How to spend more time in your **target blood glucose (sugar) range**

Scroll down for tips on how to spend more **Time in Range**, to manage your diabetes and help reduce your risk of diabetes-related complications.

What is Time in Range?

Time in Range Time in Range is the amount of time you spend in your target blood glucose range (3.9–10 mmol/l for most people)[1]

Time in Range shows your blood glucose over **24-hour periods**[1]

HbA_{1c} shows your average blood glucose over **3 months**[1]

Together they give you a more **complete picture of your blood glucose levels**[1]

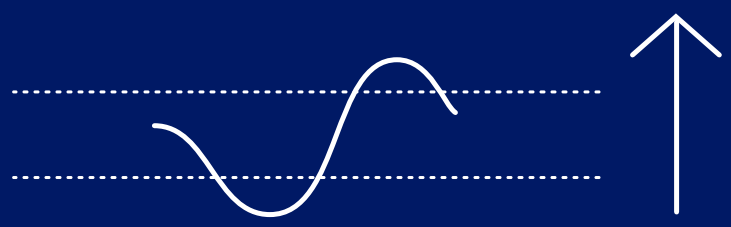
Your **Time in Range** is measured using numbers from your CGM[1]

To understand your **Time in Range** you need at least 14 days of blood glucose data, which you will then see on your **ambulatory glucose profile (AGP) report**[1,2]

Your **Time in Range** is easy to see from visuals in your AGP. You can see your blood glucose levels throughout the day and night, for the whole 14 days[1*]

** Your healthcare professional will support you to understand your AGP*

<3.9 mmol/L



>10.0 mmol/L

Time below range is when you are **at risk of low blood glucose (hypoglycaemia)**[1]

Time above range is when you are **at risk of high blood glucose (hyperglycaemia)**[1]

Aim to spend less than

1 hour

(around 4%) of your day **below range**[1]

Experts recommend most people spend at least

17 hours

(around 70%) of your day **in range**[1]

Aim to spend less than

6 hours

(around 25%) of your day **above range**[1]

Why is Time in Range important?

By understanding how your blood glucose fluctuates and the possible causes, you can take action to stay in range[1]

See if you're on target

Find out how much your glucose levels fluctuate during the day and night

Understand what might be causing your blood glucose highs and lows so you can take action to spend more time in range[1]

See where treatment, insulin doses and the timing of your doses might need to change[1]

Could help you feel less worried about your diabetes and **improve your mood and energy levels**[3,4]

And perhaps most important of all, increasing the time you spend in your target blood glucose range can help you reduce your risk of diabetes–related health complications[1,5]

You can try these **Top Tips** to increase your **Time in Range**:

2. Aim for your targets

At least 17 hours in range, less than 1 hour below range and less than 6 hours above range each day[1]

(Expert-recommended for most people)

1. Get to know your Time in Range

Look for patterns – do your blood glucose levels change during the day, overnight, or vary more on certain days?

3. Reduce blood glucose spikes

Swap simple (fast-release) carbs and high-glucose foods, such as white bread and prepackaged foods with high-fibre and complex (slow release) carbs, such as wholegrain and plant-based foods. Adding in exercise will help[6,7]

<3.9 mmol/L

4. Take action when you go low

It's important to act when your blood glucose drops below 3.9 mmol/L.

A sugary drink, glucose tablet or snack can help get you back up in range[8]

5. Think before you reach for the carbs

When your blood glucose dips it's easy to grab the nearest snack. But fruit, vegetables or wholegrain will give you more control than high-carb foods and sweets[9,10]

6. Learn from high and low days

Think back to days when you hit your **Time in Range** target – what did you eat and what were you doing? And what about on days when you were less in range?

7. Keep tabs on your treatment

It's essential not to skip your diabetes medications and insulin injections but to always take them in the right way at the right

8. Manage stress with self-care

Stress hormones can cause blood glucose to rise. You could for example reduce your 'to do' list, try deep breathing, meditation and do

9. Watch your alcohol intake

Alcohol puts you on a blood glucose roller coaster, with a high followed by a low. If you drink alcohol, drink moderately and do so with food[13]

times of day[11]

things you enjoy![12]

10. Get enough sleep

Sleep can affect your blood glucose levels, and people who feel tired are more likely to make poor food choices – try to ensure you get a good night's sleep[14]

Make a **realistic and effective plan** with your Healthcare Professional to spend more time in your **target blood glucose range**

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References

1. Battelino T, Danne T, Bergenstal RM, et al. Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations from the International Consensus on Time in Range. *Diabetes Care.* 2019;42(8):1593–1603. **2.** Danne T, Nimri R, Battelino T, et al. International Consensus on Use of Continuous Glucose Monitoring. *Diabetes Care.* 2017;40(12):1631-1640. **3.** Polonsky WH, Fortmann AL. The Influence of Time in Range on Daily Mood in Adults with Type 1 Diabetes. *J Diabetes Complications.* 2020;34(12):107746. **4.** Runge AS, Kennedy L, Brown AS, et al. Does Time-in-Range Matter. *Clin Diabetes*. 2018; 36:112-119. **5.** Lu J, Ma X, Shen Y, et al. Time in Range Is Associated with Carotid Intima-Media Thickness in Type 2 Diabetes. *Diabetes Technol Ther*. 2020; 22(2):72-78. **6.** WebMd.com. How to manage blood sugar spikes after meals. Available at: https://www.webmd.com/diabetes/how-manage-blood-sugar-spikes-after-meal. [Accessed September 2022]. **7.** Chacko E. Exercising Tactically for Taming Post-Meal Glucose Surges. *Scientifica (Cairo).* 2016;2016:4045717. **8.** NHS. Low Blood Sugar (Hypoglycaemia). 2020. Available from: https://www.nhs.uk/conditions/lowblood-sugar-hypoglycaemia/ [Accessed September 2022]. **9.** NHS. Hyperglycaemia (high blood sugar). 2018. Available from: https://www.nhs.uk/conditions/highblood-sugar-hyperglycaemia/ [Accessed September 2022]. **10.** Harvard T. H. Chan School of Public Health. Carbohydrates and Blood Sugar. Available from: https://www.hsph.harvard.edu/nutritionsource/carbohydrates/carbohydrates-and-bloodsugar/ [Accessed September 2022]. **11.** Sarbacker GB and Urteaga EM. Adherence to Insulin Therapy. *Diabetes Spectr*. 2016;29(3):166-170. **12.** Collins S. 4 Surprising Reasons for Blood Sugar Swings. WebMD 2014. Available at: https://www.staging.webmd.com/diabetes/features/surprising-blood-sugar-swings. **13.** WebMd.com. 2021. Diabetes and Alcohol. Available at: https://www.webmd.com/diabetes/drinking-alcohol. [Accessed September 2022]. **14.** Diabetes UK. Diabetes and Sleep. 2019. Available from: https://www.diabetes.co.uk/diabetes-andsleep.html. [Accessed September 2022].