

# Nutrition Guide for High Performance Rowers

**Wendy Martinson OBE**

**Lead Nutritionist**

**GB Rowing Team**

September 2015



# CONTENTS

## THE POWER OF FOOD

<b>Introduction</b>	<b>3</b>
<b>Food vs. Supplements</b>	<b>4</b>
<b>Online Grocery Shopping</b>	<b>5</b>
<b>Tips for Eating Well on a Budget</b>	<b>5</b>
<b>Store Cupboard / Fridge Essentials</b>	<b>6</b>
<b>Planning for Mealtimes</b>	<b>9</b>
<b>Food Safety - Best Practice Information</b>	<b>12</b>
<b>Recipe Ideas</b>	<b>13</b>

# THE POWER OF FOOD

## Introduction

For rowers at any level fuelling your body correctly is as fundamental as putting the right fuel in your car. There is no shortcut to eating well and turning to supplements as a quick fix is certainly not the answer. 'Food first' should be your approach and a well-organised rower should be able to plan to fuel optimally from food alone.

If you think you can't win medals without supplements then think again. This is what Moe Sbihi and Katherine Grainger have to say on the matter:

### **Moe Sbihi – 2012 Olympic Bronze medallist (M8+) and World Champion (M8+, 2015, 2013; M4-, 2014):**

“As a development athlete, it is easy to get drawn into taking supplements because it is perceived that that is what is needed to take you to the next level. However, healthy eating and regular habits are paramount and this includes avoiding supplements where necessary. Even now, as a full time athlete, I do not take supplements. I was able to get myself into a routine and make it become a habit. Organising your food in advance removes the worry of where you are getting your much-needed nutrition after training or racing.

A healthy diet will give you more than what any supplement has to offer and a common mistake is to use supplements as a substitute for food. This will not only affect your body and your performances in rowing, it will also increase the risk of contamination with a banned substance.”



©Copyright  
Peter Spurrier.Intersport Images

### **Katherine Grainger – 2012 Olympic Gold medallist (W2x) and three time Olympic Silver medallist (W2-, 2000; W4x, 2004, 2008):**



©Copyright  
Peter Spurrier.Intersport Images

“As an athlete you spend a huge amount of your time trying to improve the tiny margins that might make the difference between a good performance and a great one. In nutrition it's no different, and it might be easy to think that supplements will give you the edge. But I've personally never used supplements and if I ever did then I would think I've failed. And believe me I hate to fail! All the nutritional advice we have ever been given has shown that the best things for my health and for my performance come naturally from food. Knowing how to shop for food, what meals to make and forward planning menus is all part of becoming the best athlete you can be ”

## Food vs. Supplements



**Reality Check!** You can get everything you need to help recover after training from food at a third of the price of a supplement.

### Semi Skimmed Milk 1 Pint (568ml)



Cost: 49 p  
(plus 1 x banana @ 32p)

Nutritional Info:  
338kcal  
43g carbohydrate  
19g protein

**VS.**

### Recovery Powder 1 Serving



Cost: £2.99

Nutritional Info:  
290kcal  
55g carbohydrate  
16g protein

This guide will help you use food to fuel your training, maximise recovery, stick to a budget, minimise risk of inadvertent doping and follow the British Rowing Supplements Policy.

The following sections will help you to get started, focussing on:

- Online grocery shopping
- [Tips for eating well on a budget](#)
- Store cupboard / fridge essentials
- [Planning for meal times](#)
- Best practice for food safety

## Online Grocery Shopping

The majority of high street supermarkets now have the option for online shopping. Shopping for groceries in this way can help with meal planning and budgeting, and can also help to avoid costly impulse purchases! There are various delivery/collection options available (a year's delivery pass can be economical for regular online shoppers). You will find recipes, weekly meal planners and plenty of tools to help you on many of these sites:

[www.tesco.com/off-to-uni](http://www.tesco.com/off-to-uni)

[www.sainsburys.co.uk](http://www.sainsburys.co.uk)

[www.waitrose.com](http://www.waitrose.com)

[www.shop.safeway.com](http://www.shop.safeway.com)

[www.groceries.asda.com](http://www.groceries.asda.com)

[www.ocado.com/webshop](http://www.ocado.com/webshop)

Whilst shopping online remember to keep an eye out for useful kitchen equipment such as blenders and food storage such as Tupperware. Have a look for these on websites like Lakeland, Ikea, John Lewis, ao.com or Amazon.

## Tips for Eating Well on a Budget

Eating good quality food will have a big impact on both your health and performance. If you are on a tight budget for food shopping, here are some tips that may help:

- Make a shopping list and plan your meals for the week
- Buy tupperware containers to make food portable and freezable
- Compare prices when you shop
- Buy store brands rather than brand name products
- Avoid buying at convenience stores which tend to be more pricey
- Buy fruit and vegetables from local markets if possible
- Buy fruit and vegetables that are in season
- Keep some frozen fruit and vegetables in the freezer
- Eat breakfast at home (e.g. cereals, toast, bagels, fruit, yoghurt, dried fruit) it's cheaper than grabbing something on the run
- Plan snacks and lunches to take with you while you are out during the day
- Buy a water bottle to fill with water or squash and take with you
- Learn to cook some basic dishes; e.g. spaghetti bolognese, chilli con carne, curry, scrambled eggs, omelettes, stir fry dishes, pasta bake, risottos, casseroles
- Cook a meal with your flatmates
- Cook in bulk and freeze some portions
- Use cheaper vegetable proteins such as pulses (i.e. beans, peas and lentils) to bulk out meat dishes

## Store Cupboard / Fridge Essentials

Keep your store cupboard stocked up with the following essentials:

### Cereal-based foods

#### Breakfast cereals

*Such as...*

Muesli, Weetabix, Oatibix, Shredded Wheat, rolled oats (to make porridge), your own muesli or bircher muesli (see attached recipe book)

*Why?*

Great for snacks as well as breakfast

*Tip*

Look for cereals made with whole grain that do not have too much added sugar

#### Cereal bars

*Such as...*

Eat Natural, Nakd, Trek, 9 Bars, Rude Health, Nature Valley Granola Bars

*Why?*

Can be useful for snacks on the go

*Tip*

Choose those made with a high proportion of dried fruit, nuts, seeds, oats and grains

#### Pasta

*Why?*

Versatile, quick and easy to cook

*Tip*

Serve with a simple homemade tomato sauce made with onions, tinned/fresh tomatoes with extra vegetables added such as peppers, mushrooms, sweetcorn etc.

#### Noodles

*Why?*

Quick and easy to cook – particularly useful for stir fry dishes

*Tip*

Add chicken or lean meat and lots of vegetables

## Cereal-based foods (ctd.)

### Rice

*Why?*

Takes a little longer to cook than pasta, but good in risottos, chilli, or just plain.

*Tip*

Pouches of steamed rice can be useful if in a hurry as only 2 min in the microwave

### Bread

*Tip*

Keep in fridge to lengthen shelf life

Teacakes, fruit bread, hot cross buns are useful snacks too

### Grains

*Such as...*

Oat cakes, crispbreads, rice cakes

*Why?*

Good for snacks and very portable

*Tip*

Include the following to get a portion of grains in your meals - couscous, bulgar wheat, quinoa

## Fruits & Vegetables

Buy fresh fruit and vegetables in small amounts regularly rather leaving in the fridge all week as nutrient content decreases

### Canned tomatoes / Tomato puree

*Why?*

Good for sauces with pasta

*Tip*

Add to Bolognese and chilli sauces

### Canned beans/veg

*Such as...*

Baked beans, red kidney beans, butter beans, chick peas, sweetcorn

### Canned fruit

*Why?*

Good for snacks or when run out of fresh fruit

### Dried fruit

*Such as...*

Apricots, prunes, dates, sultanas, raisins, mango, figs, pear

*Why?*

Quick nutritious snack

## Meat, Fish & Alternatives

### Canned fish

*Such as...*

Tuna in brine, pilchards – good for a quick lunch

*Why?*

A good source of protein which can be easily mixed into pasta sauces or salads

### Cooked meats/fish

*Such as...*

Chicken, ham, smoked mackerel

*Tip*

Use in sandwiches or add to salads/pasta sauces

### Eggs

*Why?*

Versatile source of protein which can form the basis of a number of dishes including scrambled eggs, omelettes, salads, sandwiches, etc.

### Nuts / seeds

*Why?*

Excellent source of essential fats, fat soluble vitamins and minerals

*Tip*

Add to salads or eat with dried fruit as a snack

## Dairy Produce

### Milk

*Tip*

UHT milk is useful as a standby if run out of fresh  
Use low fat flavoured milk for variety

### Yoghurts (natural, Greek and yogurt drinks)

*Tip*

Greek strained yogurts (i.e. Total, Danio, Skyr, Arla) are higher in protein

### Cheese

*Why?*

A savoury dairy option for chopping into salads, grating over pasta or slicing into sandwiches



## Miscellaneous

### Drinks

Long life cartons of fruit juice

Low calorie/regular squash

### Spreads

Jam, marmalade, marmite, nut butters

### Deserts

Canned low fat milk pudding/custard

### Herbs/Spices

Squeezy tubes of garlic, chilli, ginger and other herbs can be useful to add to dishes

### Fats, Oils & Dressings

Olive oil/Rapeseed oil

Balsamic vinegar – great for salads

## Planning for Mealtimes - Breakfast

After an overnight fast, it's important to top up glycogen stores with a breakfast containing carbohydrate to fuel your early morning training session. Try to allow approximately 45-60 minutes after eating before training so you don't feel too uncomfortable during the session.

For breakfast on the run you can prepare bircher muesli or smoothies (see recipes at the end of this guide) the night before and take them with you. Homemade bars (see banana and peanut bar recipe) or bought bars such as Nakd, Rude Health, Eat Natural, Nature Valley Granola, Food Doctor, Trek bars can also be useful on-the-go snacks. However be wary of any bars with added powdered protein as it may not be batch tested - If in doubt **ASK** your club's Clean Sport Advocate and check the [www.informed-sport.com](http://www.informed-sport.com) website.

### Ideas for Breakfast

- Porridge made with large rolled oats and low fat milk with banana and raisins or honey
- Muesli or granola mixed with yoghurt and raspberries or blueberries
- Wholegrain toast with jam/honey/marmite plus Greek yogurt
- Wholegrain bread with mashed boiled eggs
- Wholegrain bagels with nut butter and banana
- Banana, strawberry and raspberry smoothie with juice and yoghurt (oats can be added to make this more substantial)
- Homemade Bircher muesli (see recipe at the end of this guide)

These breakfast ideas can also double up as post-training snacks. Remember to include a protein source such as milk, yoghurt or eggs where possible. Greek yoghurt such as Fage Total, Danio, Chobani, Liberte, Skyr have a good protein content.

## Planning for Mealtimes - Lunch

If you have a busy schedule, either at work or university, it is important to be organised when it comes to mealtimes so you are not leaving your food choices to chance. If you have a training session planned for the evening it is important to have a good intake of carbohydrate at lunchtime to fuel that session (as well as remembering to have breakfast before your early morning session). You may also need to add an afternoon snack if the gap between lunch and training is more than four hours. This could be a banana, granola bar, bowl of cereal and milk, toast and nut butter, fruit and Greek yoghurt, a fruit smoothie or a sandwich or wrap depending on appetite.

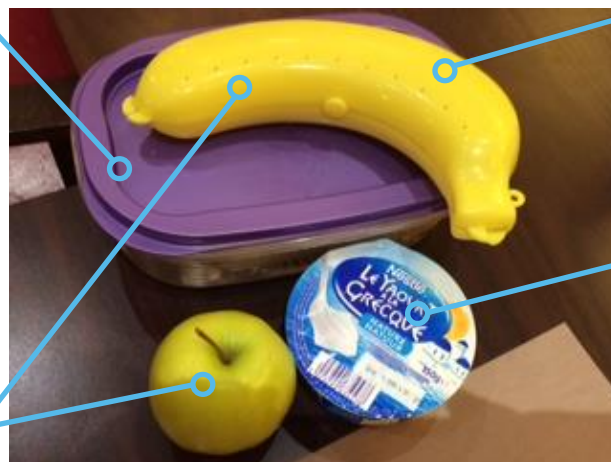
### Ideas for Lunchtime Meals

- Wholegrain sandwiches/bagels/wraps with ham, chicken, turkey, cheese, tuna or egg, plus salad
- Leftover chicken and mushroom risotto plus salad
- Cold meat/chicken/tuna with cous cous, quinoa, rice or pasta salad
- Jacket potato with bolognese, chilli, cheese, cottage cheese and salad

## What Does a Well-Organised Rower's Lunch Look Like?

Pre-made lunch stored securely in a Tupperware box

Avoid bruises to your banana with a banana guard – every rower should have one!



Apple and banana for a source of natural energy

Greek Yogurt; A good source of protein and calcium – just remember to keep this in a cool-bag

## Planning for Mealtimes - Dinner

It is important to take the time to prepare a nutritious dinner to refuel after training. If you anticipate a busy period of training and work/study ahead, remember to save time and money by cooking meals in bulk and freezing them for occasions when you are short on time. Planning your week's meals ahead of time will help to inform your shopping list for the week and will give you time to consider what to cook each day. Remember to keep your meal plan varied, for example it is recommended that you should aim for a minimum of two portions of fish per week (of which at least one should be oily fish).

### Ideas for Dinner

- Grilled tuna or salmon steak, tomato salsa with baked sweet potatoes and salad/vegetables
- Chicken and chick pea curry with rice and vegetables
- Roast chicken with roasted vegetables and sweet potato
- Stir fry prawns/chicken with noodles, vegetables and sweet chilli sauce
- Pasta with tomato/arrabiata sauce with chicken or tuna plus salad
- Chilli con carne with rice and vegetables
- Fish pie (potato topping) or salmon fishcakes with vegetables
- Omelette with salad and wholegrain bagel

## Mealtime Planner

	Breakfast	Lunch	Dinner
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

## Food Safety - Best Practice Information

Maintaining good food safety and hygiene practices is crucial to prevent food related illness. These guidelines are designed to provide information that will help you reduce the risk of illness.

- Remember to always wash your hands before handling and preparing foods to limit contamination with bacteria
- Perishable items should be carried in a cool bag and be kept chilled by using frozen ice packs. These foods must be eaten on the same day and any leftovers thrown away
- Perishable foods should **NOT** be stored in lockers but be eaten on the same day or thrown away.
- If you have perishable food that is not being kept chilled you must eat it within four hours and leftovers must be thrown away.
- Salad and sandwiches with perishable fillings should also be kept chilled.
- Whole fruit does not have to be kept chilled but chopped fruit salad should be kept in a cool bag.
- Some milkshakes are made with UHT milk and so do not have to be kept chilled until they are open – make sure that you check this.

### What are Perishable Items?

Perishable items include:

- Margarine/butter
- Dairy products (i.e. milk, yogurt, cheese)
- Cooked products (such as chicken, fish, eggs, rice, pasta, potato, cous cous, bread, vegetables)

## Recipe Ideas

### Recipe for Standard Isotonic Sport Drink

**TAKE** 250ml ordinary squash or 200ml high juice squash (not sugar free or low calorie) mixed with 750 - 800ml cold water

**OR** 100 - 110ml standard Ribena mixed with 900 - 890ml cold water

**OR** 750ml unsweetened orange juice mixed with 250ml cold water

**ADD** 1.25g salt (¼ level tsp.) (491mg/21.3mmol sodium per litre)

**Squash-Based Recipe** = 6 -7% carbohydrate solution (content varies depending on the squash used)

**Juice-Based Recipe** = 6.6% carbohydrate solution

### Recipe for a Post-Race/Exercise Smoothie (1 serving)

#### Ingredients

1 banana                                  30g rolled oats  
300ml Skimmed milk                  100g Greek yoghurt  
140g frozen mixed berries (raspberries, blueberries, strawberries, blackberries)

#### Method

Put ingredients into a blender and mix. Add more milk if too thick.

Keep in a cool bag until after racing and drink as soon as possible after you finish racing or exercising.

#### Nutritional Value (per serving)

497 kcals                                  27g protein  
83g carbohydrate                      4g fat

### Recipe for Banana & Peanut Natural Energy Bars (by Omar Meziane, GB Rowing Team Chef)

#### Ingredients

1 tbsp Rapeseed oil                  3 ripe Bananas  
1 tbsp Honey                            2 tbsp Peanut butter  
280g Porridge oats                  2 tbsp Flaxseeds

#### Method

Mash the bananas until almost smooth. Melt the rapeseed oil, honey and peanut butter, then stir the bananas into the mixture. Once mixed add the remaining ingredients and mix well. Transfer to a baking tray, press down and bake at 180°C or Gas Mark 4 for 20 minutes.

## Recipe for Bircher Muesli (by Omar Meziane, GB Rowing Team Chef)

### Ingredients

250g Rolled oats	4 tbsp Natural Greek yoghurt
2 Green apples, grated	50g Sultanas
1 pinch Cinnamon	2 tbsp Honey
Milk (as required)	

### Method

Mix all ingredients together in a bowl, then pour over enough milk to cover. Place in the fridge overnight and it will be ready for breakfast the following morning.

It will keep for up to 3 days in a sealed tupperware dish. Keep in a cool bag until after racing and drink as soon as possible after you finish racing or exercising.