

FACT SHEET RUGBY LEAGUE

ABOUT RUGBY LEAGUE

Rugby League is a popular Australian sport played by both professionals and amateurs. The competitive season runs from March to September with one game per week. Teams have 13 players including 6 forwards and 7 backs. Forwards usually weigh between 90-110kg. They need to be heavier due to their involvement in the scrums and tackling. Backs usually weigh between 80-95kg. They need to be more agile and so tend to be smaller and leaner. Matches have 2 x 40 minute halves. During the game each player is likely to cover 5-8km and be involved in 20-40 tackles. Most of the distance is travelled by walking or jogging but there are also bursts of high intensity sprinting and body contact. Glycogen (muscle carbohydrate) stores aren't usually depleted in a game, but are required for the high-intensity sprints, heavy-tackling or grounding the ball. Training sessions include running, skill work and strength training.

TRAINING DIET

Training is physically demanding, which sets up large energy, carbohydrate and fluid requirements. A diet rich in carbohydrate foods is important to provide adequate energy to maintain a high standard of play and also assists recovery.

Rugby is a professional sport, but some players have full-time jobs or study to commit to, on top of training and match schedules. This creates a very busy lifestyle and good nutrition habits can take back seat, especially if the athlete lacks the skills to shop and cook. Takeaways can be a trap but learning how to choose better takeaways, reading food labels and learning how to cook and prepare ahead can make a difference both on and off the field by aiding recovery and reduce fatigue.

The training diet of a Rugby League player should consist of;

- Carbohydrate-rich foods e.g. breakfast cereal, bread, muffins, muesli bars, rice, pasta, potato, fruit, smoothies. These should form the basis for most meals and snacks. This will help with exercise performance, recovery from training and muscle gain.
- Nutritious energy to help with muscle gain. Eating three meals and regular snacks everyday can help to meet this goal.
- Protein-rich foods e.g. meat, chicken, fish, dairy products and nuts. There is no need to eat masses of extra protein to "bulk up" – a balanced diet with adequate carbohydrate and protein will suffice.

- Minimal saturated fats. Avoid too much margarine, fatty meats, high fat takeaway foods, fried food and creamy sauces.
- Adequate unsaturated fats found in fish, avocado, some nuts and some oils.
- Plenty of fruit & veg for antioxidants, fibre and for preventing illness, building muscle and repairing injury.
- Minimal alcohol. Alcohol can lead to poor recovery, slow repair of injury and contribute to excess weight.

FLUID NEEDS

The fluid needs of rugby players during training and games are generally high because of the "stop and go" style of the game. Rugby league players have high sweat rates during a game especially during the summer months. Dehydration negatively affects exercise ability, skill execution and decision making and thus can significantly affect performance. A player can assess how much sweat they lose over a training session or match they have lost by weighing themselves before and after. See the Fluids in Sport factsheet for more details. Players should start the match well hydrated. This can be achieved by drinking adequate fluids the days leading up to and on match day. Producing regular amounts of clear urine is a useful indicator of good hydration status before exercise. Strategies include having fluids with all main meals and having access to fluids in between meals. In hot conditions, pay extra attention to fluid needs by having plenty of cool, refreshing fluids on hand, drinking at every opportunity (e.g. during breaks and when coming off the field) and monitoring and replacing losses proactively after a match/training session. The addition of sodium to fluids (e.g. sports drink) or salty foods (e.g. vegemite, crackers) can help to optimize rehydration strategies. Opportunities to drink during matches can be limited so players should aim to optimise fluid intakes during formal and informal breaks in play e.g. stoppage and injury time. Drinks containing carbohydrate (e.g. sports drinks) will assist with replacing energy stores. Sports drinks can be useful as they provide a source of carbohydrate (for fuelling on the field) and small amounts of electrolytes (salts) that may be lost during play.

FACT SHEET RUGBY LEAGUE

EATING BEFORE COMPETITION

The pre-game meal should be eaten around 2 to 4 hours before the start of the match. It should be high in carbohydrate and to avoid stomach discomfort, foods low in fibre and fat are suggested. It is important to ensure the meal is well planned and uses familiar foods and fluids. Additional high-carbohydrate, low-fat snacks leading up to a match can help with a final top up fuel stores before the match. A sample pre-match meal plan may be:

3-4 hrs before: Pasta with a low-fat tomato sauce + water

1-2 hrs before: 200g low fat yoghurt or banana or sports drink or muesli bars

Practice eating your pre-game meals and snacks before heavy training to work out what your stomach can tolerate. If you suffer from pre-game nerves or can't compete with a full stomach, try having nutritious drinks (e.g. smoothies) or eat early and top up with small snacks or drinks closer to the match.

EATING DURING COMPETITION

Although the half-time break is brief, it is the best opportunity for nutrition during play and players should make use of this break to consume fluids. During this break, most players will benefit from drinking sports drinks as well as water as they provide a carbohydrate boost and fluid during a game. Other good sources of carbohydrate include muesli bars, fruit and carbohydrate gels. At half time, aim for 200-400mls of sports drink or water and sip from a drink bottle during breaks in play and on the interchange bench.

RECOVERY

After training and games, it is important to refuel with carbohydrate to begin replenishing muscle glycogen stores and protein source in recovery for muscle tissue repair and growth and replace lost fluids. This is especially important during tournament settings and during weeks of heavy training. As a rule of thumb, a recovery meal or snack should be eaten within the first hour of finishing a training session or match. This snack should contain carbohydrates, protein and a source of fluid.

Examples of good recovery foods include:

- A salad sandwich or banana roll
- A bowl of cereal with milk
- Cereal/muesli bars

- Fruit salad and yoghurt
- English muffins/fruit muffins
- Soup + bread roll
- Burritos with chicken, low fat cheese and salad
- Pasta with meat based sauce
- Baked potatoes with lean beef mince sauce

OTHER NUTRITION TIPS

- Players should have a snack containing protein and carbohydrate after weights sessions to maximise muscle gain and recovery e.g. low fat yoghurt, a ham sandwich or Sustagen®.
- As Rugby League is a contact sport, injury is common. Alcohol can make injuries worse by increasing swelling and bleeding. This means that it is best to avoid alcohol for the first 24-48 hours after an injury occurs.
- Although there are many supplements on the market, many are expensive and have no proven benefit. Sports bars, sports drinks and liquid meals are a convenient way to top up energy levels especially if trying to gain weight.

January 2014

© This is a sports nutrition publication of
Sports Dietitians Australia.