



FACT SHEET ALMONDS FOR SPORT & EXERCISE

Almonds provide a wide range of nutrients that help to keep the body healthy for sport. Almonds are a source of protein, healthy monounsaturated fats and fibre. They also contain vitamin E (an important antioxidant) as well as other key vitamins and minerals such as calcium, potassium, magnesium, iron, phosphorous and riboflavin (vitamin B2). A 30g handful per day will help meet essential nutrient needs.

RECOVERY

Recovery nutrition encompasses a range of physiological processes that include:

1. Replacing the muscle and liver glycogen (carbohydrate) stores used up during intense exercise
2. Replacing the fluid and electrolytes lost in sweat
3. Promoting muscle growth and repair as well as adaptation to exercise
4. Bolstering the immune system to support health and combat the immunosuppressive effects of exercise

REFUELLING

In the immediate post exercise period, athletes are encouraged to consume a carbohydrate rich meal soon after finishing a training session or competition. This is important, as during the hours immediately after exercise rates of glycogen synthesis are at their highest. This is of particular importance if the next training session is within 8 hours, as this would require more rapid repletion of carbohydrates. The amount and type of food chosen would take into consideration the individual athlete's daily carbohydrate and energy requirements, exercise just completed, gastric comfort and food availability. Despite being low in carbohydrates, almonds may be added to higher carbohydrate foods to aid in recovery and provide other important benefits – for example, almond butter can be added to wholegrain toast or raw almonds can be added to bircher muesli.

REHYDRATION

A fluid deficit incurred during training or competition session has the potential to impact negatively on the performance of an athlete during subsequent training or competition sessions. Athletes should aim to drink ~125-150% of their estimated fluid losses within the 4-6 hours after finishing their training session. The addition of sodium to a drink or food as part of recovery will reduce urinary losses and preserve thirst, thereby enhancing fluid balance. The type of fluid used needs to take into consideration the length of time until next session, the degree of fluid deficit, taste preferences, daily energy requirements and other recovery

goals. Almonds naturally contain important electrolytes and salted varieties may also enhance rehydration.

MUSCLE REPAIR AND BUILDING

Both prolonged and high intensity exercise cause a substantial breakdown of muscle protein. During the recovery phase there is decreased muscle breakdown and an increase in the anabolic processes (growth/building) of muscle tissue which may span over a 24-48 hour period. Eating high-quality protein soon after exercise, and every 3-4 hours thereafter, promotes an increase in protein synthesis which leads to muscle growth and repair. The amount of protein needed to maximise this adaptation to exercise is ~15-25g of high quality protein. Combining this protein with carbohydrate provides further benefit by decreasing the amount of muscle protein breakdown. A handful of almonds contains ~6g of protein and may be used to add an extra protein boost to other meals such as yoghurt and salads.

IMMUNE SYSTEM

The immune system is suppressed by intensive training. This may place athletes at increased susceptibility to infectious illness at this time. Evidence indicates the most promising nutritional immune protectors include adequate carbohydrate before, during and after high intensity exercise. Other nutrients that have been proposed as immune protectors include Vitamin C and E, glutamine and zinc. Vitamin E is the most readily available antioxidant available in almonds. Most of these are found in the brown skin so ensure you eat the whole nut to obtain the greatest benefit.

INCLUDING ALMONDS AS PART OF RECOVERY

Some examples of how almonds could help meet the goals of recovery include:

- Salted almonds with fluids to enhance rehydration
- As part of a snack providing a source of protein to enhance muscle repair and building
- As a source of Vitamin E for the immune system.

ALMONDS IN WEIGHT BASED SPORTS

Almonds are high in protein and fibre, and despite being high in healthy fats, have been shown to assist with weight loss and the reduction in hunger sensations. Evidence shows that individuals who regularly consume almonds are able to more effectively control their body weight. This can be particularly important when attempting to meet weight goals in preparation for an event.



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EXAMPLES OF MEALS THAT INCLUDE ALMONDS

Breakfasts

- Bircher muesli with toasted almonds
- Yoghurt with berries and chopped almonds or LSA mix
- Breakfast cereal with chopped almonds and milk
- Wholemeal toast with almond butter

Lunches

- Leftover chicken and almond stir fry with noodles
- Sandwich with lean meat and salad and a handful of almonds
- Pasta with vegetables, pesto and toasted almond slivers

Dinners

- Chicken salad sprinkled with toasted almonds
- Grilled steak or chicken with stir fried vegetables with almonds
- Chicken and almonds with noodles
- Red chicken, vegetable and almond curry with rice
- Pasta with crumbs, chilli and almonds

Snacks

- Trail mix with dried fruit, dry roasted and salted almonds
- Yoghurt with chopped almonds
- Homemade muesli bar with almonds and dried fruit
- Nut bar
- Apple and almond muffins
- Date and almond meal bliss balls

For more information on this and other sports nutrition topics, visit the Sports Dietitians Australia website or book to see an Accredited Sports Dietitian: sportsdietitians.com.au



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