



Sports Dietitians Dietitians FACT SHEET

Gymnastics

June 2009

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 times vary but most competitive gymnasts train a minimum of 3 times per week for at least 3 hours at a time. These sessions incorporate skill development, strength and flexibility training and sometimes ballet for precision and fine-tuning. Elite gymnasts will train for 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, Trampolining in July, Sports Acrobats and Cheerleading are in September and Sports Aerobics in October. Competitions usually have an hour warm-up and competition time can last over 3 hours. During this time, some disciplines will practice their skills/routines repetitively, while others will rest between routines.

Physical characteristics

The progressive difficulty of gymnastic skills over the past 50 years has increased the physical demands and acrobatic nature of the sport. Today's elite female gymnasts are small, lean (low percentage body fat) and well muscled, which lends itself to a high power-to-weight ratio. Elite females peak before puberty and are ready for international competition at the minimum age requirement. Male characteristics have also changed over the years and are now smaller, lean and heavily-muscled. Male gymnasts are ready for elite competition in their twenties as muscle mass peaks.

Training diet

Gymnasts require a well-balanced, nutritious training diet. Gymnasts are usually quite young with many preferring small frequent meals to meet nutritional requirements and to fit into their busy schedules of school, homework and hours of training.

Most gymnasts need ideas for nutrient-rich snacks to get them through long evening training sessions. Foods that can be eaten between school and training in the car are a good idea. Some ideas include:

- Low-fat 2-minute noodles
- fruit scrolls or muffins
- fruit salad and yoghurt
- vegemite sandwiches
- crumpets with jam/honey

Due to a heavy training schedule, it is most important for a gymnast to have the right training diet. Gymnasts are highly susceptible to being "run down" in the lead up to important competitions, or fatigue at training which can lead to serious injury.

Body composition

Low body fat levels are advantageous in gymnastics, for agility, dynamic power and technique. Meals and snacks should be nutritious, while 'extras' (e.g. chocolate) should be limited as they provide little nutritional value for the kilojoules they come with. Some of these tips may help also:

- Avoid extreme hunger small, well-timed snacks will prevent over-eating later on
- Choose/provide high- fibre foods
- Find non-food ways of rewarding your child for reaching training goals

Fluid Needs

Despite training indoors, gymnasts need to keep their fluids up during training. This is to prevent dehydration that can lead to poor performances. Ideally young gymnasts should aim for 300-600ml/hr (more in hot weather).

We usually recommend a sports drink (e.g. Gatorade®) during training and competition because this will quickly replace sweat losses and the carbohydrate provides energy for active muscles.

What should I eat pre-event?

Gymnasts usually prefer a light meal that is easy to digest. A meal low in fat and high in carbohydrates for energy is ideal, consumed 2 hours before warm-up, like:

- Sustagen Sport (ready-to-go packs available)
- A piece of fruit + 200g tub of low fat yoghurt
- A bowl of breakfast cereal + low fat milk

What should I eat during competition?

Competitions often interrupt one to two main meals (e.g. 8am - 2pm) and extra carbohydrate intake is essential for replenishing stores. Yoghurt, fruit bars, and jelly lollies are idea snacks for petween coutines to maintain energy levels and precital starcing. A sports drink is also ideal to sip on as it replaces carbohydrate and fluid at the same time. Avoid high fat foods as these take too long to digest.

Foods and fluids during competition need to be easy to consume as nerves can be difficult to handle to during competitions. So gymnasts should pack foods that they like and that sit well in the stomach, like jam sandwiches or canned fruit. And be prepared! Don't rely on what's available at the venue (meat pies and sausage rolls are not the best fuelling options).

What about recovery?

State, National and International competitions are held over a few days so gymnasts need to ensure that a recovery meal is eaten immediately after cooling down. This should be taken into consideration when planning the daily meals. For example, fruit and yoghurt, sandwiches, sports drink and raisin bread slices are all suitable recovery snacks that are easy to carry around. It is also important to include a lean protein source in recovery for muscle tissue repair and growth.

After competing, a high-carbohydrate snack should be followed by a more substantial meal containing carbohydrate and protein. It is also a good time to encourage plenty of fluids.

Other Nutrition Tips

- Gymnasts (and parents) need to be organised and pack snacks for before and during training.
 Water bottles are also a good item to have in the gym bag to make sure plenty of water is consumed during training and on the way home or to school.
- Low iron stores can be a problem with female gymnasts, particularly elite gymnasts who train long hours. If you get tired ask your doctor for a blood test to check your iron levels. Click here to see our fact sheet on iron depletion in athletes.
- Eating Disorders are an issue with gymnasts. Care should be taken to encourage gymnasts to eat healthy but not be restrictive in their eating. A wide range of foods should be eaten so that all nutrients are obtained regularly. Advice from a Sports Dietitian may be helpful. Click here to see our fact sheet on eating disorders in athletes.

Want to get involved? Click on the link to find out more: go to www.gymnastics.org.au

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