

FACT SHEET

FOOD FOR YOUR SPORT – GYMNASTICS

ABOUT GYMNASTICS

Gymnastics is a dynamic sport that incorporates seven disciplines - men's and women's artistic gymnastics, rhythmic gymnastics, trampolining, sports aerobics, sports acrobatics and cheerleading.

Training loads vary depending on the discipline and level of athlete but most competitive gymnasts train a minimum of 3 times per week for around 3 hours per session. Training sessions incorporate skill development, strength and flexibility training, and sometimes ballet for precision and fine-tuning. Elite gymnasts will train over 30 hours per week during morning and evening sessions.

National Championships for Rhythmic Gymnastics and Men's and Women's Artistic Gymnastics are usually held in May, Trampoline in July, Sports Acrobats and Cheerleading are in September and Sports Aerobics in October. However there are various local and international events throughout the year.

Competitions usually include an hour warm-up and competition time can last over 3 hours. During this time, some disciplines will practise their skills/routines repetitively, while others will rest between routines.

The progressive difficulty of gymnastic skills over the past 50 years has increased the physical demands and acrobatic nature of the sport. Gymnasts are required to be strong and flexible, as well as have a high level of skill and co-ordination.

Male and female gymnasts are typically small and have a low percentage body fat and high muscularity. This body composition provides physical advantages including better mechanical efficiency and increased power-to-weight ratio for performing acrobatic moves.

Gymnasts usually start training at a young age. Elite females peak before puberty and are typically ready for international competition at a young age. The current minimum age requirement for international competition is 16 years. Male gymnasts are typically ready for elite competition in their twenties when muscle mass peaks.

TRAINING DIET

A general healthy eating pattern helps to support the needs of a gymnast. The training diet usually includes Lean protein for muscle repair and recovery, carbohydrate appropriately timed for fuel and fruit, vegetables, nuts and seeds for vitamins and minerals, along with healthy fats.

Individual nutrition requirements will be determined by training load, specific athlete needs, training goals, body composition goals, health and adjustment for growth in younger athletes. During periods of heavy training it is important for a gymnast to have the right nutrition with adequate energy and nutrients to avoid fatigue (which can lead to serious injuries).

In addition, gymnasts are usually quite young and many prefer small frequent meals to fit their nutritional needs around their busy schedules of school, homework and long hours of training. Ideas for nutrient-rich snacks that can be eaten in the car between school and training include:

- Yoghurt & fruit
- Fruit toast or homemade fruit muffins
- Low fat flavoured or plain milk
- Sandwiches with nutritious fillings
- Wholegrain crackers with cheese or tuna

Low body fat levels are advantageous in gymnastics, for agility, dynamic power and technique. However, excessive dieting can lead to health and performance issues. It is important that parents, coaches and other staff aim to develop a positive body image in these athletes and seek the guidance of a Sports Dietitian for support and advice.

FLUID NEEDS

Despite training indoors, gymnasts need to maintain good hydration levels during training to prevent dehydration that can negatively impact performance.

In most circumstances, water will be sufficient to meet hydration needs in training. However, well-timed use of sports drinks may be beneficial during long or hot sessions as they simultaneously provide fluid, carbohydrate for the active muscles along with electrolytes for hydration. Good oral hygiene is important for dental health and excessive use of sports drinks should be avoided.

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EATING BEFORE COMPETITION

Gymnasts need to choose foods and drinks that are easy to digest before competition to avoid gastrointestinal upset from fast movements, turns and flips.

A light meal or substantial snack about 2 hours before warm-up will help to top up energy stores before competition. Foods chosen should be carbohydrate rich and low in fat and fibre to reduce the risk of gut discomfort. Some suitable pre-competition options include:

- Fresh fruit + small tub of yoghurt
- Breakfast cereal with milk or yoghurt
- Toast with peanut butter or banana
- Small serve of pasta or rice dish
- Wrap or sandwich with light fillings

Nervous athletes, or those who struggle with a poor appetite before competition, may find that liquid based carbohydrates such as flavoured milk or smoothies are more appealing before the event.

EATING AND DRINKING DURING COMPETITION

Competitions times often overlap one to two main meals (e.g. held from 8am - 2pm). In these circumstances, extra food between routines is essential for sustaining energy levels and concentration. Yoghurt, light sandwiches, trail mix and fruit are all ideal snack options for between routines to maintain energy levels and mental stamina. Sipping on sports drink can also be useful if solid foods are difficult to eat as they provide carbohydrate and fluid at the same time.

Foods and fluids during competition need to be easy to eat and digest, as nerves can make it difficult to eat during competitions. High fat foods should be avoided as these are slow to digest and can cause stomach upset during dynamic movements. Gymnasts should be prepared and pack foods that they like and that sit well in the stomach. Don't rely on what's available at the venue (meat pies and sausage rolls are not the best fuelling or recovery options!)

Gymnasts should work closely with an Accredited Sports Dietitian to trial nutrition strategies during training to find a competition plan that work best for each individual.

RECOVERY

There are three golden rules in recovery nutrition:

- Refuel muscle glycogen (carbohydrate stores)
- Repair muscle (for function & development)
- Rehydrate (replace fluids lost through sweat)

Many gymnastics competitions are held over a few days so gymnasts need to ensure that a recovery meal or snack is eaten soon after cooling down to help refuel, reduce fatigue and for muscle repair. After competing, a carbohydrate and protein rich meal or snack will help to kick start the recovery process. For example:

- Yoghurt with nuts
- Crackers with cheese or nut butter
- Chicken and salad sandwich or wrap
- Homemade pita bread pizzas with veggie toppings
- Beef and veggie stir-fry with rice or noodles.

After competition is also an important time to encourage plenty of fluids to replace sweat losses. Water is a good choice and milk contains fluid, carbohydrate, protein and electrolytes making it a very useful recovery drink.

OTHER NUTRITION TIPS

- **Be organised** If travelling straight from school to training, pack snacks and water bottles to have before, during and after training.
- **Micronutrients** Young athletes are at risk of iron, calcium deficiency if not eating a diet with a wide variety of nutritious foods. Due to the indoor nature of the sport, gymnasts are also at risk of Vitamin D deficiency. If concerned, checking iron and Vitamin D level with a GP is recommended
- **Disordered eating** can be an issue with some gymnasts. Care should be taken to encourage a wide range of foods so that all nutrient needs are met. Engaging the support of an Accredited Sports Dietitian can be helpful for preventing and managing disordered eating behaviours
- **Menstrual dysfunction** Any athlete with menstrual dysfunction (irregular or absent periods) should consult with a Sports Physician and Sports Dietitian