

Exercise and Type 1

How does exercise affect you if you have diabetes?

- If you've taken insulin for food in the last 2-3 hours, how exercise affects you depends on the type and duration of activity along with starting blood glucose and the rate of change during exercise
- See the diagrams below to see how each type of exercise affects your blood glucose levels and how to manage it






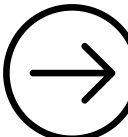
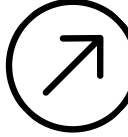
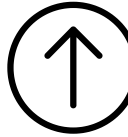

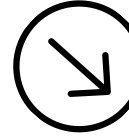
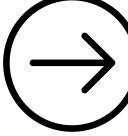
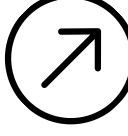
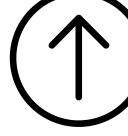
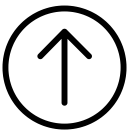
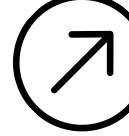
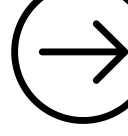


Exercise intensity and mode	After food, sustained, continuous, low stress hormone response	Mixed activity: Individual and team	Fasted overnight, burst, explosive, competitive anaerobic, high stress hormone response	
				
Average glucose response to exercise	 		 	
Exogenous insulin requirements around exercise	 		 	
Carbohydrate intake requirements around exercise	 		 	

Figure 1
Adolfsson, P. et al (2022). *Exercise in children and adolescents with diabetes.* ISPAD

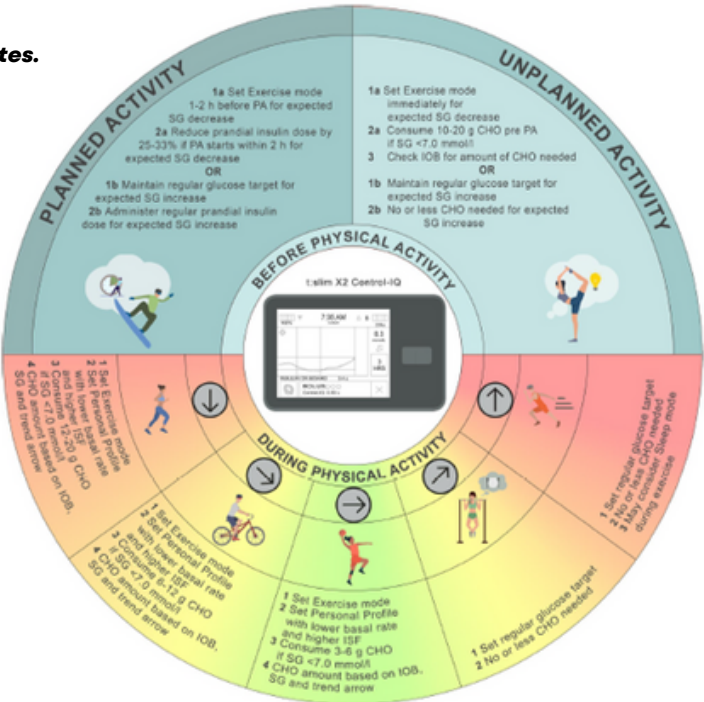


Figure 2
Moser, O. et al (2025). *The use of automated insulin delivery around physical activity and exercise in type 1 diabetes: a position statement of the European Association for the Study of Diabetes (EASD) and the International Society for Pediatric and Adolescent Diabetes (ISPAD).* Diabetologia. Feb; 68(2):255-280.

My plan:

Before activity

During activity

After activity

	Before Exercise		During Exercise	After exercise	
Plan Execution	Activity Target	Meal insulin	Carbohydrate	Activity Target	Post exercise meal insulin
>15mmol/L using starting plan	Off	No reduction	<7mmol/L carbohydrates 3-20g per 30mins	Off	No reduction
Starting plan	On	-25%		Off	-25%
<5mmol/L using starting plan	On	-50%		On for 6 hours	-50%