

SPORTS NUTRITION

Preparing for a sporting challenge? Your success will depend on 4 things: physical training, adequate rest, a balanced, nutrient and energy dense diet and good hydration. Here s a round up of the latest research into sports nutrition and recommendations from the Journal of ISSN (2018).

| Daily recommended | Calories per Kg per Day | Carbohydrates (g/kg/day) | | Protein (g/kg/day) | | Fat (% of daily caloric intake) | |
|---|---|--|---|---|---|---|--|
| General fitness (40 min per day, 3 X per week) | 25 - 35 | 3 - 6 | To maintain liver and muscle glycogen stores for energy | 1.2 - 2.0 | To ensure muscle recovery and prevent muscle wasting, injuries, illness, and training intolerance | Around 30% | To maintain testosterone concentration |
| Intense training (2-3h per day, 5-6 X per week) | 40 - 70 | 5 - 8 | | 1.7 - 2.2 | | Up to 50% | |
| Best sources | 4-6 meals per day and nutrient dense snacks in between meals to meet energy needs | Mainly from whole grains, vegetables, moderate low sugar fruit. Refined sugars, starches and engineered sports nutrition products only for sessions of 90mins+ | | Skinless chicken, fish, egg whites, very lean cuts of beef and skim milk Whey, casein, milk and egg protein supplements. Rice and pea protein = most effective plant sources | | Omega 3 fats may improve exercise tolerance = eat oily fish or supplement daily | |
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| TIMING | NIGHT BEFORE | 500 mL of water or sports drink the night before | 6 HOURS | Last main meal (4-6 hours before) | 90 MINUTES | 3-9 mg/kg caffeine 30-90 min before exercise can improve endurance and sprint performance - more effective if not drunk regularly | 1 HOUR | Light carb + protein snack (30mins - 1 hour before or straight after) | START | From 90mins = 12-16 fluid ounces of water or a sports drink every 5-15 min. Performance can be significantly impaired when 2% or more of body weight is lost through sweat. Glucose/electrolyte solutions help maintain blood glucose levels, prevent dehydration, and support immune system | 2 HOURS |
| | | | | 500 mL upon waking | | | | 400-600 mL of water or sports drink 20 - 30 min before start | | | |
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Vitamin C may help reduce oxidative damage and maintain a healthy immune system during heavy training

Vitamin D helps improve muscle strength & may reduce risk of injury

Electrolytes: sodium, potassium and magnesium minerals are depleted by intense exercise

Check your iron levels (especially female athletes)