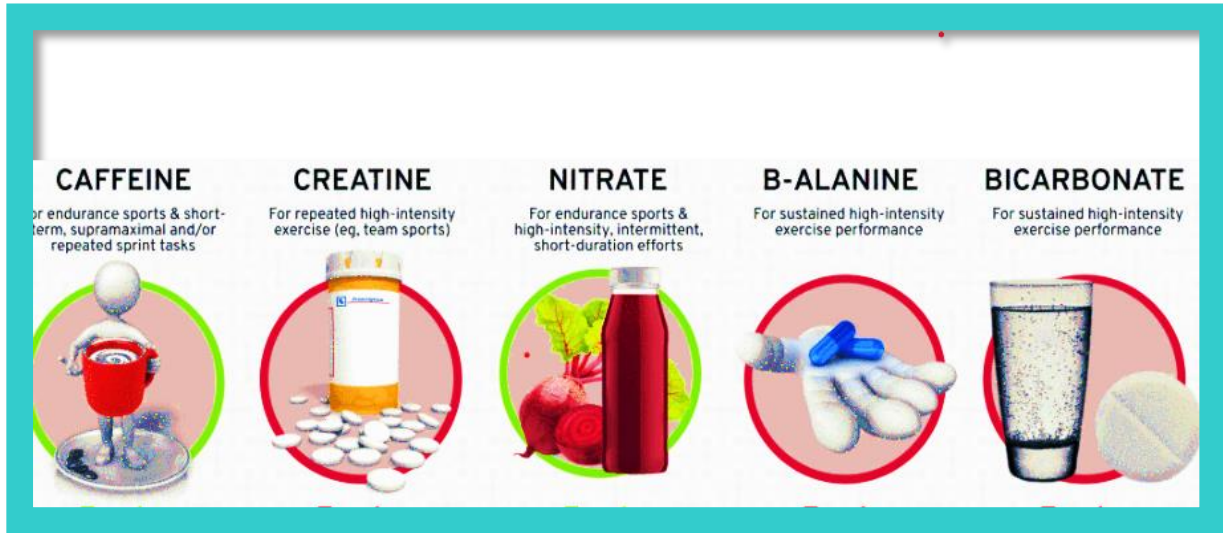


PERFORMANCE SUPPLEMENTS



First and foremost, when it comes to supplements please note that you cannot out supplement a poor diet and less healthy lifestyle. Before you start taking any supplement, **TAKE A LOOK** on your nutrition, sufficient protein intake, fibres, variety of healthy fats, Hydration and SLEEP.
GET THE BAISC RIGHT AND BUILD FROM THERE

Caffeine

- Caffeine is one of the few well proven aids, its shows to improve performance in any physical discipline and dosages can be individual.
- It can enhance cycling time trail performance by 3-7%.
- 3% improvement in time, mean and peak power output during sprint activity.

How it works:

- Reduce rate of perceived exertion (RPE)
- Increase muscle fibre excitability
- Spares muscle glycogen
- Increase reaction speed
- Releases extra endorphins

**Doses – an hour before exercise (this is when it reaches peak concentration)
2-6mg of caffeine per kg of body weight.**



CREATINE

It's a naturally occurring compound in our body and stored in muscles. Its greatest benefit is recovery in between high intensity efforts but also increases strength, power and muscle mass.

- Enhance maximum isometric strength.
- Improved performance in repeated bouts of high intensity exercise.

HOW IT WORKS

- It's used to generate ATP; the universal energy currency during maximal exercise of intermittent nature and allowing a higher intensity to be maintained.

DOSES- 5-7 days loading protocol – 4x5g doses daily to saturate muscle stores.

Maintenance - 3-5g daily to maintain muscle stores.

WHO IS IT FOR?

- Power Athletes
- Team sports involving sprinting
 - Cross fit training
 - Gym goers
- Endurance athletes – (Depends)

NITRATE (BEETROOT JUICE)

This is a great supplement to reduce fatigue between games/matches/repeated sessions etc.

- It improves 4-25% in exercise time to exhaustion.
- It enhances type 2 muscle fibre (fast twitch) function

HOW IT WORKS

- Once consumed, it converted to nitrate and circulate in the blood.
- When oxygen availability is low (during exercise) it converts to nitric oxide
 - Nitric oxide improves the muscles efficiency at using oxygen.
- Supplementation therefore reduces the energy cost of muscle contraction

DOSES – 400mg 2-3hours before exercise or 70ml beetroot shot provide same amount.

DIETRY DOSING – its hard to calculate exact mg consumed as nitrate content varies based on farming practice however food consumption higher in nitrate such as beetroot, spinach, rhubarb etc shown to improve performance.



BETA-ALANINE

- Beta- alanine supplementation has shown to be beneficial in both continuous and intermittent work patterns. (can improve up to 3% performance)

HOW IT WORKS

- Hydrogen ions are created during short term exercise and lead to muscle burn/fatigue
 - Carnosine acts as a buffer, soaking up hydrogen ions
- Increasing beta-alanine leads to increased muscular stores of carnosine
- Beta-alanine combines with histidine to create carnosine which works as an intracellular muscular acid buffer.

DOSES- loading phase – 0.2g/kg of body weight x 4 daily

Maintain phase – 0.2/kg of BW x2 daily

Splitting the doses above avoids short pins and needles sensation.

SODIUM BICARBONATE

- Good old baking soda works as an extra cellular alkaline buffer.
- It enhances performance (approx2%) in short term, high intensity exercise 1-10 minutes in duration.

HOW IT WORKS

- High intensity exercise increases; lactic acid, hydrogen ions and carbon dioxide in the muscle
 - These bi-products = muscle burn/fatigue
 - Bicarbonate is found naturally in the blood stream and acts as a buffer.
- Supplementation increases the bicarbonate pool and therefore enhances work capacity.

DOSES- 1-2 hours before exercise – 0.2-0.4g/kg of BW

TO REDUCE DIGESTIVE PROBLEMS; TAKE WITH CARBS AND SPLIT THE DOSE.

TRY CAREFULLY AND INCREASE DOSE SLOWLY AS IT CAN UPSET STOMACH.

(INTERNATIONAL OLYMPIC COMMITTEE)