



**National
Performance
Nutrition
Newsletter**

March 2011



Rugby Grub - Issue [1]

Getting it right on the day... Game Day Nutrition

With the start of the rugby season upon us, it's time to start thinking about ticking all of the boxes to ensure you are ready to give your all during a game. Giving consideration to what you eat & drink is an essential part of preparation. While many athletes are conscious of their pre-game meal, it's important to remember that your fuel & fluid reserves are a reflection of diet & training over the last few days, not just your pre-game meal. Ideally, game preparation should start 1-2 days before the game, focusing on the following strategies.

To boost fuel reserves...

- Allocate more of your plate real estate to nutritious carb rich foods like pasta, noodles, rice, breakfast cereals, fruit in all it's forms, dairy snacks, starchy veggies, bread & other flour based products
- Moderate your intake of high protein and fat foods, ensuring you don't blow your calorie budget
- Stick with your 3 main meals but continue to take mid meal snacks, focusing on carb rich choices

To boost fluid reserves...

- Increase your total fluid intake over the day
- Focus on drinking with meals, the salt in the food you eat helps retain the fluid, boosting hydration
- Maintaining small sips of fluid between meals rather than big gulps at once helps promote greater water retention

Cont next month...game day



Inside

- **Getting it right on the day...**
Game day nutrition
- **Research Ramblings...**
Dehydration knocks around what you do in the gym too
- **Supplement low down...**
The risk of doping through supplements
- **Rugby Grub...**
Protein packed Caesar Salad
- **Guru goss...** we answer all your nutrition questions. Got a question, forward it to Gary at...
Gary.Slater@rugby.com.au



Take Home Tip #1...

Just like you'd never wear a new pair of boots for the first time in a game, always trial any game day nutrition strategy in training before rolling it out in a game. This gives you a chance to confirm that you tolerate it. Same goes for nutrition strategies in a game. If you've never used a sports drink in a game before, experiment with it during an intense training session first to confirm it works for you.

Research Ramblings

The Science...

Science tells us that being dehydrated reduces blood volume, starving your muscles of essential oxygen and compromising your rugby performance. A recent study has also shown that being dehydrated can also impact on your performance in the gym, reducing the number of reps you can do & thus reducing the stimulus to make you bigger & stronger. On average, athletes were doing 1-2 less reps per set when dehydrated compared to when they lifted well hydrated across the entire 18 set program. What's more, a similar study showed that when athletes turn up to the gym dehydrated, they finish the session with higher levels of hormones that promote muscle breakdown and lower levels of hormones like testosterone which help build muscles. So if you want the most from your training sessions it's really important to start sessions well hydrated and continue to drink during to avoid the performance sapping effects of becoming dehydrated. That's especially important as our summer heat wave continues.

Take Home Message...

- Present to ALL training sessions in a well hydrated state. Keep an eye on your urine colour over the day... it offers a pretty good guide to your hydration status. Keep it in the straw colour range to avoid compromising your next training session.
- Take advantage of all breaks in training to access fluid
- Make use of a variety of drinks... water is usually the best choice for shorter sessions (<45-60 min) but you might benefit from the extra fuel provided by a sports drink during longer, more intense sessions
- Weigh yourself before & after training. Any weight loss experienced is a reflection of the mis-match between your fluid intake & sweat loss. Try to keep weight loss to <2% of your body mass
- After exercise, consume 150% of losses over the next 2-3 hrs. For example, if you lost 1 kg during a session, consume 1.5L of fluid in recovery
- If recovery times are short, make sure you also replace lost electrolytes by including higher salt foods in your recovery meal/ snack e.g. flavoured rice cakes, pretzels, breads & crackers, sauces in pasta & rice dishes, cheese, canned products baked beans etc.

Kraft et al. Impact of dehydration on a full body resistance exercise protocol. Eur J Appl Physiol. 109:259-67, 2010.

Judelson et al. Effect of hydration state on resistance exercise-induced endocrine markers on anabolism, catabolism & metabolism. J Appl Physiol 105:816-824, 2008.



Rugby Grub...

Chicken Caesar Salad

Ingredients (serves 2-4)

4 thick slices grain bread sprayed with oil spray, cut into 2cm cubes
1/4 cup (60ml) lemon juice
2 garlic cloves, crushed
2 tsp Dijon mustard
2 skinless chicken breasts
4 slices prosciutto, trimmed of fat
2 anchovies (optional)
1 tbs white wine vinegar
1/2 cup (125g) low-fat natural yoghurt
2 tbs low-fat mayonnaise
1 tbs grated parmesan, plus extra, shaved, to garnish
2 baby cos lettuce, washed, dried



Method

1. Preheat the oven to 180°C.
2. Place bread cubes on a baking tray & bake for 10 minutes or until golden.
3. Combine 2 tablespoons lemon juice, half the garlic & half the mustard in a bowl. Place each chicken breast on a 30cm piece of foil, spoon over some lemon mixture & season with salt and pepper. Fold in sides of foil to make a parcel and place on a baking tray. Bake in the oven for 15 minutes or until chicken is cooked through. Allow to cool.
4. Place the prosciutto on a baking tray & bake for 5 minutes or until crisp. Remove & drain on kitchen paper. Allow to cool, then break into pieces.
5. To make dressing, place remaining lemon juice, garlic & mustard in a food processor with the anchovies, vinegar, yoghurt, mayonnaise & grated parmesan and process until smooth. Season with salt & pepper. Want an easier option... substitute with a bottle of low fat Caesar dressing from the supermarket.
6. Place lettuce in a bowl, tearing larger leaves. Drizzle with some dressing. Tear chicken into pieces, add to bowl with prosciutto & croutons, then toss. Place in a large bowl to serve. Drizzle with a little more dressing. Garnish with extra parmesan.

This is a great summer dish but it's low on fuel so best kept for low or non-training days. Alternatively, add a side of rice or extra bread to boost the fuel.

Source: *Delicious October 2003, P135.*

Want some inspiration? Check out the Taste website for a huge range (>21000) of recipes... Taste.com.au

Got a kick butt recipe you want to share with the boys? Submit your recipe to Gary at Gary.Slater@rugby.com.au



Supplement Low Down... Doping Risk

In late 2010 two of the Springboks athletes (Chiliboy Ralepele and Bjorn Basson) were handed down 2 year bans for doping offenses. In this specific case they tested positive to methylhexanamide, a banned stimulant. Quick action on behalf of the Springboks management was able to confirm that the positive test was as a consequence of a supplement both athletes had taken, despite the supplement being declared 'safe' by the manufacturer. While the athletes have subsequently been let off, this serves as a timely reminder to ALL rugby athletes that supplement use carries with it a risk of doping. Check out the following exert from the ASADA website relating to Methylhexanamide following a number of athletes returning positive doping sample...

Warning: Methylhexanamide

The Australian Sports Anti-Doping Authority (ASADA) is advising all Australian athletes subject to in competition doping control to carefully consider their use of supplements and products containing **methylhexanamide**.

What is methylhexanamide?

This substance is classed as an S6 stimulant on the Prohibited List and is prohibited in-competition. Bans involving this substance can range up to two-years.

Recent developments

Over the past two years, there has been increasing evidence that methylhexanamide is present in supplements and other products. This year methylhexanamide has been the subject of a number of reported doping cases involving Indian and Nigerian athletes, as well as a US swimmer receiving a suspension. Last year Jamaican athletes Yohan Blake, Marvin Anderson, Allodin Fothergill and Lansford Spence were suspended for three-months after each returned positive tests for methylhexaneamine from samples taken during the Jamaica National Track and Field Championships. ASADA is also investigating a number of positive test results to methylhexaneamine by Australian athletes.

What you need to do

Athletes need to be aware that, under the policy of strict liability, they are responsible for any substance found in their body. Athletes using supplements do so at their own risk and, because of supplement manufacturing processes can lead to their contents varying from batch to batch, ASADA can not advise if supplements contain prohibited substances. Athletes need to be very careful not to use any supplement or product that contains any of the following identifiers on the label:

Methylhexaneamine	Forthan	2-hexanamine, 4-methyl-
Methylhexanamide	Floradrene	2-hexanamine, 4-methyl- (9CI)
DMAA	4-methyl-2-hexanamine	1,3-dimethylamylamine
Geranamine	4-Methylhexan-2-amine	1,3-dimethylpentylamine
Forthane	2-amino-4-methylhexane	Pentylamine, 1, 3-dimethyl-

If you are thinking about taking a supplement, don't risk it! Make contact with your sports performance dietitian or sports doctor first. They can offer invaluable advice on the what, when & why of sports supplements.

