Beetroot juice is a rich source of dietary nitrate, also found in other vegetables (particularly leafy greens), some fruits and processed meats. Dietary nitrate can be used to enhance the availability of nitric oxide, which plays an important role in the regulation of blood pressure, blood flow and muscle contraction. Increasing dietary nitrate intake has been shown to enhance exercise performance.

**Benefits of Nitrates**

**Increased exercise capacity** (reduced energy cost of exercise)

**Muscle Contraction & Performance**

**Immune Health**

**When to consider its use**

- Prolonged submaximal exercise eg. endurance events of 4-30 mins e.g. running, cycling
- To support training for aerobic fitness
- High-intensity intermittent events with short duration sprint efforts in individual and team sports
- During exposure to hypoxic conditions e.g. altitude training

**How to use it**

Research to date uses a variety of strategies and timing of supplementation, including single acute dose, top up acute dose, and chronic loading to obtain performance benefits.

**Acute dose:**

- Beet IT Sport Shot (70mL)
  - Concentrated beetroot juice (98%)
  - 400mg natural nitrate
  - 7x more concentrated than beetroot juice
  - Convenient, reliable form
  - $4 per shot
  - Batch tested
  - 350 - 600mg nitrate per day

**Chronic Supplementation** (3-15 days):

- FOR 3 DAYS PRE-EVENT = 350 - 600mg NITRATE PER DAY
- PRE-EVENT = 300 - 600mg NITRATE

*May be useful for highly trained athletes where performance gains seem harder to obtain

E.g. For 3 days prior:
- AM: 1 Beet IT Sport shot
- PM: 1 Beet IT Sport shot

**Race Day** (2.5hrs pre-event): 2 x Beet IT Sport shots

Avoid using mouthwash or chewing gum with beetroot juice, as they interfere with its benefit.
The nitrate content of vegetables can vary considerably depending on soil quality, climate and time since harvest. Whilst encouraging a higher daily vegetable intake is likely to have numerous health benefits, including increasing nitrate intake, supplementation is more consistent and reliable when seeking a specific performance benefit.

**FOOD FIRST PHILOSOPHY**

Beetroot juice, particularly in concentrated form can cause mild gut discomfort. Practise in training first.

Beetroot juice may cause a temporary pink colour to urine and stools. This is a harmless side effect.

Aerobic fitness levels impact the performance benefit in highly trained endurance athletes (VO2 max > 65).

Few studies have investigated the impact of nitrate supplementation on female athletes.

Mistaken use of nitrite or nitrite salt as supplements can be toxic. Stick to natural source of nitrates such as vegetables.

Chronic use of nitrate supplementation has not been studied long term.

While nitrate is present in processed meats as an added preservative, sourcing nitrate from processed meats is not encouraged. Consuming nitrate in its natural form is likely to protect against any potentially-harmful compounds.

**CONCERNS & CONSIDERATIONS**

- Beetroot juice, particularly in concentrated form can cause mild gut discomfort. Practise in training first.
- Aerobic fitness levels impact the performance benefit in highly trained endurance athletes (VO2 max > 65).
- Few studies have investigated the impact of nitrate supplementation on female athletes.
- Mistaken use of nitrite or nitrite salt as supplements can be toxic. Stick to natural source of nitrates such as vegetables.
- Beetroot juice may cause a temporary pink colour to urine and stools. This is a harmless side effect.
- Chronic use of nitrate supplementation has not been studied long term.

Approximate amount of food equal to 1 x Beet IT Sports Shot (400mg nitrate):

- Beetroot 1 large (200g)
- Bok choy 1 medium (120g)
- Rocket lettuce 2 cups (150g)
- Parsley 2 cups (150g)
- Silverbeet spinach 150g cooked (1 cup)
- Baby spinach 2 cups (150g)
- Fresh beetroot juice (500mL)
- Celery 2.5 cups (250g)
- Parsley 2 cups (150g)
- Rocket lettuce 2 cups (150g)
- Baby spinach 2 cups (150g)
- Silverbeet spinach 150g cooked (1 cup)
- Fresh beetroot juice (500mL)

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. 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.