Name: Weight (kg):

## **T-Slim - How to Survive**

Glooko Username: Password:

## • Important things:

- Suspend pump when taking it off (shower & sports) & resume after
- Always carry charging cable, insulin, cannula, reservoirs, insulin pen and needles, blood glucose & ketone meter, hypo treatment

#### Low Glucose levels:

- hypo guidance chart
- Wait 20 minutes before retreating
- No 10g snack after treated

|   | Glucose<br>mmol/L | Arrow      | Treatment          | Choose only one |  |
|---|-------------------|------------|--------------------|-----------------|--|
|   |                   |            | Glucose<br>(grams) |                 |  |
|   | 4.0 - 6.0         | ↑<br>↑↑    |                    |                 |  |
|   |                   | <b>\</b>   |                    |                 |  |
|   |                   | 7          |                    |                 |  |
| ı | Less than         | √ <b>↓</b> |                    |                 |  |
|   | 4.0               | <b>\P</b>  |                    |                 |  |
|   |                   | 7          |                    |                 |  |
|   |                   | <b>→</b>   |                    |                 |  |
|   |                   | 7          |                    |                 |  |

Solutions for skin and

sticking issues

Hypoglycaemia

management

# Hyperglycaemia management



## High Glucose Levels:

- o Follow the high guidance chart
- If the glucose level stays above 14.0mmol/l for 90 minutes, even though ketones are less than 0.6 mmol/L, change the cannula, then give a correction
- If ketones are 0.6mmol/L or above, give correction dose by insulin pen,
   change reservoir and cannula, and stop Control-IQ for 4 hours:
  - ➤ 10% of total daily dose if ketones are 0.6-1.5 mmol/L
  - 20% of total daily dose if ketones are above 1.5 mmol/L

### Infusion Site Management:

- Take your time and follow the how to set up video
- Autosoft 90 has a 0.6ml cannula fill how to insert video
- Change cannula every 2-3 days before a meal and rotate sites
- Make sure insulin is less than 28 days out of the fridge and in date
- Remind yourself of <u>best practice</u>

#### CGM Management:

- o Take your time and follow the how to set up video
- o If you feel different to the sensor glucose, check blood glucose.
- o Calibrate if more than 20% difference between senor and blood glucose
- Remind yourself of best practice

Infusion set change



Inserting cannula



Inserting Dexcom



## T-Slim - How to Thrive

### • Ordering supplies:

- T:Slim supplies upon opening the last box 0800 012 1560
  - If a cannula fails call for a replacement
  - If issue with the pump call for trouble shooting
- Dexcom replacement sensors:
  - ➤ If a sensor does not last 10 days contact for a replacement
  - www.dexcom.com/UKIETechsupport
  - > 0800 0315763

#### Food and insulin:

- Bolus 15 minutes before eating.
- o Three balanced meals with limited snacking, Mealtime Insulin Guide
- 5-10 minutes activity (walking, playing, dancing) after eating.
- For high fat meals (Pizza, takeaway, fish and chips)
  - Increase carbs by 25% (carbs x 1.25) & extended bolus half before & half over 2 hours
  - ➤ If high 6 hours after eating, next time increase carbs by 50% (carbs x 1.5)
  - If go hypo do not add 25% next time
- o If you forget to bolus before eating:
  - Less than 30 minutes after eating, then bolus for all carbs.
  - > 30-60 minutes, then bolus for half the amount of carbs.
  - More than 60 minutes, give a correction for the current glucose only

#### Exercise:

- Recap on how to mange with this video.
- Start Exercise Activity before (90 minutes before) and for the duration of the exercise, and stop it after.
- o Meal before exercise:
  - ➤ If eating within 2 hours of exercise, enter only 75% of the carbohydrate to be eaten
  - Carbohydrate x 0.75 = amount to enter e.g. 40g x 0.75 = 30g
- Carbs during: Glucose every 20-30 minutes following your chart (next page).
  - ➤ Do not have a large amount of carbs just before exercise as the high glucose level will make the Control-IQ deliver extra insulin.
- Request a Dietitian appointment if you exercise is hard to manage.

#### Maximising Time in Range (4.0-10.0 mmol/L)

 10 minutes of fast walking or playing drops the glucose level by 2 mmol/L when above 10.0mmol/L between meals - watch GAME Mealtime insulin quide



Exercise quide



## Carbohydrate Guide for activity when using the T-Slim with Control-IQ

- 1. Start Exercise Activity before activity, ideally 90 minutes before.
- 2. Check glucose just before and every 20-30 minutes during exercise and follow the chart below







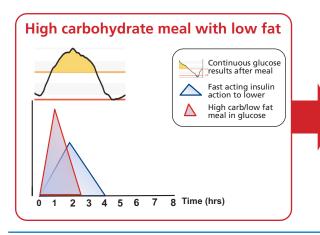


3. Stop Exercise Activity after activity

| Stop Exercise Activity after activity |   |   |  |  |  |  |
|---------------------------------------|---|---|--|--|--|--|
| Sensor<br>glucose<br>Levels           | Rate of glocose<br>change trend arrow<br>& action to take | Carbohydrate grams needed for 20 minutes                                      |  |  |  |  |
| less than 4.0 mmol/l                  | No exercise: Treat hypoglycaemia                          |   |  |  |  |  |
| 4.0 - 6.4<br>mmol/l                   | <ul><li>↑</li><li>↑</li></ul>                             |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
|                                       | <u></u> и   |   |  |  |  |  |
|                                       | →   |   |  |  |  |  |
|                                       | <b>7</b>  |   |  |  |  |  |
|                                       | $\hat{\bigcirc}$  |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
| 6.5 - 9.9<br>mmol/l                   | <ul><li>↑</li><li>↑</li></ul>                             |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
|                                       | <u></u>   |   |  |  |  |  |
|                                       | → →   |   |  |  |  |  |
|                                       | 7   |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
| 10.0 - 13.9<br>mmol/l                 | Ok to exercise<br>with any arrow                          |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
|                                       |   |   |  |  |  |  |
| >14.0mmol/l                           | Check ketones: If less than 0.6mmol/l                     | Ok to exercise  |  |  |  |  |
|                                       | Chck ketones: If<br>0.6mmol/l or above                    | No exercise until the ketones have been corrected and are less than 0.6mmol/l |  |  |  |  |

# Mealtime Insulin Guide





## Meal is almost all carbohydrate

#### Breakfasts:

- Cereal with light milk
- Toast and jam or honey
- Fruit bread

#### Meals:

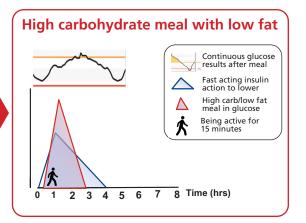
- Jacket potato & beans
- Super noodles
- Waffles & hoops

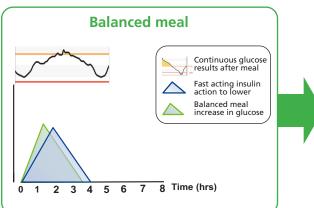
#### Snacks:

- Cereal bars
- Biscuits
- Rice crackers

## How to keep the glucose in target?

- 1. Count carbs accurately
- 2. Choose wholefood carbohydrate
- 3. Add some vegetables
- 4. Normal bolus 20 minutes before eating
- 5. Do 15 minutes activity after eating





#### Meal is balanced

#### **Breakfasts:**

- Porridge with semi or full milk & nuts
- Egg or fish on toast with mushrooms
- Cheese on toast with tomatoes

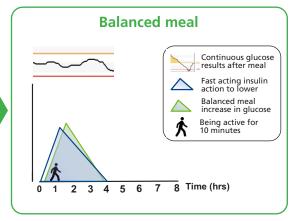
- Meat/fish/beans with potatoes
- Jacket potato with cheese & salad
- Rice with curry and salad

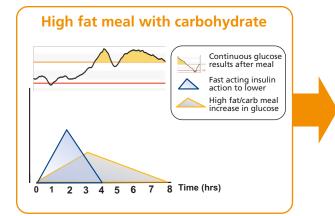
#### Snacks:

- Whole fruit with nuts
- Nut butter on toast
- Whole yoghurt with nuts

### How to keep the glucose in target?

- 1. Count carbs accurately
- 2. Choose wholefood carbohydrate
- 3. Add more vegetables
- 4. Normal bolus 15 minutes before eating
- 5. Do 10 minutes activity after eating





#### Meal is very high in fat with carbs

#### **Breakfasts:**

- Full English breakfast
- Pancakes with maple syrup
- Thick slices of cheese on toast

- Takeaway fish and chips
- Heavily cheesed pizza
- Pasta with creamy sauce
- Creamy curry with rice & naan bread
- Fast food burger, fries and dessert
- Sunday roast with trimmings
- Lasagna with chips and garlic bread

### How to keep the glucose in target?

- 1. Count carbs accurately
- 2. Increase carbs by an extra 25%, carbs x 1.25 e.g. 100g x 1.25 = 125g
- 3 Extended bolus: 50% before, 50% over 2 hours
- 4. If the glucose level is high six hours after eating, next time increase meal insulin by another 25%
- 6. Most people need 50% extra
- 7. If possible, do 15 mins activity after meal

## High fat meal with carbohydrate Continuous glucose results after meal Fast acting insulin action to lower High fat/carb meal increase in glucose Being active for 2 3 4 5 6 7



# Dynamic Glucose Management

# **GAME-SET-MATCH**

Combine glucose values and trend arrows with proactive diabetes management



# **Stop highs GAME**



**G** = Glucose time in range desired

A = Alert on high set accordingly

| Time in range<br>desired?<br>4.0-10.0mmol/L | Set high alert<br>mmol/L | Predicted HbA1c<br>mmol/mol (%) | Daily energy &<br>future health                            |
|---|--------------------------|---------------------------------|--|
| 50%   | No alert                 | 64 (8.0)                        | $\odot$  |
| 60%   | 14.0                     | 58 (7.5)                        | <u>:</u>   |
| 70%   | 12.0                     | 52 (7.0)                        | $\odot$  |
| 75%   | 11.0                     | 50 (6.8)                        | $\odot\odot$   |
| 80%   | 10.0                     | 48 (6.5)                        | $\odot\odot\odot$  |
| 85%   | 9.0                      | 45 (6.2)                        | 0000   |
| 90+%  | 8.0                      | 42 (6.0)                        | $\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$ |

M = Mode of exercise that can be done

**E** = Exercise when high alert sounds

| Glucose<br>mmol/L | Trend arrow   |         |                            | How many |
|-------------------|---------------|---------|----------------------------|----------|
| mmoi/L            | Libre         | Dexcom  | Medtronic                  | minutes  |
|                   | 7             |         | 1                          | 5        |
| 8.0 - 9.9         | 1             |         | <b>↑</b> ↑                 | 10       |
|                   |               |         | $\uparrow\uparrow\uparrow$ | 15       |
|                   | $\rightarrow$ | <b></b> |                            | 15       |
| 10.0 - 14.0       | 7             |         | 1                          | 20       |
|                   | 1             | ٥       | <b>↑</b> ↑                 | 25       |
|                   |               |         | $\uparrow\uparrow\uparrow$ | 30       |
|                   | <b>\</b>      | <b></b> | $\downarrow\downarrow$     | 15       |
| More than         | 7             | Q       | <b>\</b>                   | 20       |
| 14.0              | $\rightarrow$ | <b></b> |                            | 25       |
|                   | 7             |         | 1                          | 30       |
|                   | 1             | ٥       | $\uparrow \uparrow$        | 40       |



## **Stay in target** SET



**S** = Start insulin before eating

| Glucose<br>mmol/L | Trend arrow   |         |                                  | Minutes to bolus |
|-------------------|---------------|---------|----------------------------------|------------------|
| mmoi/L            | Libre         | Dexcom  | Medtronic                        | before meal      |
|                   |               | <b></b> | $\downarrow\downarrow\downarrow$ | Prevent hypo     |
|                   | <b>\</b>      | 0       | $\downarrow \downarrow$          | Prevent hypo     |
|                   | R             |         | 1                                | Prevent hypo     |
| 4.0 - 5.9         | $\rightarrow$ | <b></b> |                                  | 15               |
|                   | 7             |         | 1                                | 20               |
|                   | 1             | ٥       | <b>↑</b> ↑                       | 25               |
|                   |               |         | $\uparrow \uparrow \uparrow$     | 30               |
|                   |               | 0       | $\downarrow\downarrow\downarrow$ | 0                |
|                   | $\downarrow$  |         | $\downarrow\downarrow$           | 10               |
|                   | R             |         | <b>\</b>                         | 15               |
| 6.0 - 9.9         | $\rightarrow$ |         |                                  | 20               |
|                   | 7             |         | 1                                | 25               |
|                   | 1             |         | <b>↑</b> ↑                       | 30               |
|                   |               |         | $\uparrow \uparrow \uparrow$     | 35               |
|                   |               |         | $\downarrow\downarrow\downarrow$ | 15               |
|                   | $\downarrow$  | •       | $\downarrow\downarrow$           | 20               |
|                   | ĸ             |         | <b>\</b>                         | 25               |
| 10.0 - 14.0       | $\rightarrow$ |         |                                  | 30               |
|                   | 7             |         | 1                                | 35               |
|                   | 1             | ٥       | <b>↑</b> ↑                       | 40               |
|                   |               |         | $\uparrow \uparrow \uparrow$     | 45               |
|                   | $\downarrow$  | •       | $\downarrow\downarrow$           | 25               |
| More than         | Ŋ             |         | <b>↓</b>                         | 30               |
| 14.0              | $\rightarrow$ | <b></b> |                                  | 40               |
|                   | 7             |         | 1                                | 45               |
|                   | 1             | ٥       | <b>↑</b> ↑                       | 50               |

E = Eat three balanced meals

T = Ten minutes activity after eating



# **Prevent lows**



M = Measure weight to calculate hypo treatment

| Weight<br>(kg) | Grams of glucose | Dextrose<br>3g tablets |
|----------------|------------------|------------------------|
| 10             | 3                | 1                      |
| 20             | 6                | 2                      |
| 30             | 9                | 3                      |
| 40             | 12               | 4                      |
| 50             | 15               | 5                      |
| 60+            | 18               | 6                      |

A = Always use glucose only, not sugar

T = Try to prevent lows

**C** = Change amount according to glucose value & arrow

| Glucose<br>mmol/L | Trend arrow   |         |                                  | Percent              |
|-------------------|---------------|---------|----------------------------------|----------------------|
| IIIIIOI/L         | Libre         | Dexcom  | Medtronic                        | of hypo<br>treatment |
|                   | $\downarrow$  |         | $\downarrow\downarrow\downarrow$ | 100%                 |
| 4.0 - 6.0         |               | <b></b> | $\downarrow\downarrow$           | 75%                  |
|                   | Ŋ             |         | <b>\</b>                         | 50%                  |
|                   | <b>\</b>      |         | $\downarrow\downarrow\downarrow$ | 125%                 |
| Less than         |               | <b></b> | <b>↓</b> ↓                       | 100%                 |
| 4.0               | Ŗ             |         | <b>\</b>                         | 75%                  |
|                   | $\rightarrow$ | <b></b> |                                  | 50%                  |
|                   | 7             |         | 1                                | 25%                  |

H = Have patience and wait 20 mins