

A RUGBY PLAYERS DIET

There are few sports as physical as rugby. It's therefore not surprising that a rugby players diet must enable him to withstand the vigorous training and equip him to reach peak performance.

A HEALTHY DIET SHOULD CONSIST OF:

- At least 5 portions of fruit and vegetables daily.
- Plenty of starchy carbohydrate foods, particularly high fiber varieties.
- Small amounts of protein.
- Small amounts of low fat dairy products.
- A reduction in the amount of fat, fatty foods, and sugary foods eaten.
- Plenty of fluids throughout the day.

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The training diet of a rugby player should:

- **Be high in energy to help with muscle gain** – eat three meals and regular snacks everyday.
- **Be high in carbohydrate rich foods** – breakfast cereal, bread, muffins, crackers and crisp breads, muesli bars, rice, pasta, potatoes, fruit, smoothies. These should form the basis for most meals and snacks. This will help with exercise performance, recovery from training, and muscle gain.
- **Be moderate in protein rich foods** – meat, poultry, fish, dairy products, beans, peas, lentils, unsalted nuts. There is no need to eat masses of extra protein to “bulk up.” Remember protein rich foods are not the main source of energy for exercise. In most cases the amount of protein required can be achieved simply by following a balanced healthy diet, which contains sufficient carbohydrate.
- **Make sure meals are low in fat** – try to avoid too much margarine, fatty meats, high fat takeaway and snacks, fried food and creamy sauces.
- **Include at least 5 servings of fruit and vegetables each day** – necessary for preventing illness, building muscles and repairing injury.

RUGBY FLUID REQUIREMENTS...

As with any intense activity, rugby players can lose considerable amounts of fluid during a game. This can in turn have detrimental effects on concentration and coordination. So, how can you stay hydrated?

- Most people need 1.5-2.0 liters of fluid per day, plus whatever they lose during exercise.
- Get into the habit of drinking a glass of water with all meals and snacks.
- 2 hours prior to an event drink 500-600mls of water, or sports drink.
- During exercise drink 150-200mls every 15-20 minutes, if possible.
- After exercise try to replace losses within the first 2 hours of recovery.

NUTRITION BEFORE A GAME...

- Eat extra carbohydrate and drink plenty of fluid, 24 hours prior to the game.
- Have your last meal 3-4 hours before the game, for example pasta with a tomato based sauce, and lean meat, chicken, or fish: or a baked potato with tuna, or chicken.
- Have a light snack 1-2 hours before.

SNACKS AFTER A GAME

Drinking and eating carbohydrate rich foods as soon as possible after the game will help you recover more quickly. It's important to start refueling as soon as you can after training or a game.

Opt for high carbohydrate, low fat snacks, such as:

- Sandwich with low fat cheese, ham, chicken, tuna, boiled egg, or jam and peanut butter
- Bananas
- Fruit muffins, or pancakes
- Bowl of cereal with low fat milk
- Cereal bars
- Fresh fruit, and a diet yoghurt
- Dried fruit
- Low fat cereal bar

- Fig rolls
- Sports drink
- Fruit smoothies

Recovering from Hard Exercise: How to Refuel

What's best to eat for recovery after a hard workout? That's what marathoners, body builders, and fitness exercisers alike repeatedly ask. They read ads for commercial recovery foods that demand a 3 to 1 ratio of carbs to protein, tout the benefits of a proprietary formula, or emphasize immediate consumption the minute you stop exercising. While these ads offer an element of truth, consumers beware: engineered recovery foods are not more effective than standard foods. The purpose of this article is to educate you, a hungry athlete, about how to choose an optimal recovery diet.

Which athletes need to worry about a recovery diet?

Too many athletes who are obsessed with rapidly refueling the minute they stop exercising. They are afraid they will miss the one-hour "window of opportunity" when glycogen replacement is fastest. They fail to understand refueling still occurs for several hours, just at a slowing rate. Given a steady influx of adequate carb-based meals and snacks, muscles can refuel within 24 hours. If you have a full day to recover before your next training session, or if you have done an easy (non-depleting) workout, you need not obsess about refueling immediately afterwards.

Refueling as soon as tolerable is most important for serious athletes doing a second bout of intense, depleting exercise within six hours of the first workout, including—

- triathletes doing double workouts,
- rugby players in tournaments,
- people who ski hard in the morning and again in the afternoon.

The sooner you consume carbs to replace depleted muscle glycogen and protein to repair damaged muscle, the sooner you'll be able to exercise hard again.

Over the course of the next 24 hours, your muscles will have lots of time to replenish glycogen stores. Just be sure to repeatedly consume a foundation of carbohydrates with each meal/snack, along with some protein to build and repair the muscles. For example, chocolate milk or a fruit smoothie are excellent choices.

How many carbs do I need?

According to the International Olympic Committee's Nutrition Recommendations, *adequate carbs* means:

Amount of exercise	Gram carb/lb	Gram carb/kg
Moderate exercise (~1 hour/day)	2.5 to 3	5-7
Endurance exercise (1-3 h/day)	2.5 to 4.5	6-10

Extreme exercise (>4-5 h/day)	3.5 to 5.5	8-12
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Example, a 150-lb triathlete doing extreme exercise should target ~500 to 800 g carb/day (2,000-3,200 carb-calories). That's about 500 to 800 g carbs every 4 hours during the daytime.

What are some good carb-protein recovery foods?

Your recovery meals and snacks should include a foundation of carbohydrate-rich breads, cereals, grains, fruits, and vegetables plus a smaller amount of protein (at least 10-20 grams per recovery snack or meal). Enjoy—

- fruit smoothie (Greek yogurt + banana + berries)
- cereal + milk bagel + (decaf) latté
- pretzels + hummus baked potato + cottage cheese
- turkey sub pasta + meatballs.

Do NOT consume just protein, as in a protein shake or protein bar. Protein fills your stomach and helps build and repair muscles, but it does not refuel your muscles. Your muscles want three or four times more calories from carbs than from protein. If you like the convenience of protein shakes, at least add carbs to them. That is, blend in some banana, frozen berries, and graham crackers.

Keep in mind that recovery calories "count." I hear many frustrated dieters complain they are not losing weight despite hard workouts. Perhaps that's because they gobble 300 or so "recovery calories" and then go home and enjoy a hefty dinner. By organizing your training to end at mealtime, you can avoid over-indulging in recovery-calories.

What about recovery electrolytes?

After a hard workout, many athletes reach for a sports drink, thinking Gatorade or PowerAde is "loaded" with sodium (an electrically charged particle). Think again! Milk and other "real foods" are actually better sources of electrolytes than most commercial sports products. These electrolytes (also known as sodium and potassium) help enhance fluid retention and the restoration of normal fluid balance. Here's how some common recovery fluids compare:

Beverage (8 oz)	Sodium (mg)	Potassium (mg)	Protein (g)	Carbs (g)
Water	--	--	--	--
PowerAde	55	45	--	19
Gatorade	110	30	--	14
Low-fat milk	100	400	8	12
Chocolate milk	150	425	8	26
Orange juice	--	450	2	26

As you can see, after a hard workout, recovery fluids that such as chocolate milk, orange juice, or a latte offer far more "good stuff" than you'd get in a sports drink. Sports drinks are dilute and designed for *during* extended exercise.

To assess how much sodium you lose in sweat, weigh yourself naked pre-post an hour of exercise, accounting for any fluid consumed. Loss of one pound equates to loss of about 700-1,000 mg sodium. If you sweat heavily and lose a significant amount of sodium, you can easily replace those losses with pretzels (300 mg sodium/10 twists), a bagel (500 mg) with peanut

butter (200 mg/2 tbsp). Wheaties and milk (300 mg), or a spaghetti dinner with tomato sauce (1000 mg/cup Ragu sauce). Most athletes consume plenty of sodium!

Recovery can start before you exercise

What you eat before you exercise impacts your recovery. According to research presented at the 2011 annual meeting of the American College of Sports Medicine, consuming protein before lifting weights enhanced recovery better than consuming a protein drink afterwards. That's because your body digests pre-exercise protein into amino acids (yes, your body can digest food during exercise) and puts those amino acids right into action repairing damaged muscles.

What if you feel like you never really recover well?

If you have to drag yourself through workouts, questions arise:

- Are you overtraining? Rest is an essential part of a training program; muscles need time to refuel and repair. Take at least one, if not two, days off from exercise per week.
- Are you anemic? Anemia is common. so have your MD monitor your serum ferritin (stored iron). If your iron stores are depleted, you'll feel needlessly tired during exercise. An estimated half of female athletes are iron-deficient, as indicated by low serum ferritin stores. (About 14% of all women are iron deficient.) A survey with collegiate male runners suggested about 20% had low serum ferritin. Iron supplements help resolve the problem, alongside a good recovery diet. Eat wisely. recover well, and feel great!