Performance Nutrition Guidelines For Football Players

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INTRODUCTION

These guidelines are suitable for any football player and the information can be generalised. However, there are some key areas that individuals need to be aware of. As a football player you are required to train and perform to the highest expectation which means that you need to fuel your body in the most appropriate manner. Use these guidelines to optimise your nutritional choices during your time at the football club.
NUTRITION - ONE COG IN THE MACHINE

- Tactical
- Reflection
- Support network
- Recovery
- Perseverance
- Technical
- Performance analysis
- Expertise
- Biomechanics
- Nutrition
- Sport psychology
- Sport and exercise science
- Training
- Strength and conditioning
- Sport psychology
- Physiotherapy
- Biomechanics
- Performance analysis
- Expertise
- Technical
- Performance network
- Recovery
- Perseverance
- Sport psychology
- Sport and exercise science
- Training
- Strength and conditioning
- Tactical

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POWER OF NUTRITION

IMPORTANCE OF SPORTS NUTRITION

FOR HEALTH
- Optimise immunity
- Support growth and development
- Prevention of illnesses, common coughs and colds

FOR FUEL
- Support demands of training and/or competition

FOR RECOVERY
- Promote training adaptation
- Improve recovery times and muscle soreness

FOR BODY COMPOSITION
- Support growth and development
- Optimise physicality in relation to sport/position
- Prevention of injury

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OPTIMISERS

- Supplements, compliant with anti-doping rules and regulations (Informed Sport)
- Advice based on credible rational and justified reason for use

FINE TUNING NUTRITION STRATEGIES

- Focus on meal timing and meal composition to support training adaptation and performance goals.

ENERGY BALANCE AND MACRONUTRIENTS

- Knowledge on energy balance and fueling for the work required.
- Improved knowledge on roles of carbohydrates, proteins and fats.

DAILY HABITS AND LIFESTYLE CHOICES

- Has a positive relationship with food
- Eats breakfast, lunch and dinner, does not skip meals.

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THE PERFORMANCE NUTRITION PYRAMID
PHASE 1

Optimisers

Fine tuning strategies

Energy balance and macros

Knowledge of own daily habits and lifestyle choices

KNOWLEDGE OF DAILY HABITS AND LIFESTYLE CHOICES

❑ Do I eat three main meals every day (breakfast, lunch and dinner)?
❑ Do I skip meals?
❑ Do I understand that as well as focusing on improving performance, I also need to focus on optimising my own health and wellbeing?
❑ Do I have packed lunches or school dinners (academy player)?
❑ Do I understand what a portion of fruit or vegetable is?
❑ Do I know how many portions of fruit and vegetables I should aim to eat each day?
❑ Who cooks in the family?
❑ Do I need to work on my basic cooking skills?

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Knowledge of own daily habits and lifestyle choices

Fine tuning strategies

Optimisers

ENERGY BALANCE AND MACROS

- Do I understand that I must consume enough calories to support growth and development, as well as physical activity?
- Do I know why I should fuel for the work required?
- Do I understand the role of carbohydrate; key sources of carbohydrate and how many carbohydrates I should put on my plate each meal?
- Do I understand the role of protein; key sources of protein; how much protein I should aim to eat with each meal?
- Do I understand the role of fats; key sources of fats; how much fat I should aim to achieve each day?
THE PERFORMANCE NUTRITION PYRAMID
PHASE 3

FINE TUNING NUTRITION STRATEGIES

- Do I understand that my nutrition strategies may differ depending on whether I am preparing for training or for competition?
- Do I understand that in order to fuel appropriately for a session I must consider the duration, intensity and the type of session as well as how long after training I’ve got to recover for subsequent sessions?
- Do I understand carbohydrate periodisation and when I ought to consume a high carbohydrate or low carbohydrate diet in order to reach my health, performance and/or body composition goals?
- Do I understand that there is no one-size fits all approach. My needs may be different to the player next to me?

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THE PERFORMANCE NUTRITION PYRAMID
PHASE 4

OPTIMISERS AND SUPPLEMENTS

- Do I understand the anti-doping regulations in my sport?
- Do I understand that I am responsible for all foods/beverages and supplements that enter my body?
- Do I consume any supplements?
- Can I get the same benefit from food instead?
- Is there a scientific rationale for using this supplement?
- Does this supplement comply with anti-doping regulations?
- Have I spoken to the club nutritionist about using this supplement?
- Do I understand that I can consult the club nutritionist if I have any questions regarding optimisers and supplements?
- Am I aware of Informed Sport and Global DRO?
KEY THINKING POINTS

- You must be mindful of what you eat day to day aiming to fuel and recover from the sessions you have that day. This means ensuring you consume adequate amounts of protein (20 - 40g) soon after each training session.

- Your diet should be a balance of protein, carbohydrates and fat coming from a wide variety of good quality wholefood sources.

- Alcohol reduces recovery from training therefore may increase the likelihood of injury as well as reducing the level of adaptation there is to training.

- High body fat scores are unnecessary for football players and will only serve to reduce your power to weight ratio. By minimising the amount of processed junk food you eat, crisps, chocolate, sweets etc. You should be able to easily maintain an appropriate level of body fat.

- Hydration is extremely important for both injury prevention and training/match performance. Hydration should be monitored each time you use the toilet.
HYDRATION

You can monitor your hydration day to day quite simply by using the urine colour chart below. You should be aiming to keep your urine the same colour as boxes 1-3, which equate to a hydrated state.

Salt/sodium – As someone who is healthy and who regularly exercises there is no need to limit your salt intake. Doing so may actually reduce the amount of fluid that you retain when you drink so do not shy away from adding salt to your food if this is how you prefer it. You may use it to add flavour to vegetables if this will encourage you to eat more of them.
HYDRATION

- Football is a demanding sport requiring repeated high-intensity interval performance, including speed endurance which are particularly prone to dehydration (see below).

- High intensity bursts of exercise and long playing-times make it vital you keep monitoring your hydration and taking fluids on board!

![Graph showing sweat loss in kg for different activities](image)
The concept of good hydration is a simple one; if you sweat more you need to drink more. It is however something that is regularly misjudged by football players even those playing at the top level. Thirst tends to come on late and be satisfied early so your own body cues aren’t always enough to go on.

Optimal Hydration is essential to maximise performance and preserve health. Losing just 2% of your body weight through sweat will negatively affect both mental and physical performance.

Fluid losses in sport are often accompanied by high electrolyte (salt) losses, including excretion of sodium, potassium, calcium, magnesium and chloride. These may seriously impact on concentration, strength, exercise performance and endurance.

Get used to reading the signs of dehydration – monitor urine colour and see how this relates to how you feel over the day. Losing only 2% of body weight as sweat (equivalent to approximately 1.4 L for a 70 kg player) leads to impaired performance. Some typical signs of dehydration are…….

<table>
<thead>
<tr>
<th>body weight lost as sweat</th>
<th>Physiological effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
<td>Impaired performance</td>
</tr>
<tr>
<td>4%</td>
<td>Capacity for muscular work declines</td>
</tr>
<tr>
<td>5%</td>
<td>Heat exhaustion</td>
</tr>
<tr>
<td>7%</td>
<td>Hallucinations</td>
</tr>
<tr>
<td>10%</td>
<td>Circulatory collapse and heat stroke</td>
</tr>
</tbody>
</table>

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You should rehydrate with electrolyte solutions (salts) to replace **1.5 x sweat-losses**!

- Weigh yourself before training (e.g. 61Kg)
- Weigh yourself after training (e.g. 60Kg)
- Drink 1.5 x the sweat lost (= 1.5 x 1Kg = 1.5L)

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HYDRATION

- Have a bottle with you at ALL TIMES – in school (academy player), training, at home – everywhere. Drink from a bottle of water to measure daily intake until you are used to drinking enough.
- Rehydration drinks contain salts, and it’s also advisable to drink water when you eat food. If making your own, use full-sugar squash for recovery, or diluted fruit juice or low sugar-squash at other times, adding a pinch of salt.

Making a Sports Drink, you will need…

- Full-sugar Cordial
- Low sugar Cordial
- Fruit juice
- Water
- Salt

Easier training less sugar more water
Harder training more sugar/fruit juice

Cooler = less salt/hotter = more salt (helps water retention)
During exercise, the body can burn carbohydrates or fats for fuel.

Although there is more energy in fat (9 Kcal per gram (g) as opposed to 4Kcal from carbohydrate), carbohydrate provides a faster release of energy and becomes increasingly important as exercise intensity increases.

Carbohydrate is stored in a form called “glycogen” in the muscles and is the primary energy source for intense activity.

Football is an “intermittent sport” involving sudden movements and periods of recovery; this requires fast energy provision and is typical of sports with a heavy reliance on carbohydrate metabolism.

Football depends more on carbohydrate, as fat oxidation simply is not fast enough!

A football player’s foremost priority must be to meet carbohydrate requirements (see the following pages) in order to maintain a high quality and intensity of training.

This will ensure maximum effort can be put into sessions, in order to achieve the maximum training-gains and optimum performance!

Carbohydrate demands will vary depending on size individual variation, and the daily demands of your training regime (guidelines given PER KILOGRAM OF BODYMASS [g/kg BM] e.g. 1g/kg for a 70 kg player would be 70g),
CARBOHYDRATE – GLYCAEMIC INDEX (GI)

The glycaemic index (GI) is a rating system for foods containing carbohydrates. It shows how quickly each food affects your blood sugar (glucose) level when that food is eaten on its own. It is a ranking of foods from 0 – 100 the faster the rise in blood glucose the higher the rating on the index.

- High GI (over 70) - Carbohydrate foods that are broken down quickly by your body and cause a rapid increase in blood glucose have a high GI rating. The best choices **AFTER INTENSE TRAINING** as they provide the carbohydrate quickly that is more available for recovery.

- Medium GI (56 – 69) medium GI foods are broken down moderately and cause a gradual rise in blood sugar levels over time.

- Low GI (0 -55) low GI foods are broken down more slowly and cause a gradual rise in blood sugar levels over time. At other times, slower-releasing (low Glycaemic Index) carbohydrates are well suited to providing a constant, steady supply of energy. The consumption of these carbohydrates (unlike sugars) is not correlated to being obese or overweight.

<table>
<thead>
<tr>
<th>Glycemic Index Classification</th>
<th>GI Rating</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH GI</td>
<td>≥70</td>
<td>Rapid increase in blood sugar levels</td>
</tr>
<tr>
<td>MEDIUM GI</td>
<td>56-69</td>
<td>Moderate increase in blood sugar levels</td>
</tr>
<tr>
<td>LOW GI</td>
<td>≤55</td>
<td>Slow increase in blood sugar levels</td>
</tr>
</tbody>
</table>

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## GLYCAEMIC INDEX - FOODS

<table>
<thead>
<tr>
<th>HIGH GI – during/after intense training/recovery</th>
<th>MEDIUM GI – *final 5 mins of half time (match play)</th>
<th>LOW GI – daytime, fuelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread - white</td>
<td>*SIS energy bar/gel/drink</td>
<td>Basmati Rice/Long Grain/Brown</td>
</tr>
<tr>
<td>Baked potato/mashed potato</td>
<td>*Banana</td>
<td>Bulgar Wheat/Barley/Couscous/Quinoa</td>
</tr>
<tr>
<td>Cereals e.g. cornflakes coco pops</td>
<td>*Pineapple</td>
<td>New Potato/Yam</td>
</tr>
<tr>
<td>Jasmine rice/Rice cakes</td>
<td>*Raisins/Sultanas</td>
<td>Porridge/Muesli/All bran – most oat bran based cereals</td>
</tr>
<tr>
<td>Dates</td>
<td>Beetroot (concentrated shots –pre loaded weekly)</td>
<td>Bread - Multigrain, granary, rye, seeded, wholegrain, oat, pita bread and chapatti</td>
</tr>
<tr>
<td>Jelly babies/Haribos</td>
<td>Bread – Pitta/Muffin/Crumpet</td>
<td>Apple/Pear/Orange/Peach/Plum</td>
</tr>
<tr>
<td>Dates</td>
<td>Sweet potato</td>
<td>Milk/Yoghurt</td>
</tr>
<tr>
<td>Popcorn</td>
<td>Sweetcorn</td>
<td>Dried apricot/Nuts</td>
</tr>
<tr>
<td>Sports drinks/gels/powders</td>
<td>Kidney beans</td>
<td>Most vegetables – Carrots/Peas/Beans/Lentils</td>
</tr>
</tbody>
</table>

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## CARBOHYDRATE – HOW MUCH?

<table>
<thead>
<tr>
<th>Carbohydrate (grams per Kg per day)</th>
<th>Activity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 5g/kg</td>
<td>Sub optimal for performance but maybe necessary during calorie restriction to reduce body fat. Recovery day. Weight session.</td>
</tr>
<tr>
<td>5 - 7</td>
<td>Medium level exercise, less intense session. Weight session.</td>
</tr>
<tr>
<td>7 - 12</td>
<td>High level training/Endurance/Metabolic sessions – Competition fuelling</td>
</tr>
</tbody>
</table>

- Timing, amount and type of carbohydrate foods and drinks should be chosen to suit the practical needs of the event and individual preferences/experiences. Program 3 – 4 main meals spaced out throughout the day to consume 7 – 12g/day.

- On match day avoid combining with choices high in fat/protein/fibre to avoid gastrointestinal distress.

- Recent research assessing the daily distribution of macronutrient intakes of professional Premier league players has shown that players may benefit from consuming greater amounts of carbohydrate in both the pre – match and post – match meals so as to increase carbohydrate availability and maximise rates of muscle glycogen re-synthesis.
The amount of carbohydrate needed after exercising *until exhaustion* is 1-1.2g/kg bodyweight. This is roughly **55 to 90g** for most young football players.

These requirements may be **significantly lower for easier/technical training sessions**

If your next meal is not for several hours and recovery is critical such as during a very heavy week of training or at a tournament, you should repeat the recovery snack hourly until your next full meal.

For less vigorous sessions, maintaining muscle-metabolism and reducing calorie intake (by helping you feel full), can both be achieved by including a small amount of protein with your recovery meals, and by replacing some carbohydrate dense foods with less energy dense vegetables.

Starchy Carbohydrates and those with a higher GI (e.g. mashed potatoes) should be consumed pre and post training, substituting them with more fibrous sources of low GI carbs at other times.
Protein is a vital nutrient. Proteins are chains of small molecules called amino acids. Proteins main function is the creation, growth and repair of human tissues.

1.7 – 2g/Kg body mass per day of protein (e.g. 70 kg player – 119g – 140g per day) should be sufficient to repair damaged muscle and stimulate football specific adaptation.

Meals and snacks should be divided into 5 – 6 feeds of approximately 20 – 40g protein servings over the day interspersed by approximately 3 – 4 hour intervals to fully maximise protein synthesis rates as a primary emphasis for exercising individuals.

The optimal time frame for protein ingestion is likely a matter of individual tolerance, since benefits are derived from pre or post workout ingestion. The anabolic effect of exercise is long lasting (at least 24 hours) but likely reduces with increasing time post – exercise. However, post – exercise ingestion of high quality protein immediately to 2 hours post workout will stimulate robust increases in muscle protein synthesis and is recommended for exercising individuals.

Football players should focus on consuming whole food sources of protein that contain all of the essential amino acids. However, supplementation is a practical way of ensuring intake of adequate protein quality and quantity while minimising caloric intake (e.g. whey protein shake can be convenient/portable), particularly for players who typically complete high volumes of training.

Consumption of casein protein (approx. 30 – 40g e.g. milk/cottage cheese/muscle mousse) prior to bedtime can increase muscle protein synthesis and metabolic rate throughout the night without causing fat gain.
FAT

Fats are essential for our body’s health. As well as their use as energy stores fats help us absorb and utilise vitamins, construct and repair nervous tissue, manufacture hormones (e.g. testosterone) and form the basis of all the structural cells in the human body. However, as they are high in calories, you still need to eat them in moderation.

❑ Essential fatty acids are the fats our body cannot make but needs for a wide variety of essential functions. These are essential as we cannot manufacture them in the human body and therefore need to consume them in our diet.

❑ There are 2 types of essential fatty acids, saturated fats and Un-saturated fats. Un-saturated fats (poly-unsaturated & mono-unsaturated) are often called “good fats” and include important fatty acids such as omega 3 and omega 6. These are important building blocks for our brain cells and hormones. Consume unsaturated fats including plant based sources and fish and limit the intake of food containing high concentrations of saturated fats.

❑ Approximately 20 – 30% of calories in your diet should come from fat, which equates to approximately 0.8 – 1g/Kg body mass per day.

❑ Limit consumption of saturated fat to 10% or less.

❑ Essential fatty acids may be particularly beneficial in the delivery of oxygen to the muscles, improve endurance and may speed recovery, reduce inflammation and joint stiffness.
BREAKFAST

Breakfast is a key area that many players fall down on because they simply continue to eat the breakfast choices they chose as a youngster which tend to be sugary cereals. Breakfast is also usually very low in protein, which is a key area that you should focus on improving. The closer to training you eat breakfast the more 'easy to digest' your option needs to be, therefore consider your waking time when selecting your choice of breakfast. This may be a meal that you will consume at the training ground, however you should also ensure that the options provided are available at your home.

- Eating a good breakfast will give enough time to start topping up your body’s glycogen stores (stored carbohydrate), which will help ease the burden on your muscles during exercise.

- If you do not have enough time, or find it hard to eat large quantities in the morning, at least try to eat some form of high-carbohydrate snack – many athletes find consuming bars, gels, drinks and convenient sports-foods can help.

- There may be some advantage in choosing slower-release, less sugary carbohydrates before training. Eating simple sugars too early before training can leave some athletes feeling tired and lethargic as they suffer a “sugar crash” before training.

*Steven Rimmer Performance Nutrition can provide over 200 recipes to support health, training, performance and recovery via the ‘Fuel My Performance’ database. Step by step photos will help guide through the recipes with clear information to improve cooking skills.*
Aim for 1 – 1.2g/kg body mass carbohydrate pre-training

- Oats/Porridge
- No added sugar muesli
- Fruit
- Mixed berries
- Vegetables e.g. Grilled tomatoes, mushrooms
- Shredded Wheat
- Weetabix
- Bread
- Cereals

Options to add protein 20-40g

- Eggs – boiled/scrambled/poached/fried (in low-calorie oil)
- Ham
- Greek yoghurt
- Natural yoghurt
- Milk
- Whey protein

Choosing an option that you do not like unless you add sugar to it makes this option significantly worse. You should consider changing your option or adding fruits and berries to add flavour.
Since this meal is usually consumed after a morning training session it is important to **refuel with carbohydrates, enhance muscle structure/recovery with protein, support with healthy fats and rehydrate with fluids**. The meal must be eaten within 1 hour of finishing training. The meal should resemble the plate displayed on the following page. If a subsequent afternoon training session follows this meal, eating too much may cause gastrointestinal issues so be mindful of portion size and timing.
LUNCH - TRAINING DAY – PERFORMANCE PLATE

Refuel: Carbohydrate -
- Rice
- Quinoa
- Bulgar wheat
- Sweet/white potatoes
- Oats
- Mixed beans and peas - (garbanzo, pinto, kidney, white split, lima, black-eyed)

The amount of carbohydrate needed pre/post exercise until exhaustion is 1-1.5g/kg bodyweight

e.g. 70g – 105g for a 70kg player.

Support: Fat -
- Butter
- Cheese
- Whole Egg
- Olives
- Nuts – Walnut/Brazil/Almond/Cashew
- Pistachio/Macadamia
- Avocado
- Coconut oil
- Macadamia oil
- Walnut oil
- Olive oil pesto

Immobile/Growth/Vitality:
- Vegetables
- Salad
- Fruit/Berries

Protein:
- Chicken breast/thigh
- Turkey breast/thigh
- Egg white
- Tuna (canned)
- Halibut
- Mackerel
- Lean Beef mince
- Liver
- Tofu
- Soy
- Dairy (low fat)

Vitamins/Minerals
The amount of carbohydrate needed pre/post exercise until exhaustion is 1-1.5g/kg bodyweight

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LUNCH - RECOVERY DAY

**Recover/Repair: Protein (20 – 40g)**
- Chicken breast/thigh
- Turkey breast/thigh
- Beef Steak
- Salmon Fillet
- Prawns
- Mussels
- Tuna Steak
- Bacon/Gammon
- Soy
- Tofu
- Dairy (full fat)

**Refuel: Carbohydrate**
*Replace carbohydrate with less energy dense vegetables/salad (see options on next page)* when intensity is significantly lower for easier/technical training/recovery sessions. The options below should be significantly decreased in portion size.
- Rice
- Quinoa
- Bulgar wheat
- Sweet/white potatoes
- Oats
- Mixed beans and peas - (garbanzo, pinto, kidney, white split, lima, black-eyed)

**Support: Fat** – When protein is lean e.g. chicken, white fish, fat maybe slightly increased from butter, cheese, olives, oils and nuts

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LUNCH - RECOVERY DAY

On recovery days there is not the same need to refuel with carbohydrates but instead you should see this as ‘pre-fuelling’ for the subsequent days training. This means a reduced portion of carbohydrate should be consumed. Similarly, the overall portion consumed at lunch time should be smaller. Increase your intake of vegetable options and salad (see options below) to fill you up. These contain fewer calories and will help to maintain optimal body composition.

*Less activity = lower carbohydrate.* This option will usually incorporate more protein in order to provide the substrates for protein-synthesis and hormonal health, without the additional carbohydrate energy.

<table>
<thead>
<tr>
<th>Vegetable/ Salad Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparagus</td>
</tr>
<tr>
<td>Avocado</td>
</tr>
<tr>
<td>Artichoke</td>
</tr>
<tr>
<td>Brussel Sprouts</td>
</tr>
<tr>
<td>Carrot</td>
</tr>
<tr>
<td>Tomato</td>
</tr>
<tr>
<td>Celery</td>
</tr>
<tr>
<td>Courgette</td>
</tr>
</tbody>
</table>
DINNER

Recover/Repair: Protein (20 – 40g)
- Chicken breast/thigh
- Turkey breast/thigh
- Beef Steak
- Salmon Fillet
- Prawns
- Mussels
- Tuna Steak
- Bacon/Gammon
- Soy
- Tofu
- Dairy (full fat)

Support: Fat –
When protein is lean e.g. chicken, white fish, fat maybe slightly increased from butter, cheese, olives, oils and nuts

Refuel: Carbohydrate –
Replace carbohydrate with less energy dense vegetables/salad and protein when intensity is lower. Meals should include high protein foods with lots of vegetables, with pre-measured carb portions, providing energy-monitored meals.
- Rice
- Quinoa
- Bulgar wheat
- Sweet/white potatoes
- Mixed beans and peas - (garbanzo, pinto, kidney, white split, lima, black-eyed)
- Oats

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This meal should be balanced. On a training day where lunch has been the biggest meal consumed of the day then this meal should focus more on protein, vegetables and a smaller amount of carbohydrate (similar to a recovery day lunch). You should not be afraid to eat carbohydrates late at night. Carbohydrates will help replenish energy stores in the form of glycogen rather than being stored as body fat, just be mindful of portion size (use the guidelines provided on this document). Consuming a poor meal in the evening may find you reaching for snacks high in sugar/fat which may have a negative effect on body composition and subsequently effect level of performance.
‘Snacking’ is an area that many players can have problems with. Poor choices can have a negative impact on body composition particularly due to players choosing high carbohydrate, high fat low protein selections. ‘Snacking’ is not a obligation therefore you should only consume a snack if you want/need it. There is no issue with eating late at night so long as you make nutritious choices. Research has displayed consuming protein at night may result in improved sleep quality and will help to preserve muscle mass. The following are low carbohydrate snacks which are excellent for curbing hunger and increasing protein and fat intake:

- Protein pancake with Greek yoghurt and mixed berries
- Scrambled eggs
- Chicken salad with olive oil
- Mediterranean medley – olives, sundried tomatoes and feta cheese
- Nuts
- Chicken breast/Sliced smoked salmon/Beef strips
- Vegetable sticks such as carrot batons and celery with a houmous dip
- Olives
- Whey protein shake in water (Informed Sport range)
SNACKS – HIGH CARBOHYDRATE

The following are carbohydrate snacks great for match days, intense training or as a recovery snack:

- Oatcakes with nut butter or houmous
- Greek yoghurt mixed with whey/carb protein
- Greek yoghurt with mixed berries
- Oatcakes with lean sliced ham, cheese and tomato
- Pitta bread with houmous and chicken
- Oat and whey flapjack
- Milkshake with fruit (smoothie)
- Fruit

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## SUGGESTED RECOVERY SNACKS

<table>
<thead>
<tr>
<th>Session</th>
<th>Post - workout</th>
<th>Additions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight session</td>
<td>Yogurt, low fat dairy, protein shakes</td>
<td>More protein with carbohydrate varied according to intensity...</td>
</tr>
<tr>
<td>“Metabolic session” (e.g. HIIT/circuit weights/match simulation)</td>
<td>Sweetened milkshake, recovery-drink, cereal and milk</td>
<td>More carbohydrate with some protein</td>
</tr>
<tr>
<td>Easy Session/technical/skill based</td>
<td>varies on type of session – whey protein (20 – 30g) in water</td>
<td>Small Snack</td>
</tr>
</tbody>
</table>

**Example below for a 70kg player**

<table>
<thead>
<tr>
<th>Match Recovery – 70g Carbohydrate</th>
<th>Easy Skills Session – 35-40g Carbohydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 serving recovery-powder e.g. SIS Rapid Rego + Banana OR 1 pint skimmed milk + White-bread ham-sandwich</td>
<td>Low-sugar sports drink (e.g. Lucozade Lite) + banana</td>
</tr>
<tr>
<td>Repeat hourly until you get your next proper meal!</td>
<td>Carbohydrate in the next meal should be from whole-grain sources, or from colourful root vegetables – limit added-sugars</td>
</tr>
</tbody>
</table>
## RECOVERY IDEAS BY WEIGHT – FAST SNACKS FOLLOWED BY MEALS

<table>
<thead>
<tr>
<th>Player Weight</th>
<th>60Kg</th>
<th>70Kg</th>
<th>80Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Immediate Meal</td>
<td>Immediate Meal</td>
<td>Immediate Meal</td>
</tr>
<tr>
<td><strong>Low Intensity (Skills)</strong></td>
<td>g Carbs</td>
<td>g Carbs</td>
<td>g Carbs</td>
</tr>
<tr>
<td></td>
<td>30g 1 pint milk</td>
<td>50-60g Large portion of chicken &amp; vegetable stir-fry, with 200g bean-salad and 45g Couscous</td>
<td>30g 1 pint milk</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
<td>70g Asian Salmon + veg + ½ can bean-salad and 50g pasta</td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>Protein shake + cereal bar</td>
<td>Protein shake + cereal bar</td>
<td>Protein shake + cereal bar</td>
</tr>
<tr>
<td><strong>Weights</strong></td>
<td>g Carbs</td>
<td>50g Tuna pasta bake made with 50g pasta and apple</td>
<td>60g Beef &amp; couscous salad (75g couscous)</td>
</tr>
<tr>
<td></td>
<td>30g 1 pint milk</td>
<td><strong>OR</strong></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
<td>Protein shake + cereal bar</td>
<td>Protein shake + cereal bar</td>
</tr>
<tr>
<td></td>
<td>Protein shake + cereal bar</td>
<td></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td><strong>MORE PROTEIN</strong></td>
<td>g Carbs</td>
<td></td>
<td>30g 1 pint milk</td>
</tr>
<tr>
<td></td>
<td>60-70g 1 x 500ml bottle milkshake + fruit</td>
<td></td>
<td>70g 2 healthy burgers in 2 large whole-meal rolls with ketchup</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
<td></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>SIS Rapid Rego Recovery + Banana</td>
<td></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td><strong>Fitness session – High Intensity</strong></td>
<td>g Carbs</td>
<td>70-80g 2 x wholemeal ham sandwich (medium sliced bread)</td>
<td>80-90g 100g brown rice with BBQ-glazed chicken &amp; veg</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
<td>60-70g 1 x 500ml bottle milkshake + fruit</td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>SIS Rapid Rego Recovery + Banana</td>
<td><strong>OR</strong></td>
<td>SIS Rapid Rego Recovery + Banana</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SIS Rapid Rego Recovery + Banana</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## MATCH DAY NUTRITION

On Match Day the two key factors to obtain optimal performance are hydration and energy. The pre-match meal should be consumed 2 – 4 hours before kick off depending on your ability to handle food on match day. It is good practice to experiment with your timings during a training session to get this accurate for match day for optimal performance.

<table>
<thead>
<tr>
<th>2 -4 hours prior to kick off:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balanced meal with targeted carbohydrate intake</strong></td>
</tr>
<tr>
<td>pasta/rice/noodles with protein e.g. stir fry noodles with lean beef strips</td>
</tr>
<tr>
<td>jacket potato with beans, tuna, or meat topping</td>
</tr>
<tr>
<td>Scrambled eggs and beans on toast</td>
</tr>
<tr>
<td>Chicken, avocado and sweet potato salad</td>
</tr>
<tr>
<td>Bread rolls/bagel with salad and protein filling e.g. chicken, egg, cheese, ham etc.</td>
</tr>
</tbody>
</table>

*Steven Rimmer Performance Nutrition can provide over 200 recipes to support health, training, performance and recovery via the ‘Fuel My Performance’ database. Step by step photos will help guide you through the recipes with clear information to improve cooking skills.*

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MATCH DAY NUTRITION

<table>
<thead>
<tr>
<th>1 – 2 hours before kick off (only if required/hungry)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This should be something simple/easy to digest</strong></td>
</tr>
<tr>
<td>Greek yoghurt and fruit</td>
</tr>
<tr>
<td>Oats/milk/honey</td>
</tr>
<tr>
<td>Half a bread roll/bagel with salad and small protein filling</td>
</tr>
<tr>
<td>Banana</td>
</tr>
</tbody>
</table>

If you suffer from pre-match nerves use meal replacements/drinks:

- SIS Go energy bar, Go energy powder, Go isotonic gel
- Cereal bars e.g. Go-Ahead bar, Alpen, Special K, Nutrigrain
- Fruit e.g. canned fruit, fresh fruit
- White bread with honey or jam
- Soft sweets e.g. jelly babies. Boiled sweets and liquorice are not suitable.

*Remember – hydration is a major factor in football players performance! Ensure you begin the match with good hydration levels. Consuming 500ml’s water approximately 2 hours prior to kick off will allow you to become hydrated and provide adequate time for toilet use if required. Again you should experiment with timings during training for optimal accuracy on match day.*
POST - MATCH

It is vital to begin thinking about optimal recovery immediately once the match has finished! You should be aiming to consume 20 – 40g protein to aid muscle repair and approximately 1 – 1.5g/kg body mass carbohydrate to begin replenishing glycogen stores within 30 minutes post match. This recovery snack should then be followed up with a recovery meal in the next 2-3 hours. If a recovery meal is not possible within this timeframe then you should repeat snacking hourly until you get your next proper meal.

Optimal recovery is as follows:

In the dressing room (choose from the options below) –

- 1 serving recovery - powder (e.g. .SIS Rapid Rego) and 1 banana
- Lucozade Sport Recovery Sports drink 500ml with peanut butter/meat sandwich
- 1 pint of skimmed milk with tuna/chicken/ham filled white bread sandwich
- 1 oat/whey flapjack
- Cherry Active, 1 sachet of oats with milk/protein powder
- 1 Bottle For Goodness Shakes
- 1 pot of Muller rice pudding with fresh fruit
- Protein/fruit smoothie
These meals provide the magic combination of protein and carbohydrates for recovery. The Carbohydrates give your body energy to recover, whilst the protein gives your muscle the building blocks for growth and repair. They also contain enough essential fats to supply you with energy and support good health.

Post – match meal as follows (choose from the options below):

- Chilli con Carne with rice
- Cottage pie with carrot and sweet potato mash
- Spaghetti Bolognaise
- Large jacket potato with cheese, tuna and salad
- Chicken and pasta salad
- Tuna pasta bake

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FOODS FOR WEIGHT GAIN

Players identified as underweight need to consume nutrition in a calorie surplus. These calories need to ensure they meet training needs and recommended weight gain targets. This increase in calories must focus on a diet primarily accruing lean muscle mass and are driven by a sustained caloric surplus to facilitate anabolic processes and support increasing resistance training demands.

- For building muscle mass an overall daily protein intake in the range of 1.4 – 2g/kg body mass is required. Use the foods provided in the previous lists to attain these values (lean meat/fish/eggs/dairy/soy/whey etc.).

- The foods you consume must contain an adequate amount of carbohydrate in order to fuel/refuel your body and assist with repair and recovery. Recent research undertaken with premier league football players has displayed players may benefit from consuming greater amounts of carbohydrates in both the pre-match and post match meals so as to increase carbohydrate availability and maximise rates of muscle glycogen re-synthesis. Use the foods provided in the previous lists to attain your carbohydrate intake (Oats/Quinoa/Potato/Rice etc.).

- Fats plays a crucial role in the human body and is essential for our body’s health. They provide energy, help absorb and utilise vitamins, construct and repair nervous tissue, manufacture hormones that control blood pressure, immune system and growth and repair as well as contributing to form all the cells within the human body. Fat is calorific, it contains 9kcal/g (over twice the amount of both protein and carbohydrate) so may contribute to weight gain if not consumed responsibly. Use the foods provided in the previous lists to attain these values (Mixed nuts/Avocado/Olives/Seeds/Oils e.g. Olive/Coconut/Nut etc.).
FOODS FOR WEIGHT LOSS

Players identified as overweight must consume nutrition in a calorie deficit. Areas within your current consumption must be analysed in order to reduce calories and ensure the correct macronutrient ratio (protein/carbohydrate/fat) is attained. It is often the case that chosen foods are the correct ones to provide energy and support the recovery process, however, portion sizes need to be monitored and corrected accordingly.

- To promote the retention of muscle mass and loss of body fat during energy restriction research suggests current recommendations for protein intakes should be set at 1.6 – 2.4g/kg body mass per day. Contrary to the public media, consumption of high protein diets does not have detrimental effects on health, including kidney function, bone health or liver function and blood lipids (fats). Use the protein foods in the lists previously mentioned.

- You should fuel your body with enough carbohydrates from your meals to perform and recover around training. This equates to approximately 1g/kg body mass (e.g. 70 kg player will consume 70g carbohydrate prior to training, an example might be oats/milk/fruit combined with a protein source at breakfast prior to a morning training session). Any reductions in carbohydrate should be replaced with protein. Use the foods in the lists previously mentioned.

- During the times you are not training meals should be low carbohydrate and adequate fat to support immune function in a calorie deficit, and again this reduction in carbohydrates should be replaced with protein and healthy fats.

- Snacks must be chosen wisely and should primarily be low carbohydrate high protein snacks. Snacking is an area where unnecessary weight gain can occur and can have a negative effect on performance. It is recommended that players who are looking to reduce body mass should avoid any short term pre-fuel training snacks (energy drinks/jelly babies/gels etc.)
### Example Fat Loss Schedule – most carbohydrate around harder training sessions

<table>
<thead>
<tr>
<th>Time</th>
<th>Meal/Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td>Muesli and low-fat yogurt</td>
</tr>
<tr>
<td>A.M. Training/Recovery</td>
<td>Fitness Session/Match simulation (intense) – sip electrolytes</td>
</tr>
<tr>
<td>A.M. Training/Recovery</td>
<td>Banana after hard session</td>
</tr>
<tr>
<td>Lunch</td>
<td>Salad bar- based around protein, with plenty of good carbohydrate from vegetables/beans depending on intensity!</td>
</tr>
<tr>
<td></td>
<td>e.g. sliced ham with bean-salad, raw-stir-fry vegetables</td>
</tr>
<tr>
<td>Snack</td>
<td>Low fat Yoghurt</td>
</tr>
<tr>
<td>P.M. Training</td>
<td>Weights</td>
</tr>
<tr>
<td>Recovery</td>
<td>SIS Rapid Rego</td>
</tr>
<tr>
<td></td>
<td>Or...</td>
</tr>
<tr>
<td></td>
<td>1 pint skimmed milk</td>
</tr>
<tr>
<td>Dinner</td>
<td>Moderate carbohydrate in last meal. Sea-bass/Chicken breast with dill; most carbohydrate from vegetables -</td>
</tr>
<tr>
<td></td>
<td>carrot and swede mash, peas, steamed broccoli</td>
</tr>
</tbody>
</table>

*Red background = high carb, Orange background = Moderate carb*
FOOD ON THE GO – PORTABLE/CONVENIENT

Limitations imposed by player specific training demands, travelling, food timing strategies and individual needs pre/post match could all contribute to getting nutritional practices correct.

On The Run – A simple Template
Even when caught unawares, you can always find something healthy if near a local supermarket. **Frequent, convenient eating for muscle – Carbohydrate and Protein: two links in the food chain**

Eat by this simple rule; Buy something made of a grain, then add a protein source e.g. Wholemeal bread roll and chicken (above).
FOOD ON THE GO – PORTABLE/CONVENIENT

A pint of milk will combine approximately 19g protein and 28g carbs: just like most protein-bars!!!

On hard training days get faster release, high-glycaemic carbohydrates after training: e.g. FRIJJ MILKSHAKE.

Eating on the run for carbohydrate fuelling – quick and easy bites on the go!

- Supermarket low-fat, high-carbohydrate sandwich ranges - e.g. Tesco Light Choices, Sainsbury’s “Be Good To Yourself”
- Fruit
- Moderate carb salads: Similar salads are available in M&S, Tesco, Morrison etc.
- Look for added carbohydrate with the protein – beans, squash, new-potatoes etc.
- On harder training days add more carbohydrate (bread roll/Go-Ahead bar/fruit etc.)
- Sainsbury’s Edamame & Butter Bean Salad, Taste the Difference 185g
- Tesco Teriyaki Chicken Noodle Salad 205G
- Sainsbury chicken tikka salad with rice 300g
SUPPLEMENTS

Professional football players typically train 5-6 days a week which can consist of both sport specific pitch based sessions to promote football specific fitness and resistance training that is intended to increase muscle strength and power. There is often minimal recovery between successive sessions and with the added demand of match play 2 (3 in exceptional circumstances) times per week a daily energy intake needs to be sufficient in both macro and micro nutrient quantities.

Therefore it is common practice for sports science specialists to implement a supplement policy in order to maximise training adaptations, match day performance and recovery. The following recommendations are based on evidence based research and it must be noted that these recommendations may not be relevant to every player. The following strategies may be adopted as initial starting points for which to experiment with during non-competitive situations (training) in order for the player to fine tune individual approaches to supplementation for competition and important phases of training.

*It is strongly recommended that the following are used under the guidance of a qualified nutritionist and only INFORMED - SPORT supplements should ever be consumed.*

**Informed-Sport** is a global quality assurance program for sports nutrition products, suppliers to the sports nutrition industry, and supplement manufacturing facilities. The program certifies that every batch of a supplement product and/or raw material that bears the Informed-Sport logo has been tested for banned substances by LGC's world-class sports anti-doping laboratory.

[www.informed-sport.com](http://www.informed-sport.com/)
SUPPLEMENTS – PRACTICAL APPLICATIONS

- **Caffeine** – Ingestion of caffeine 30 – 60 minutes prior to match play can improve cognitive, physical and technical elements of performance. Effects are achieved with doses of 2–6mg/kg body mass in either capsule, gel or fluid format e.g. pre-training ingestion of caffeine could be readily achieved by coffee ingestion at breakfast.

- **Creatine** – can enhance repeated sprint performance during match play/training, promote post exercise muscle glycogen re-synthesis and also augment training – induced gains in lean mass, strength and power. Effects are achieved by undertaking a five day loading dose of 4 x 5g per day followed by a maintenance dose of 5g per day. Alternatively players may just consume 3 – 5g daily, however, it must be noted that this protocol will require a longer time frame to saturate muscle creatine stores.

- **Beta – Alanine** – functions by increasing muscle carnosine stores within several weeks that can subsequently buffer the metabolic acidosis associated with high – intensity exercise, therefore improving repeated sprint performance. A side effect of Beta Alanine is a tingling sensation of the skin; in order to minimise these symptoms of paraesthesia players should consume 'slow release' formulas in doses spread evenly throughout the day. A dose of 1.6 – 6.4g day has been shown to deliver the optimal effect.

- **Whey Protein** – post match/training ingestion of 20 – 40g of whey protein can induce maximal rates of muscle protein synthesis, therefore promoting recovery and training adaptation. Additionally, to promote overnight recovery players may consume 30 – 40g of casein protein prior to sleep.
Beetroot Juice – Pre-match nitrate supplementation may improve repeated sprint performance. An intense loading dose of 30 mmol in 36 hours consumed in concentrated beetroot juice in the day before match day as well in the hours before the game will provide the optimal effect.

Vitamin D - consumption of 5000iu during the winter months can restore any seasonal decline in insufficient vitamin D levels. This day may be halved (2500iu) during the summer months. Vitamin D promotes immune and bone function and potentially improves training adaptations through modulation of muscle protein synthesis.

Emerging evidence suggests omega-3 polyunsaturated fatty acids and collagen/vitamin-C are potentially beneficial additional supplements to help support recovery during the competitive season. Additionally the addition of Curcumin and Bromelain. Early evidence indicates a potential role in supporting recovery, however, future research is warranted.
STEVEN RIMMER PERFORMANCE NUTRITION

- **Team management:** I manage and monitor nutrition interventions across entire sports teams and academies. I utilise the Fuel My Performance database to manage groups and teams easily. No need to collect data using paper and clipboard, Fuel My Performance works great on all devices, making it easy to collect data straight on to any mobile device (mobile phone, iPad, laptop etc.) for quicker analysis.

- **Athlete login:** Individual players can log in to their account to access meal plans, recipes, infographics, educational resources, data analytics and many other useful tools.

- **Performance and Nutrition Data Analytics:** Monitor key metrics relating to player health and performance. Easily collect and analyse data at an individual or team level.

- **Educate and Inspire:** Upload and assign infographics and educational resources on an individual or entire team basis. Build on player and parent knowledge (academy players) to help optimise health, wellbeing and performance.

- **Recipes:** Build your own, or access nearly 200 recipes to support your health, training, performance and recovery. Filter by tag to find the recipe you need to help you 'fuel' or 'recovery' before or after training or competition.

- **Cooking Mode:** Use my step by step photos to help guide your athletes and their parents (academy players) through your recipes. Help improve cooking skills and enable your players and parents to become competent in the kitchen.

- **Snap and Send:** Now your players can upload their food photos and receive real time feedback to help improve daily diet and lifestyle choices.

- **Educate and Inspire:** Upload and assign infographics and educational resources on an individual or entire team basis. Build on player and parent knowledge to help optimise health, wellbeing and performance. © *Steven Rimmer Performance Nutrition 2018*
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www.stevenrimmernutrition.com

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