

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 75-90 minutes of exercise only requires water for rehydration
- When exercising for 90mins 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
- Raw nut or seed butters
- Natural or Greek yoghurt
- Cottage cheese
- 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
- Watermelon juice

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, chopped raw nuts of choice and ½ a cup of mixed berries or spread with raw nuts butter and top with sliced strawberries and cinnamon
- Can drizzle some pure maple syrup or raw honey on top for extra sweetness

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
- Or spread with raw nut butter and top with sliced strawberries and cinnamon

Makes about 4-6 pancakes

Nutrient dense pasta salad: from the Cook Book RUN FAST. EAT SLOW.

(Great for lunch or dinner with some protein & before or after a competition/ training)

- 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 or training

INGREDIENTS:

- 4 red capsicums cut into 1-inch pieces
- 2 large eggplants cut into ½ inch cubes (could swap for zucchinis if you prefer)
- 2 fennel bulbs quartered cored & cut into 1-inch pieces (can leave out if not a fan)
- ½ a cup of Extra virgin olive oil
- 1¾ teaspoons of pink salt
- 500g of dried penne or fusilli
- 1 can of drained and rinsed chickpeas
- 1 cup of grated parmesan cheese
- ½ a cup of pitted kalamata olives
- 1 cup of chopped fresh basil
- ¼ of a cup of fresh lemon juice
- ½ a teaspoon of fresh ground black pepper

METHOD:

- Pre-heat oven to 220 degrees C
- In an extra-large mixing bowl toss the capsicum, eggplant and fennel with ¼ cup of olive oil and 1 teaspoon of pink salt
- Spread veggies out on 2 baking sheets & roast in the centre and lower racks in oven for 30-40 mins, stir every 15mins. Add chickpeas in at the 25-minute mark
- Cook pasta in salted water according to package instructions until al dente, drain and rinse under cold water
- Transfer pasta to an extra-large salad bowl and toss with remaining ¼ cup of extra virgin olive oil
- Add the roasted veggies, chickpeas, Parmesan, olives, basil, lemon juice, remaining salt & pepper to the salad bowl and toss well
- Taste, add more salt if needed
- Serve warm or at room temp
- Serves 8

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 or at school or before training!)

- 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

- 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.

Blueberry & coconut Muffins:

(Great as a snack when at competitions or at school or before training!)

- 1/3 of a cup plus 2 tablespoons of coconut flour
- 1/8 teaspoon of baking soda
- 2 tablespoons of pure maple syrup or raw honey
- ½ cup of full fat organic canned coconut milk
- 2 tablespoons of melted coconut oil
- 3 eggs
- ½ - 1 teaspoon of pure vanilla essence
- ¼ cup of fresh blueberries

- Pre heat oven to 180 and line muffin-baking trays.
- Mix together coconut flour and baking soda.
- In a separate bowl whisk together coconut milk, eggs, coconut oil, maple/rice mal and vanilla.
- Then mix the wet and dry ingredients together.
- Then gently fold the blueberries into the batter.
- Spoon batter into the prepared muffin tins, fill to the top.
- Bake for approx. 30mins or until toothpick inserted into middle of muffin comes out clean.
- Bakes 6 muffins.

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. <https://soshydration.com.au/>
- **Body Science** - BCAA and electrolyte blend.
<https://www.bodyscience.com.au/essential-amino-bcaa-fuel-5133.html>
- **Coconut water:**
<https://www.woolworths.com.au/shop/search/products?searchTerm=%20cocobella%20coconut%20water>

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

- Health lab protein and bliss balls: *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/>
- Emma and Tom life bars:
<https://www.woolworths.com.au/shop/search/products?searchTerm=emma%20and%20tom%20life%20bars>