

Essential nutrients required for optimal sports recovery and performance



Carbohydrates (CHO):

- The main fuel source used during exercise
- Decreased CHO intake results in muscle fatigue and poor sports performance
- Glycogen stores need to be replaced between every training session and race!
- CHO assists with the transportation of protein to the muscles, CHO intake after exercise helps increase protein synthesis (muscle repair) by 36%
- CHO intake after exercise lowers the stress hormone cortisol produced during training

Protein:

- Vital for changing the body from a breakdown state into a build build-up
- Repairs and rebuilds muscles after exercise
- Required for all chemical reactions to occur throughout the body
- Required for optimal and sustained energy levels and immune function

Good Fats:

- Good quality fats are needed to help access glycogen stores from muscles
- Essential for hormone development, production and function

EFA's (Essential Fatty Acids):

- Increases blood flow to muscles which aids in the removal of lactic acid & improves performance
- Transports all nutrients, electrolytes, water and fuel sources into cells
- Reduces inflammation in the body which reduces recovery time

Magnesium:

- An essential electrolyte required to reach optimal hydration
- Increases blood flow to the muscles to help increase the removal of lactic acid
- Improves muscle function & performance and helps reduce cramping

Iron:

- Transports oxygen to all parts of the body
- Low iron levels are common in athletes and results in low energy and lethargy
- Hard training load increases red blood cell count, which increases iron needs
- Iron is lost not only via blood but also via sweat

Zinc & Vitamin C:

- Both help protein with the regeneration and repair of muscles throughout the body
- Vitamin C enhances the absorption of iron and is a potent antioxidant which helps reduce inflammation in the body post exercise
- Zinc and vitamin C (along with protein, iron and EFAs) are essential for optimal immune function

Water and Electrolytes:

- Water is essential during all exercise activities
- Less than 60 minutes of exercise only requires water for rehydration
- When exercising for 75mins or more, use water and a rehydration formula
- Water & electrolytes assist with a wide range of chemical reactions throughout the body
- Low water & electrolyte intake result in impaired sports performance & slow reaction time

Sports performance nutrient food sources

Good quality carbohydrates:

- Rolled oats
- White potato
- Vegetables
- Beans/ legumes
- Barley
- Good quality sourdough bread
- Sweet potato
- Fresh fruit
- Natural or Greek yoghurt
- Brown, black, wild or basmati rice
- Quinoa
- Pumpkin
- Wholemeal pasta
- Lentils
- Dates

Protein:

- Grass fed/organic meat – Beef, chicken, lamb, turkey, pork, fish, salmon
- Raw nuts or seeds
- Free range eggs
- Beans, legumes, lentils
- *True protein WPI 90 or Vegan option*
- Raw nut or seed butters
- Natural or Greek yoghurt
- **Informed Sports Approved brands of protein powders:**
 - *Body Science Athlete Standard Whey protein*
- Organic tempeh
- Quinoa
- Whole milk/ cheese

Good fats:

- Raw nuts and seeds
- Natural or Greek yoghurt
- Extra virgin coconut oil
- Avocado
- Salmon
- Pure/ plain coconut milk or coconut yoghurt
- Olives
- Olive oil
- Grass fed butter
- Hemp Seeds/oil

EFA's:

- Salmon
- Flaxseeds
- Hemp seeds/ oil
- Organic tofu/ tempeh
- Walnuts
- Flaxseed oil
- Brussel Sprouts
- Free Range Eggs
- Chia seeds
- Sardines
- Spinach (only contains small amounts)
- Kale (only contains small amounts)
- Trout
- Mackerel

Magnesium:

- Pumpkin seeds
- Banana
- Avocado
- Natural or Greek yoghurt
- Rolled oats
- Almonds
- Black beans
- Lentils
- Brown or black rice
- Green leafy veggies
- Dark chocolate/ raw cacao
- Good quality electrolyte (see below)

Iron:

- Beef
- Lamb
- Turkey
- Lentils
- Parsley
- Cashews
- Red kidney beans
- Pumpkin seeds
- Dried apricots
- Pork/ salmon
- Almonds
- Black rice

Vitamin C:

- Citrus fruits
- Lemon
- Spinach
- Tomatoes
- Red Capsicum
- Raspberries
- Parsley
- Melons
- Strawberries
- Kiwi
- Broccoli
- Blueberries
- Cauliflower
- Leafy greens
- Brussel sprouts

Zinc:

- Red meat
- Raw nuts
- Red kidney beans
- Pork
- Cheese
- Flaxseeds
- Chicken
- Pumpkin seeds
- Spinach
- Eggs
- Brown rice
- Garlic

Hydration (ASADA/Informed Sports Approved):

- Water!
- Pure coconut water
- Pro4mance produrance
- SOS hydration electrolyte powders
- Body Science BCCA & electrolyte blend

Recipes

Banana and Oat Pancakes:

(Great as breaky after training or as a race day breakfast or as a healthy snack).

- 2 ripe bananas
- 2 organic/ free range eggs
- ½ a cup of traditional rolled oats
- 1-2 teaspoons of organic cinnamon
- ½ a teaspoon of baking powder
- Pinch of pink sea salt

- Place all ingredients into a blender, I tend to put chopped bananas in first then follow with eggs and then all the other ingredients.
- Blend all ingredients for a couple of minutes, or until smooth.
- Let mixture sit for a couple of minutes to thicken.
- Cook batter with some organic coconut oil in a frying pan on medium heat.
- Serve with 1-2 tablespoons of Greek yoghurt, 8-10 chopped raw nuts of choice and ½ a cup of mixed berries.
- Sprinkle some chia seeds on top, and for extra sweetness drizzle on some pure maple syrup or raw honey.

Serves about 2 people, so double recipe for 4 people.

Oat and Apple Pancakes:

(Great as breaky after training or as a race day breakfast or as a healthy snack).

- ½ a cup of un sweetened apple sauce or poached apples
- 1 ¼ cups of traditional rolled oats
- ½ a cup of raw un-sweetened almond milk or pure coconut milk
- 2 tablespoons of pure maple syrup
- ½ a teaspoon of baking powder
- ½ a teaspoon of baking soda
- ¼ of a teaspoon of salt
- 1 teaspoon of pure vanilla essence

- Blend all ingredients until well combined
- Cook on medium heat with coconut oil for 2-3 mins each side
- Serve with mixed berries, 2 tablespoons of flaked raw almonds, un-flavoured coconut yoghurt or plain Greek yoghurt and some pure maple syrup

Makes about 4-6 pancakes

Recovery Black bean and quinoa salad: from the Cook Book RUN FAST. EAT SLOW.

(Great for lunch or dinner after a competition or for lunch or dinner any day of the week)

- This salad lasts well in the fridge for at least 4-5 days so is great to make in advance for week day lunches or for lunch/dinner that is ready to go straight after a competition

INGREDIENTS:

- 1 cup of rinsed and drained white quinoa
- 3 cups of loosely packed and chopped kale leaves (remove stems)
- 1 red capsicum chopped
- 1 yellow capsicum chopped
- 1/2 a red onion diced (I soak in lemon juice for 20 mins to reduce bite)
- 1/2 cup of chopped fresh coriander
- 1 can of well rinsed black beans
- 1 avocado slice
- 1/2 cup toasted pumpkin seeds
- 1/2 cup pitted black olives
- The juice of 4 limes
- 1/3 cup of Extra virgin olive oil

METHOD:

- Cook quinoa according to packet instructions with some pink salt
- Transfer quinoa into large salad bowl to cool
- Once cooled add the kale, capsicum, red onion, coriander, black beans, lime juice, few grinds of pink salt, and extra virgin olive oil - combine well
- Cover and cool in fridge for at least 60mins before serving
- Just before serving mix in pumpkin seeds, olives and feta and top with sliced avocado

NOTE:

- After a competition or on a training day please serve this salad with a side of extra protein such as some boiled eggs, smoked salmon slices or any meat or fish of choice

Oat Cookies:

(Great as a snack when at competitions!)

- 1 ½ cups of traditional rolled oats
 - ½ cup of desiccated coconut
 - ½ cup of flaked or chopped almonds
 - 2 ½ tablespoons of liquid coconut oil or macadamia oil
 - 2 tablespoons of raw honey or pure maple syrup
 - 1 teaspoon vanilla essence
 - ½ a teaspoon of vanilla bean paste
 - 1 tablespoon of water
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- Combine oats, coconut and nuts together in food processor
 - Then add oil, raw honey and vanilla, process for 30 seconds until well combined
 - Then add water and blend again for 30 seconds
 - Make mixture into 20 small flattened cookies on a pre-greased or lined tray
 - Cook on low at 150° for 20-30 minutes or until golden brown

This makes a small batch of cookies so double recipe for more.

Good quality ASADA/ Informed Sports Approved electrolyte brands:

- **Pro4mance** – Produrance endurance electrolyte drink
<https://www.pro4mance.com.au/product/produrance-sports-drink/>
- **SOS Hydration** - any of their products are fine. However, these are lower in carbs so not ideal for girls in the Luteal phase of their cycle or in long tough training sessions as more carbs are needed in both these situations
<https://soshydration.com.au/>
- **Body Science** - BCAA and electrolyte blend. This is a particularly good option for girls in the Luteal phase (high hormone phase)
<https://www.bodyscience.com.au/essential-amino-bcaa-fuel-5133.html>

Protein/ bliss ball/ raw food bar brands to buy:

- Health lab: *found in all supermarkets*
<https://www.woolworths.com.au/shop/search/products?searchTerm=health%20lab>
- KIC – keep it cleaner protein balls and bars – *found at Coles and Woolworths*
<https://shop.coles.com.au/a/a-vic-metro-richmond-south/everything/search/keep%20it%20cleaner?pageNumber=1>
- Ceres raw food bars – found at Woolworths & health food stores
<https://www.woolworths.com.au/shop/search/products?searchTerm=ceres%20raw%20food%20bars>
- Tom and Luke balls/bars: <https://tomandluke.com/product-category/snackaballs/>
- Blue Dinosaur bars – at Woolworths, IGAs, online and health food stores
<https://www.woolworths.com.au/shop/search/products?searchTerm=blue%20dinosaur>