

# Daily Traces

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Supported by a restricted educational grant from Abbott



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## **Disclosures:**

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Abbott Diabetes Care, Medtronic, Dexcom, Novo Nordisk, Roche, Diasend.



# Learning objectives

- Better understanding of what the daily information means from your libre receiver/phone
- Understand what the trends arrows mean and how they relate to your daily glucose readings and whether you need to take action
- Feel more confident to reduce daily glucose variability
- Have confidence looking at daily traces and understanding what insulin is working when



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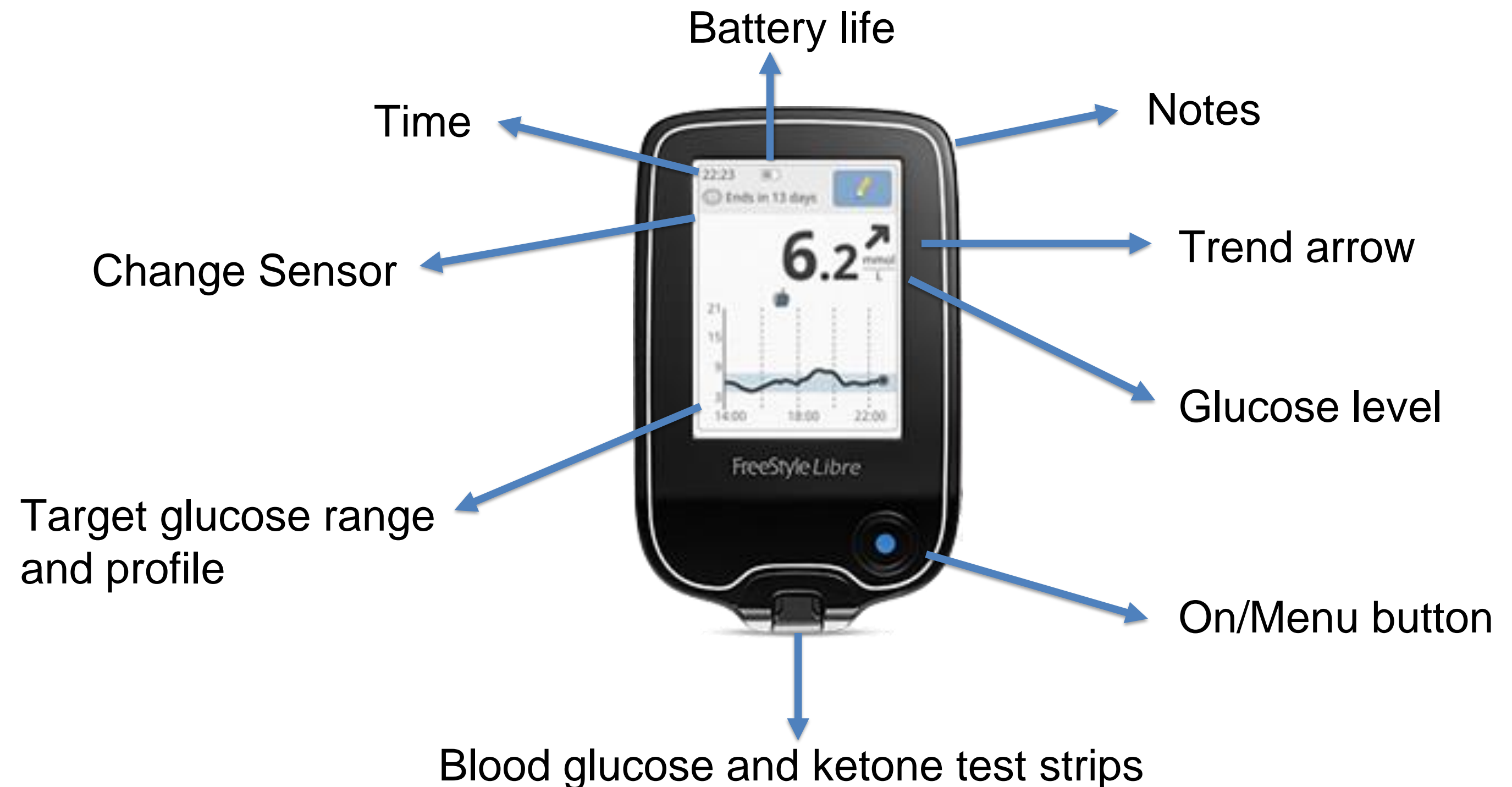
# Outline

- Daily reports
- What do the arrows tell us?
- What insulin is working?
- Having a plan
- Self assessment



# Daily Traces

- Helps the user to better manage their diabetes through better engagement, knowledge and self management

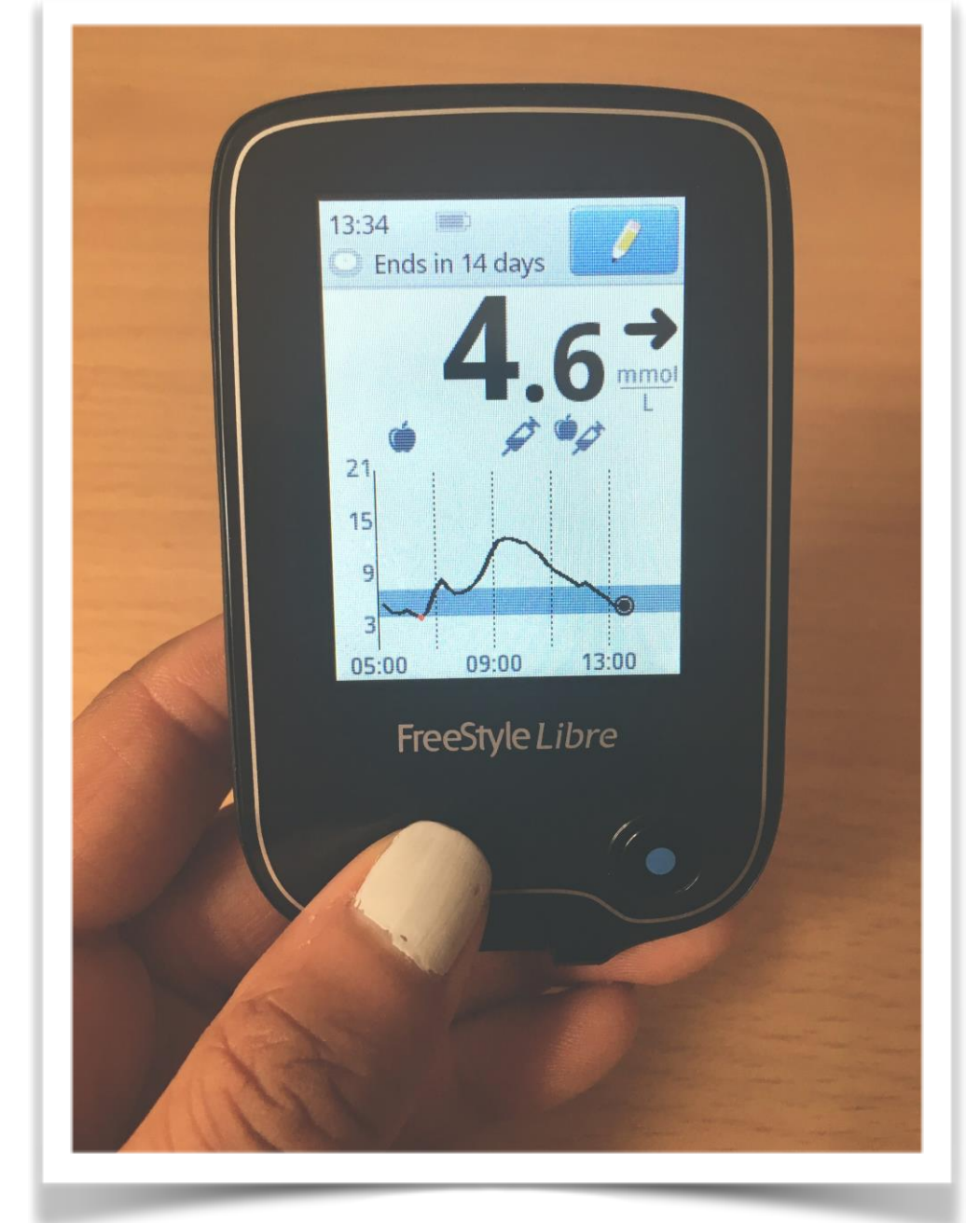


# Daily Traces

## What is your Plan?:

- How to react to arrows before meals and 2 hours after
- How can the libre sensor be used during illness and stress
- Effect of increased physical activity/exercise
- Post prandial rises
- Response to overnight trends in levels

(We will discuss these in the following modules incorporating key self management skills as taught in education programmes such as DAFNE)



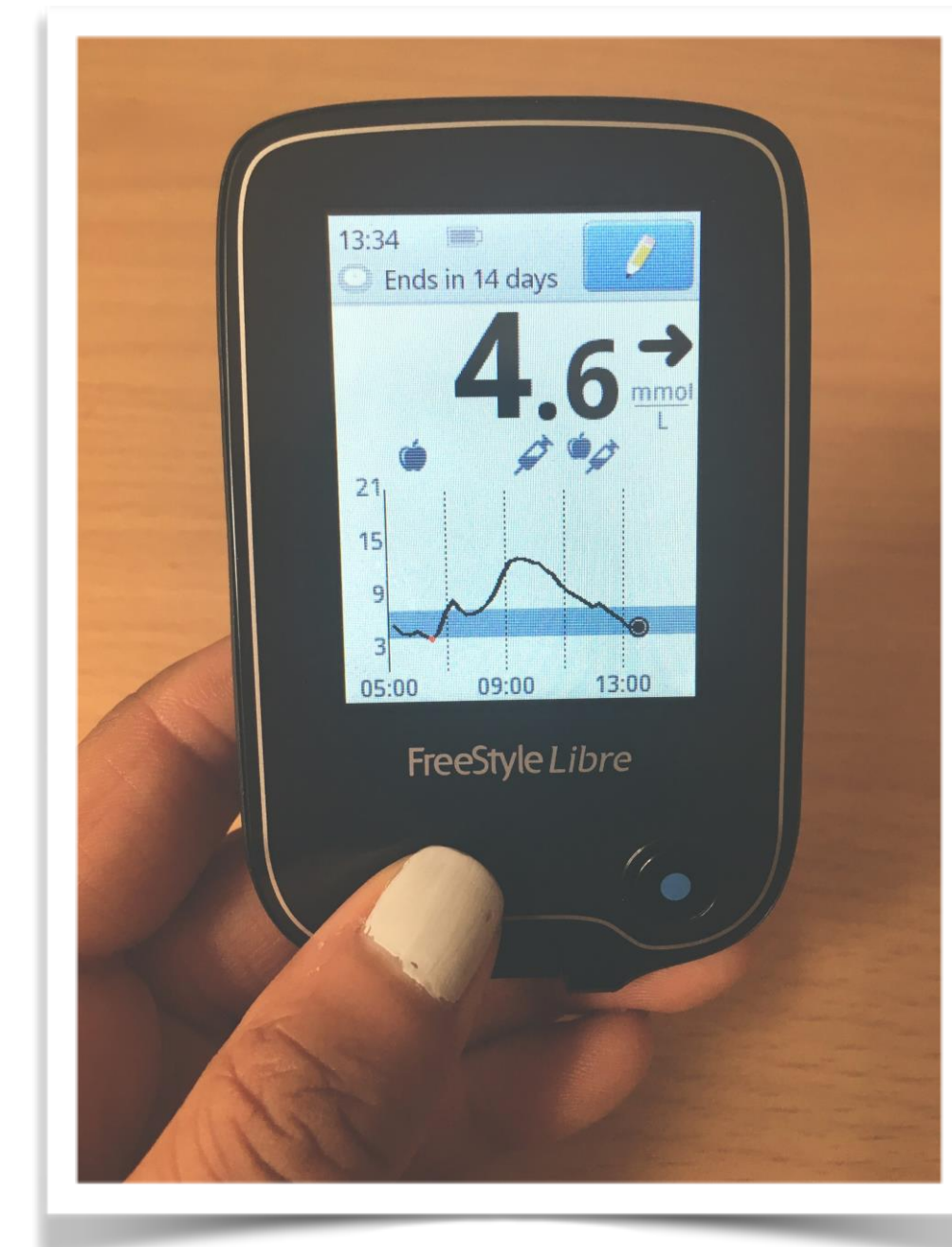
# Daily Traces

## Personal Aims:

What are your reasons for using libre?

What are your personal goals and what does that look like?

- Prevent hypos
- Prevent hyperts
- Better management of exercise
- Less finger stick test
- More information
- Less variability
- Increased quality of life
- Reduce risk of complications
- Something else?



# Daily Graph and Patterns

Reviewing patterns and trends is an important part of diabetes self management and a step towards achieving your diabetes goals with libre.

- Scanning regularly (>10 times per day)
- looking at your patterns using the **Daily Graph** and **Daily Patterns** reports will help you try and achieve this





# Daily Graph

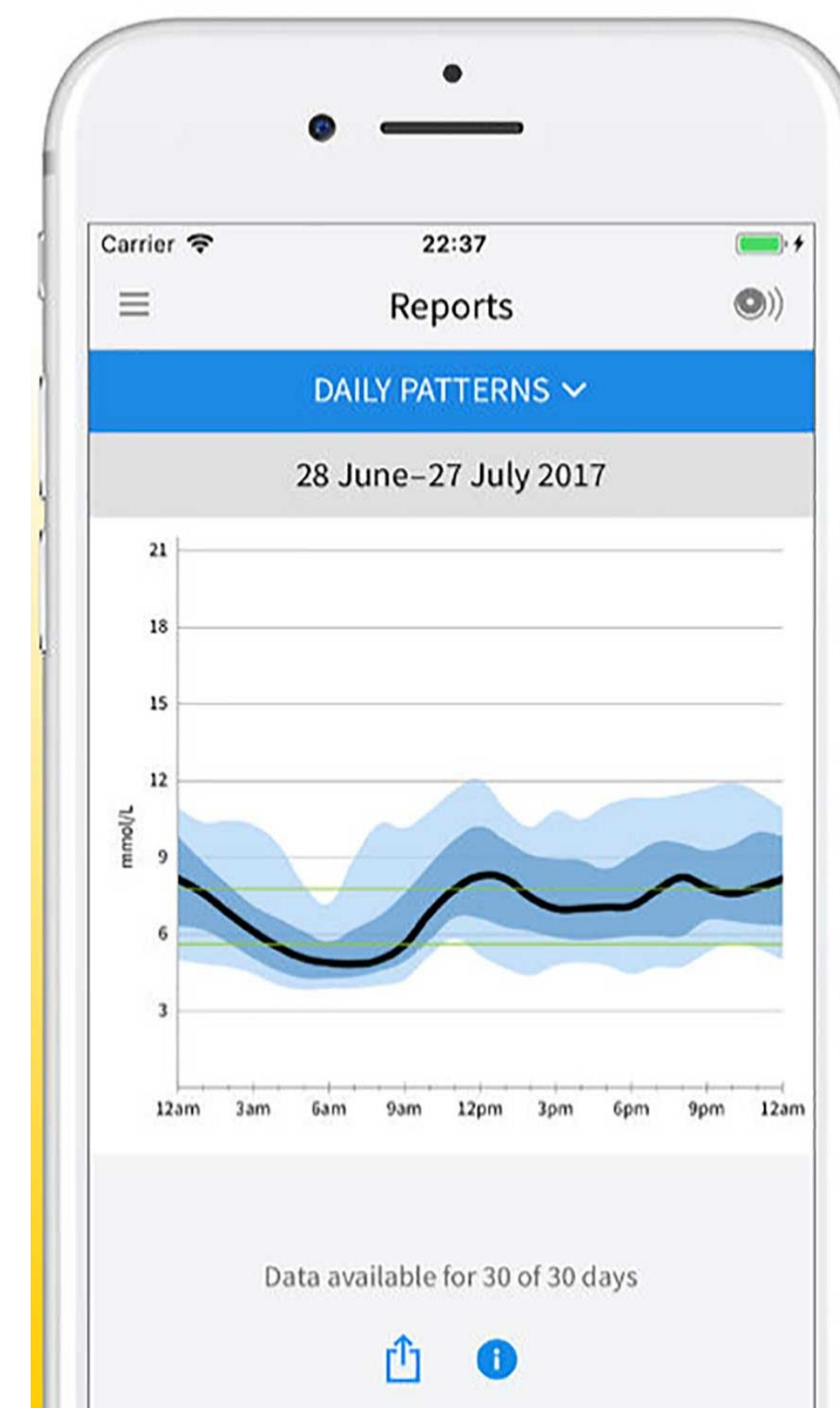


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# Daily Patterns

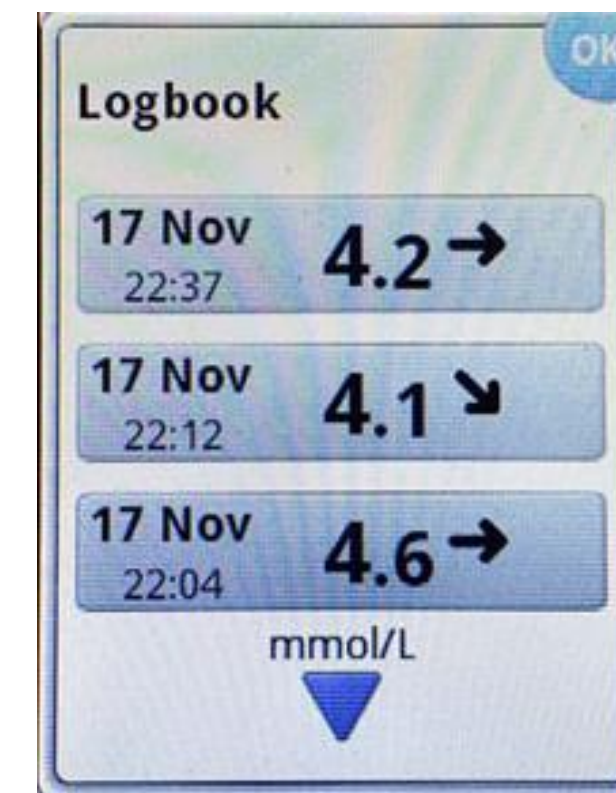
- Data displayed as a 24hr graph
- The graph shows the median line
- Helps to highlight times of day with the biggest variation
- Being able to identify this helps the user to make changes



# What do the arrows tell us?

- Using the glucose value and the trend arrows allow the user to decide whether they need to take a correction, knowing the direction of change allows the user to make more informed choices about what action to take
- Using the direction of change arrows allows the user to reduce daily variability, dose adjustment using the direction of change arrows will be discussed in a later module.

- ↑ RISING QUICKLY
- ↗ RISING
- CHANGING SLOWLY
- ↘ FALLING
- ↓ FALLING QUICKLY



# What do the arrows mean?

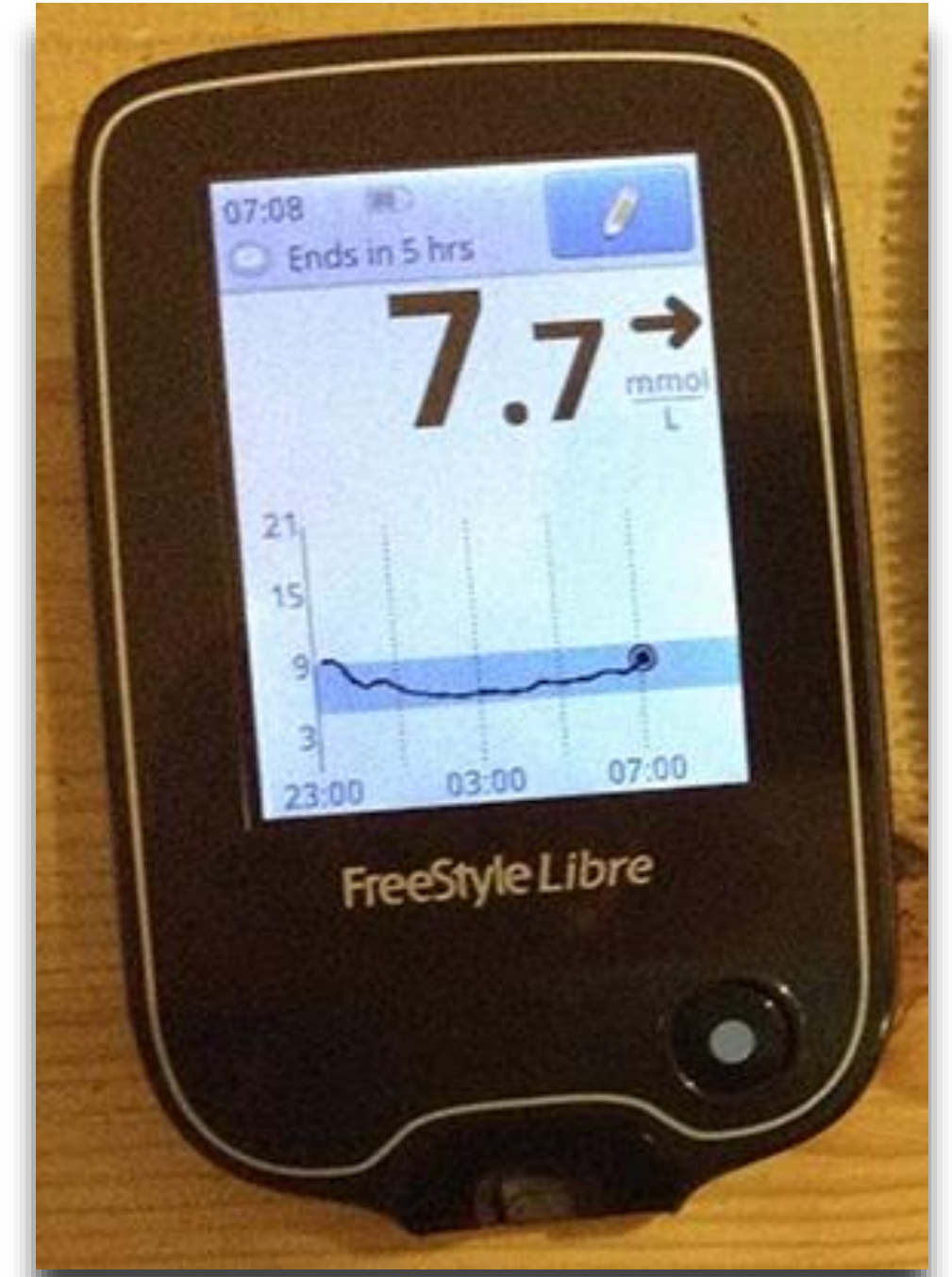
	Rate of change	How long to change by 1 mmol/l	How much will it change in 30 mins
↑	> 0.11 mmol/l / min	Average 7 mins	at least 3 mmol/l
↗	Between 0.11 and 0.06 mmol/l / min	Average 15 mins	2-3 mmol/l
→	Less than 0.06 mmol/min	More than 20 mins	< 2 mmol/l
↘	Between 0.11 and 0.06 mmol/l / min	Average 15 mins	2-3 mmol/l
↓	> 0.11 mmol/l / min	Average 7 mins	at least 3 mmol/l



# What insulin is working?

In order to use the libre data effectively it is important to be aware which insulin is having the biggest effect at that time

Assessing Background insulin (BI) and quick acting (QA) insulin requirements



# What insulin is working?

Too much background insulin (BI)

The red line shows what might happen to someone with too much BI in the absence of carbohydrate and QA insulin.



# What insulin is working?

Not enough background insulin

The black line shows what might happen to someone with not enough BI in the absence of carbohydrate and QA insulin.



# What insulin is working?

## Assessing Quick acting insulin requirements

With the support of libre data you are able to assess how well the insulin covering their meal is working or if action is required to get back into target.

If glucose levels are above target and continue to rise two- three hours after your last bolus you can consider a correction as advised in our bolus module.



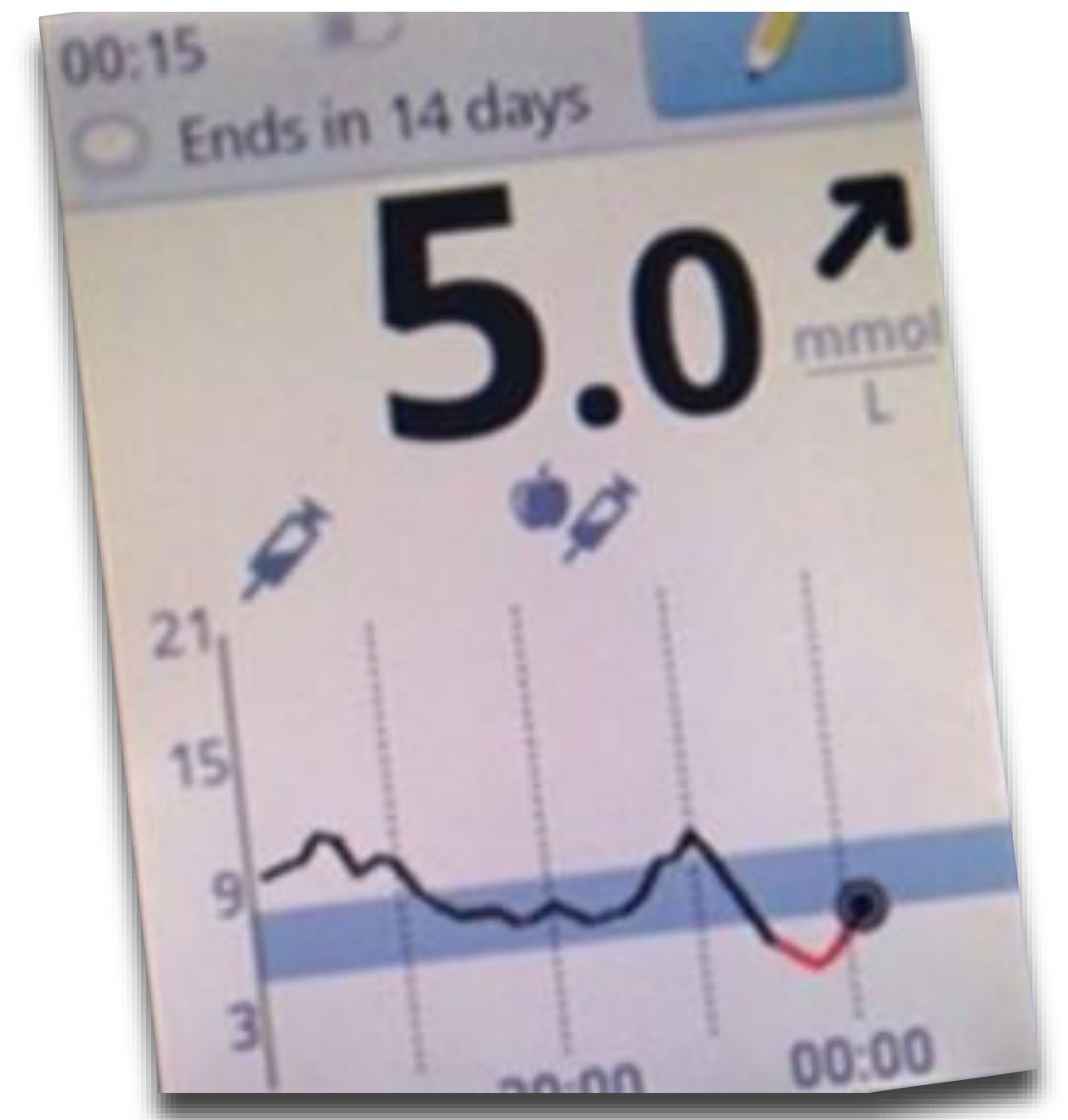


# What insulin is working?

## Assessing Quick Acting (QA) insulin requirements

If you are experiencing hypoglycaemia within 1-3hrs of your QA insulin bolus it is likely that the bolus covering the previous meal was too much.

What action to take for this and how to prevent this will be covered in the bolus module.



# What insulin is working?

Having knowledge of which insulin is working will help avoid problematic blood glucose levels and reduce variability.



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# Having a plan



# Scenario 1

A day out with friends with more exercise than usual.

You are just getting into the car to drive home, journey should last about 90 mins not including any traffic delays.

What action would you take?



# Scenario 2

You have been using libre now for 2 weeks and are starting to get extremely frustrated with your glucose levels. You are needing lots of corrections but also having to treat more hypos.

The data that you get from libre is really useful.

Looking at the graph what is causing the fluctuations and what changes could you think of making?



# Scenario 3

Its bedtime

You had your evening meal at 19.30hrs

You've just scanned with your libre and you are pleased with the glucose reading but you have a downward arrow.

What does the arrow mean?

What action, if any, do you need to take?



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# Scenario 4

You have just woken and scanned your libre.

What action would you take now?

What are the possible causes for this hypo?

How confident do you feel with your answer?



# Summary

- What are your aims/goals for using libre?
- What does success look like?
- Scan regularly
- Look at the graphs/data
- Have a plan
- Its a journey



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# Conclusion

- Using FreeStyle Libre allows the user to see patterns of hypoglycaemia, hyperglycaemia and areas of greater variability
- The wealth of data helps us understand
  - the trajectory of glucose levels
  - the effects of certain food, behaviours/activities on glucose levels
- The data helps identify and avoid hypo and hyperglycaemic events, reducing glucose variability and ultimately improving quality of life.

