

# FACT SHEET

## TENNIS

### ABOUT TENNIS

Tennis is a racquet and ball sport played between 2 people (singles) or 4 people (doubles). Tennis is played internationally by both males and females, across a range of ages and levels of competition from recreational to professional elite level.

Matches are played over a number of sets – typically 3 sets but males also compete in matches played over 5 sets at major tournaments. In the professional level such as the Australian Open, matches can last up to 3 hours for women and 4-5 hours for men – although there have been situations of matches going much longer than this. Between each point players may only get a very brief break (~20 second) and there is also a short (90 second) break with change of ends as well as 2 minutes between sets.

Competition play involves repeated short bursts of high intensity running over a match that can last for many hours. This means that tennis is a sport that requires not only a high level of skill and co-ordination but also a well-developed anaerobic energy system and excellent aerobic capacity.

Therefore even though the match is not continuous it has the potential to challenge the athlete's stored carbohydrates (glycogen). This becomes even more of a challenge during tennis tournaments when more than one match is held in a day or over several days as the time available for the athlete to fully recover is limited.

Although tennis can be played year round, it is predominantly a summer sport; therefore travel is a big component of the sport, so players also need to be tolerant to heat – especially if playing in the afternoon when temperatures and humidity can be high. It is important to remember that travel fatigue may cause suboptimal hydration status.

Professional athletes can spend more than 25-40 hours training each week. Training isn't just court-based work; it also focuses on improving footwork, agility, strength training and running. At a recreational level the training times will vary with many athletes participating in tournaments and competitive matches with more sporadic training regimes.

### TRAINING DIET

Training for tennis can be intense, setting athletes up for increased energy and carbohydrate needs.

Nutrition plans therefore need to be periodised to match the training demands of the player. For example, a diet that is high in nutrient rich carbohydrate foods is crucial to provide adequate energy to maintain performance and promote recovery during periods of heavy training. At other times, when training loads are lighter, energy and carbohydrate needs are also reduced accordingly.

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. Overall, training nutrition should focus on a combination of lean proteins for muscle repair and recovery with nutrient dense carbohydrate (appropriately timed for fuel). In addition, fruit, vegetables, nuts, seeds and wholegrains provide important vitamins and minerals, along with some healthy fats.

A body composition with relatively high muscle mass and lower body fat levels is ideal for tennis players for powerful shots, speed and agility. Excessive restriction is not useful as this can compromise performance - players with a desire to change their body composition should work closely with an Accredited Sports Dietitian to develop an individual plan.

### FLUID NEEDS

Staying hydrated is important for playing tennis as the intensity of matches, as well as hot weather conditions can lead to high sweat rates including water and electrolyte losses. Adding further challenge, the timing of matches can be unpredictable making it more important to constantly focus on good hydration strategies.

Since dehydration can impair performance including skill and decision making, sipping on fluids (particularly water) regularly and aiming for pale yellow urine is a good starting point.

During training and matches, having fluids easily accessible and making the most of opportunities to drink will help to replace sweat losses. As individual athletes have unique fuelling and hydration requirements, it's important to speak with an Accredited Sports Dietitian to determine appropriate fluids to consume.

### EATING BEFORE COMPETITION

It's important to begin matches well-fueled and hydrated. The timing of matches can be



unpredictable which can be a challenge for knowing when to eat a pre-match meal. In general having a pre-match meal ~3 to 4 hours before the start of the match, then topping up with small snacks if needed is a good approach. The pre-match meal should contain some carbohydrate for fuel as well as some fluids for hydration. Some suitable ideas include:

- Wrap or sandwich with meat/fish/egg and salad
- Bircher muesli or porridge with fruit
- Pasta with beef mince in tomato-based sauce
- Chicken noodle soup served with bread rolls
- English muffins with avocado and cheese

Additional snacks should be rich in carbohydrate but relatively low in fat and fiber so it is easy to digest. Some suitable snack ideas include:

- Yoghurt
- Fruit salad or fresh fruit
- Dried fruit and nut mix
- Rice cakes with peanut butter and banana
- Fruit bread/buns

If solids don't sit well before a match, or players are very nervous, a liquid source of carbohydrate such as a fruit smoothie or liquid meal replacement can be a good option.

## EATING AND DRINKING DURING COMPETITION

As tennis matches are often played in hot conditions, replacing fluid losses and keeping cool at breaks in play is important. In addition, carbohydrate can enhance performance and delay the onset of fatigue.

Practical hydration and cooling strategies include:

- Add ice to water bottles and store in eskies to keep cool
- Use individual bottles to keep track of fluid intake
- Choose higher electrolyte fluids as the sodium content promotes effective rehydration.
- Use cool towels around the neck and face
- Sit in front of fans during breaks if possible

Depending on the length and intensity of the match athletes will need to remember to pack suitable fluids and snacks in their bag to have courtside so

that they can make the most of any breaks in play to refuel and rehydrate. Suitable snacks include fruit, dried fruit, muesli bars or sandwiches with honey or jam.

Many athletes don't like to eat whilst they are playing as they find the food can sit in their stomach, in these cases, specialised sports foods such as gels, energy bars and sports drinks can be useful as they digest rapidly.

Players should work closely with an Accredited Sports Dietitian to trial nutrition and hydration strategies during training and matches to determine which foods and fluids work best for each player.

## RECOVERY

If players have less than 8-12 hours between training sessions or are playing in a tournament with multiple matches across a number of days then they should prioritise recovery nutrition as soon as possible after finishing the match.

Recovery meals and snacks should contain carbohydrate (fuel), protein (for muscle repair and development) and plenty of fluids and electrolytes to replace sweat losses. Plenty of vegetables should also be included to complete nutrition recovery and support gut and immune health.

Some recovery food suggestions include:

- Egg salad sandwich
- Flavoured milk + handful trail mix
- Wraps with chicken, cheese, avocado and salad
- Pasta with bolognese sauce and side salad
- Homemade pita pizzas with ham, cheese + veggies

## OTHER NUTRITION TIPS

**Be prepared:** Unexpected situations (e.g. rain or prolonged previous match) can delay the start of matches. It is a good idea to have a backup store of carbohydrate rich foods in your tennis bag so that you can top up fuel stores as needed while you wait.

**Increasing muscle mass:** Young athletes who are still growing should aim to get meet their nutrition and protein needs from carefully planned and timed meals and snacks rather than supplements.