

The following are some general guidelines that were developed for football players, but as referees at the highest level often cover the same distances and running intensities in games as players these strategies can be followed as proper nutrition will help improve performance and aid in recovery. No matter how hard the training if you are not providing the body with the right types of fuel then you will not improve as quickly, recover as fast and will therefore not reach your true potential.

Please be aware that the following are general guidelines only and that if you have any specific concerns or issues you should consult a qualified nutritionist

THE BASICS

Carbohydrates

Your body has two main sources of energy, the first is carbohydrates and these are used by the body during aerobic (long distance slow pace) and anaerobic (sprints) activities. Your body contains only small amounts carbohydrate stores and these are likely to run out near the end of a match.

There are two types of carbohydrates, (1) Complex and (2) Simple. Complex carbohydrates are in foods such as breads, pasta, rice, and potatoes and should be included in your diet. Simple carbohydrates are sugars and whilst they are high in energy and low in fat they are **not** the best option for a health balanced diet.

Protein

Protein is used to repair muscles after training or games. Only a limited amount of protein can be used at a time, so there is limited value in eating large amounts in one meal and as such it should be eaten frequently throughout the day.

Fat

Fat is used in low intensity aerobic activity (long slow runs). As football is an interval sport with periods of intense play followed by stoppages, fat does not provide the match official with the energy that he or she needs during a game.

You do need to be aware of '**Hidden fats**' in your diet that will increase the calories you are eating, for example

- Cooking chicken with the skin on.
- Mayonnaise and butter spreads on sandwiches
- Frying food

Options to reduce fats are;

- Try and substitute red meat for chicken and fish
- Remove as much of the skin and fat before cooking meat
- Use low fat sandwich spreads such as mustard
- Grill food in an oven tray that allows fat to drain away

Fluids

An area that is often overlooked in how much fluid you drink, it is just as important as eating plenty of carbohydrates. In a match you can lose 1-2.5kg of body weight from sweat loss! This will affect your ability to complete exercise because you will overheat, and lose your concentration throughout the match. You must therefore drink plenty of fluid before, during and after a match or training session.

A balanced diet

It is important to eat different foods because no single food type gives you everything you need. Your body needs a variety of foods to get all the nutrients (vitamins, minerals, fats, proteins, carbohydrates) you need to stay healthy, train hard and play better. This means that whilst carbohydrates and proteins are essential to provide energy and build muscle, the vitamins and minerals that you get from vegetables and fruit will improve the way in which these energy systems work.

To be a successful 3 basic rules should be followed;

1) Eat complex carbohydrate foods

Carbohydrates are the energy source that your body mainly uses to keep you going during training and importantly during a match. Your body can only store a limited amount so you need to have a diet that replaces the ones you use. If you don't replace them then you may find that you lack energy and can't last as long as you normally do during training or a match.

2) Drinking plenty of fluids

Just as important is keeping hydrated you can sweat up to 2 litres (about 4 pints) in an hour if it is hot and you are working hard and even in winter when it is cold and wet you can still sweat a lot. If you don't replace the fluid then you may become dehydrated and this will have an impact on your performance. This means that you must be hydrated before you start and should drink regularly during the day and with meals and not just when you feel thirsty because then it is too late.

3) Eating a balanced diet (i.e a wide variety of foods)

To stay healthy and train hard you need to get a wide variety of vitamins and minerals into your diet this is done by eating a wide variety of foods and fruit and vegetable.

BREAKFAST

Breakfast is arguably the most important meal of the day because you need to provide your body with energy for the day and if you think about it when you wake in the morning you have been effectively fasting for over 8 hours. If you don't eat properly in the morning, or if you skip breakfast altogether, then the time between your last good meal can be over 12 hours! This means that your body will have to look for other energy stores and this can be protein, taken from your muscle. Therefore it is important that you make sure you have a good breakfast: eat the right foods and eat as much as you need.

A number of people like the odd English breakfast and whilst it has good things in it, like beans and toast, which give you energy. It also has bacon, sausage and fried bread, which are full of fat so you need to be careful about eating these foods. You should choose foods that have carbohydrates in them, such as toast and cereals along with a good protein source.

The table below shows breakfast foods that are excellent, good and bad for your performance.

If you are training in the morning then the following foods should be eaten. Remember to drink water with breakfast as well

Breakfast items 1 to 2 hours before training	Breakfast items 45 minutes to 1 hour before training
Poached or scrambled egg (3 whites to 1 yolk) Lean ham Grilled tomato/mushrooms Baked beans Cereals with skimmed milk Fresh fruit salad and yoghurt Fruit juices Toast and preserves	Cereal with skimmed milk Fresh fruit salad and yoghurt Fruit juices Toast and preserves Whey protein supplement

EXCELLENT

Toast and jam
 Baked beans
 Cereal and skimmed milk
 Fruit or
 Fruit juice

GOOD

Muffins
 Eggs
 Yoghurt

BAD

Sausages
 Fried bread
 Hash browns
 Cheese

Lunch

For lunch you should be eating sandwiches or salad, baguettes with lean meat such as chicken or tuna. Baked potatoes with tuna and baked beans, or spaghetti with chicken are also good. These foods are low in fat and contain a good source of carbohydrates. For dessert you could eat yoghurt or fruits such as bananas, apples, oranges, grapes, or strawberries.

If you have been training prior to lunch then it is vital that you eat carbohydrates to replenish the stores used during the training session and protein to aid in your recovery and drink fluids to rehydrate. You need to eat within an hour of finishing training to aid in the replenishment of your energy stores

The table below shows examples of excellent, good and bad foods to eat.

<u>EXCELLENT</u>	<u>GOOD</u>	<u>BAD</u>
Baked Potatoes with tuna, baked beans or spaghetti Turkey sandwich Tuna sandwich Pasta and sauce Salad Fruit Yoghurt Fruit juice	Egg sandwich or baguette Jaffa cakes	Cheese sandwich Sausage rolls, pasties Chip buttie Burgers and chips Fried chicken Pizza Fried eggs

A typical menu would be;

Starter Soup and roll Or fresh fruit salad

Main Course

Grilled chicken/turkey/beef strips/fish (medium portion)
Rice/pasta/potatoes (Medium portion)
Steamed or boiled vegetables or salad (large portion)

Dessert: Fresh fruit

Drinks: Water/fruit juice or squash/low carb sports drink

Eat the above in good sized amounts when you have finished training and have NO afternoon session. Drink a high carb sports drink if not hungry and eat less. If there is an afternoon session then you don't need to worry as much about the vegetables and salad and you will need to eat less if there is an afternoon session.

Eat the above in smaller portions if there is an afternoon session.

DINNER

Dinner for many people is the main meal of the day and is often the meal eaten after training so it is you must try and get the right types of foods for this meal, you need to be careful about what you eat at this time. If you have had an afternoon training session then you need to eat quick release carbohydrates like you have eaten at lunch after a morning training session. **If you have not had an afternoon or evening session then your dinner should have a lot of vegetables and salad and less pasta, rice and potato.**

Try to keep your fat intake low

- Oven chips (particularly thick cut chips) are better than fried chips, as they contain less fat and are also a good source of carbohydrates. When frying chips try and use thick cut, as this will reduce the amount of fat consumed
- Burgers, pies and sausages should only be eaten rarely during the week

Try to increase the amount of carbohydrate you eat from vegetables.

When eating meat, e.g. chicken, pork or lamb, cut off the excess fat before cooking. This will reduce the amount of fat consumed and reduce body fat. Chicken seasoning, herbs etc., can be added to improve the flavour

As a general rule divide your plate into quarters

- $\frac{1}{4}$ should be carbohydrates
- $\frac{1}{4}$ should be protein
- $\frac{1}{2}$ the plate should be vegetables

Starter: Soup (No roll) or fresh fruit

Bowl of salad (with pate/grilled chicken pieces/smoked salmon)

Main Course

Grilled chicken/turkey/lean steak/fish (large portion)

Rice/pasta/potatoes (small portion)

Steamed or boiled vegetables or salad (large portion)

Dessert: Fresh fruit

Drinks Water/fruit juice or squash/tea/coffee

EXCELLENT

Chicken (fillet, no skin,
boiled or oven cooked)
Fish (not in batter)
Baked, boiled, or mash
potatoes
Boiled rice
Pasta
Bread roll
Salad
Vegetables
Fruit
Fruit juice or water

GOOD

Grilled lamb
Grilled lean steak
Pasta bake
Lasagne (low fat
cheese and lean mince
beef)
Spaghetti Bolognese
(lean mince beef)

BAD

Cheese burgers
Pizza
Sausages
Sausages
Sausage rolls, pasties
Fried chips
Fried rice
Chinese takeaway
Fast food (Mc Donalds,
KFC, Burger King)
Mince pies, suet based
puddings
Cakes and biscuits

FLUIDS

Other than low energy stores, dehydration is the other main cause of fatigue. Even small levels of dehydration will make performance worse. Fluid intake is so important even special rules are made to allow athletes to re-hydrate during competition in hot climates such as in the 1994 football world cup in America, where players were allowed to drink at the touchline. As much as 2 litres of water can be lost during a match.

<u>EXCELLENT</u>	<u>GOOD</u>	<u>BAD</u>
Water Fruit Juice Sports drinks Skimmed milk	Whole milk Cordial Milk shakes	Fizzy drinks

- Water is the purest form of fluid in the body. Drinking water can help flush out toxins in the body and speed recovery after activity.
- Fruit and cordial drinks after exercise increases fluid uptake, speeding up the rate of re-hydration.
- Scientific studies have proven that Sports drinks such as Lucozade Sport have more energy in them than water allowing you to run for longer and recover more quickly.
- Don't drink fizzy drinks before, during or directly after exercise, this can make performance worse.

WHY SHOULD I EAT WELL BEFORE TRAINING AND/OR MATCHES?

Training sessions and games are different to other activities carried out during the week because:

- They last longer (up to 1½ hours at least).
- Players very rarely stop running.

The amount of work carried out during a game or training session eats away at your energy stores. If get tired towards the end of a game or practice session, this is a signal that energy stores are low and decision making will be impaired. So, to have as much energy available as possible, you need to prepare well beforehand.

HOW TO PREPARE WELL FOR A GAME OR A TRAINING SESSION?

Players and officials often get into routines over the foods they eat before training or playing a match. These meals are high in energy and are eaten in good time beforehand in the form of a main meal or snacks.

MAIN MEAL

Main meals need to be eaten 3-4 hours before training or a match. However, breakfast may be eaten within 2 hours of training. Foods to think about are shown in the table below. But be careful not to overeat as this may make you feel 'blotted' and lethargic.

<u>EXCELLENT</u>	<u>BAD</u>
Chicken Steak (grilled) Spaghetti Rice Vegetables Potato (baked or boiled) Baked beans on toast Sandwiches	Pasties Sausage rolls Fried foods Burgers Cheese

WHAT SHOULD I EAT IMMEDIATELY AFTER A GAME OR TRAINING SESSION?

It is important to fill up on lost energy stores as soon as possible after a match or training. You may time your main meal for 1-2 hours after but must try to eat something small immediately after. Foods to consider are shown in the table below:

<u>EXCELLENT</u>	<u>GOOD</u>	<u>BAD</u>
Jam buttie Jaffa cakes Fruit Chocolate bars Milkshakes Sports drinks	Sandwich (lean meat) Cereal Yoghurt	Sausage barm Pasties Sausage rolls Fried foods

You may not feel like something to eat straight after a game. Energy drinks are ideal as you not only restore your energy levels but also your lost fluids.

SUMMARY

- Eat foods containing complex carbohydrates before and after games.
- Pre-match meals should be eaten 3-4 hrs before.
- Snacks can be eaten up to 1-2 hrs before a game or training session.
- Eat something small immediately after training or a game.
- Eat a high-energy meal within 2 hours after a game or practice session.
- Drink a large amount of fluid before, during and after training sessions and matches.

Suggested game day schedule

6:00 (night before)	Main meal + fluid
8:00	Breakfast + fluid
12:00	Light lunch + Fluid
2:00	Fluid and small snack
3:00	Kick off

Fluid throughout first half and at breaks

Half Time Banana + fluid

Fluid throughout second half and at breaks

Full time Carbohydrate drink + banana

As soon as possible Main carbohydrate meal with protein

Remember you should not change your routine for a big match but should practice any eating and drinking habits during practices. For example practice eating a banana half way through training to get yourself familiar to it.