Name: Weight (kg):

MiniMed 780G How to Survive

Carelink Username: **Carelink Password**

- **Important things:**

  o Suspend pump when taking it off (shower & sports) & resume after.

  o Always carry spare batteries, insulin, cannula, reservoirs, insulin pen and needles, blood glucose & ketone meter, hypo treatment.

- **Low Glucose levels:**

  o hypo guidance chart.

  o Wait 20 minutes before retreating

  o No 10g snack after treated

- **High Glucose Levels:**

Glucose mmol/L	Arrow	Treatment	Choose only one	
		Glucose (grams)		
4.0 - 6.0	↓↓↓			
	↓↓			
	↓			
Less than 4.0	↓↓↓			
	↓↓			
	↓			
	↑			

  o Follow the high guidance chart

  o 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.

  o If ketones are 0.6mmol/L or above, **give correction dose by insulin pen, change reservoir and cannula, and stop SmartGuard 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:**

  o Take your time and follow the how to set up video.

  o Mio Advanced is 0.6 ml cannula fill

  o Change cannula every 2-3 days before a meal and rotate sites.

  o Make sure insulin is less than 28 days out of the fridge and in date

  o Remind yourself of best practice

- **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 sensor and blood glucose

  o Remind yourself of best practice

Hypoglycaemia management

Hyperglycaemia management

Infusion set change

Solutions for skin and sticking issues

Sensor change

MiniMed 780G How to Thrive

- **Ordering supplies:**

    o Order supplies upon opening the last boxes - 01923 205 167 Option 1

    o Support with 780G or sensors - 01923 205 167 Option 2
      - If sensors do not last 7 days call produce support
      - If a cannula fails call product support for a replacment

- **Food and insulin:**

    o Bolus 15 minutes before eating.

    o Three balanced meals with limited snacking, Mealtime Insulin Guide

    o 5-10 minutes activity (walking, playing, dancing) after eating.

    o For high fat meals (pizza, takeaway, fish and chips, etc)

      - Give 100% of the carbs eaten

        - If go hypo in the first three hours, next time only give 75% of carbs eaten, e.g. 100g x 0.75 = 75g

    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 but do not enter carbs

- **Exercise:**

    o Recap on how to mange with this video.

    o Start Temp Target before (90 minutes before) and for the duration of the exercise:

    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

    o 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 SmartGuard deliver extra insulin.

    o Request a Dietitian appointment if you exercise is hard to manage.

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

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

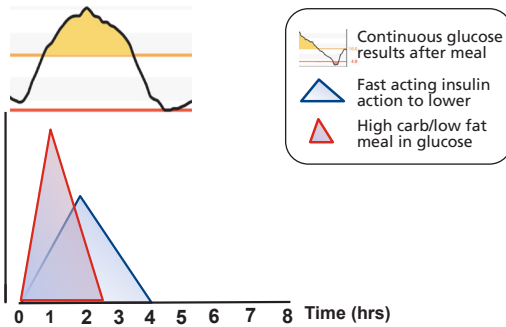**Mealtime insulin guide**

Exercise guide

Carbohydrate Guide for activity when using the MiniMed 780G

1. Start Temp Target before exercise (ideally 90 minutes before) and for full activity duration.

2. Check glucose just before and every 20-30 minutes during exercise. Give the carbohydrate required based on the value and trend arrow. Carbohydrate choice can be changed in the drop down box

3. If swimming take the pump off and suspend the pump, resume once the pump is back on.

Sensor glucose Levels	Rate of glocose change trend arrow & action to take	Carbohydrate grams needed for 20 minutes		
less than 4.0 mmol/l	**No exercise: Treat hypoglycaemia**			
4.0 - 6.4 mmol/l	↓↓↓			
	↓↓			
	↓			
	↑			
	↑↑			
6.5 - 9.9 mmol/l	↓↓↓			
	↓↓			
	↓			
	↑			
10.0 - 13.9 mmol/l	Ok to exercise with any arrow			
>14.0mmol/l	**Check ketones: If less than 0.6mmol/l**	**Ok to exercise**		
	Chck ketones: If 0.6mmol/l or above	**No exercise until the ketones have been corrected and are less than 0.6mmol/l**		

Mealtime Insulin Guide

High carbohydrate meal with low fat

- Continuous glucose results after meal
- Fast acting insulin action to lower
- High carb/low fat meal in glucose

Time (hrs) 0 1 2 3 4 5 6 7 8

→

Meal is almost all carbohydrate

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

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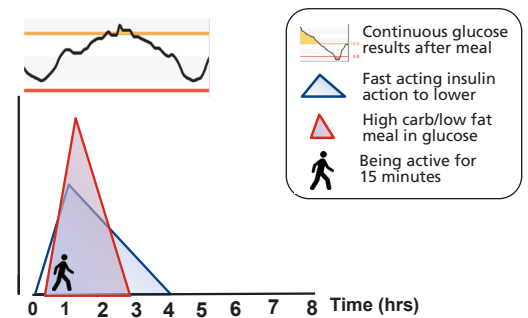- Super noodles
- Waffles & hoops

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

→

High carbohydrate meal with low fat

- Continuous glucose results after meal
- Fast acting insulin action to lower
- High carb/low fat meal in glucose
- Being active for 15 minutes

Time (hrs) 0 1 2 3 4 5 6 7 8

Balanced meal

- Continuous glucose results after meal
- Fast acting insulin action to lower
- Balanced meal increase in glucose

Time (hrs) 0 1 2 3 4 5 6 7 8

→

Meal is balanced

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

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

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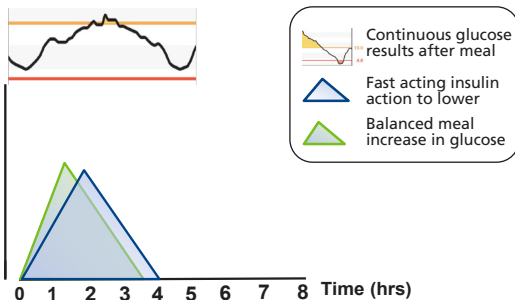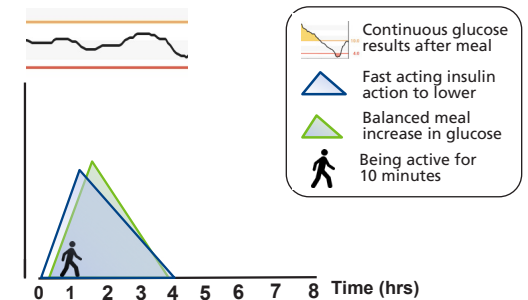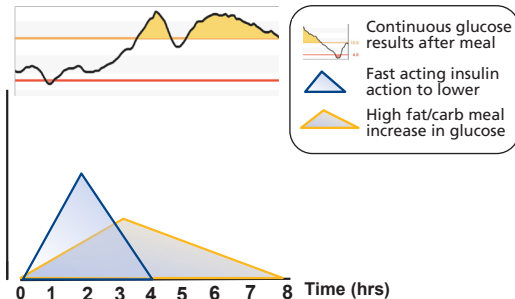- Whole yoghurt with nuts

→

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

→

Balanced meal

- Continuous glucose results after meal
- Fast acting insulin action to lower
- Balanced meal increase in glucose
- Being active for 10 minutes

Time (hrs) 0 1 2 3 4 5 6 7 8

High fat meal with carbohydrate

- Continuous glucose results after meal
- Fast acting insulin action to lower
- High fat/carb meal increase in glucose

Time (hrs) 0 1 2 3 4 5 6 7 8

→

Meal is very high in fat with carbs

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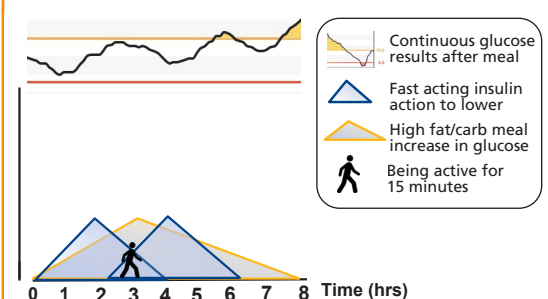- Thick slices of cheese on toast

Meals:
- 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. Give 100% of carbs eaten
3. Let Smart Guard deal with the delayed rise
4. If you go hypo in the first 3 hours, next time, only enter 75% of the carbs eaten

   e.g. 100g x 0.75 = 75g

→

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 15 minutes

Time (hrs) 0 1 2 3 4 5 6 7 8

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 desired? 4.0-10.0mmol/L	Set high alert mmol/L	Predicted HbA1c mmol/mol (%)	Daily energy & future health
50%	No alert	64 (8.0)	
60%	14.0	58 (7.5)	
70%	12.0	52 (7.0)	
75%	11.0	50 (6.8)	
80%	10.0	48 (6.5)	
85%	9.0	45 (6.2)	
90+%	8.0	42 (6.0)	

M = Mode of exercise that can be done

E = Exercise when high alert sounds

Glucose mmol/L	Trend arrow Libre	Dexcom	Medtronic	How many minutes
8.0 - 9.9	↗		↑	5
	↑		↑↑	10
			↑↑↑	15
10.0 - 14.0	→			15
	↗		↑	20
	↑		↑↑	25
			↑↑↑	30
More than 14.0	↓		↓↓	15
	↘		↓	20
	→			25
	↗		↑	30
	↑		↑↑	40

Stay in target — SET

S = Start insulin before eating

Glucose mmol/L	Trend arrow Libre	Dexcom	Medtronic	Minutes to bolus before meal
4.0 - 5.9			↓↓↓	Prevent hypo
	↓		↓↓	Prevent hypo
	↘		↓	Prevent hypo
	→			15
	↗		↑	20
	↑		↑↑	25
			↑↑↑	30
6.0 - 9.9			↓↓↓	0
	↓		↓↓	10
	↘		↓	15
	→			20
	↗		↑	25
	↑		↑↑	30
			↑↑↑	35
10.0 - 14.0			↓↓↓	15
	↓		↓↓	20
	↘		↓	25
	→			30
	↗		↑	35
	↑		↑↑	40
			↑↑↑	45
More than 14.0	↓		↓↓	25
	↘		↓	30
	→			40
	↗		↑	45
	↑		↑↑	50

E = Eat three balanced meals

T = Ten minutes activity after eating

Prevent lows — MATCH

M = Measure weight to calculate hypo treatment

Weight (kg)	Grams of glucose	Dextrose 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 mmol/L	Trend arrow Libre	Dexcom	Medtronic	Percent of hypo treatment
4.0 - 6.0	↓		↓↓↓	100%
			↓↓	75%
	↘		↓	50%
Less than 4.0	↓		↓↓↓	125%
			↓↓	100%
	↘		↓	75%
	→			50%
	↗		↑	25%

H = Have patience and wait 20 mins