi wa kutumia Madawa, lakini sio insulin, na ambao hawana matatizo magumu ya ugonjwa hawahitaji kutoa notisi kwa Halmashauri ya Uendeshaji. Wanahitaji tu waangaliwe walau baada ya miaka 5 (Kwa kuhitimisha masharti ya Austroads). Iwapo hauna hali ya ugonjwa yoyote tata au ngumu, leseni ya muda inaweza kutolewa baada ya kupendekezwa na daktari wako.

Leseni ya kibiashara – Watu walio na ugonjwa wa kisukari na uangalizi wa kutumia madawa, lakini sio insulin, wanahitajika wenyewe kutoa notisi kwa Halmashauri ya Uendeshaji. Leseni ya muda inaweza kutolewa baada ya maoni ya mtaalamu wa magonjwa, hali ya kazi ya uendeshaji na walau mapendekezo ya kila mwaka (yanayo hitimu masharti/matakwa ya Austroads)

Diabetes and driving - *continued*

Commercial Licence – People with diabetes who are managed **with insulin** need to notify the Drivers Licensing Authority in person. A conditional licence may be granted subject to the opinion of the diabetes specialist, the nature of the driving task and annual review (meeting all other Austroads criteria).

Other factors can affect your driver's licence. Ask your doctor. Otherwise contact the Drivers Licensing Authority in your State:

- Australian Capital Territory - Department of Urban Services
Phone: (02) 6207 7000
- New South Wales - Roads and Traffic Authority NSW
Phone: (02) 9218 6888
- Northern Territory - Department of Planning and Infrastructure
Phone: (08) 8924 7905
- Queensland - Queensland Transport
Phone: 13 23 80
- South Australia - Department of Transport, Energy and Infrastructure
Phone: (08) 8343 2222
- Tasmania - Department of Infrastructure Energy and Resources
Phone: 13 11 05
- Victoria - VicRoads
Phone: (03) 9854 2666
- Western Australia - Department for Planning and Infrastructure
Phone: 13 11 56
(08) 9427 8191

If you require further information access the Austroads website
<http://www.austroads.com.au/aftd/index.html>

Leseni ya kibinafsi – Watu walio na ugonjwa wa kisukari na uangalizi wa insulin wanahitaji wenyewe kutoa notisi kwa Halmashauri ya Uendeshaji. Leseni ya muda inaweza kutolewa baada ya maoni ya mtaalamu/daktari anayekutibu, hali ya kazi ya uendeshaji na walau mapendekezo ya kila mwaka (yanayo hitimu masharti/matakwa yote mengine ya Austroads)

Leseni ya kibiashara – Watu walio na ugonjwa wa kisukari na uangalizi wa insulin wanahitaji wenyewe kutoa notisi kwa Halmashauri ya Uendeshaji. Leseni ya muda inaweza kutolewa baada ya maoni ya mtaalamu wa ugonjwa wa kisukari, hali ya kazi ya uendeshaji na walau mapendekezo ya kila mwaka (yanayo hitimisha masharti/matakwa yote mengine ya Austroads).

Hali zingine zinaweza kuadhiri leseni yako. Uliza daktari wako. Au wasiliana na Halmashauri ya Uendeshaji katika jimbo lako:

- Jamhuri ya Australia kati- Idara ya Huduma za Miji
Simu: (02) 6207 7000
- Jamhuri ya New South Wales – Halmashauri ya barabara na trafiki NSW
Simu: (02) 9218 6888
- Jamhuri ya Australia kaskazini - Idara ya Mipango na Miundo mbinu
Simu: (08) 8924 7905
- Jamhuri ya Queensland – Idara ya Usafiri-Queensland
Simu: 13 23 80
- Jamhuri ya Australia kusini– Idara ya Usafiri, Nishati na Miundo mbinu
Simu: (08) 8343 2222
- Jamhuri ya Tasmania - Idara ya Miundo mbinu, Nishati na Rasilimali
Simu: 13 11 05
- Jamhuri ya Victoria - VicRoads
Simu: (03) 9854 2666
- Jamhuri ya Australia magharibi - Idara ya Mipango na Miundo mbinu
Simu: 13 11 56
(08) 9427 8191

Iwapo unahitaji habari zaidi tembelea tovuti ya Austroads

<http://www.austroads.com.au/aftd/index.html>

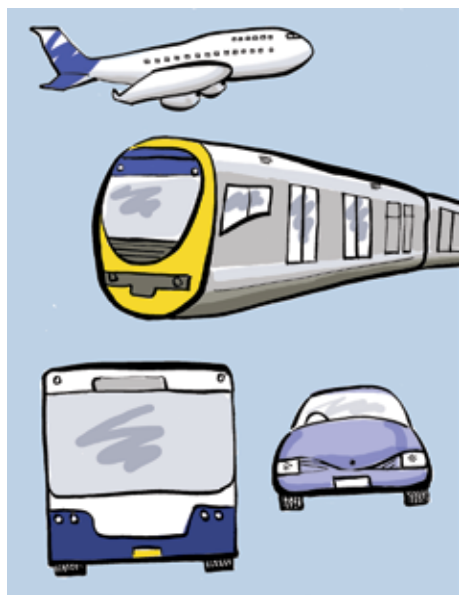
21 Diabetes and travel

Having diabetes does not mean your travelling days are over. To ensure you have a safe and enjoyable trip, be sure to plan ahead. Good preparation may seem time consuming but it will help to ensure you get the most out of your holiday.

- Discuss your travel plans with your doctor or diabetes educator. Also discuss medication adjustments for situations you may encounter such as crossing time zones, or when experiencing diarrhoea and/or nausea
- Carry several copies of a typed, signed letter from your doctor outlining your diabetes management plan, medications, devices you use to give medication (if applicable) and equipment needed to test your blood glucose level. You will also need to carry scripts for all medications (clearly detailing your name), doctors contact details, and both the name and type of medication, emergency contacts and your National Diabetes Services Scheme card



- Always wear some form of identification that says you have diabetes
- Pack more test strips, insulin, syringes, pens and other diabetes equipment than you will need for the trip. If possible, pack a spare meter in case of loss or damage
- Depending on your journey and destination, you may need to consider taking an insulated travel pack for your insulin
- Take a small approved sharps container for used lancets and syringes. Some airlines, hotels and airports offer a sharps disposal service
- Keep insulin, syringes/pens and testing equipment in your hand luggage. Do not place insulin in your regular luggage that will be placed in the cargo hold because it is not temperature controlled. The insulin may be damaged or lost



- When flying, check with the airline in advance for specific security guidelines as these are subject to change
- Customs regulations vary from country to country so it is advisable to contact the embassy of the country you're visiting before travelling
- When visiting some countries certain vaccinations are recommended. Information in regard to vaccinations can be obtained from your doctor
- The anticipation/stress of a trip or changes in routine may affect your blood glucose (sugar) levels, so you may need to check your blood glucose level more often
- Contact your airline about meal times and food available during your flight. It is also recommended that you carry your own supply of portable carbohydrates in case of unexpected meal delays or if

21 Kisukari na Usafiri

Kuwa na ugonjwa wa kisukari haumaanishi kwamba siku zako za usafiri zimeisha. Ili kuhakikisha kwamba unafurahia na kusafiri kwa usalama, hakikisha unapanga mapema kabla ya safari. Maandalizi mazuri kabla ya safari huenda yakaonekana kana kwamba yana kazi nyingi lakini yatakusaidia kuhakikisha utafurahia mengi katika likizo yako.

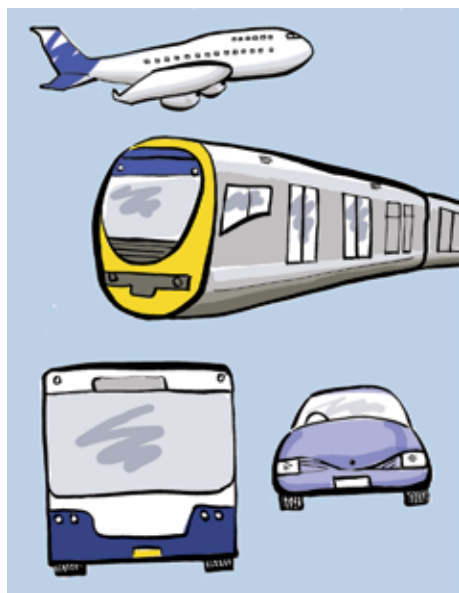
- Sungumza na daktari wako kuhusu mipango yako ya safari au mshauri wa ugonjwa wa kisukari. Na pia sungumzia kuhusu mabadiliko ambayo huenda ukakabiliana nayo kama vile, mabadiliko ya dira ya saa, au ukipata hali ya kuharisha na/au kinyefunyeifu
- Beba nakala kadha za barua iliyochapwa, na kusainiwa na daktari wako, ambayo inaonyesha



mpango wa uangalizi wa ugonjwa, madawa, vifaa tumizi vya madawa (ikiwezekana) na vifaa vinavyohitajika katika Upimaji wa sukari kwenye damu yako. Utahitaji pia kubeba nakala zozote za madawa ulioandikiwa (yakionyesha majina yako kamili), anwani/mawasiliano ya daktari, na jina na aina ya dawa, nambari za dharura na kadi yako ya bima ya huduma ya kitaifa ya Ugonjwa wa kisukari



- Kuwa na kitambulishi kila wakati kinachoelezea kwamba unayo ugonjwa wa kisukari
- Beba vikaratasi maalum vya upimaji, insulin, serinji, kalamu na vifaa vingine vinavyotumika katika uangalizi wa ugonjwa wa kisukari hata japo ni zaidi yana vinavyohitajika
- Kulingana na hali ya safari na unakoenda, huenda ukahitaji kubeba, mkoba wako wa kusafiria ulio na insulin
- Beba kifaa cha taka maalum cha kuweka taka ya vifaa/vitu vyenye makali vilivyotumika kama vile serinji na nyembe. Baadhi ya kampuni za ndege, hoteli na viwanja vya ndege hupeana Huduma ya kuweka taka kama hizi



- Weka insulin, serinji/peni na vifaa vya upimaji ndani ya begi yako ya mkononi. Usiweke insulin ndani ya mizigo yako mingine ambayo itawekwa katika sehemu za kuhifadhi mizigo kwa sababu hazina vifaa vya kuthibiti joto
- Unaposafiri na ndege, angalia kutoka kwa kampuni ya ndege kuhusu mipango ya kipekee ya usalama kwa sababu huenda ikabadilika wakati wowote
- Masharti ya uhamiaji hubadilika tokea nchi moja hadi nyingine na kwa hivyo unashauriwa kuwasiliana na ubalozi wa nchi unayotembelea kabla ya kuanza safari yako
- Unapotembelea baadhi ya nchi zingine, chanjo fulani zinapendekezwa. Habari kuhusu chanjo zinaweza kupatikana kutoka kwa daktari wako

Diabetes and travel - *continued*

you dislike the meal offered. If you take insulin with meals, do not give your insulin until your meal arrives.

- To help prevent blood clots move about the cabin at regular intervals and do chair based exercises. Drink plenty of water. Your doctor may advise you to wear support stockings
- If you are driving long distances make sure you stop regularly and take your blood glucose levels before and during your trip
- Carry a small first aid kit with you in case of minor illness or injury.

Useful websites are **www.dfat.gov.au** and **www.health.gov.au**

Travel insurance is highly recommended. Make sure it covers situations which may arise in relation to diabetes. The Australian Government has arrangements with some countries providing benefits similar to Medicare, if needed. Remember to take your Medicare card with you.

For more information, call Medicare Australia on 132 011 or visit: www.medicareaustralia.gov.au

At your destination

- Differences in activity, routines, food and stress may affect your blood glucose levels, check your blood glucose levels more often
- Food options may differ from home. It is important to maintain carbohydrate intake. If you are going to a different country do some research before you leave to help you make appropriate food choices
- Take care with food and drink choices, particularly in developing countries where food hygiene may not be adequate. Bottled water is preferable even for brushing teeth
- Protect your skin from sun burn
- Do not go barefoot. Be careful of hot sand and pavements. Check feet daily.

Kisukari na usafiri - ukurasa unaendelea

- Kutokuwa na utulivu/usumbufu mwilini kwa sababu ya mipango ya kusafiri, huenda kukaadhi viwango vya sukari kwenye damu, kwa hivyo unaweza kuhitajika kupima kiwango cha sukari mara nyingi unaposafiri.
- Wasiliana na kampuni ya ndege kuhusu muda wa kula na chakula kinachopatikana wakati wa kusafiri kwako. Imependekezwa pia kwamba, ubebe paki zako mwenyewe za uwanga ili kukusaidia iwapo kutakuwa na kucheleweshwa kwa mlo au iwapo hupendi chakula utakachopewa. Iwapo unatumia insulin pamoja na chakula, usiitoe kabla chakula hakijaletwa.
- Ili kukusaidia kuzuia kugandamana kwa damu, tembea tembea kidogo ndani ya ndege baada ya muda na pia ufanye mazaoezi madogo unapoketi. Tumia maji mengi. Daktari wako huenda akakushauri kuvaa nguo nyingi.
- Iwapo unasafiri kwenda mbali hakikisha unasimama na kuhumuka baada ya muda fulani na uangalia vipimo vyako vya sukari kwenye damu kabla na unapoendelea na safari.
- Beba sanduku dogo la huduma ya kwanza, japo ukipata magonjwa madogo au majeraha.

Tovuti muhimu ni **www.dfat.gov.au** na **www.health.gov.au**

Bima ya usafiri inapendekezwa zaidi. Hakikisha kwamba inakulinda dhidi ya adhari zote zinazohusishwa na ugonjwa wa kisukari. Serikali ya Australia ina mipango na baadhi ya nchi zingine kuhusu bima na manufaa yake kama vile ile ya Medicare, iwapo itahitajika. Kumbuka kubeba kadi yako ya Medicare.

Kwa habari zaidi, piga simu kwa Medicare Australia kupitia 132 011 au tembelea: www.medicareaustralia.gov.au

Ukifika mwisho wa safari

- Utofauti wa shughuli, mipango, chakula na usumbufu unaweza ukaadhi Viwango vya sukari kwenye damu, kwa hivyo angalia vipimo vyako kwa mara nyingi zaidi
- Vyakula vinavyopatikana huenda vikatofautiana na vya nyumbani. Ni muhimu kuendelea na mgao wako wa carbohydrate. Iwapo unasafiri kwenda nchi nyingine, fanya utafiti kuhusu vyakula vilivyomo kabla ya kuitembelea
- Kuwa makini na chakula na vinywaji unavyogua, na hasa katika nchi zinazoendelea ambako usafi wa chakula unaweza kuwa si mzuri. Maji ya chupa yaliyopakiwa ni afadhali hata unapoyatumia na mswaki wako
- Linda ngozi yako dhidi ya miale mikali ya jua
- Usitembee miguu mitupu. Kuwa mwangalifu dhidi ya sakafu na udongo ulio na ujoto. Angalia miguu yako kila siku

22 Need an Interpreter?

A free telephone interpreter service is available for people who may have difficulty in understanding or speaking English. This service is available through the Translating and Interpreting Service (TIS) of the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA).



TIS have access to professional interpreters in almost 2000 languages and dialects and can respond immediately to most requests.

Accessing an interpreter:

Simply ring the Translating and Interpreting Service on 131 450

Explain the purpose for the call e.g. wanting to talk to an educator/dietitian at Australian Diabetes Council.

The operator will connect you to an interpreter in the required language and to an Australian Diabetes Council health professional for a three-way conversation.

This free service has been set up by the Australian Diabetes Council and will be promoted with assistance from the Australian Government Department of Health and Ageing.

22 Unahitaji mkalimani?

Huduma ya bure ya simu ya mkalimani inapatikana kwa watu ambao wana ugumu wa kuelewa au kusungumza kiingereza. Huduma hii inapatikana kupitia Huduma ya Utafsiri (TIS) na Ukalemani ya Idara ya Uhamiaji na Tamaduni na Maswala ya Kienyeji (DIMIA).



TIS ina uwezo wa kupata wataalamu wa utafsiri katika lugha na lahaja karibia 2000 na inaweza kusaidia kupata huduma hii kwa waombaji wote.

Kupata huduma ya mkalimani:

Kupata huduma hii ni rahisi, piga simu kwa TIS kupitia 131 450. Elezea madhumuni ya kupiga k.m unahitaji kuongea na mwalimu/mshauri wa lishe bora kutoka Halmashauri ya Ugonjwa wa Kisukari-Australia.

Mhudumu wa simu atakuunganisha na mkalimani wa lugha uliyo omba na pia kwa mtaalamu kutoka Halmashauri ya Ugonjwa wa Kisukari-Australia kwa masungumzo ya ana kwa ana.

Huduma hii ya bure imeanzishwa na Halmashauri ya Ugonjwa wa Kisukari-Australia na ubora wake utatangazwa kwa msaada wa serikali ya Australia kupitia idara ya afya na Ukuaji wa umri.

23 National Diabetes Services Scheme (NDSS)

The NDSS is a federal government funded program, administered on behalf of the government by Australian Diabetes Council.

The NDSS provides free syringes and needles for those requiring insulin, as well as blood and urine testing strips at subsidised prices to those who are registered. Registration is free and you are only required to register once unless your treatment changes to require insulin.

You do not need a doctor's prescription to purchase NDSS products for diabetes management.

Registering for the NDSS

Once you have been diagnosed with diabetes, your doctor or credentialled diabetes educator can register you with the NDSS. If you are not sure whether you are registered with the NDSS, or want more information, call Australian Diabetes Council on 1300 342 238.

Where to buy NDSS products

You can buy products at Australian Diabetes Council offices or through pharmacy sub agents. You can also order your products from Australian Diabetes Council by phoning 1300 342 238 or visiting www.australiandiabetescouncil.com. Your products will be mailed to you free of charge.

Who should register for the NDSS?

Australian residents that have been diagnosed with diabetes by a doctor and who hold a current Australian Medicare card or Department of Veteran Affairs file number should register.

If you are a visitor to Australia and from a country with a Reciprocal Health Care Agreement, you may be entitled to temporary registration to the NDSS.

Please call Australian Diabetes Council on 1300 342 238 for further information.



The image shows a template for an NDSS Registration Card. It is a white rectangular card with rounded corners and a thin grey border. At the top, it says "national diabetes services scheme" in blue, with a smaller line below it: "The National Diabetes Services Scheme (NDSS) is an initiative of the Australian Government administered by Diabetes Australia". Below this is the text "NDSS Registration Number". There are three main sections for text entry: "Registrant Name", "Carer or Person in Charge", and "Issue Date". To the right of the "Carer or Person in Charge" section are two logos: the "ndss" logo in blue and the "Diabetes AUSTRALIA" logo, which consists of a green stylized 'G' shape and the word "Diabetes" in green above "AUSTRALIA" in blue.

23 Huduma ya Bima ya Kitaifa ya Ugonjwa wa Kisukari (NDSS)

NDSS ni mpango unaofadhiliwa na serikali ya majimboni, na kutekelezwa na Halmashauri ya Ugonjwa wa Kisukari kwa niaba ya serikali.

NDSS hutoa serinje na sindano za bure kwa wale wanaohitaji insulin, na pia vikaratasi maalum vya kupima damu na mkojo kwa bei iliyopunguzwa kwa wale waliosajiliwa. Usajili ni wa bure na unahitajika kujisajili mara moja tu, lakini unaweza kujisajili tena iwapo matibabu yako ya dawa yakibadilishwa na kuwa ya insulin.

Hauhitaji maagizo kutoka kwa daktari ili kununua bidhaa za NDSS kwa kukusaidia katika uandalizi wa ugonjwa wa kisukari.

Kusajiliwa na NDSS

Baada ya kuonekana na ugonjwa wa kisukari, daktari wako au mshauri wa ugonjwa wa kisukari anaweza kukusajili na NDSS. Iwapo hauna uhakika kama umesajiliwa na NDSS, au unahitaji habari zaidi, piga simu kwa Halmashauri ya Ugonjwa wa Kisukari kupitia 1300 342 238.

Sehemu za kununua bidhaa za NDSS

Unaweza kununua bidhaa za NDSS kutoka kwa ofisi za Halmashauri ya Ugonjwa wa Kisukari au maduka ya dawa ya maajenti. Unaweza pia kuagiza bidhaa zako kutoka Halmashauri ya Ugonjwa wa Kisukari kwa kupiga simu 1300 342 238 au tembelea tovuti: www.australiandiabetescouncil.com.

Ni nani anafaa kusajiliwa na NDSS?

Wenyeji wa Australia walionekana na daktari kuwa na ugonjwa wa kisukari na ambao walio na Kadi ya Medicare ya Australia au Namba ya faili ya Idara ya Maswala ya uraia wanapaswa kujisajili.

Iwapo wewe ni mtembezi nchini Australia na kutoka nchi inayotoa Kadi ya Bima ya afya yenye makubaliano na ya Medicare, unaweza kupata usajili wa muda kutoka kwa NDSS.

Tafadhali piga simu kwa Halmashauri ya Ugonjwa wa Kisukari kupitia 1300 342 238 kwa habari zaidi.



The image shows a template for a National Diabetes Services Scheme (NDSS) registration card. It is a white rectangular card with rounded corners. At the top, it says "national diabetes services scheme" in blue, followed by a smaller line: "The National Diabetes Services Scheme (NDSS) is an initiative of the Australian Government administered by Diabetes Australia". Below this is a line for "NDSS Registration Number". Further down is a line for "Registrant Name". Below that is a line for "Carer or Person in Charge". At the bottom is a line for "Issue Date". On the right side of the card, there are two logos: the "ndss" logo in blue and the "Diabetes Australia" logo in green.

24 Australian Diabetes Council

Australian Diabetes Council is a non-profit, non-government charity dedicated to helping all people with diabetes. It provides:

- education programs
- conducts public awareness campaigns
- funds research into diabetes management and the search for a cure
- advocacy, (protecting the rights of people with diabetes).

Australian Diabetes Council has a network of branches and support groups to provide support and encouragement for people affected by diabetes.

Our Customer Care Line has diabetes educators, dietitians and exercise physiologists available to provide personalised and practical assistance to benefit people with diabetes and their carers.

To find out about all the benefits of becoming a member of the Australian Diabetes Council contact 1300 342 238.



24 Halmashauri ya Ugonjwa wa Kisukari-Australia

Halmashauri ya Ugonjwa wa Kisukari-Australia, ni shirika la serikali lisilo la faida na ambalo linatoa Huduma kwa watu waliadhiriwa na ugonjwa wa kisukari. Inatoa huduma za:

- Mpango wa elimu
- Kampeini za kuwafahamisha watu kuhusu ugonjwa wa kisukari
- Kufadhili utafiti kuhusu uangalizi wa ugonjwa wa kisukari na kutafuta tiba yake.
- Uwakilishi (kulinda haki za watu walio na ugonjwa wa kisukari).

Halmashauri ya Ugonjwa wa Kisukari-Australia inayo mtandao wa matawi na vikundi simamizi ambavyo hutoa msaada na kuwapa moyo walio na ugonjwa wa kisukari.

Sehemu ya uangalizi wa wateja inayo waalimu wa ugonjwa wa kisukari, washauri wa ulezi bora na wanasaikolojia wa mazoezi ambao wanatoa huduma za kibinafsi na msaada wa kina ili kunufaisha wagonjwa wa kisukari na waangalizi wao.

Ili kupokea taarifa zote kuhusu manufaa ya kuwa mwanachama wa Halmashauri ya Ugonjwa wa Kisukari-Australia, piga simu nambari 1300 342 238.



*a Shared
Voice*
FOR DIABETES

For more information call us on

1300 DIABETES
1300 342 238

australiandiabetescouncil.com



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26 Arundel Street
Glebe NSW 2037

POSTAL ADDRESS
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