

Nutrition For Young Waterpolo Athletes

A well-balanced diet containing appropriate amounts of macronutrients (protein, carbohydrates and fat) and micronutrients (vitamins and minerals) is essential to provide enough energy for growth and activity. The aim of sport nutrition is to enhance performance, reduce fatigue, and decrease the risk of injuries and disease. There needs to be a good balance of energy intake with energy expenditure. Waterpolo requires endurance, strength, power, agility and swimming speed. Performance in games and during quality workouts is likely to improve by adopting strategies that promote high carbohydrate availability. It is a high intensity sports, so carbohydrates are really important.

Energy requirements (approximate daily calorie intake):

U13	U15	U17
1800 – 2200	2000 – 2500	2500 – 3000

Protein: 10 – 30% of daily calorie intake

Carbohydrates: 45 – 65% of daily calorie intake

Fats: 25 – 30 % of daily calorie intake

Suppose you need to take 2000 calories per day. So using an app like myfitnesspal (calorie counter), log in your food intake and say you adjust the percentage to 30% protein, 45% carbohydrates and 25% fats. Then that means 600 calories from protein, 900 calories from carbohydrates and 500 calories from fats.

Important vitamins and minerals to consider in your diet

Vitamin D3 – can be taken both from sun exposure onto the skin and diet but research but even though we live in a country with a lot of sun, many people are finding they are vitamin D deficient. Vitamin D is very important for bone growth and development and it also strengthens the immune system and reduces the risk of viral diseases. At least 600IU/day is needed.

Iron – Iron depletion can be caused by lack of intake of meat, fish, poultry, increases in iron losses (like in the case of females due to menstruation) and other factors. Iron is very important for oxygen delivery to body tissues. During adolescence more iron is required to support growth, as well as increases in blood volume and lean muscle mass. Iron is ideally take from food. Once cannot take an iron supplement without consulting with a general practitioner.

9-13 years – 8mg/day

14-18 years – 11mg/day

Omega 3 – best source from fish oil. This helps with lowering inflammation in the body, good for eye health and better brain function.

U13

1200mg/day

U15 & U17

1600mg/day

Calcium: Vitamin D helps absorb calcium for healthy bones and teeth. So it is important to have enough calcium in the body. One should have 1300mg/day.

Fluids

Fluids help to regulate body temperature and replace sweat losses during exercise. Dehydration can decrease performance and put athletes at risk of heat exhaustion/heat stroke. Fluid intake depends on age, body size, sweat rate etc.

Before activity

400ml – 600ml cold water (2 hours before the start of the activity).

During activity

150ml – 300ml every 15min

(for activity which last less than 1 hour, water is enough, with more than an hour, sports drinks with 6% carbs should be used).

After activity

Take weight before the start of the activity (say you weigh 50kg) and then take the weight again after exercise (say you now weigh 49kg). So that 1 kg loss should be replaced by 1.5 times. That means 1kg = 1000ml of fluid, so one should intake 1500ml of water.

Check urine colour, it should always be pale yellow. If it is dark, that means you are dehydrated.

Fluid temperature should be cold, so that heart rate does not increase rapidly when exercising in the heat.

Meal Prepping*Before activity*

Fiber and fats should be limited. These will make you feel heavy and sluggish. Ideally a small breakfast is taken or liquid meal. Some examples are oats with milk, some protein powder and half a banana.

After activity

Flavoured milk is one of the best recovery drinks because it contains protein and carbs. Fats should be limited here. Meals should be based on carbs and protein. A snack can be taken after activity (for example yogurt and dried fruit) and then a meal (for example chicken breast sweet potatoes and vegetables).

Macronutrients Table

Starchy Carbohydrates	Proteins	Fats
Sweet Potatoes	Eggs	Olive oil
Oats	Turkey/Chicken breast	Nuts
Brown rice	Lean beef	Seeds
Quinoa	Fish	Avocado
Pasta	Diary products	Coconut
Wholegrain bread	Protein powders	Flaxseed oil
Beans	Lean pork	Fish oil
Wraps	Tofu	Tahini

Ms. Romina Galea
M.Sc (Birm.) Exercise and Sports Sciences
Reading PhD in Sports Nutrition at the University of Chester