

AIS SPORTS SUPPLEMENT FRAMEWORK

SPORTS GELS GROUP A



Sports gels are a highly concentrated source of carbohydrate in a honey or gel-like form. They are a compact and portable source of fuel that can be easily consumed and quickly digested during exercise to help meet your carbohydrate needs.

Compact source of carbs (20-30g) & energy (350-500kJ)	Low in protein, fat & fibre for rapid digestion & gut tolerance	Small amount of electrolytes for thirst drive & fluid retention (<100- 300mg sodium)	Suitable for exercise at high intensity e.g. running & repeat efforts	May contain caffeine (25-100mg), which can contribute to caffeine intake goals	May contain menthol, which can provide a sensation of cooling	Should be consumed with water to meet hydration needs

BENEFITS & SITUATIONS FOR USE

Sports gels provide a compact and convenient form of carbohydrate to support performance via two main ways :



FUEL SUPPLY FOR MUSCLE
(ingestion)



BRAIN & NERVOUS SYSTEM BOOST
(via mouth rinse)

- ✓ Convenient, lightweight form of fuel that can be accessed easily during exercise
- ✓ Durable and won't get squashed like whole food
- ✓ Not affected by temperature like some sports bars
- ✓ Can be a convenient source of other elements e.g. caffeine, sodium & protein
- ✓ Some gels contain multiple transportable carbs e.g. glucose and fructose to maximise carbohydrate tolerance at higher intakes (60-90g/hr)
- ✓ Can be used for intense post-exercise refuelling, but usually food would provide a more nutrient dense option to contribute to recovery needs

Adequate CARBOHYDRATE intake around exercise may help protect IMMUNE FUNCTION & BONE HEALTH

CARBOHYDRATE INTAKE GUIDELINES

BRIEF EXERCISE (<45MINS)

- Not needed



SUSTAINED HIGH INTENSITY EXERCISE (45-75MINS)

- Small amounts of carbohydrate (swallowed) AND/ OR
- Frequent 'mouth sensing' with a significant duration of mouth contact (e.g. 10sec mouth rinse)



Gels



Sports drink



Bars



Chews

ENDURANCE EXERCISE & stop-start sports (1-2.5HRS)

- 30-60g/hr



Food



Gels



Sports drink



Bars



Chews

ULTRA-ENDURANCE EVENT (2.5-3+ HRS)

- up to 90g/hr*



Food



Gels



Sports drink



Bars



Chews

* Multiple transportable carbs (e.g. glucose & fructose) to be used when aiming for intakes >60g/hr.



SPORTS GELS



FOOD FIRST PHILOSOPHY

Sports food supplements (e.g. , gels and sports drinks) are often the most practical way to meet carbohydrate targets during exercise at high intensity. But when the intensity is lower or when fuelling pre-or post-exercise, using food options is often cheaper, and can meet carbohydrate needs plus provide additional nutrients.



1 Banana (large)
30g carbohydrate



Box of sultanas (40g)
32g carbohydrate



1 Muesli bar
30g carbohydrate



400mL Orange juice
30g carbohydrate



Flat coke (375mL)
40g carbohydrate



Fruit bread (2 slices)
38g carbohydrate



2 Rice cakes + 2tsp honey
25g carbohydrate



Cordial (25mL)
17g carbohydrate



3 Lolly snakes (30g)
30g carbohydrate



2 Pikelets + 2tsp jam
28g carbohydrate



2 Medjool dates
30g carbohydrate



White bread (2 slices)
33g carbohydrate

CONCERNS & CONSIDERATIONS



To maintain dental health, use with a water chaser and include some calcium rich dairy post-exercise.



A glucose : fructose ratio of 2 : 1 may assist gut tolerance and absorption when aiming for higher carb intakes >60g/hr.



Occasional targeted sessions may benefit from planned low carb intake to enhance the adaptive response of training.



Is it a necessary expense? Could you tolerate a food/ drink instead of a sports gel for the session?



'Gut training' with a mix of your preferred carbohydrate-rich foods/ and or sports foods can increase your body's ability to absorb carbs and reduce gut upset.



Sports gels provide 'fuel', but no other nutrients. Use strategically.



All supplements have a doping risk of some kind. Some supplements are riskier than others. Athletes should only use batch-tested supplements. The Sport Integrity Australia app provides a list of more than 400 batch-tested products. (www.sportintegrity.gov.au/what-we-do/supplements-sport).

While batch-tested products have the lowest risk of a product containing prohibited substances, they cannot offer you a guarantee. Before engaging in supplement use, you should refer to the specific supplement policies of your sport or institute and seek professional advice from an accredited sports dietitian (www.sportsdietitians.com.au). Athletes are reminded that they are responsible for all substances that enter their body under the 'strict liability' rules of the World Anti-Doping Code.

