

# SN FORUM

**Sports Nutrition Forum**

A Publication for Health, Sports and Fitness Professionals



Pictured are: Rob Kearney; Dr Catherine Logan, Nutrition Manager, NDC; Caroline O'Donovan, Nutritionist, NDC; and Dave Kearney.

## ROB AND DAVE KEARNEY SIGN FOR THE NDC TEAM!

Recent Six Nations winners and Irish rugby icons Rob and Dave Kearney have lined out as ambassadors for the National Dairy Council (NDC) this year, as the NDC celebrates its 50th anniversary.

"The Kearney brothers are terrific role models who resonate with adults and children alike," said NDC Chief Executive, Zoë Kavanagh. "They bring together an established and a rising star of Irish sports and are, collectively, an embodiment of a balanced diet and an active lifestyle."

Rob and Dave Kearney are both strong supporters of Irish farming and food production, having grown up on a farm on the Cooley Peninsula in Co. Louth. A new television advertisement to promote Irish dairy was filmed on the Kearney family farm last month and will be launched on May 9th across the national airwaves to mark National Dairy Week (May 12th-18th, 2014).

The new advertising sets out to promote dairy as part of a healthy, balanced diet and as part of an active lifestyle for all of the family. It will show the goodness

of our dairy produce, which is based on quality, pasture-based dairy farming. It will also highlight that good nutrition starts with a balanced diet – promoting dairy within that context – and that good eating habits start from a young age.

"We're proud of our farming roots and recognise the amount of hard work that goes behind producing the type of good quality food we have come to expect in Ireland – Irish food deserves all the support it can get and we are both delighted to be working with the NDC in the months ahead," said Rob Kearney.

"There is a growing interest in sports nutrition, in professional and amateur sport, and the concept that how you fuel your body can affect your performance in training and in matches – whether you are playing a local school match or as a professional sports person – it embodies the principals we apply in our everyday life on and off the field," said Dave Kearney. (Turn to page 4 where Dave Kearney features in our 'Sports Star Spotlight').

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### Editorial

In this first publication of 2014, we introduce The National Dairy Council's new ambassadors, Rob and Dave Kearney, to our *SN Forum* readers. Dave Kearney also features in our Sports Star Spotlight, revealing the best and worst thing about playing professional rugby with his older brother. We also hear from our regular contributor, Ruth Wood-Martin who discusses 'DIY Sports Nutrition', and we highlight research showing benefits of a carbohydrate-whey protein beverage for multiple-sprint running performance. Also, as National Dairy Week approaches (May 12th-18th, 2014), we have included some of the varied events scheduled to take place during this celebration.

Visit [www.ndc.ie](http://www.ndc.ie) to keep up to date with our latest news and events; you can also check us out on Facebook at [www.facebook.com/NDCIreland](https://www.facebook.com/NDCIreland) and you can follow NDC updates on [Twitter@NDC\\_ie](https://twitter.com/NDC_ie)

We hope you enjoy reading this issue and we would be delighted to hear any comments or suggestions; please contact us at [nutrition@ndc.ie](mailto:nutrition@ndc.ie)

*Caroline O'Donovan*

Caroline O'Donovan  
Nutritionist, The National Dairy Council



# Sport & Dairy

## What the science says

### Whey protein and multiple-sprint running performance

Examples of sports where multiple-sprint running is applied include soccer, hurling, gaelic football, basketball, tennis and rugby. Delaying the onset of fatigue and sustaining a high-intensity running speed is a main priority for athletes in such sports, in order to offset a deterioration in performance. Appropriate nutrition is an important consideration to assist in maintaining an athlete's performance. Here, we summarise findings from a recent study that compared the effects of carbohydrate-only or carbohydrate-whey protein consumption on multiple-sprint sport performance.

Nine male athletes, aged 21-25 years, who were involved in their university soccer or rugby union team, took part in this study. Each participant completed two trials and consumed one of two test beverages: an 8% carbohydrate drink; or a 6% carbohydrate plus 2% whey protein drink. The protocol for each trial was similar. Each participant consumed one beverage on the first trial day and then the other on the second trial day. Participants also completed an initial testing session where they familiarised themselves with the procedures before beginning the trials.

Participants did not take part in any strenuous exercise and maintained the same dietary intake in the 48 hours before each trial. Arriving at the laboratory in a fasted state, the men drank a volume (based on their individual body mass) of one of the test drinks 30 minutes before beginning a modified Loughborough Intermittent Shuttle Test (LIST). The modified LIST test consisted of 60 minutes of regulated exercise where participants followed instructions from an audio cue, followed by 30 minutes of self-regulated exercise where participants were free to lower their exercise intensity if they felt

they could not maintain it. Participants consumed their designated drink for the trial every 15 minutes throughout the 90-minute test period.

Those consuming the carbohydrate-whey protein drink ran, on average, 2.5% faster and covered an average of 2.7% more distance, compared to those who consumed the carbohydrate-only drink. During the last 15-minute leg of the trial (self-regulated exercise), average speed was faster with the carbohydrate-whey protein drink compared to the carbohydrate-only drink. The mechanisms proposed for this benefit are unclear from this study, but among the theories suggested is that the protein may alter perceptions of exertion and, in turn, reduce central fatigue.

This study suggests that multiple-sprint sport athletes may wish to consider consumption of carbohydrate-protein to enhance their performance.

**Highton J et al. Carbohydrate-protein coingestion improves multiple-sprint running performance. *Journal of Sports Science*. 2013; 31: 361-369.**

# Performance and Nutrition:

## DIY Sports Nutrition

Ruth Wood-Martin MSc RD SEN is a registered dietitian and sport and exercise nutritionist, and currently works as the Performance Nutritionist with the Irish Rugby Football Union (IRFU).

With smart food choices you can get the benefits of expensive supplements, for a fraction of the cost, by making your own. The 'food-first' approach is the best route to take. Sports supplement use should be reserved for specific situations when you cannot get what you need through food alone. Here are four top performance-boosting recipes:

### The Muscle Builder

Protein before training (in particular resistance training) protects against the breakdown of lean muscle. Protein supplements are generally either whey or casein, containing the two types of protein that you find in dairy products. Here is a powerful pre-training protein hit that gives you high-quality amino acids, as well as some carbohydrate to help you train hard.

#### Ingredients

60g low-fat cottage cheese    100g plain Greek yogurt  
100ml skimmed milk            A handful of frozen berries

#### What to do

Blitz all the ingredients in a blender. This will give you about 20g protein and 20g carbohydrate. Consume within 24 hours. A perfect pre-training boost!

### The Hydration Hit

Fluids are vital for life, so aiming to be well-hydrated on a daily basis is key to everyone's health. When you exercise, your body produces heat, which it needs to lose, and it does this by sweating. If your body's cooling system of sweating is under pressure, due to lack of fluid, then your performance will suffer. Research has also shown that adding some fuel (e.g. glucose) and electrolytes (e.g. sodium) to the fluid can help re-hydration and provide a top-up supply of energy. Commercial sports drinks are developed with this in mind and many are isotonic solutions, that is, they contain between 5g and 8g sugar per 100ml (5-8%). An alternative is to make up your own 'home-brew' and here is a recipe that will give you what you need.

#### Ingredients

200ml sugar-containing fruit cordial  
700ml water  
100ml salt solution (¼ teaspoon salt dissolved in 100ml water)

#### What to do

Warm a small amount of water (100ml) and stir in the salt to dissolve. Leave to cool. Add the cordial concentrate and remaining water. Stir well together, store in the fridge and use within 24 hours. This will give you 5g sugar in 100ml.

### The Recovery Booster

Taking in a combination of carbohydrate and protein after exercise is the optimal nutrient mix to kick-start recovery; carbohydrate to re-stock your fuel stores and protein to provide the raw material to

build and condition muscle. The proportion of carbohydrate and protein in this mix depends on the exercise session – you will need more protein after resistance work whereas higher carbohydrate is necessary after energy demanding conditioning work. Either way, a pint of flavoured milk hits the right ratio.

#### Ingredients

500ml flavoured milk (e.g. chocolate, strawberry or banana)

#### What to do

Keep chilled and drink straight from the carton! 500ml will give you about 300 calories, 45g carbohydrate and 18g protein.

### The Energy Bar

When fully fuelled, your body has only enough readily available energy for hard exercise to last 60 to 70 minutes. So, endurance athletes need to take some replacement fuel on board while they exercise for long periods, either in training or when competing. Energy bars are a useful way to deliver an energy boost to the muscles and, to tailor these to what you need, the best way is to make your own. Here's a recipe that will keep in an airtight container for at least a week.

#### Ingredients

250g polyunsaturated margarine  
200g of soft brown sugar  
250g nutty peanut butter  
250g honey or maple syrup  
400g porridge oats  
100g dried fruit (any type or mixture)  
Zest of 1 lemon and 1 orange (optional)

#### What to do

Put all ingredients (except oats and dried fruit) together in a pot and slowly heat and stir until all combined. Then add the oats and dried fruit to the mixture and stir to combine together. Spread out in a baking tin, about 2-3cm deep. Bake in a pre-heated oven at 160°C for 30 minutes and leave to cool. The bake will come out of the oven loose – do not be tempted to put back into the oven, just leave to cool. Cut when still warm, as when it hardens it gets messy! This amount makes about 20 x 70g bars. Packing 320 calories and 40g carbohydrate and 6g protein per bar, they are perfect for during or after a long bike ride or run.



# Sports Star Spotlight Dave Kearney



## Profile

**Date of Birth:** 19/06/89

**Birth Place:** Dublin

**Height:** 5'11

**Weight:** 90kg

**Position:** Wing/Full Back

### Favourite meal

Pizza as a treat!

### Do you drink milk?

I drink plenty of milk – it's a nutritious drink and is also very refreshing!

### The importance of nutritional science

The science of nutrition has advanced so much in our sport and it's hugely important; as athletes we strive to be in the best physical shape we can be in and diet plays a huge part in this.

### Routine before a game

I try to relax, eat well and get plenty of rest.

### Where do you see yourself five years from now?

I hope to build on where I am now; hopefully, I'll be part of the Rugby World Cup squad and maybe a future Lion!

### Advice for aspiring athletes

Work hard, play hard, dream big and enjoy every minute of the gift you have.

### What is the best and worst thing about playing rugby with your older brother?

The best thing is that Rob supports me on and off the field and we go through the build-up and the highs and lows together. The worst thing is that he doesn't pass to me enough!

**How did you become involved in rugby?**  
My dad and brothers all played the sport; I also went to Clongowes [boarding school in Co. Kildare] where I played rugby.

**Sporting influence**  
Johnny Wilkinson.

**Best thing about playing rugby**  
The feeling after an important win.

**Greatest sporting achievement**  
Winning the 2014 Six Nations Championship with Ireland.

**Training schedule**  
We typically train five days a week, with a mix of strength and conditioning, speed, rugby and recovery.

**Typical breakfast**  
For breakfast I have poached eggs, porridge, some fruit and milk.

## National Dairy Week – 12th to 18th May, 2014

Here's a flavour of some of the key activities planned for National Dairy Week 2014\*:

Date	Event	Venue/Platform	Partner
Friday, 9th May	Launch of National Dairy Week in association with SuperValu	The Late Late Show, RTÉ One Television	
Monday, 12th May	Dairy Education - 'From Farm to Fridge' for primary schools	Family Farm, developed by Agri Aware and Dublin Zoo	
Tuesday, 13th May	DairyFest	Dublin City Centre	
Tuesday, 13th May	Symposium for dietitians focusing on Dairy Protein & Healthy Ageing	Clyde Court Hotel, Dublin	
Wednesday, 14th May	NDC Annual Conference	RDS, Dublin	
Thursday, 15th May	NDC Milk It Advertising Awards Final	Mansion House, Dublin	
Friday, 16th May	Farm Walk - 2013 Winners of NDC & Kerrygold Quality Milk Awards	Farm of Edward & Olivia Fitzgerald, Tobernea, Effin, Kilmallock, Co. Limerick	

\* Some of these events require pre-registration. Contact [info@ndc.ie](mailto:info@ndc.ie)

### Contact us....

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