SPORTS DRINKS

What are Sports Drinks?
Sports drinks can be purchased in a variety of forms including liquid, powdered, tablet; or they can be made at home. The main goal of a sports drink is to combine:

1. Fluid – for rehydration, fluid balance and cooling down core temperature
2. Electrolytes – for replacement of minerals lost in sweat
3. And possibly carbohydrates in the form of sugar - to meet high energy demands

Do I need a sport drink which contains added sugars?
Not all activities will require a sports drink which contains added sugars. See the table below

<table>
<thead>
<tr>
<th>When</th>
<th>Y/N</th>
<th>Why</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>NO</td>
<td>You will not need to consume extra sugar if you are not exercising. Water is sufficient.</td>
</tr>
<tr>
<td>Pre-exercise</td>
<td>MAYBE</td>
<td>If you have not eaten a pre-exercise meal and you are starting a hard training session or game within 30 minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you have eaten a pre-exercise meal, water is sufficient.</td>
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<tr>
<td>During exercise</td>
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<tr>
<td>Light &lt;45 mins</td>
<td>NO</td>
<td>e.g. walking or stretching for less than 45 minutes, light practice, pre-game walk through</td>
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<tr>
<td>High Intensity 45 – 75 mins</td>
<td>MAYBE</td>
<td>e.g. hard practice or game; take small sips of sports drink + additional water may be beneficial</td>
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<tr>
<td>60 – 180 mins</td>
<td>YES</td>
<td>e.g. football, soccer, rugby, cycling; take approx. 500mls – 1L of sports drink per hour* (30 – 60g carbs) + additional water</td>
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<tr>
<td>&gt;180 mins</td>
<td>YES</td>
<td>e.g. cycling, triathlon; take approx. 1.5L of sports drink per hour* (90g carbs) + additional water</td>
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<tr>
<td>Post Exercise</td>
<td>NO</td>
<td>You have brought a recovery snack with both protein and carbohydrates in it.</td>
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</tbody>
</table>

*these recommendations are based on using sports drinks alone to meet your carbohydrate needs. If you are using a combination of sports drinks and food, you will need to adjust accordingly

Carbohydrate content: Small concentrations of carbohydrates dissolved in water are easily absorbed by the small intestine. On the label look for a sports drink that contains 20 – 40g of carbohydrate per 500mls. If it contains more than this, it will not be easily absorbed from the stomach and could cause stomach cramps.

Multiple carbohydrate sources: the intestinal wall contains various unique carbohydrate transporters meaning that if multiple types of carbohydrate are made available to it, more carbohydrates can be absorbed. On the label look for different carbohydrate mixes such as:

- maltodextrin : fructose
- glucose : fructose
- glucose : sucrose : fructose
**Besides carbohydrate, what else should I look for in a sports drink?**

There are lots of hydration products which don’t contain carbohydrates that are marked for use in sport. Some in general, look for the following:

**Sodium:** Sodium stimulates the absorption of both carbohydrate and water from the small intestine. It stimulates thirst receptors, which encourage drinking to increase the body’s fluid stores. The ideal range for sodium is 230 – 345mg per 500mls.

**Flavour:** Stick with formulas that work with you and ones that you enjoy; avoid trying new formulas on competition day. If you are travelling for competition, make sure to try powdered forms in preparation, as these are more convenient for the road.

**Non-caffeinated:** If you are using caffeine as a performance aid you should use coffee or LCG/HFL tested caffeine supplements. Avoid sports drinks containing caffeine, guarana, herbal ingredients, or other ‘extra’ ingredients.

**Non-carbonated:** Carbonated drinks can cause gut irritation, especially when combined with nerves. Most also carbohydrate concentrations are too high (>8%) which does not adequately support hydration needs. They are best avoided when training or competing.

**Take Home Messages**

1. Carry a water bottle with you all the time and take small sips throughout the day
2. Hydrate with at least 250 - 500mls of fluid in the 30 minutes before activity
3. Drink at least 500ml of fluids with meals
4. Keep a water bottle by your bed side to rehydrate as needed during the night
5. If you are competing in a hot environment or experience cramping, add a pinch of salt to every 1L of fluid you drink the day before and of competition
6. Replace fluids lost after training
7. Water is always a great choice; however sports drinks can be more beneficial for energy when taken at an appropriate time.

**Please speak with your Sports Dietitian for further information**