



Living with Diabetes: Diabetes Family Education – Part 2 / Somali

La noolaanshaha Cudurka Sonkorowga

Wacyigalinta Qoyska ee Sonkorowga: Qaybta 2
Waxaa soo bandhigay: Baraha kalkaalisada Cunto-yaqaanka



Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

PE3364SO
10/24
Patrick

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Ilaalinta guud ee guriga



- Musqulaha
- Carqaladeeyaasha
- Nasashada
- Badqabka
- Cuntada



2

Qorshaha maanta



Subaxii:

- Nafaqada iyo adiga
- Xisaabinta garoojooyinka insuliinta
- Maalmaha jirrada / maareynta keetoonka
- Dhaqdhaqaaqa jireed
- Hagaha daryeelka degdega ah ee sonkorowga
- Diiwaanada gulukoosta dhiigga
- Rajooyinka daryeelka dabagalka ah
- Tubaha loo maro qalabka sonkorowga
- Cilmi-baaris

Galabtii:

- La kulan Takhasuslaha Nolosha Ilmaha
- La kulan bixiyaha daryeelka sonkorowga
- La gabagabee kalkaalisada baraha ah



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Nafaqada iyo Adiga

Saleea

4

Isku xiridda xogaha...



Aynu dib u eegno diiwaanada gulukoosta dhiiggaaga iyo cuntada:

- Ma aragtaa xidhiidh u dhexeeya cuntada iyo tirooyinka sonkorta dhiigga?
- Goorma ayay ugu badan tahay heerarka gulukooska dhiiggaaga? Maxaa ka dhiga kuwa sarreeya?
- Goorma ayay cabbirada gulukoosta dhiiggaagu ugu hooseeyaan? Maxaa ka dhiga kuwa hooseeya?
- Ma lahayd wax cabbiro gulukoosta dhiigga ah ee ka hooseeya 70 mg/dL? Maxaad samaysaa?

5

Doorashada cuntada oo aan xadidnayn



- Miyuu qaabkan hadda wax loo cuno kugu habboon yahay?
- Maxaa ka dhigi lahaa wax cunista iyo cuntada mid si dheeraad ah loogu raaxaysto?
- Ma ka fikiri kartaa cuntooyinka aad ugu jeceshahay in aad rabto in aad isku daydo?
- Ma jirtaa dhacdo soo socota ama munaasabad gaar ah oo aad jeclaan lahayd inaad qorsheyso?
 - Tusaalayaasha: maalin dhalasho , kulan-dhaqan cunteed, maalinta biise dugsiyeedka, habbeenka aflaanta



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Xisaabinta karbohaydharaytyada markaad wax ka cunayso meel ka baxsan guriga



Xisaabinta karbohaydharaytka ee khibradda ku salaysan:

1. Ka hel cunto la mid ah keyd-cunteedka ama app-yada
2. Qiyaas qaybaha cunteed marka lala barbardhigo cabirka ku qoran app-yada/keyd-xogeedyada la tixraacay
3. La imow qiyaaso la mid ah
4. Dib u eeg qiyaasaha karbohaydharaytkaaga adigoo ku saleynayo natiijooyinka baaritaanka gulukoosta dhiiggaaga ee xiga

7



Xisaabinta karbohaydharaytyada soo'oyinka guriga



Aynu ka shaqayno soo'ada aad jeceshahay:

1. Ku qor walxaha iyo qiyaasta soo'ada oo dhan
2. Immisa saxan ama qayb cunteed ayay noqon doontaa?
3. Soo ogow qadarka karbohaydharaytka ee loogu talagalay maaddo kasta oo la isticmaalay
4. Isku dar dhammaan karbohaydharaytyada
5. U qaybi wadarta karbohaydharaytyada tirada cunto si aad u hesho qaddarta karbohaydharaytka ee loogu talagalay hal cunto

8

Qalab badan oo loogu talagalay cuntada karinta



Miisaanka Dijital ah



Barmaajiyada Telefoonka



MyFitnessPal



Nutrition Wizard



Glooko

Waqtiga Nasashada!
Fadlan ku soo noqo 10 daqiiqo gudahood

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Caleb



Xisaabinta Garoojooyinka Insuliinta

Olivia

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Xisaabinta garoojooyinka insuliinta



Waxaad u baahan tahay insuliinta sida degdegga u shaqaysa laba sababood dartood:

1. Cunidda ama cabidda wax karbohaydharaytyo leh
2. Macaanka dhiigu uu ka sarreeyo xadka



Eeg "Insuliinta Basal-Bolus: Daawada Insuliinta ee Waqtiga Dheer Shaqaysa iyo Daawada Insuliinta Sida Degdegga ah u Shaqaysa"(PE1255) ee ku jira Qaybta 2 ee Buug-gacmeedyada.

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Qeexitaannada garoojooyinka insuliinta



- **Saamiga Insuliinta iyo Karbohaydharaytka:**

1 halbeeg oo insuliin ah ayaa dabooli doonta ____ garaam oo karbohaydharaytka ah



- sku dheelitirka saxitaanka:

1 halbeeg oo insulin ah ayaa la filayaa inay hoos ugu dhigto gulukoosta dhiigga _____ mg/dL



- **Gulukoosta Dhiigga ee Bartilmaameedka ah:**

Iyadoo lagu salaynayo da'da

Tirada kala duwan ee loogu talagalay maalintii iyo waqtiga jiiifka/habbeenkii



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Saamiga insuliinta iyo karbohaydharaytka



Waxaa loo isticmaalaa in lagu xisaabiyo garoojada insuliinta ee sida degdegga ah u shaqaysa si **loo daboolo karbohaydharaytada** ku jira cuntada/cabitaannada

$$\frac{\text{Garaamyada karbohaydharaytada}}{\text{Saamiga insuliinta iyo karbohaydharaytka}} = \text{Garoojada karbohaydharaytka}$$

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Sixitaanka garoojada



Waxaa loo isticmaalaa in lagu xisaabiyo garoojada insuliinta sida degdegga ah u shaqaysa si loo **yareeyo** gulukoosta dhiigga ee sarreysa

$$\frac{\text{Gulukoosta Dhiigga ee Hadda} - \text{Gulukoosta Dhiigga ee Bartilmaameedka ah}}{\text{Qadarka insuliin ee loo baahan yahay si hoos loogu dhigo heerka sonkorta dhiigga}} = \text{Garoojada Sixitaanka}$$

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Gulukoosta Dhiigga ee Bartilmaameedka ah (BG)



Macaanka dhiigga ee hooseysa



Gulukoosta dhiigga ee sarreysa

Kala duwanaanshaha yoolka

16

Markii la`isku soo wada duubo...



Cunto _____

$$\begin{array}{l}
 \text{Cunista} \\
 \text{karbohaydraytyada}
 \end{array}
 \frac{\quad}{\quad} \div \frac{\quad}{\quad} \text{ (saamiga karbohaydrayt)} = \frac{\quad}{\quad} \text{ Qiyaasta cuntada}$$

$$\begin{array}{l}
 \text{Gulukoosta} \\
 \text{dhiigga ee} \\
 \text{bartilmaameedk} \\
 \text{ah (BG)}
 \end{array}
 \frac{\quad}{\quad} - \frac{\quad}{\quad} \text{ (bar} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} \text{ (qiyaasta insulin ee loobaahanyahay in ay hoos u dhigto sonkorta dhiiga))} = \frac{\quad}{\quad} \text{ Qiyaasta Gulikosta dhiiga Bartilmaameedka ah BG}$$

Wadarta guud ee qiyaasta insuliinta **unugyada**

Si wadajir ah ugu dar garoojada insuliinta ee loogu talagalay cuntada iyo Gulukoosta Dhiigga ee Bartilmaameedk ah (BG)

Had iyo jeer jawaabtaada ugu dambeysa **HOOS** ugu soo celi nus barka u dhow halbeegga

Eeg "Xaanshida Loogu Talagalay Xisaabinta Garoojooyinka Insuliinta" (PE3232) ee ku jira Qaybta 2-aad ee Buug-gacmeedyada.

Markii la`isku soo wada duubo...



Tusaale: Saamiga u dhexeeya insullinta iyo karbohaydharaytka = 1:10 Sixitaanka Garoojada = 50 Gulukoosta Dhiigga (BG) ee Bartilmaameedka ah = 100 maalin / 150 habbeen

Cunto _____

Quraacda

$$\begin{array}{l}
 \text{Cunista} \\
 \text{karbohaydraytyada}
 \end{array}
 \frac{60}{\quad} \div \frac{10}{\quad} \text{ (saamiga karbohaydrayt)} = \frac{6}{\quad} \text{ Qiyaasta cuntada}$$

$$\begin{array}{l}
 \text{Gulukoosta} \\
 \text{dhiigga ee} \\
 \text{bartilmaameedk} \\
 \text{ah (BG)}
 \end{array}
 \frac{240}{\quad} - \frac{100}{\quad} \text{ (bar} = \frac{140}{\quad} \div \frac{50}{\quad} \text{ (qiyaasta insulin ee loobaahanyahay in ay hoos u dhigto sonkorta dhiiga))} = \frac{2.8}{\quad} \text{ Qiyaasta Gulikosta dhiiga Bartilmaameedka ah BG}$$

Wadarta guud ee qiyaasta insuliinta **8.8 unugyada**

Si wadajir ah ugu dar garoojada insuliinta ee loogu talagalay cuntada iyo Gulukoosta Dhiigga ee Bartilmaameedk ah (BG)

8.8 halbeeg ayaa **HOOS** uugu soo celin doona 8.5 halbeeg oo insuliin ah

Had iyo jeer jawaabtaada ugu dambeysa **HOOS** ugu soo celi nus barka u dhow halbeegga

Markii la`isku soo wada duubo...



Arabelle

Garoojada insuliinta ee ilmahaaga

hadda qaato waa:

- Saamiga insuliinta iyo karbohaydharaytka (I:C) = _____
- Sixitaanka garoojada (CF) = _____
- Bartilmaameedka gulukoosta dhiigga (BG) = _____ maalin / _____ habbeen

Hadda aynu si wadajir ah u barano caqabadaha!

Garoojooyinkaan waxay beddeli doonaan booqashooyinka mustaqbalka ee rugaha caafimaadka iyadoo lagu saleynayo heerarka sonkorta dhiigga, A1c, koritaanka, qaangaarka, iyo arrimo kale

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“sharciga” 3 saac kadib



Ha siin garoojada sixitaanka ee loogu talagalay gulukoosta dhiigga ee sarraysa hadday ka soo wareegtay wax ka yar 3 saacadood markii ugu dambaysay ee lagu duray irbadda Humalog/NovoLog. Dabool kaarbohaydarayyada oo kaliya!

- Tani waxay muhiim u tahay in laga hortago ka qaadashada insuliin badan irbadda Humalog/Novolog taasoo keeni karta gulukoosta dhiigga oo hoos u dhacda
- Irbadda Humalog/Novolog waxay wax ka qabataa inay hoos u dhigto gulukoosta ku jirta jirka muddo 3 saacadood ah



**3
SAACADOOD**

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“Xeerka” 3 saac kadib



Tusaale:	Wakhtiga	Gulukoosta Dhiigga ee Bartilmaameedka ah (BG)	Garoojada Karbohaydharaytka	Garoojada Sixitaanka
	Quraacda 8:00 SUBAXNIMO	280	Ha	Ha
	Cunto fudud 10:00 SUBAXNIMO	170	Ha	Maya, kaliya 2 saacadood ayaa ka soo wareegatay markii lagu duray irbadda Humalog/Novolog
	Qaddada 12:00 GALABNIMO	218	Ha	Maya, kaliya 2 saacadood ayaa ka soo wareegatay markii lagu duray irbadda Humalog/Novolog
	Cunto fudud 3:00 GALABNIMO	298	Ha	Haa, waxaa laga joogaa ugu yaraan 3 saacadood tan iyo markii ugu dambaysay ee irbadda Humalog/Novolog lagu duray oo gulukoostu waa mid sarreysa
	Cashada 5:00 GALABNIMO	236	Ha	Maya, kaliya 2 saacadood ayaa ka soo wareegatay markii lagu duray irbadda Humalog/Novolog
	Waqtiga hurdada 9:00 GALABNIMO	315	Maya, waxba ma cunin	Haa, waxaa laga joogaa ugu yaraan 3 saacadood tan iyo markii ugu dambaysay ee irbadda Humalog/Novolog lagu duray oo gulukoostu waa mid sarreysa. Isticmaal gulukoosta dhiigga (BG) ee bartilmaameedka ah waqtiga jifka si aad u xisaabiso garoojada.
	Habbeenka 2:00 SUBAXNIMO	125	Maya, waxba ma cunin	Maya, gulukoosta waxay ku dhex jirtaa qiyaasaha sidaas darteed looma baahna garoojada sixitaanka

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Su'aalaha soo noqnoqda ee ku saabsan garoojada insuliinta



Suaasha #1:

Waxaan xisaabiyay garoojada insuliinta ee ilmahaygu qaato xilliga quraacda waxaana helay jawaab ah 3.9 halbeeg. Ma soo koobin karaa ilaa 4 cutub?

- Waxaan ku baraynaa inaad HOOS ugu soo celiso si aad khatarta gulukoosta dhiigga ee hooseeysa uga yarayso isuliinta xad-dhaafka ah
- Waxaad HOOS ugu celin doontaa nus barka u dhow, kaasoo noqon doona 3.5 halbeeg

Suaasha #2:

Gulukoosta dhiigga ilmahayga waqtiga jifka waa 130 mg/dL. Bartilmaameedkooda xilliga habbeenkii waa 150 mg/dL. Ma u baahanahay inaan siiyo karbohaydharaytada aan daboolin si aan u gaarsiiyo heerka sonkorta dhiigga ugu yaraan 150 mg/dL ka hor inta aysan seexan?

- Maya, ilmahaagu wuu ku seexan karaa gulukoosta dhiigga oo dhan 130 mg/dL
- Bartilmaameedka waqtiga habbeenka keliya waxaa loo adeegsadaa xisaabinta garoojooyinka marka la saxayo gulukoosta dhiigga ee sarraysa waqtiga jifka/habbeenkii. Ilmahaagu ma ahan inuu cabbirkiisu joogo tiro dhan ama ka sarreysa bartilmaameedka habbeenkii kahor inta uusan seexan

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Su'aalaha soo noqnoqda ee ku saabsan garoojada insuliinta



Suaasha #3:

Heerka gulukooska dhiigga ee cunugeyga 3:00 SUBAXNIMO wuxuu ka sareeyaa heerka gulukooska dhiigga ee habeenkii. Waan xisaabiyay garoojada sixitaanka ee insuliinta waxaana helay jawaab ah 0.3 halbeeg. Ma siiyaa wax insuliin ah?

- Maya, tiro kasta oo ka yar 0.5 halbeeg ayaa HOOS ugu soo celin doonaa 0 halbeeg oo insuliin ah. Ilmahaagu dib ayuu u seexan karaa!

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Maalmaha Jirrada / Maareynta Keetoonka

Saleea

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Keetonada: gundhigga



Maxay yihiin keetonada?

- Wasakhda ka dhalata burburka ku dhaca dufanka/barruurta/xayrta
- Marka jirkeenu uusan haysan insuliin ku filan oo gulukoosta u qaada unugyada si ay tamar uga helaan, jirkeenu wuxuu burburiyaa baruurta/xayrta si uu tamar uga helo



Waa maxay sababta la isaga baaro keetonka?

- Baaritaanka Keetonka AAD buu muhiim u yahay!
- Heerarka sareeya ee keetoniska jirka waxay sababi karaan cudurka macaanka keetoosidhooisis (DKA), taasoo keeni karta xanuun daran, haddii aan si degdeg ah loo daaweyn waxayna u horseedi kartaa dhimasho

Eeg "[Maalmaha Jirrada/Maareynta Keetonka](#)" (PE3233) ee ku jira Qaybta 2 ee Buug-gacmeedyada.

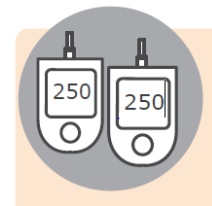
25

Keetonada: goorta iyo sida loo baaro



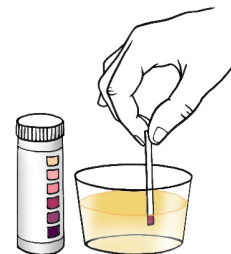
Goorma ayaa la hubinayaa keetonada?

- Haddii gulukoosta dhiigu ay ka sarreyso 250 mg/dL laba jeer oo isku xigta, ama haddii ay ka badantahay 300 mg/dL in ka badan 3 saacadood.
- Ilmahaagu markuu buko, iyadoon loo eegin heerka gulukoosta dhiiggiisa
- Ilmahaagu uu yeesho yalaalugo ama uu matagayo



Sidee loo baaraa keetonada?

- Habka ugu caansan waa in la baaro keetonada ku jira kaaddida



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Keetoniska: Jadwalka qiyaasidda



Heerka keetonka	Tallaabada la qaadayo
Waxba, Raadka, ama Yar	<p>Macaanka dhiigu uu ka sarreeyo xadka:</p> <ul style="list-style-type: none"> • Siinta qiyaasta saxda ah ee caadiga ah ee sonkorta dhiigga ee sareysa • Cab biyo dheeraad ah • Hubi heerka sonkorta dhiigga iyo keetonka 3 saacadood ilaa keetonka ay noqdaan kuwo aan jirin
Dhexdhexaad	<p>Hadii guluukoska dhiiga ay kasarayso 200 mg/dL:</p> <ul style="list-style-type: none"> • Sii qiyaasta saxda ah ee caadiga ah x 1.5 = qiyaasta insuliin ee la siinayo • Cab biyo dheeraad ah • Hybi heerka sonkorta dhiigga iyo keetonka kasta 3 saacadood oo sii qiyaasta saxda ah ilaa keetonku ay noqdaan kuwo aan jirin (negative) <p>Hadii guluukoska dhiigu uu ka hooseeyo 200 mg/dL:</p> <ul style="list-style-type: none"> • Sii dareeraha sonkorta leh sida Gatorade (ha siin insulin la socdo) • Mar kale hubi heerka sonkorta dhiigga 15 daqiiqo kasta ilaa heerka sonkorta dhiigga uu ka bato 200, ka dibna sii insulin dheeraad ah ketones dhexdhexaad ah.

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Keetonka: Jadwalka Garoojada



Heerka keetonka	Tillaabada laqaadayo
Weyn	<p>Hadii guluukoska dhiiga ay kasarayso 200 mg/dL:</p> <ul style="list-style-type: none"> • Sii qiyaasta saxda ah ee caadiga ah x 2 = qiyaasta insuliin ee la siinayo • Cab biyo dheeraad ah • Hybi heerka sonkorta dhiigga iyo keetonka kasta 3 saacadood oo sii qiyaasta saxda ah ilaa keetonku ay noqdaan kuwo aan jirin (negative) <p>Hadii guluukoska dhiigu uu ka hooseeyo 200 mg/dL:</p> <ul style="list-style-type: none"> • Sii dareeraha sonkorta leh sida Gatorade (ha siin insulin la socdo) • Mar kale hubi heerka sonkorta dhiigga 15 daqiiqo kasta ilaa heerka sonkorta dhiigga uu ka bato 200, ka dibna sii insulin dheeraad ah ketones dhexdhexaad ah.

- Fadlan tixraac buug-gacmeedka “**Maalmaha Jirrada/Maareynta Keetonka**” ee ku jira Dabakarka si aad u hesho tilmaamo ku saabsan qaadashada garoojada insuliinta ah ee dheeraad ah ee loogu talagalay keetonka
- Fadlan wac **qalabka dhawaaqa ee sonkorowga** si lagaaga caawiyo qaadashada insuliinta haddii aadan hubin waxa ay tahay in la sameeyo **(206-987-2000)**

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Keetonka: sida loo daaweeyo

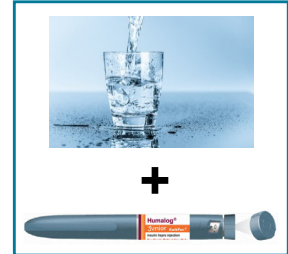


Haddii keetonadu ay yihiin kuwo taban, aad u yar ama yar:

- Cab biyo dheeraad ah
- Sii garoojada sixitaanka ee insuliinta haddii gulukoosta dhiiggu ay sarreyso

Haddii keetonadu dhexdhexaad yihiin ama waaweyn yihiin:

- Cab biyo dheeraad ah
- **Ilmahaagu wuxuu u baahan doonaa insuliin dheeraad ah si ay u nadiifiyaan keetonada**
- Fadlan tixraac buug-gacmeedka “**Maalmaha Jirrada/Maareynta Keetonka**” ee ku jira Dabakarka si aad u hesho tilmaamo ku saabsan qaadashada garoojada insuliinta ah ee dheeraad ah ee loogu talagalay keetonka
- Fadlan wac **qalabka dhawaaqa ee sonkorowga** si lagaaga caawiyo qaadashada insuliinta haddii aadan hubin waxa ay tahay in la sameeyo **(206-987-2000)**



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Marka ilmahaaga qabo sonkorowga uu buko

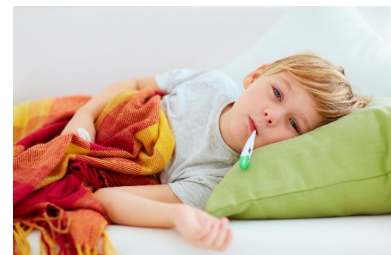


Maxaa dhici kara?

- Heerarka gulukoosta dhiigga ayaa laga yaabaa inay sare u kacdo iyadoo ugu wacan tahay ka jawaab-celinta diiqada ee jirka
- Keetono ayaa la yeelan karaa, xitaa iyadoo heerarka gulukoosta ay caadi yihiin
- Insuliin badan ayaa loo baahan karaa si looga hortago ama loo daaweeyo keetonada

Maxaan sameeyaa?

- Si fiican biyo u sii ilmahaaga
- **La socio heerarka gulukoosta iyo keetonada 3 saacadoodba mar**
- Fadlan tixraac buug-gacmeedka “**Maalmaha Jirrada/Maareynta Keetonka**” ee ku jira qaybta Dabakarka si aad u hesho tilmaamo dheeraad ah oo ku saabsan maareynta Maalmaha Jirrada ee Sonkorowga



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Maxaad samaynaysaa haddii...



Xaalada #1:

Ilmahaagu markuu subaxdii soo tooso oo dhaho waan xannuunsanahay oo calooshuna way i xannuunaysaa.

- Hubi heerarka gulukoosta dhiigga iyo heerarka keetonka
- Dib u eeg buug-gacmeedka “Maalmaha Jirrada/Maareynta Keetonka” si aad u aragto in insuliin dheeraad ah loo baahan yahay
- Sii wad inaad hubiso heerarka gulukoosta dhiigga iyo heerarka keetonka saddexdii saacadoodba mar ilaa ilmahaagu ka dareemo fiicnaan oo uusan ka qabin wax keetono ah

Xaalada #2:

Ilmahaagu markuu buko oo uu qabo keetono waaweyn. Heerka macaanka dhiigoodu waa 150 mg/dL.

- Sii karbohaydharayt (bilaa insuliin) si aad u keento gulukoosta dhiigga heer ka badan 200 mg/dL si insuliin dheeraad ah loo siiyo loogana daaweeyo keetonada waaweyn
- Marka gulukoosta dhiiggu ay ka sarreyso 200 mg/dL, sii garoojada sixitaanka ee caadiga ah oo labalaab ah si looga daaweeyo keetonada waaweyn
- Sii wad inaad hubiso gulukoosta dhiigga iyo keetonada 3-dii saacadoodba mar inta ilmahaagu buko

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Dhaqdhaqaaqa Jireed

Ashton

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Tilmaamaha dhaqdhaqaaqa jireed



- Dhaqdhaqaaqa jirka guud ahaan wuxuu hoos u dhigaa gulukoosta dhiigga
- Nooca dhaqdhaqaaqa, muddada, iyo darnaanta ayaa saameyn ku yeesha heerarka gulukoosta dhiigga
- Waa muhiim in la hubiyo gulukoosta dhiigga ilmahaaga ee hore, inta lagu gudajiro, iyo kadib dhaqdhaqaaqa jireed

Tilmaamaha guud:

Cun 15g oo karbohaydharayt ah (bilaa insuliin) ee loogu talagalay 30-kii ilaa 60-kii daqiiqo ee dhaqdhaqaaq jireed ah

Eeg "Liiska Hubinta Jimicsiga" (PE2623) ee ku jira Qaybta 2 ee Buug-gacmeedyada.

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Dhaqdhaqaaqa aan la qorshayn iyo dhaqdhaqaaqa la qorsheeyay



Dhaqdhaqaaqa aan la qorsheyn

- Cun 15g oo cunto fudud ah bilaa insuliin (waxay ku xiran tahay heerka gulukoosta dhaqdhaqaaqa kahor)

Dhaqdhaqaaqa la qorsheeyay

- Haddii aad firfircoon tahay 1 ilaa 2 saacadood kadib markaad qaadato cuntada ama cunto fudud, waxaad ka gooynta/jari kartaa 15g wadarta karbohaydharaytyada ee aad u qaadato insuliinta

Tusaale: $60g - 15g = 45g$

keliya qaado garoojo dhan 45g iyadoo ugu wacan dhaqdhaqaaqa la filayo



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Maxaad samaynaysaa haddii...



Xaalada #1:

Adiga iyo ilmahaagu markaad raacaysaan baaskiil muddo 1 saac ah. Waxaad hubisaa gulukoosta dhiigooda kahor inta aynan bixin oo ay tahay 155 mg/dL.

- Ilmahaagu ha cuno 15g oo cunto fudud ah (bilaa insuliin) iyadoo ugu wacan dhaqdhaqaaqa la filayo
- Horay u qaado cabbiraha gulukoosta dhiigga (BG), aqoonsiga (ID) caafimaadka, cuntooyin fudud iyo biyo dheeraad ah markaad baaskiil wadayso
- Ka hubi gulukoosta dhiigga 30 daqiiqo kadib oo cun 15g oo cunto fudud ah haddii gulukoosta dhiiggu hoos u dhacayso

Xaalada #2:

Ilmahaaga marka lagu casuumo guriga deriska si uu ugu boodboodo leexada. Hubi gulukoosta dhiigooda markaas kahor iyo inay tahay 75 mg/dL.

- Cunugaagu ha cuno/ cabo 15g oo karbohaydharaytada dhaqsaha badan (insuliin la'aan ah) maadaama gulukoosta dhiigu xadka hooseeyo
- Dib u eeg gulukoosta dhiigga 15 daqiiqo kadib si aad u hubiso in gulukoosta dhiiggu ay kor u kacayso kahor inta aadan bilaabin dhaqdhaqaaqa
- Marka gulukoosta dhiiggu ay ka sarreyso 100 mg/dL, sii ilmahaaga 15g cunto fudud ah oo dheeraad ah oo leh borotiin iyo dufan (bilaa insuliin). Dib u eeg gulukoosta dhiigga 30 daqiiqo kadib.

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Maxaad samaynaysaa haddii...



Xaalada #3:

Ilmahaagu wuxuu rabaa inuu aado barxadaha oo uu ku ciyaaro garoonka ciyaaraha. Waxaad hubisaa gulukoosta dhiigooda kahor inta aynan bixin oo ay tahay 280 mg/dL.

- Ka baar keetonada mar haddii gulukoosta dhiiggu ka sarreeyo 250 mg/dL kahor inta uusan dhaqdhaqaaqu bilaaban. Haddii keetonadu dhexdhexaad yihiin ama weyn yihiin, waa in aysan jimicsan. Raac tilmaamaha ku jira buug-gacmeedka "Maalmaha Jirrada/Maareynta Keetonka".
- Ilmahaagu uma baahna inuu cuno cunto fudud kahor inta uusan bilaabin dhaqdhaqaaqa marka heerka gulukoosta dhiiggiisa ee sarreysa ay gaarsiisan tahay 280 mg/dL. Ka baar gulukoosta dhiigga 30 daqiiqo kadib si aad u ogaato inay iskeed hoos ugu soo dhacayso marka la sameeyo dhaqdhaqaaqa.

Xaalada #4:

Ilmahaagu markuu ciyaarayo kubbadda cagta ee loollanka leh . Gulukoosta dhiiggoodu wuxuu ahaa 180 mg/dL haaf-kaambiyihii, laakiin ciyaarta kadib gulukoosta dhiiggiisa wuxuu kor ugu kacay ilaa 350 mg/dL iyadoo uusan qaadan wax karbohaydharayt ah.

- Kor u kaca gulukoosta dhiigga ayay u badan tahay inay sabab u tahay falcelinta dareemeed ee ciyaarta. Sii ugu yaraan nus qiyaasta saxda ah ee sonkorta dhiigga oo sareysa ka dib jimicsiga, maadaama ay iskeed u dhici karto saacadaha soo socda.

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Hagaha Degdegga ah ee Daryeelka Sonkorowga

37



Fiiri gulukoos



ka hor



hurdada



dhexda 1 iyo 3 subax

Bixi daawada insulin

- Bixi daawada Humalog/Novolog 15 daqiiqo ka hor cuntooyinka.
- Marwalba bixi daawada insulin si aad ugu dabooشو cuntooyinka kaarb ah (marka laga reebo cuntooyinka kaarb ah ee loo cuno jimicsiga ama daawaynta gulukooska dhiigga ku yar).
- Raac xeerka 3 saacad: ha bixin qiyaas saxid haddii in ka yar 3 saacad ay ka soo wareegtay tan iyo mudistii ugu dambaysay ee daawada Humalog/Novolog; hase yeeshee, marwalba ku dabool cuntooyin kaarb.
- Isticmaal xaashidaada shaqada xisaabinta insulin si aad u ogaato qiyaasta insulin ee aad bixinayso.

Saamigayga insulin iyo kaarb:	Isirkayga sixidda:	Shiishka (yada) gulukoos dhiig:	Maal:
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Cuntooyin kaarb oo dheeraad ah u bixi jimicsiga

U bixi 15 garaam ee cuntooyin kaarb ah (insulin la'aan) 30kii ilaa 60kii daqiiqo ee jimicsi ah.

Ka fiiri kiimikada ketone:

- Haddii gulukooska dhiiggaagu ka sarreeyo 250 mg/dL labo jeer oo isku xigta
- Marka ilmahaagu buko, si kaste ha noqdo heerka gulukooska dhiiggu
- Haddii ilmahaagu uu matagayo

Haddii kiimikada ketone ku jirto, eego buugyaraha Maamul kiimiko Ketone (Ketone Management).

70 Tallaabooyinka lagu daaweeyo gulukooska dhiigga ku yar (ka yar 70 mg/dL)

- Bixi 15 garaam ee cunto kaarb ah oo dhakhso u ficil gasha (tusaale: 4 wiqiyad ee casiri miro).
- Dib u fiiri gulukooska dhiigga 15 daqiiqo ka dib.
- Dib ugu celi tallaabooyinka sare haddii gulukooska dhiiggu uusan ka sarraayn 70 mg/dL.
- Marka gulukooska dhiiggu dhaafo 70 mg/dL, qaado 15 garaam ee cuntooyin kaarb ah oo lagu qasay borotiin iyo dufan (tusaale: burcad iyo buskud karaakar, cad granola) adigoo bixinin daawada insulin.

Hagaha Degdegga ah ee Daryeelka Sonkorowga



- Wargelin degdeg ah oo ku saabsan hawlaha muhiimka ah ee daryeelka sonkorowga
- Wuxuu siin karaa nuqullada buug-gacmeedka xubnaha qoyska iyo/ama daryeelayaasha/xanaaneeyayaasha



Eeg “Tilmaamaha Degdegga ah ee Daryeelka Sonkorowga” (PE3231) ee ku jira Qaybta 2 ee Buug-gacmeedyada.

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Diiwaanada Gulukoosta Dhiigga

Saleea

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Diiwaanka Gulukoosta Dhiigga



Garoojada Hadda	Tusaale	Garoojo	Garoojada Hadda	Tusaale	Quraacda	Qaddada	Cashada	Faallooyinka
Garoojada Lantus a.m.	12		Saamiga Kaarbohaydaraytka	1/20				
Garoojada Lantus p.m.	12		Qadarka insuliin ee loo baahan yahay si hoos loogu dhigo heerka sonkorta dhiigga	1/50				
			Gulukoosta Dhiigga (BG) ee Bartilmaameedka ah	120				

Taariikh:

	12 a.m.	3 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	12 duhurnimo	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.
Gulukoosta Dhiigga:																				
Karbohaydraytyada:																				
Insuliinta:																				

Faallooyinka waalidka

Taariikh:

	12 a.m.	3 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	12 duhurnimo	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.
Gulukoosta Dhiigga:																				
Karbohaydraytyada:																				
Insuliinta:																				

Faallooyinka waalidka

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Qaabab kala duwan oo macluumaadka loo qoro/diiwaangeliyo



App-yada Cabbiraha Gulukoosta Dhiigga (BG)

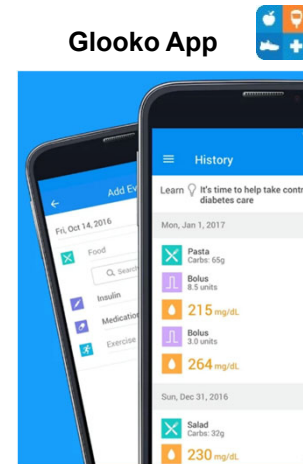


Buukga diiwangalinta

	Breakfast		Lunch		Dinner		Bedtime		During the Night	
	Time	Level	Time	Level	Time	Level	Time	Level	Time	Level
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										

Weekly Blood Sugar Notes

Glooko App



Diiwaanka SCH Excel

Current Dose	Example	Current Dose	Example	Breakfast	Lunch	Dinner	Comments														
Lantus Dose AM	12	Carb Ratio	1/20																		
Lantus Dose PM	12	Correction Factor	1/50																		
		Target BG	120																		
Date																					
Blood Glucose	12A	3A	6A	7A	8A	9A	10A	11A	12N	1P	2P	3P	4P	5P	6P	7P	8P	9P	10P	11P	
Carbohydrates																					
Insulin																					
Parent Comments:																					

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Muddada kalhuuriska

- Wax yar kadib marka la ogaado unugyada sameeya insuliinta waxay sii wadi karaan soo saarista insuliinta muddo kumeelgaar ah
 - Soo saarista insulintu way ku kala duwan yihiin marka loo eego tirada iyo muddada qof-ka-qof
 - Waxay u badan tahay inay tahay in lagu duro insuliin yar inta lagu gudajiro xilligan
 - **Waxaa loo baahan karaa sixitaanada garoojada insulinta oo joogto ah**
- Tani qasab ma ahan inay ku dhacdo qof *kasta* oo qaba Nooca 1 ee sonkorowga



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Rajooyinka Dabagalka

Ashton

43

Dabagalka rugta sokorowga

- Booqashada ugu koowaad ee kooxda sonkorowga ayaa dhici doonta 2 ilaa 4 toddobaad kadib
 - Filo booqasho muddo dheer ah
 - Waxaad arki doontaa bixiye, kalkaaliye caafimaad, cunto-yaqaan iyo shaqaale bulsheed
- Balamaha dabagal ah 3dii biloodba mar
 - U soo qaado cabbiraha gulukoosta dhiigga balamaha oo dhan
 - Booqo bixiyaha iyo baraha kalkaalisada ah ee sonkorowga
 - Kooxda sonkorowga ayaa booqasho sameeya sannadkiiba mar ama haddii loo baahdo
 - Duritaanka yar ee farta si loo cabbiro heerka Hemogolobiinka A1c



Eeg “Sababta Kooxda Sonkorowga Booqashadu U Samaynayaan?” (PE2419) ee ku jira Qaybta 2 ee Buug-gacmeedyada.

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Heemogolobiinka A1c



- Celcelis ahaan gulukoosta dhiigga 3-dii bilood ee la soo dhaafay
 - Wuxuu cabbiraa qadarka gulukoosta ee ku dhegta hemogolobiinka ku jira unugyada dhiigga cas
- Hadafka lagu taliyay ayaa ka yar 7% marka la eego dadka ka yar 18 sano jir
 - Sonkorowga oo si wanaagsan loo xakameeyo wuxuu hoos u dhigaa halista loogu jiro dhibaatooyinka mustaqbalka fog ee ka iman kara cudurka sonkorowga

HbA1c %	Celceliska BG (gulukoosta dhiigga) glukometer-ka ayaa lagu cabbiraa milligrams halkii deciliter ee dhiigga (mg/dl)	
5%	97	CAGAAR (inta lagu talinayo)
6%	120	
7%*	150	
8%	180	HURUUD (xadka ka sarreeya – ka fikir waxkabada)
9%	210	
10%	240	GUDUUD (xadka ka sarreeya - isbeddellada loo baahan yahay)
11%	270	
12%	300	
13%	330	
14% iyo kasareeya	360 iyo kasareeya	

Eeg “Ku Saabsan Hemogolobiinka A1c” (PE1517) ee ku jira Qaybta 2-aad ee Buug-gacmeeyada.

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Sidee ayaan hoos uugu dhigi karaa HbA1c gayga?



- Waxay qaadanaysaa ilaa 3 bilood in la arko isbeddelka lambarkaaga A1c. Ku dhaqaaq caadooyinkan maalinlaha ah si aad ugu sii jirto xakameyn wanaagsan:
 - Hubi heerka sonkorta dhiigga 4 ilaa 5 jeer maalinlaha.
 - Qaado insulin sida laguugu soo qoray.
 - Raac qorshaha cunto ee uu ku siiyay nafaqeyahaaga sonkorowga.

Isticmaal kuwaan hage ahaan si aad u qiyaasto insulintaada cuntada ka hor:

- 10 daqiiqo** ka hor intaadan cunin haddii gulukoosta dhiigga (BG) ee bartilmaameedka ay ku jirto **100-yadii**
- 20 daqiiqo** ka hor intaadan cunin haddii gulukoosta dhiigga (BG) ee bartilmaameedka ay ku jirto **200-yadii**
- 30 daqiiqo** ka hor intaadan cunin haddii gulukoosta dhiigga (BG) ee bartilmaameedka ay ku jirto **300-yadii**
- 40 daqiiqo** ka hor intaadan cunin haddii gulukoosta dhiigga (BG) ee bartilmaameedka ay ku jirto **400-yadii**

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Sida la inoo la soo xiriiro xilliyada booqashooyinka rugaha caafimaadka



Kalkaaliyaasha sonkorowga ayaa lagu heli karaa telefoon ahaan ama MyChart si wax looga qabto walaacyada aan degdegga ahayn

Fadlan soo raaci fariimahaaga magaca ilmahaaga iyo taariikhda dhalashada

Su'aalaha guud

206-987-2640

Isniinta-Jimcaha
7 a.m. to 4:30 p.m.

- Sixitaanada garoojooyinka insuliinta (dooro ikhtiyaarka 3)
- Buuxinta daawada (dooro ikhtiyaarka 3)
- Foomamka dugsiyeed
- Si aad ula hadasho Kalkaaliye Diiwaangashan (dooro ikhtiyaarka 4)

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Sida la inoo la soo xiriiro xilliyada booqashooyinka rugaha caafimaadka



Kooxda sonkorowga ayaa diyaar u ah 24/7 walaacyada degdegga ah

Su'aalo degdeg ah

206-987-2000

24/7

Weydiiso hawladeenka inuu kuu waco kooxda sonkorowga

- Insuliintu gebi ahaanba way dhammaatay
- Sii insuliin aad u badan ama aad u yar
- Sii insuliin khaldan (tusaale: Humalog vs. Lantus)
- Dhibaatooyinka bamka insuliinta ee aad qabto oo aysan shirkadda bamka hagaajin karin
- Gulukoosta dhiigga ee hooseeya (ka yar 70) oo aan ka falcelinayn daaweynta
- Keetoono dhexdhexaad ah ama waaweyn oo sii jira daaweynta kadib. Raac tillaabooyinka ku jira buug-gacmeedka "Tilmaamaha Maareynta Ketoonka" ee ku saabsan sida loo daaweeyo keetonada dhexdhexaadka ah ama waaweyn.

Xaalad Degdeg ah

Wac 911 ama aad waaxda gurmada degdegga ah

- Gulukagon/Baqsimi ayaa la siiyay
- Jiritaanka keetonada waaweyn oo leh mid ka mid ah waxyaabahan soo socda:
 - Laab xannuun
 - Matagida wax ka badan laba jeer 2 saacadood kadib
 - Neefsasho la'aanta
 - Isbeddel ku yimaada xaaladda maskaxda

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Baaritaanka Nooca 1 ee Sonkorowga



Khatarta sare ee nooca 1 ee sonkorowga (T1D) haddii:

- Taariikhda qoyska ee T1D(Nooqa 1 ee Sonkorowga)
- Taariikhda shakhsi ama qoyska ee cudurada kale ee isdifaaca, oo ay ku jiraan cudurka celiac-ka iyo qaar ka mid ah xanuunnada tayroodka

50

Baaritaanka nooca 1 ee Sonkorowga



Baaritaanku wuxuu ka kooban yahay tijaabada shaybaarka ee dhiigga ee T1D antoboodhisk:

- Bixiyaha daryeelka aasaasiga ah (sida caadiga ah waxaa daboolaya qorshooyinka caymiska)
- Trialnet (lacag la'aan)
- Ask(lacag la`aan)

51

Natijada Baaritaanka oo ah haa



- Haddii xubnaha qoyskaaga natijada baaritaanka ay tahay Haa, waxaa jira doorashooyin kaa caawin kara in la dhafo bilowga T1D klinikalka
- Bukaannada ka yar 21 sano, waa in loo gudbiyaa barashada hoormoonada ee Seattle Children's

52



Tubaha Loo Maro Qalabka Sonkorowga

Olivia

53



Saleea

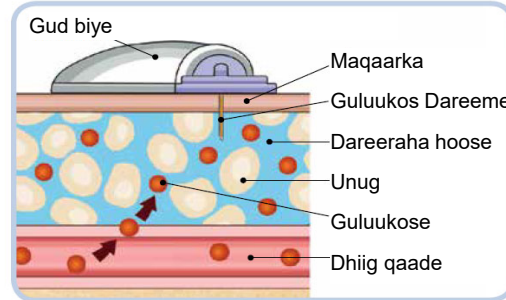
Kormeeridda Gulukoosta ee Joogta ah?

54

Kormeerayaasha gulukoosta ee joogtada ah (CGMs)



CGM waxay cabirtaa sonkorta ku jirta dareeraha u dhexeeya unugyada. Qaybiyaha xogta wuxuu u diraa macluumaadka qaataha/pump/telefoonka. Haddii lala isticmaalo bamka iswada, bamku wuxuu markaas hagaajin doonaa insuliin iyadoo loo eegayo macluumaadka CGM

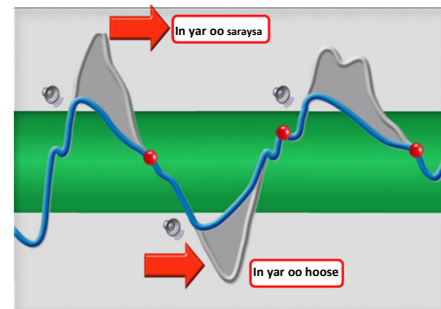


55

Faa'iidooyinka Kormeerayaasha Sonkorta Joogtada ah



- Xakameyn sonkor oo wanaagsan iyadoo la aqoonsanayo isbeddellada (waxaa uu muujinayaa waxa baaritaannada faraha ay ka qabsan karaan)
- Digniinaha heerarka sare iyo hoose
- Marka lala isticmaalo bamka iswada, waxay hagaajin kartaa waqtiga ku jira xadka la rabo



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Kormeeridda Gulukoosta ee Joogtada ah (CGM)



Alaaboyinka hadda la shaqeyya bam-yada insuliinta:



Medtronic Guardian 4



Dexcom G6 iyo G7



Freestyle Libre 2+ (Tandem Only)

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Kormeeridda Gulukoosta ee Joogtada ah (CGM)



- Qaabka CGM ee aad maanta doorato wuxuu saameyn karaa waqtiga aad heli karto qaabka bamka ee aad doorato
 - Bamka waxay la jaan qaadi karaan qaabab kala duwan oo CGM ah
 - Caymiska wuxuu u oggolaan karaa in si dhaqso ah loo beddelo alaabada CGM
- Ma aha inaad maanta doorato CGM.

Fadlan na soo wargeli adiga oo adeegsanaya MyChart markaad go'aansato CGM-ka ugu habboon baahida qoyskaaga.

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Waa maxay Daaweynta bamka Insuliinta?

59

Sidii ayuu bamku u shaqeeyaa?

Waxay isku dayeysaa inay la mid noqoto sida kelyaha aan sonkorowga lahayn u bixiyo insulin, waxay bixisaa qiyaaso yar-yar oo joogto ah (qiyaasta aasaasiga ah) iyo qiyaaso isbedbedelaya ama gacanta lagu sameeyo (qiyaasta bolus)






60



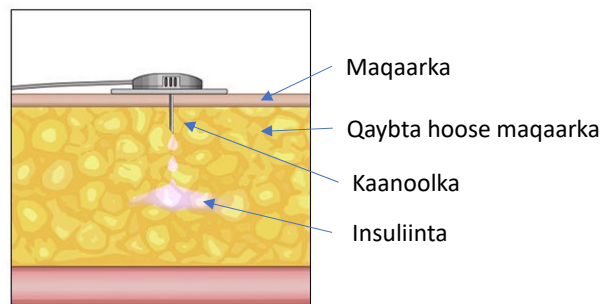
Sidee ayuu bamku ugu muuqdaa jirka?



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Sidee bamku uu u gudbiyaa insuliinta?

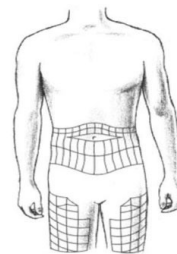


62

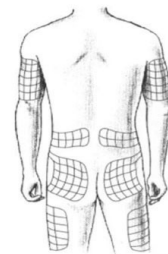


Halkee ayeyy aadaa tuubada dhacaanka sida ama pods-ka?

- Bambada dhacaanka sida ama pods-ka bamka waxaa lagu dhejin karaa meelaha jirka laga duleeliyay
- Wareegu waa muhiim!



Goobaha duritaanka hore



Goobaha duritaanka dhabarka

63



Insuliintee lagu isticmaalaa bamka?

Insuliinka dhaqsaha badan waa nooca kaliya ee insulinta lagu isticmaalo bamka Humalog/ Novolog



MAYA Lantus/Basaglar/Tresiba looma isticmaalo bamka!

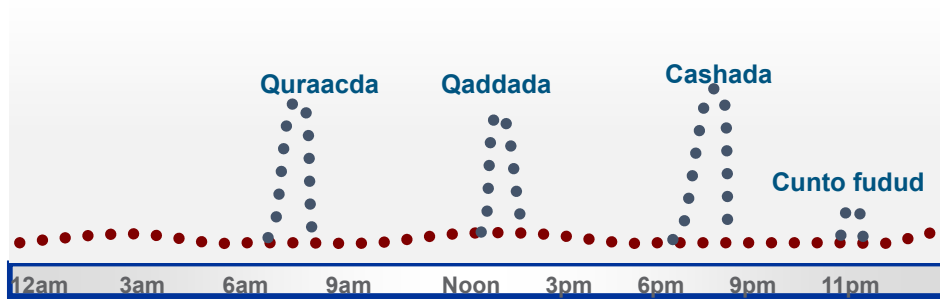
64

Dib u eegid



Insulin Basal: Insuliinta "hore", oo si joogto ah loo bixiyo

Insulin-ka bolus: dilaaca insulinta la siiyo si loo daboolo karbohaydraytyada ama lagu daweeyo sonkorta dhiiga ee sareysa

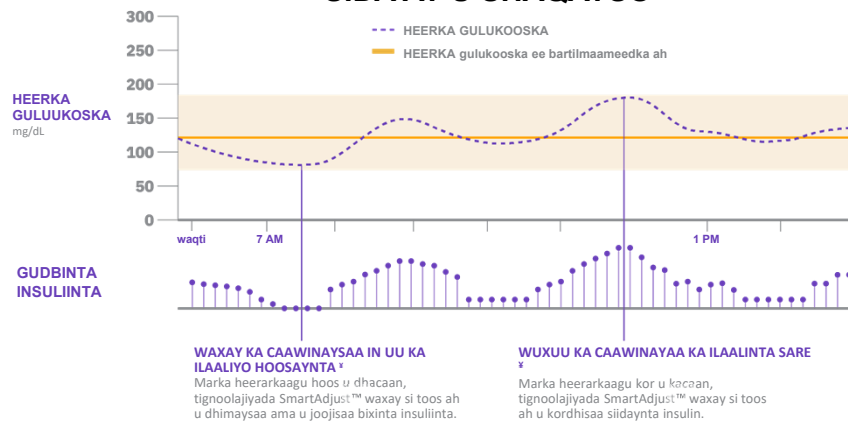


65

Iswada



SIDA AY U SHAQAYSO



Sawirka nidaamka Omnipod ee iswada: omnipod.com/what-is-omnipod/omnipod-5

66



Maxaynu hadda?

67

Tallaabooyinka Xigga



1. Uma baahnid inaad maanta go'aansato inaad isticmaasho CGM ama bamka.
Baaritaan samee oo ka fagar waxa adiga ama ilmahaaga ama qoyskaaga u fiican
2. Kala hadal tignoolajiyada bixiyahaaga booqashada mustaqbalka
3. Waxaan kuu qori doonaa warqadda daawada

Barashada xirfadaha aasaasiga ah: hadduu qalabku shaqayn waayo, waa in la maro baaritaano dhiig oo irbadaha dhiigga la qaato

68

Waxyaabaha aad Ka Ogaanay baahiyaha uu Caymiska Daboolo



- Shirkadaha caymisku way ku kala duwan yihiin dabooloda baahiyaha tignoolajiyada sonkorowga oo ay ku jiraan CGM iyo bambooyinka insuliinta. Waxaa laga yaabaa inaad caymis ku yeelato farmashiyaha ama faa'iidooyinka caafimaadka, laakiin waxay kuxirantahay qorshahaaga gaarka ah.
- Shirkadaha caymisku waxay leeyihiin shuruudo badan oo ay tahay in la buuxiyo ka hor inta aan la ansixin qalabka caafimaadka iyo agabka.
Kuwani waxaa ka mid noqon kara:
 - Hubinta BG 4 jeer maalintii muddo 30 maalmood ah AMA 80% ama ka badan oo dareemaha xidhan
 - Caddaynta imaanshaha rugta caafimaadka iyo/ama dukumeentiga waxbarashada tignoolajiyada sonkorowga
(Annaga oo aad nala hadasho maanta waa qayb ka mid ah shuruudahan)



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Wax Su'aalo ah?



Olivia

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