

Referee Programme

1.1 Carbohydrates




Fuel for High-Intensity Exercise

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1.1. Carbohydrates (CHO)



- CHO is a referee's **fuel for HI-training** and for matches.
- Research clearly shows that the amount of carbohydrate consumed daily is linked to a referee's ability to cope with training load and performance. CHO stores are limited so it is very important to keep them topped up!
- Sources of Carbohydrate:
 - Simple CHO:* fruit/energy bars/isotonic drinks/sugars
 - Complex CHO:* bread/cereals/couscous/noodles/oats/pasta/rice/potatoes/
 - Fibre rich foods:* oats/pulses/wholemeal cereals/vegetables/seeds/nuts/grains
- How Much CHO does a referee need per day?
CHO intake should be equal to 4-6g/kgbw/day (75kg referee = 375g of CHO per day)

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1.2 Proteins




Supports Building, Maintenance & Recovery

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1.2. Proteins

- Protein **supports growth, maintenance and repair** of the body's cells and tissues.
- Protein is especially important for recovery after hard training sessions and hard matches
- Your body will adapt to increases in training load by growing fitter and stronger. Protein forms your base for recovery and adaptation.
- Sources of Protein:
 - Plant protein:* broccoli/cereals/dried fruit/nuts/oats, pasta, peas, pulses, rice, seeds, soya products, quorn, wholemeal, whole grains,
 - Animal protein:* dairy products, eggs, oily fish, poultry, red meats, white meats, white fish, seafood
- How Much Protein does a referee need per day?
Protein intake should be equal to 1g/kgbw/day (75kg referee = 75g per day)



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1.3 Fats




Fuel for Low-Intensity Exercise

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1.3. Fats

- Fats are a referee's **low-intensity energy** source.
- Fats play an important role in the production of hormones.
- Fats support the structure of cells and tissues
- Fats insulate the body
- Sources of Fat:
Red meats/Cheese/Cream/Oils/Nuts/Fast Food
- How Much Protein does a referee need per day?
- The amount of fat a referee requires is individual but the key requirement is to primarily include 'healthy fats' in your diet.
- Warning: Fat is high in calories so foods high in fat are high in calories.



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1.4. Vitamins & minerals

- Vitamins and minerals are nutrients the body needs to function properly. They are required by the body in small amounts.
- There is only a risk of vitamin or mineral deficiencies if a referee does not eat a varied diet or if their diet does not meet their training/match requirements.
- Vitamin and mineral supplementation is not required or recommended if a referee has a healthy and well-balanced diet.
- Research has reported that large doses of vitamins and mineral supplements does not enhance performance in healthy athletes and will instead promote excess toxic side effects.




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2. Nutrition and fluid intake before/during/after matches or training sessions

- Aims:**
 - To be fully prepared for action without the risk of becoming fatigued ('fit')
 - To feel comfortable during all matches and training sessions ('fresh')
 - To recover sufficiently between consecutive matches and/or training sessions
 - To build up fitness using appropriate training – recovery – rest cycles
 - To reduce the risk of injury

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2.1. Pre-Match Meal


When? 2-3 hours before the match

What? High in carbohydrates with some protein and a small amount of fat


For example: pasta/rice/couscous/white bread or toast with chicken or fish and vegetables

Attention: limit the amount of fat in your pre-match meal (cheese, fatty sauces, ...)

- To ensure good hydration, drink at least 1 to 1.5l of water on match day
- Drink 200 to 400ml water or sports drink just before (10-15') the start of the match



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2.2. Half-Time Snack

What? A snack containing carbohydrates and fluid:

How much? 1g CHO/kg (75kg referee = 75g CHO) and 200 – 400ml fluid

For example: banana (35g CHO) and a sports drink 330ml (40g CHO)



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2.3. Post-Match Snack

When? As soon as possible after the match

What? High in carbohydrates and quite high in protein with only a small amount of fat with up to 500ml fluid for rehydration.

For example: fruit/rice pudding/cake/water


AND/OR

- Drink up to 500ml recovery drink or chocolate milk

For example: cécémel or skimmed milk with nesquik powder



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2.4 Post-Match Meal


When? 1-2 hours after the match

What? A healthy meal high in carbohydrates with protein and a small amount of fat

For example: pasta/rice/couscous/white bread with chicken or fish and vegetables

Attention: limit the amount of cheese, fatty sauces, ...
limit the amount of alcohol as it will dehydrate your body

- Drink up to 500-1000ml water or sports drink for further rehydration



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2.5. Pre-Training Meal

When? Last meal 2-3 hours before training

What? High in carbohydrates with some protein and a small amount of fat

For example: pasta/rice/couscous/white bread or toast with chicken or fish and vegetables

Attention: limit the amount of cheese, fatty sauces, ...

- To ensure good hydration, drink at least 1 to 1.5l of water during the day
- Drink 200 to 400ml water or sports drink just before (10-15') the start of training

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2.6. Post-Training Snack

When? As soon as possible after training


What? Drink up to 500ml water or sports drink for rehydration. Eat a snack containing carbohydrates with some protein

For example: rice pudding or rice cake

OR

- Drink up to 500ml recovery drink or chocolate milk

For example: cécémel or skimmed milk with nesquick powder



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2.7. Post-Training Meal

When? 1-2 hours after training

What? A healthy meal high in carbohydrates with protein and a small amount of fat

For example: pasta/rice/couscous/white bread with chicken or fish and vegetables

Attention: limit the amount of cheese, fatty sauces, ...
limit the amount of alcohol as it will dehydrate your body

- Drink up to 500-1000ml water or sports drink for further rehydration

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3. Nutrition and fluid intake during every-day live

- Aims:**
 - To efficiently support the immune system
 - To optimise the functioning of red blood cells via iron intake
 - To prevent fatigue using appropriate hydration strategies



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3.1. Immune system



- Consume a considerable amount of vitamine C throughout the day

For example: kiwi, grapefruit, fruit juice, pepper, broccoli, strawberry, orange, potato, rose hip tea

- Consume dairy products to improve the intestinal flora


For example: yoghurt, actimel



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3.2. Iron intake



- Consume a considerable amount of iron containing foods in combination with vitamine C

For example: dried fruits with a glass of orange juice, kiwi with nuts, beans with peppers, cereal products

- Don't combine iron containing foods with tea or coffee, it hinders the uptake of iron
- Red meat is a good bron of iron, but limit the amount and choose instead for other iron containg foods

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3.3. Hydration to optimize your performance and prevent injuries

The main functions of water are:

- Acts as a transport for gases and nutrients
- Serves as a primary background medium for chemical reactions and cell communication
- Helps maintain the body's structure
- Improves gases diffuse across the membranes
- Crucial for regulating core body temperature

Water gains come from food, drinks, metabolic activity (muscle glycogen breakdown).

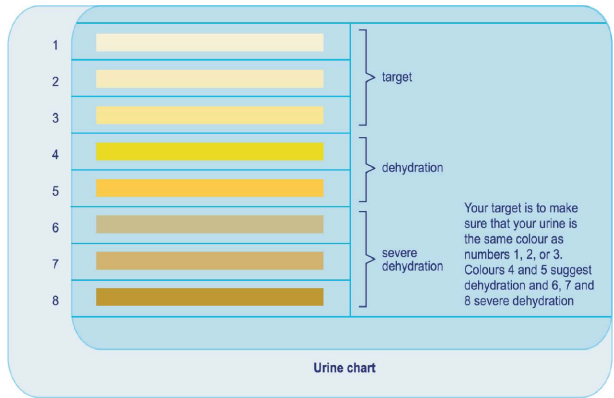
Water losses result from urine, faeces, sweat, respiratory activities.

There are 2 easy ways to monitor and to prevent dehydration:

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3.3.1. Urine colour guide



1
2
3
4
5
6
7
8

target
dehydration
severe dehydration

Your target is to make sure that your urine is the same colour as numbers 1, 2, or 3. Colours 4 and 5 suggest dehydration and 6, 7 and 8 severe dehydration

Urine chart

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3.3.2. Measuring Body Weight

- After an intensive training session or a match, any change in weight is a result of fluid loss.
- By weighing yourself before and after exercise, you can calculate the amount of fluid lost.
- Example: 1.5kg = 1.5L of fluid
- You should aim to drink 150% of the fluid lost.
- Always avoid dehydration as it impacts on your physical and cognitive performance.



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4. Body Composition

- A referee with a high body fat % will have a reduced physical capacity
- A referee with a high body fat % has a negative image and credibility
- If the energy (calories) we eat and drink is not used, it is converted to body fat

CARBOHYDRATE



1g = 4 Calories

PROTEIN



1g = 4 Calories

FAT



1g = 9 Calories

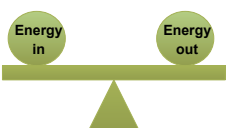


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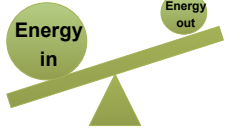
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4. Body Composition

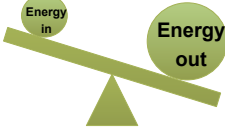
- It does not matter where your energy comes from (carbohydrate/protein/fat), if it is not used, it will be converted to fat



Constant Body Fat %



Body Fat % Increases



Body Fat % Decreases

- When energy taken in is **the same** as energy used, a referee's body fat % **stays the same**
- When energy taken in is **more** than energy used, body fat % **increases**
- When energy in is **less** than energy out, body fat % **decreases**

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Summary

- Do's:**
 - Have 3 or more fruits and 200-300g of vegetables each day
 - Continuously hydrate yourself: at least 2.0L of water per day
 - Rehydrate as soon as possible after the end of your match or training session
- Don't's:**
 - Eat within 2 hours of a match or training session
 - Consume alcohol immediately after a match or training session
 - Eat too much fat: French fries, pizzas, meat, cheese, fatty sauces, ice cream, chips, biscuits
 - do not eat (unusual) food that may compromise your digestion before a match (e.g., shellfish,...)




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