

PERFORMANCE NUTRITION FOR SWIMMING

Swimming is a dynamic sport with events lasting from 20 seconds to 16 minutes. This highly technical sport demands power and endurance underpinned by different combinations of anaerobic (no oxygen) and aerobic (requires oxygen) fuel systems. It is not uncommon for large training volumes to be undertaken by young swimmers to ensure that they develop optimal biomechanical technique, physiological capacity, and race skills to allow them to compete at the elite level by adolescence. Indeed, it is possible for swimmers (particularly female swimmers) to achieve high levels of success before full pubertal development. Combinations of advanced training techniques, competition opportunities, and greater commercial rewards have extended the lifespan of a swimmer, and some elite swimmers now compete into their early 30s.

Because of the high training volumes and short recovery windows, nutrition is a key factor in the development of young swimmers. Age and biological age (stage of development) need to be considered when determining appropriate nutrition for swimmers. Young athletes should focus on a well balanced diet and appropriate nutrient timing rather than supplements.

Carbohydrate Requirements:

5-6g/kg CHO for most swimmers to support performance and glycogen (stored carbohydrate) replenishment

Example: 100lb (45kg) athlete needs about 230g CHO/day

Remember, carbohydrates are the primary fuel source for swimmers and essential for recovery after meets and practices!

Protein Requirements:

Table 1 Australia and New Zealand Nutrient Reference Values for Protein

		RDI
Boys	12-13 yr	0.94g/kg/d
	14-18 yr	0.99g/kg/d
Girls	12-13 yr	0.87g/kg/d
	14-18 yr	0.77g/kg/d

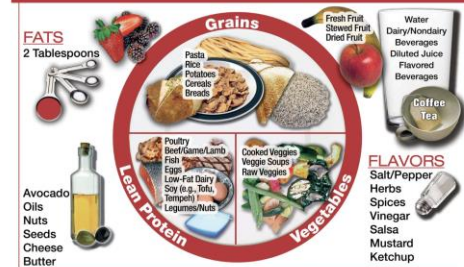
Note. Intake to support growth and maintenance of fat-free mass and should be used for active adolescents:

Example: 100lb (45kg) athlete needs ~42g protein/day

Most adult swimmers consume between 1.2-1.6g/kg protein per day

ATHLETE'S PLATE

HARD TRAINING / RACE DAY:



The Athlete's Plates are a collaboration between the United States Olympic Committee Sport Dietitians and the University of Colorado (CCS) Sport Nutrition Graduate Program. For educational use only. Print and use front and back as 2 handouts.

Tips for Parents:

- Aim for 3 balanced meals each day and limit fast food when possible
- Choose complex CHO at meals (pasta, grains, brown rice, etc. and simple carbs (gummies, sports drinks, etc) around competition time
- Choose 3-4oz lean protein at each meal for your swimmers (meat, poultry, fish, tofu, soy, beans, dairy, eggs, etc)
- Choose performance fats with meals/snacks (avocado, olive oil, canola oil, nuts, seeds, etc)
- Add color whenever you can! The more variety of fruits and veggies the better!