

SPORTS, Exercise & Diabetes

*How to manage your diabetes
through exercise*

PRESENTED BY



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BENEFITS

see canva GIF

what is the recommended exercise?





SEE CANVA GIF
who is safe to exercise?

WHAT DO YOU NEED TO THINK ABOUT BEFORE EXERCISING?

YOUR BGL



THE EXERCISE



TIME OF ACTIVITY



WHAT ABOUT THE EXERCISE YOU ARE DOING?

WHAT EXERCISE?



INTENSITY?



DURATION?



What is my current blood glucose?

What type of exercise are you doing? Is it aerobic, intermittent or anaerobic exercise?

How long am I doing this exercise for?

Is this going to be light, moderate or heavy exercise?

Am I going to be able to stop half way through to re-assess my blood glucose levels?

How much insulin do I already have on board?



Where you are exerting a lot of energy in short bursts such as weightlifting or sprinting. During this type of exercise stress hormone and lactate are produced. In turn this causes blood glucose levels to rise. There are 2 main ways to counteract this.

1

Pre-correction dose – this needs to be done carefully, start with a small amount of insulin, make sure you keep a log before, during and after of blood glucose levels and adjust where possible. Do not worry about not giving enough insulin while you are trialling this.

2

Carry out aerobic training post anaerobic training to reduce blood glucose levels once they have spiked.

Aerobic exercise

Where you are exerting slower level of energy over a longer period of time such as jogging or swimming.

If you are on CSII you could use a reduced temporary basal.

If you use MDI you could reduce your bolus amount for the meal before exercise.

mixed exercise

Where you are required to exert energy in short burst but also using energy over a longer period of time as well such as rugby, football, basketball.

CGM can help a lot with tracking your blood glucose levels during this exercise, if CGM is not available then checking blood glucose regularly throughout to get a clear picture of what is happening is key.

Its important to note that there is no hard a fast rule for managing blood glucose levels during mixed exercise. This relies on the person being willing to improve their blood glucose levels for next time they do this activity.

what are your pre-exercise bg levels

HYPO?

Don't exercise - correct your low BG level and ensure stable before starting.

<7MMOL/L

Consider having some carbs (~20g) then wait until BGs >7mmol before starting exercise.

7-15MMOL/L

Safe to start exercise.

>15MMOL/L

If no ketones or <1.5mmol/l - safe to start moderate exercise but monitor BGs.

If ketones >1.5mmol/l - do not exercise until your BG is <15 and you no longer have ketones. You may need a corrective dose of insulin. Monitor BGs.

WHAT TO DO IF HYPO DURING EXERCISE?

If you still have a hypo during exercise you should stop, sit down, check your blood glucose and treat your hypo with fast acting glucose.

*10-15 grams for children
20 grams for adults*



managing bgs with insulin

- **Within** 2 hours of taking QA insulin decrease **ease insulin dose by ~50% if 60mins or more**
- If you are eating within 2 hours after exercising reduce QA insulin dose by ~50% if 60mins or more of activity completed
- If exercising >4pm decrease background insulin by ~20%
- Splitting (MDI) background insulin might be useful to allow more flexibility if more in morning/evening
- Use Temp basal for pump to achieve above
- Use BG testing/CGM to titrate % decreases needed and check overall trends

managing bgs with Carbs

- If BG <7 will need CHO to increase BGs
- Better to have 20g every 20 minutes vs 60g in one go e.g. "Drizzle effect"
- For recovery if >60 minutes exercise or 30 minutes high intensity aim for 30-50g CHO + 15-20g protein snack/meal
- Ensure CHO for recovery if hypos
- If exercise >4pm consider bedtime CHO+ protein snack
- Use BG/CGM to titrate carbs needed for different exercises

carbs during exercise

Time Exercised	Carbs	Text Here
<45 minutes	Not needed	Unless low on starting
45-75 minutes	Small amounts	Sports drinks, home-made sport drinks
1 - 2.5 hours	30-60 g/h	Jelly babies/beans, Lucozade, orange/apple juice, gels, bars
> 2.5 - 3 hours	Up to 90 g/h	As above

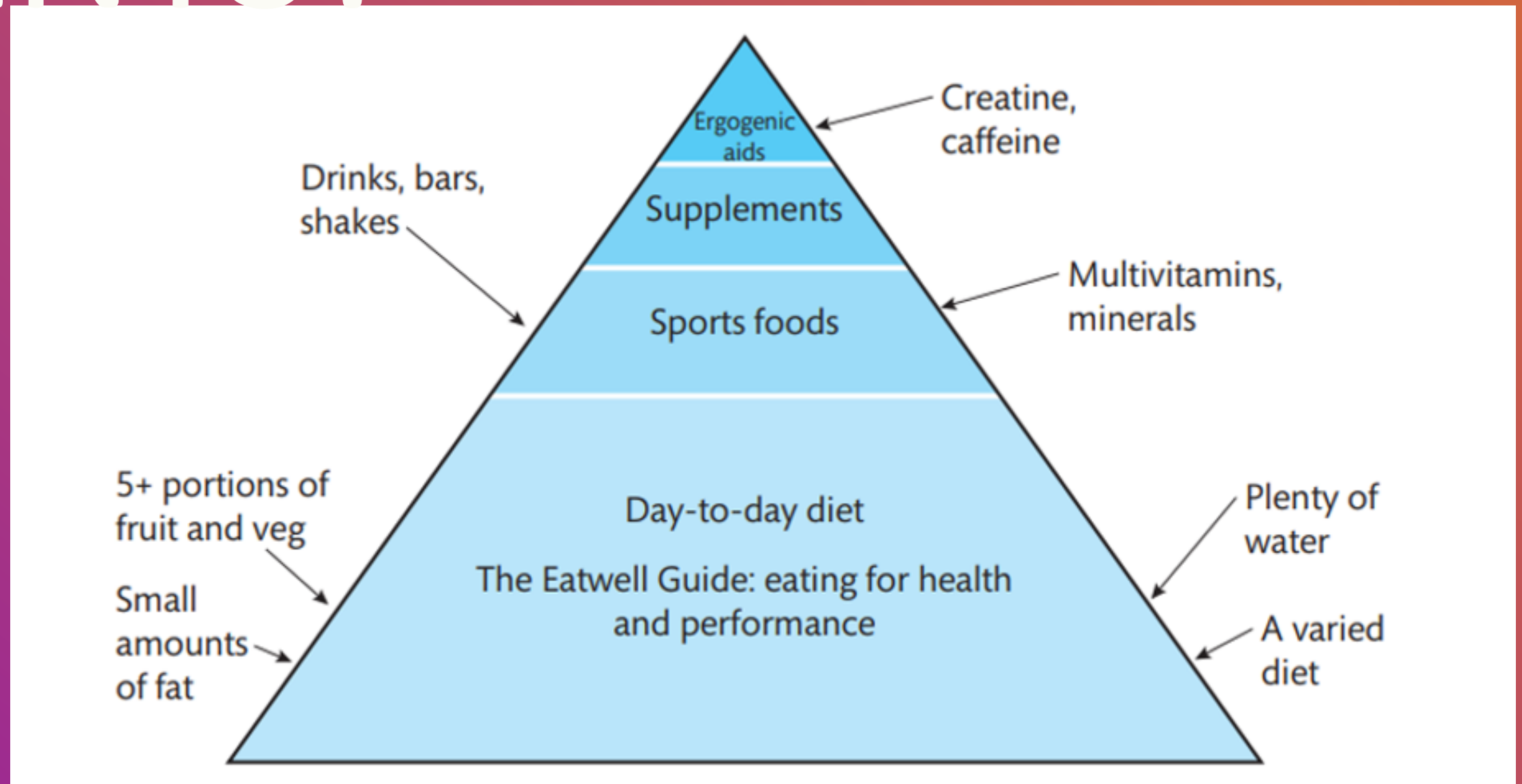
WHAT SUPPLEMENTS?

ABOUT

Unlikely to be needed unless elite level

May contain unknown ingredients which are harmful to your health

Speak to a SENr registered dietitian/nutritionist for advice or see certified websites



MONITORING AND RECORDING



Set fitness goals



Create exercise plans



*Monitor & record responses
to exercise/insulin*



*Create incentives for
yourself*



*Be accountable for your
actions*

BEING ACTIVE

WHEN YOU

Great for busy people

DON'T HAVE

TIDY THE HOUSE

TIME

STROLL AROUND THE PARK



GARDENING



WALK YOUR PET





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