



# Nutrition for best performance

## Badminton

**BRONWEN CHARLESSON**







# Question 1

Which of the following is the best fuel for training?

♦ A: Fat

♦ B: Protein

♦ C: Carbohydrate

♦ D: Alcohol



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## Question 2

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♦ B: Tomato, Lettuce, beetroot and peppers

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## Question 3

When training twice a day should you eat extra snacks?

◆ A: No, your body will make its own energy

◆ C: Yes, training more means you can eat what you like

◆ B: Yes, food is essential for recovery, when sessions are less than 8hrs apart

◆ D: No, except if you are trying to gain weight.



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## Question 4

Which of one of these would be a good recovery snack after training?

◆ A: Banana and Milk

◆ B: Apple and Juice

◆ C: Cheeseburger

◆ D: Water



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## Question 5

After training, when is the best time to eat a recovery meal or snack?

◆ A: Straight away while your muscles are hungry

◆ C: Wait 1 hour to stop your body storing fat.

◆ B: Wait at least 2 hours to let your stomach settle

◆ D: Eat when you next feel hungry.



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How long before training should you eat a snack or meal?

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◆ B: 1.5hrs

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## Question 7

If you had a 15 minute break between matches which of the following is the best food to eat?

◆ A: Chocolate bar and packet of crisps

◆ C: Left over sweet and sour chicken and rice.

◆ B: Sandwich with chicken, coleslaw and salad

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## Question 8

Before starting training or competition, what is an easy way of checking your hydration?

◆ A: Urine colour. It should be a light straw colour

◆ C: Fluid intake. You will be hydrated if you have drunk more than 2Litres.

◆ B: Mouth and Lips. They should be moist.

◆ D: Trick question. There is no easy way to know if you are hydrated.



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## Question 9

An average 60kg badminton player, training once a day needs to eat around 300g of carbohydrate (5g/kg). Which one of the following would provide 300g?

◆ A: 1 pack cornflakes, 1 slices bread, 1 large bananas. 1/2 pint orange juice, 1 small potato, 1 large handfuls penne (cooked)

◆ C: 3 boxes cornflakes, 3 slices bread, 3 large bananas. 1 1/2 pint orange juice, 2 large potato, 3 large handfuls penne (cooked)

◆ B: 2 boxes cornflakes, 2 slices bread, 2 large bananas. 1 pint orange juice, 1 large potato, 2 large handfuls penne (cooked)

◆ D: 4 boxes cornflakes, 4 slices bread, 4 large bananas. 2 pints orange juice, 3 large potato, 4 large handfuls penne (cooked)



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## Question 10

How much protein does an average 60kg badminton player, training once a day, need?

◆ A: 0.5g/kg – 1 small chicken breast

◆ C: 1.5g/kg – 1 Pint milk, 1 small egg, ½ tin tuna, 1 small chicken breast, 200g yoghurt

◆ B: 3g/kg – 1 Pint milk, 1 egg, 1 tin tuna, 2 large chicken breasts, 200g yoghurt

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1. What should you eat/drink?
2. When should you eat?
3. How much should you eat?





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# What should you eat?

## High Carbohydrate

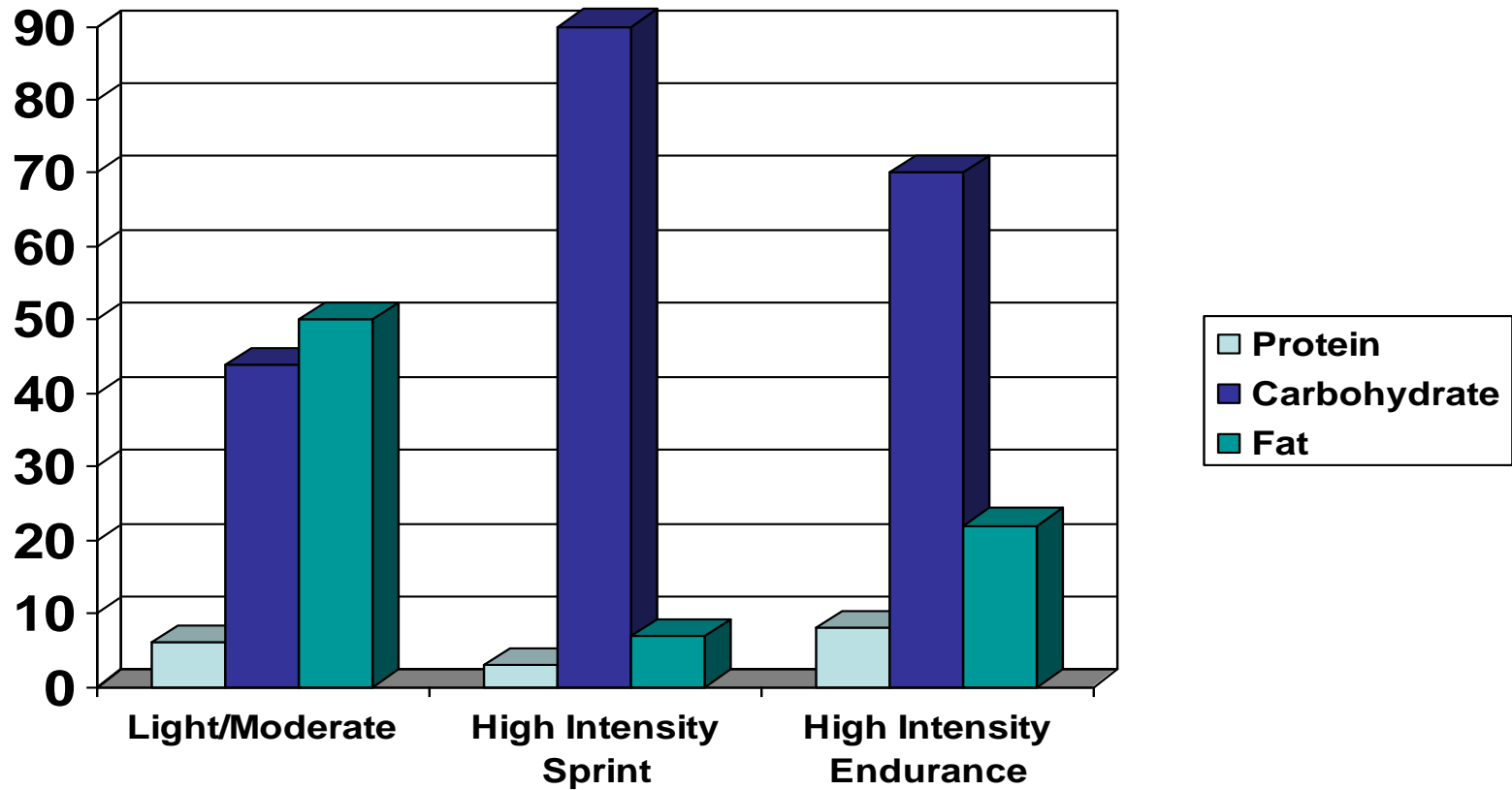
Glucose is the only source of energy the muscle can use at high intensity  
Store about 2 hours of energy



## Good Hydration

Dehydration increased fatigue and muscle damage.

# What should you eat?



# What should you eat?

## Strength

### Moderate Protein

Helps muscle repair and growth  
Immune system function



### Good Hydration

For every 1% you drop in body weight you get a 5% drop in performance

### Moderate Carbohydrate

Produces insulin – important for anabolism/growth

# What should you eat?

## High Carbohydrate!

- 60-70% energy should come from carbohydrates
- Include carbohydrates at each meal and snack

## High Protein!

- Include protein at each meal.
- Include protein in snack foods



# Snacks – Food Labels

## Fat and carbs:

- Look at **per 100g**
- Fat: less than 10g
- Carbohydrates: More than 20g

## Protein:

- Look at **per serve**
- Protein: 10g per amount eaten

NUTRITION INFORMATION		
Servings per pack: 11		
Serving Size: 45g		
	Per Serve	Per 100g
Energy	745 kJ	1640 kJ
Protein	5g	11g
Fat Total	3.5g	7.7g
-Saturated	1g	2.2g
Carbohydrates		
- total	33.5g	74g
- sugars	10g	22g
Fibre	4g	8.8g
Sodium	200mg	440mg
Calcium	100mg	220mg
Iron	1mg	2.2mg
Folate	100mcg	220mcg

Ingredients:  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

Manufacturer:  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

Storage Conditions:  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

# What should you eat?

## Brain function

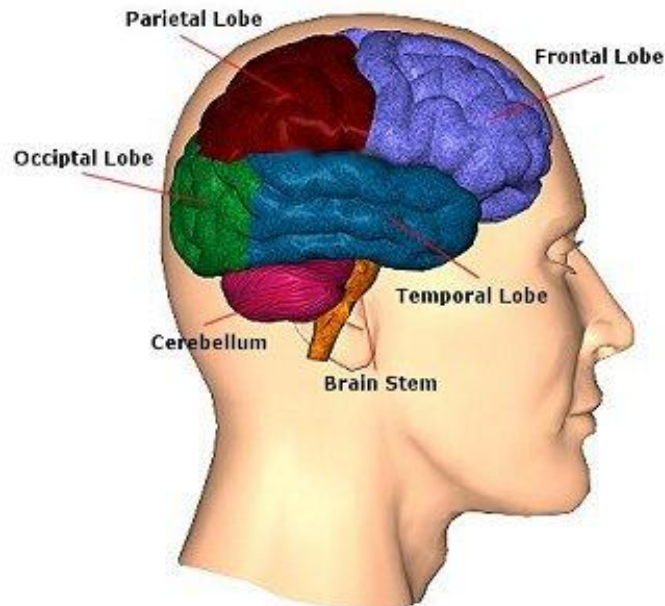
### ↑ Serotonin (5-HT)

- Role in sleep
- Fatigue
- Lethargy
- Drowsiness
- Dec. Motivation



### ↑ Dopamine (DA) and Noradrenaline (NA)

- Motivation
- Reward
- Memory
- Attention



# What should you eat?

## Brain function

### High Carbohydrate

Glucose is the ONLY source of energy the brain can USE - Provide constant fuel source  
Increase dopamine

### Low fat

Fat as a fuel source increase the production of serotonin



### Good Hydration

For every 1% you drop in body weight you get a 5% drop in performance



# What should you eat?

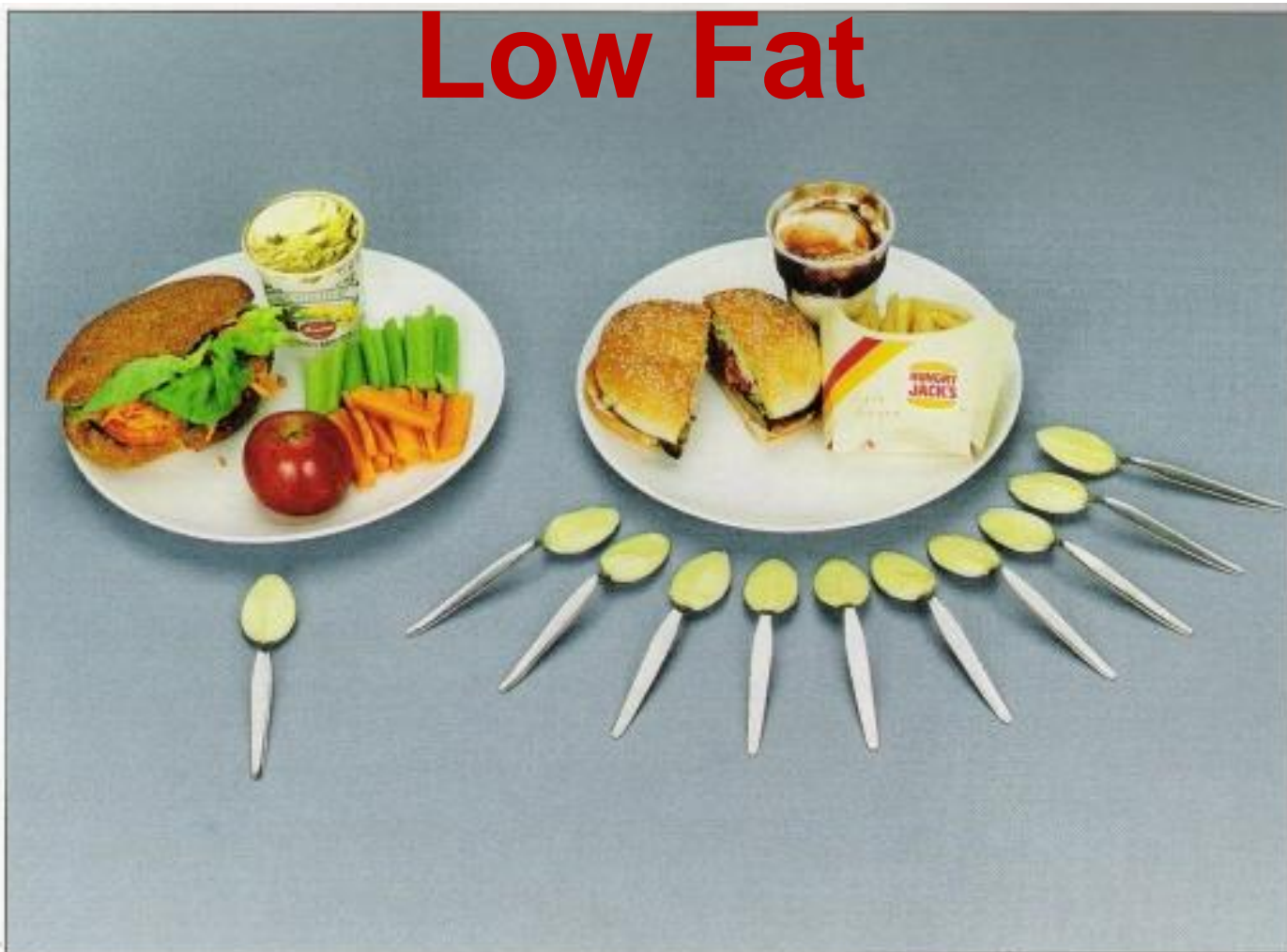
## Fat

## Low Fat



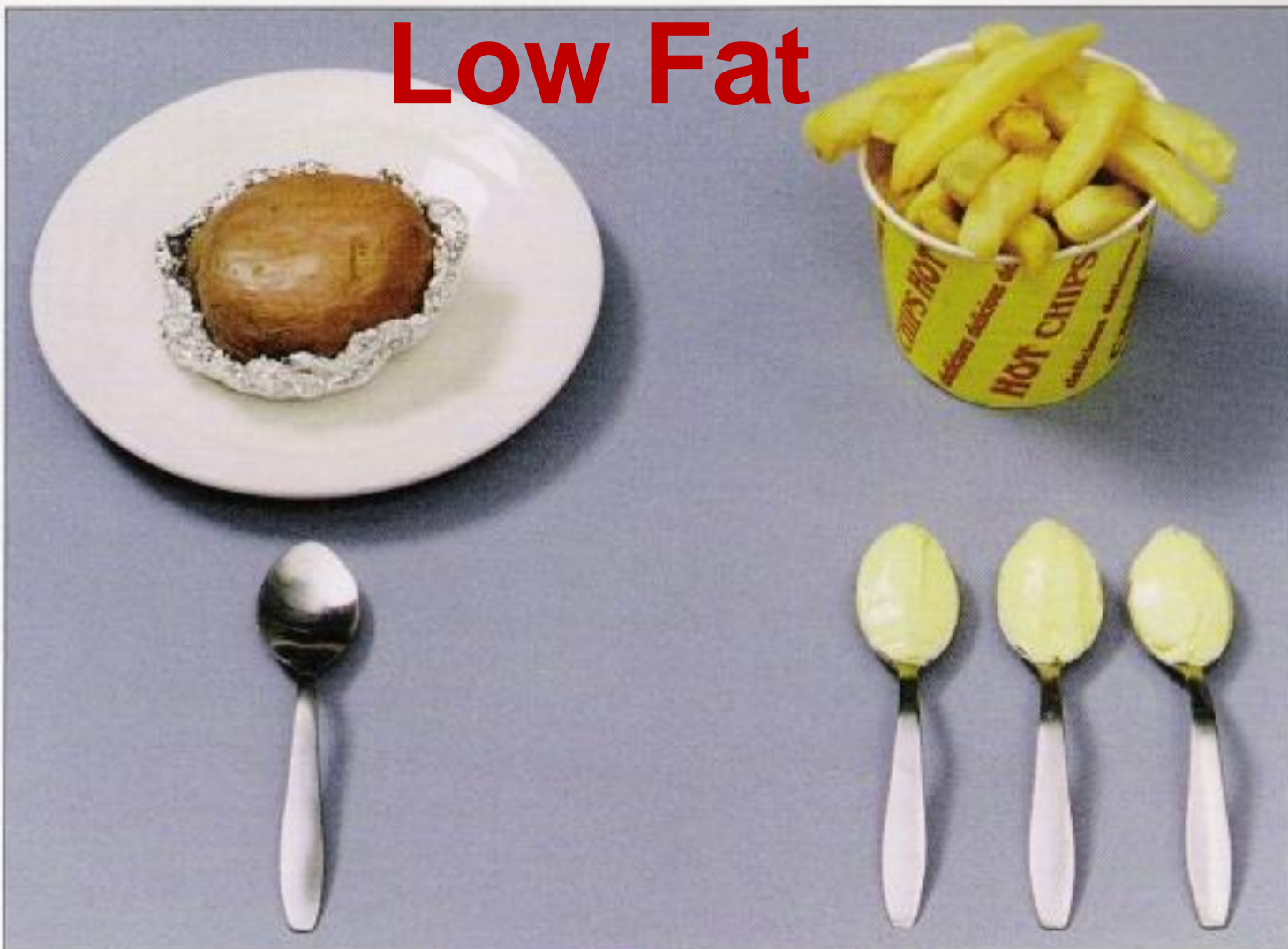
# What should you eat?

## Low Fat



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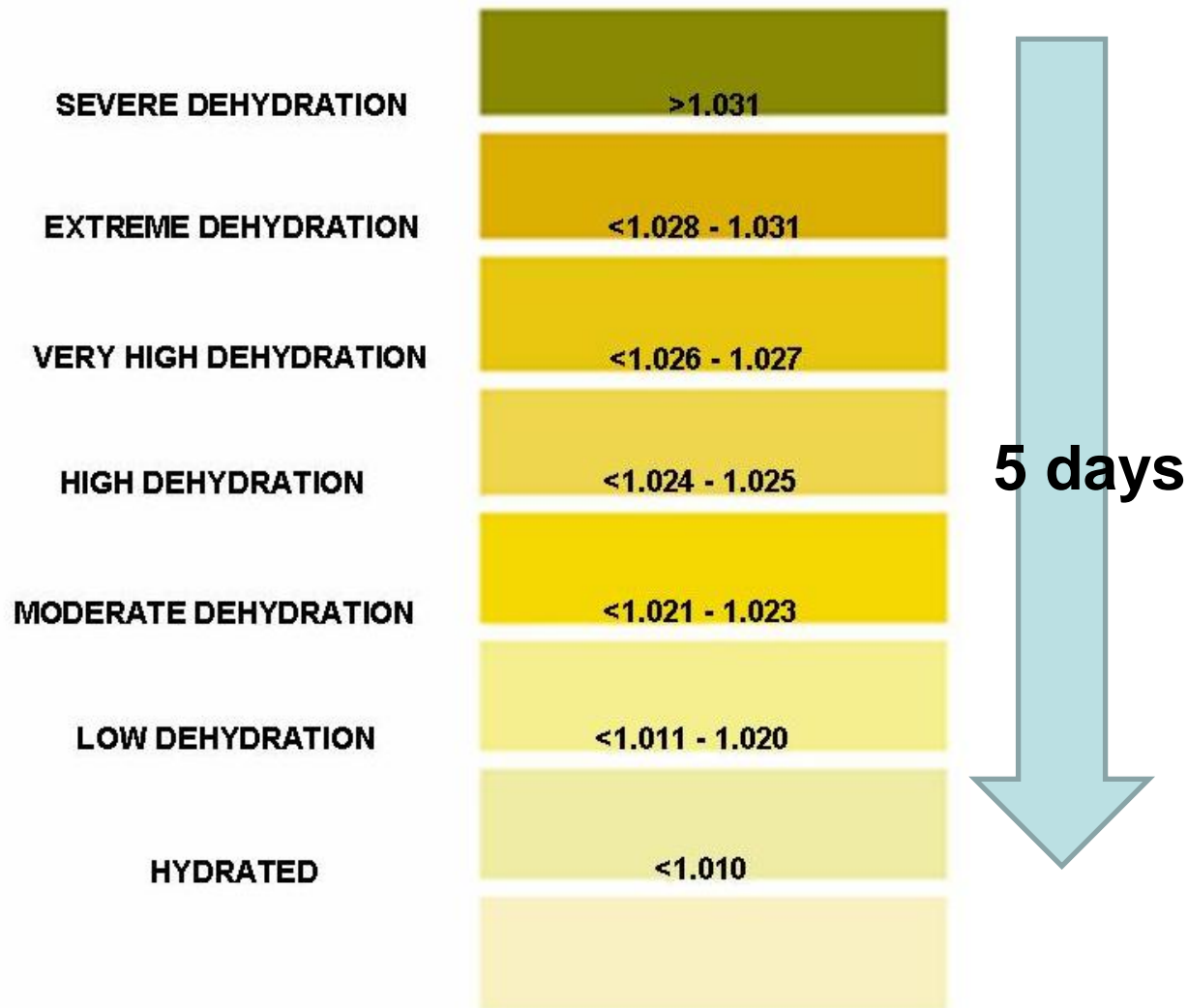
Low Fat





1. What should you eat/drink?
2. When should you eat?
3. How much should you eat?

# What should you drink?



# What should you drink?

## Do

- Drink water
- Choose a variety of different fluids
- Consider sports drinks for long intense training/competition days (1.5-2hrs)
- Take a water bottle when travelling and sip regularly

## Don't

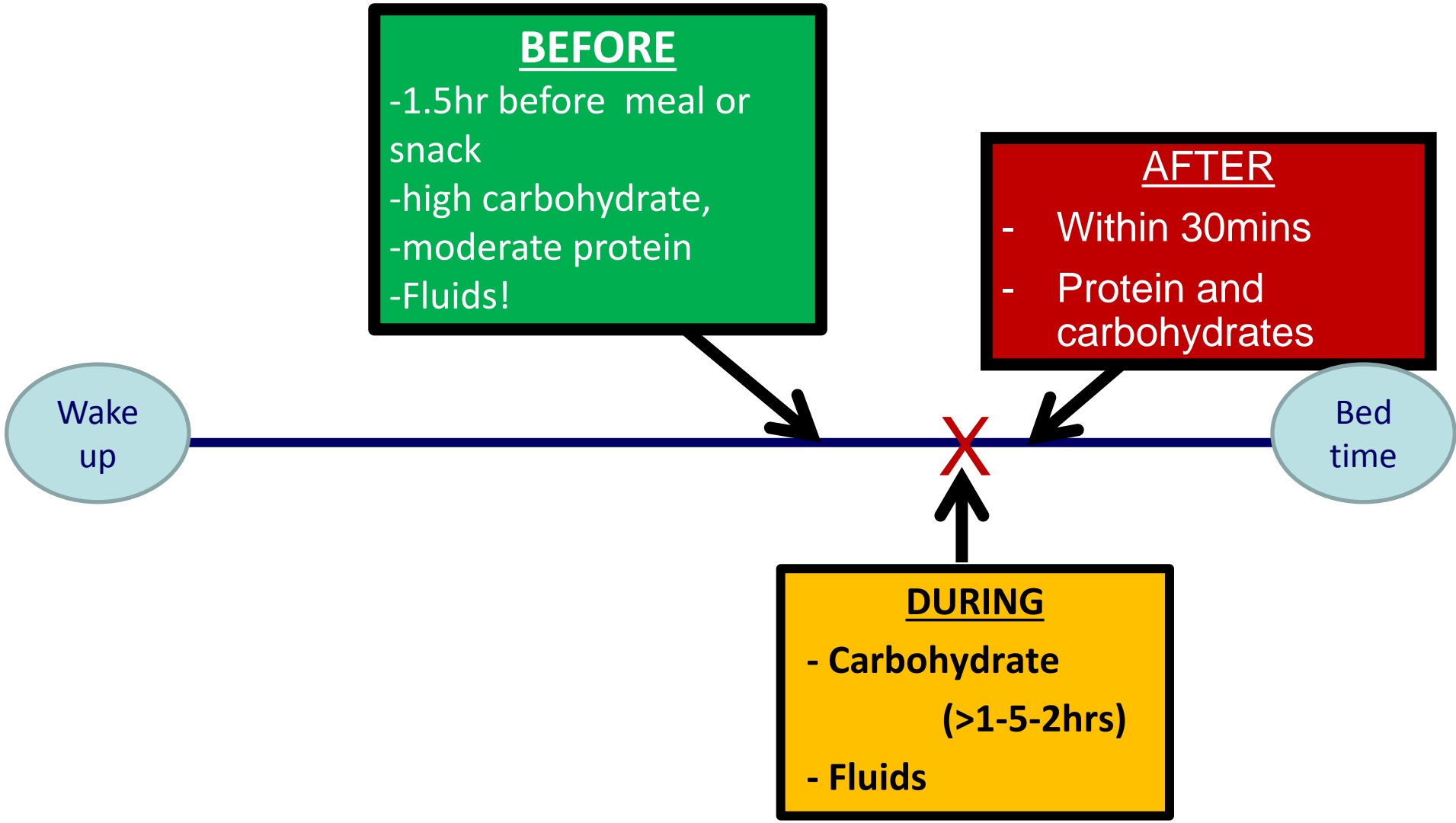
- Drink alcohol when dehydrated
  - Use sports drinks for short or low intensity training/matches
  - Rely on tea and coffee for hydration
- Overdrink - you cannot store fluid!





1. What should you eat/drink?
2. When should you eat?
3. How much should you eat?

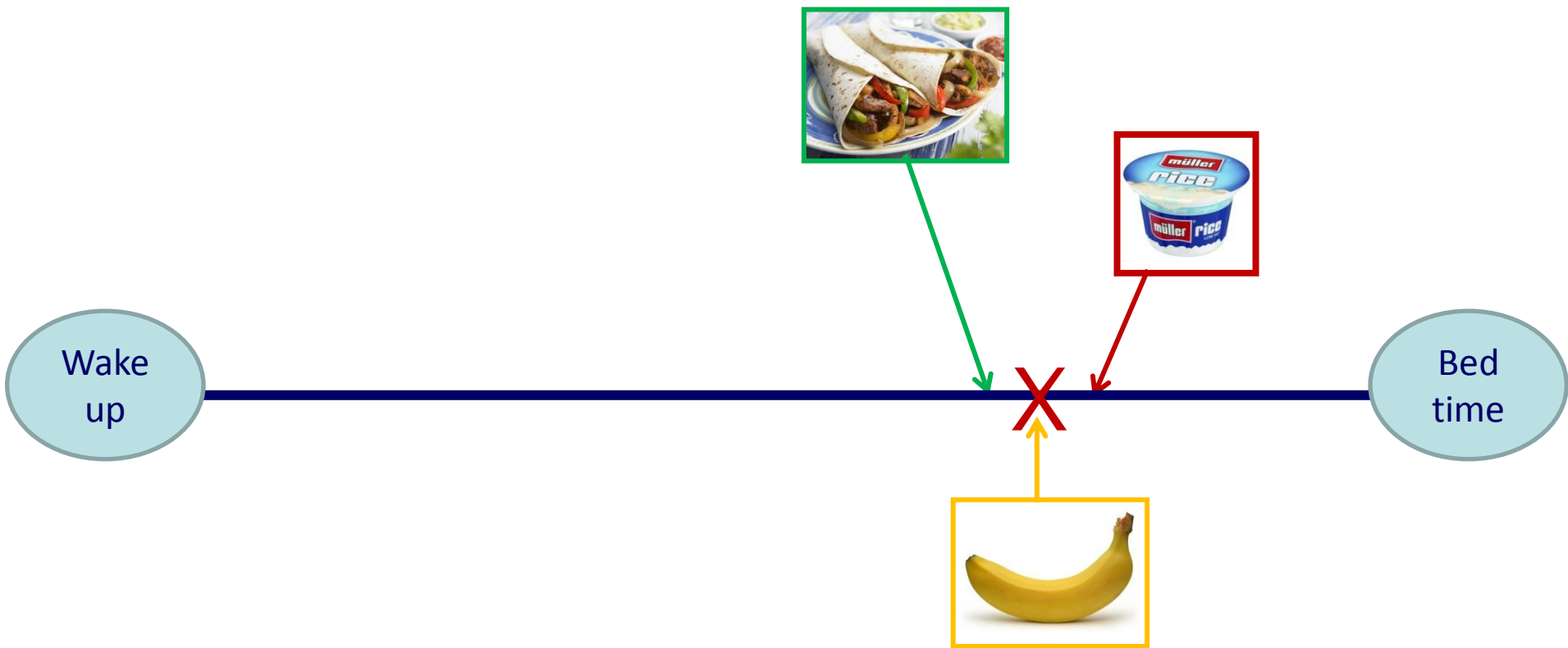
# When should you eat?





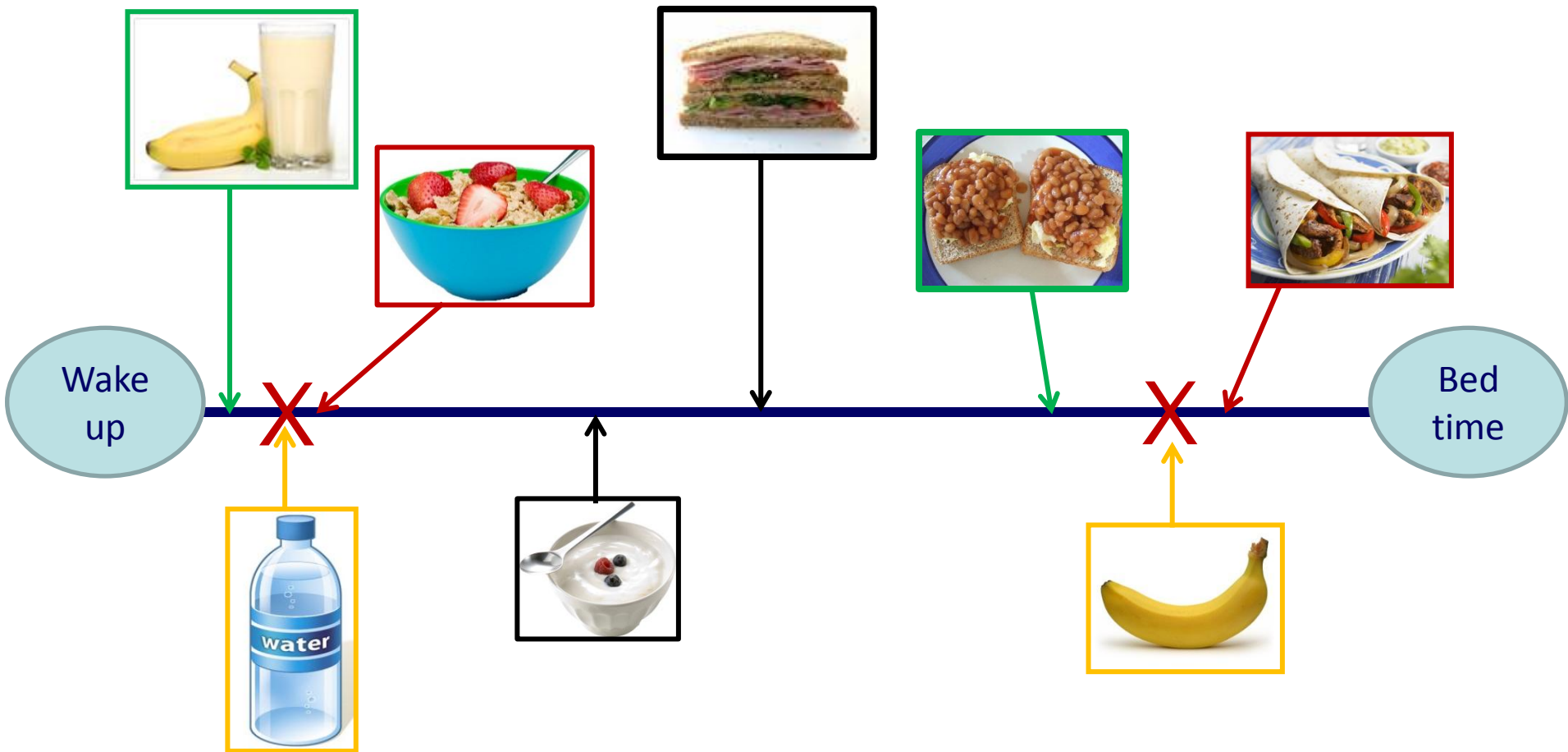
# 3. When should you eat?

## 1 Session



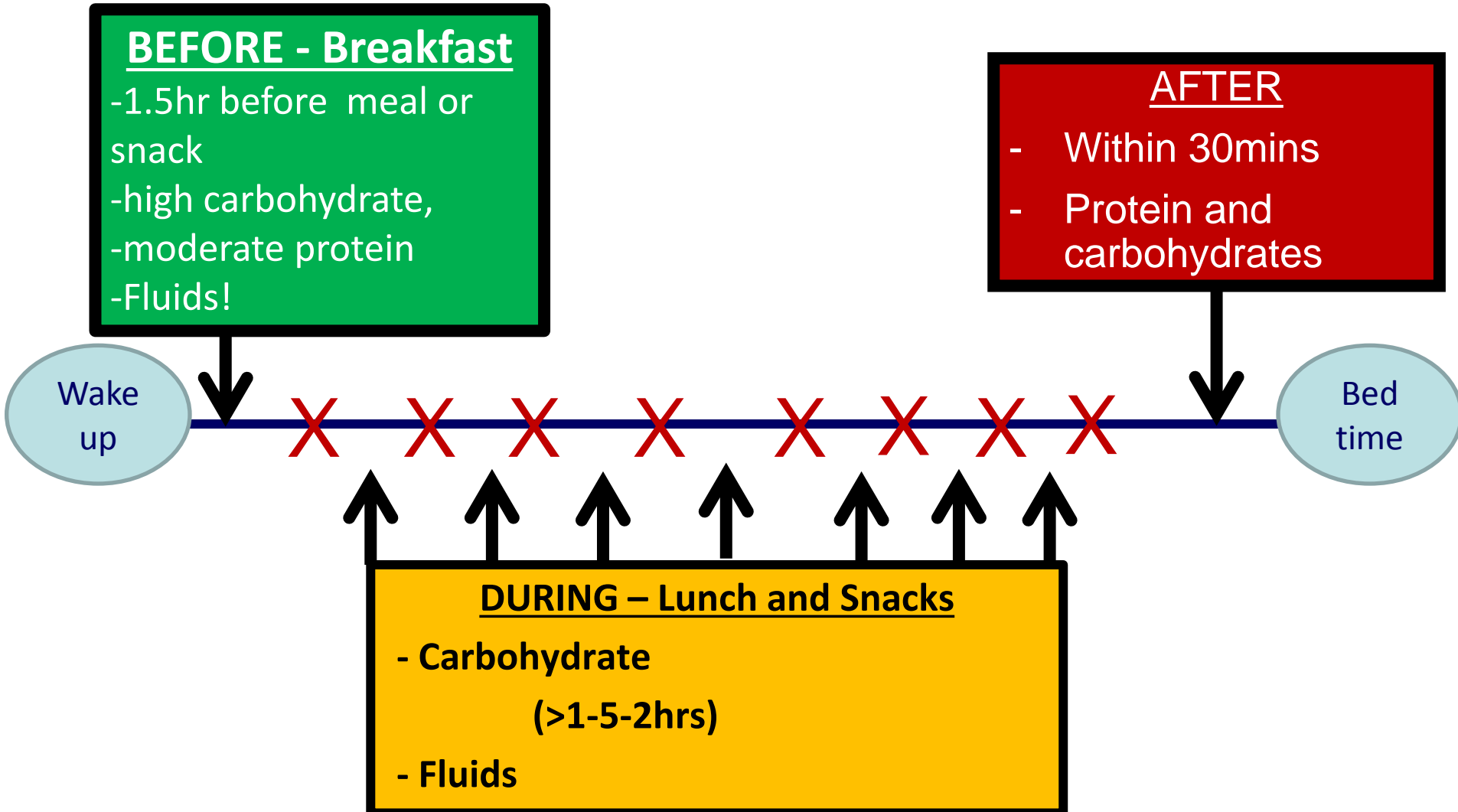
# 3. When should you eat?

- 2 sessions



# 3. When should you eat?

## Competition





1. What should you eat/drink?
2. When should you eat?
3. How much should you eat?

## **Everyday needs**

Breakfast, Lunch,  
Dinner

## **Training once each day**

2hr court session

## **Training twice a day**

Gym session – 1hr  
2hr court session

## **Competition**

5 matches (~30mins)

# Everyday needs

## Breakfast, Lunch, Dinner

- Protein: 1.5g/kg – 1 Pint milk, 1 small egg, ½ tin tuna, 1 small chicken breast, 200g yoghurt
- Carbohydrates 5g/kg: 2 cups cornflakes, 2 slices bread, 2 large bananas. 1 pint orange juice, 1 large potato, 2 large handfuls penne (cooked)

# **Training once each day**

**(2hr court session)**

**Additional: Before training, during  
training, after training**

# **Training twice a day**

**Gym session – 1hr**

**2hr court session**

**Additional: Before training, during  
training, after training**



# Competition

5 matches (~30mins)

Breakfast, Snacks, Dinner

# Summary

1. What should you eat?
2. When should you eat?
3. How much should you eat?

## Factsheets:

- Snack ideas
- Homemade recovery drinks
- Recovery factsheet

Original location:

<http://www.ulsterbadminton.com/wp-content/uploads/2011/09/Nutrition-Presentation-specific-for-Badminton.pdf>

provided here for posterity since the original is off the air as of 2020