

10U Nutrition Handbook

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Index

- 1 Carbohydrates - Energy foods
- 2 Protein - Muscle building foods
- 3 Fats - Protect our body
- 4 Vitamins and Minerals - Health + Immunity
- 5 Hydration
- 6 U10s Performance Plate
- 7 Fuel to Train
- 8 Fuel to Compete
- 9 Energy Balance
- 10 Tips to make good food choices

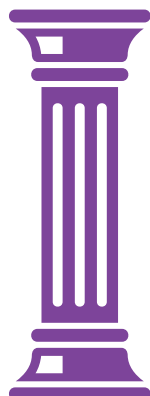


Nutritional Pillars

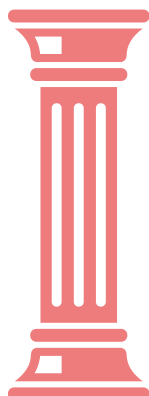

**FUEL WITH
CARBOHYDRATES**



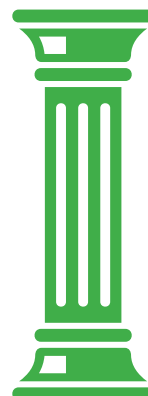

**BUILD MUSCLE
WITH PROTEIN**



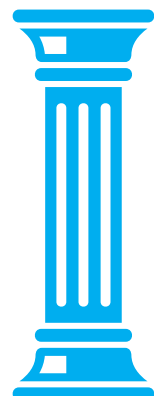

**PROTECT OUR
BODY WITH
HEALTHY FATS**




**KEEP HEALTHY
WITH FRUIT +
VEGETABLES**



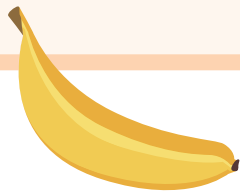

**HYDRATE
TO INCREASE
PERFORMANCE**



Carbohydrates

WHY?

Carbohydrates are the main source of **energy** in tennis. They help us **run, change direction** and produce **powerful movements**. They also fuel our **brain**.



CARBOHYDRATE (FUEL)

HOW?

When we eat carbohydrates, the body breaks down the food into glucose which makes up our blood sugar. Our muscles use glucose to help us move!



ENERGY IN THE TANK

WHAT?

Our bodies cannot store much carbohydrate so we need to keep putting "**fuel in the tank**" by eating high carbohydrate foods which helps us exercise.

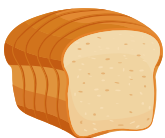


PLAY TENNIS

TYPES OF CARBOHYDRATES

COMPLEX SLOW ENERGY FOODS

Complex carbohydrates provide energy slowly throughout the day and generally contain more vitamins and fibre, making them great at main meals to keep us energised throughout the day.



Wholegrain Bread



Brown Rice



Oats

SIMPLE FAST ENERGY FOODS

Simple carbohydrates produce energy quickly, so they are better before and during tennis. They are found in natural foods like fruit but also in processed foods like sweets. Natural sources are best.



Grapes



Honey



Fruit Juice

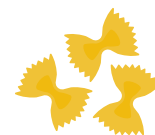
HOW MUCH SHOULD I EAT?

Players should aim to have carbohydrates at every meal and 2-3 snacks throughout the day e.g., mid morning, before training and during training. This allows them to "**FUEL UP**" and get the most out of their tennis sessions.

WHAT SHOULD I EAT?



Fruit



Pasta



Vegetables



Lentils

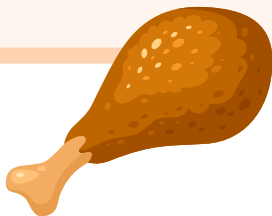


Sweet Potato

Protein

WHY?

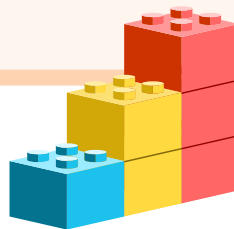
Protein helps our muscles grow and repair after training, making us strong athletes. It also helps keep our bones healthy and helps us develop into adults.



PROTEIN

HOW?

Protein contains the building blocks for muscle. When we eat protein, our muscles use these building blocks to help them grow and recover after training or a match.



BUILDING BLOCKS

WHAT?

The only way to get these building blocks, especially the essential ones, is by eating protein! Our body constantly uses protein for lots of different functions so it is important to continually top up.



MUSCLE GROWTH + REPAIR

TYPES OF PROTEIN

ANIMAL BASED PROTEIN

CONTAIN LOTS OF BUILDING BLOCKS

Animal protein sources have lots of essential building blocks making them a good source of protein and easy to consume! Lean protein sources like chicken, have a reduced fat content which is important to consider but it is important that all protein sources are consumed in moderation.



Milk



Eggs



Chicken

PLANT BASED PROTEIN

LESS BUILDING BLOCKS SO COMBINE DIFFERENT PROTEINS

Plant protein sources have less essential building blocks, so we need to combine plant protein sources in meals and snacks to make sure we get a complete intake of all building blocks to build and repair our muscle! Soy products are a great alternative with high protein content.



Tofu



Beans



Nuts



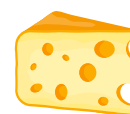
HOW MUCH SHOULD I EAT?

To make sure muscle building is always higher than muscle break down, players should eat protein every **3-4 hours** including at each main meal and as snacks. Protein is especially important in the morning and after training sessions, as muscles break down overnight and during exercise.

WHAT SHOULD I EAT?



Fish



Cheese



Beef



Chickpeas



Yogurt

Fats

WHY?

The body needs fat to protect our organs, help get vitamins and minerals from food and to support growth and development. Fat also gives us energy when we do low intensity exercise (like walking) or when we exercise for a long time!



HEALTHY FATS

HOW?

Fat contains essential fatty acids and vitamins that help the body function and develop properly. Our body cannot make these, so if we don't get them from food, we risk becoming ill and not growing properly.



ESSENTIAL FATTY ACIDS, VITAMINS + MINERALS

WHAT?

The body stores fat to use for energy but excess fat can cause weight gain and health issues. Low fat intake also slows growth and development and increases risk of infection. So, it is important that fats make up a good proportion of diet.



HEALTHY AND DEVELOPING BODY

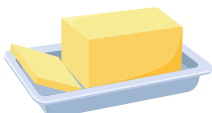
TYPES OF FAT

SATURATED FATS

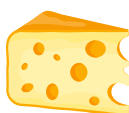
Saturated fats are typically called “bad fats” because they can increase risk of disease. They are usually found in animal products (e.g., cheese, milk) but they are also in processed foods like cake. Processed foods should be limited but saturated fats can make up a healthy diet if had in moderation.



Beef



Butter



Cheese

UNSATURATED FATS

Unsaturated fats are typically our “healthy fats” as they include Omega 3 and Omega 6 fatty acids which support brain growth and prevent diseases. They are found in foods including fish, olive oil and avocado but can also be found in processed foods (as trans fats).



Avocado



Olive Oil



Peanut Butter

Food contains different amounts of fat, protein and carbohydrates. Therefore, although certain products are high in saturated fat, e.g., beef, they can also contain a significant amount of protein which can benefit muscle building. So, there is not one purpose of certain food products.

HOW MUCH SHOULD I EAT?

Fats are important for young players so they should be consumed at every meal time. However, unsaturated and un-processed fats should be prioritised to provide the best health benefit.

WHAT SHOULD I EAT?



Fish



Nuts



Milk

Vitamins + Minerals

Micronutrients are chemicals found in food that help keep us energised and healthy. **Vitamins** and **minerals** are two main types of micronutrients and are important for youth athletes to consume for health and performance reasons. Deficiencies in certain vitamins and minerals can develop as players mature so it is important to prevent this by eating a wide variety of food. The following 3 vitamins and minerals are especially important for 10U and commonly inadequately consumed.

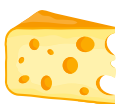
CALCIUM

- Helps us move our muscles during exercise
- Keeps our bones strong when growing
- Prevents injuries like stress fractures
- Makes our blood clot normally

DAIRY PRODUCTS



Milk



Cheese



Yogurt

BUT ALSO IN NON-DAIRY CALCIUM FORTIFIED PRODUCTS LIKE MILK/YOGURT ALTERNATIVES
E.G., SOY AND OTHER WHOLE FOODS
E.G., SARDINES, ORANGES, TOFU

A high calcium snack/meal before exercise is good to help with bone health. Aim for calcium at each meal.

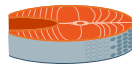
IRON

- Helps produce energy
- Helps carry oxygen to our muscles by making red blood cells
- Helps our tissues grow and helps our brain develop

PROTEIN OR VEGETABLES



Red Meat



Fish



Beans



Peanut Butter



Spinach

Try to have at least 3 iron rich foods a day. Iron from animal sources is better absorbed than plant-based iron.

VITAMIN C

- Supports our immune system, helping us fight infection + illness
- Helps with healing and maintaining bone and tissue health
- Promotes growth

FRUIT + VEGETABLES



Broccoli



Potatoes



Peppers



Berries



Oranges

Vitamin C cannot be stored in the body so it is important to keep your diet varied to make sure your body has enough. Aiming for 5 a day with fruit + vegetables.

WITH A VARIED AND BALANCED DIET YOU CAN GET ALL THE VITAMINS AND MINERALS REQUIRED BY THE BODY

Hydration

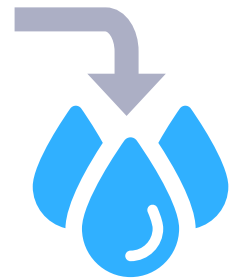
WHY IS IT IMPORTANT TO STAY HYDRATED IN TENNIS?



TENNIS USES LOTS OF ENERGY

Our body doesn't have to work as hard to pump blood around the body so tennis feels easier!

Prevents headaches or stomach aches



SO WE HAVE TO SWEAT TO COOL DOWN

Increases concentration and alertness on court

Shots are more accurate and Running is faster

IF WE ARE DEHYDRATED OUR TENNIS PERFORMANCE DECREASES

HOW DO WE KNOW IF WE ARE DEHYDRATED?

If we are thirsty we are already dehydrated, as our body is telling us we need water. We should try to start exercise hydrated so we don't lose too much fluid (sweat).

HOW MUCH SHOULD WE DRINK?

1-2 big gulps every change over or every 15-20 mins



HOW TO STAY HYDRATED?

1

Bring enough water for the session/match

Adding squash can help players drink more during tennis. So, flavoured water should be considered.

2

Have regular training breaks



- 15 MINS

3

Drink water/milk smoothies on way home to rehydrate

Milk has a high water + electrolyte content and contains protein and carbohydrates making it a great recovery drink.

10U Performance Plate

CARBOHYDRATES OUR ENERGY FOOD!

BREAKFAST:

oats, cereal (muesli, weetabix), granola, toast + bagels

LUNCH:

pasta, rice, wraps, wholegrain bread, bagels

DINNER:

lentils, potatoes, rice, pasta, quinoa, couscous

PROTEIN OUR MUSCLE BUILDING FOOD!

BREAKFAST:

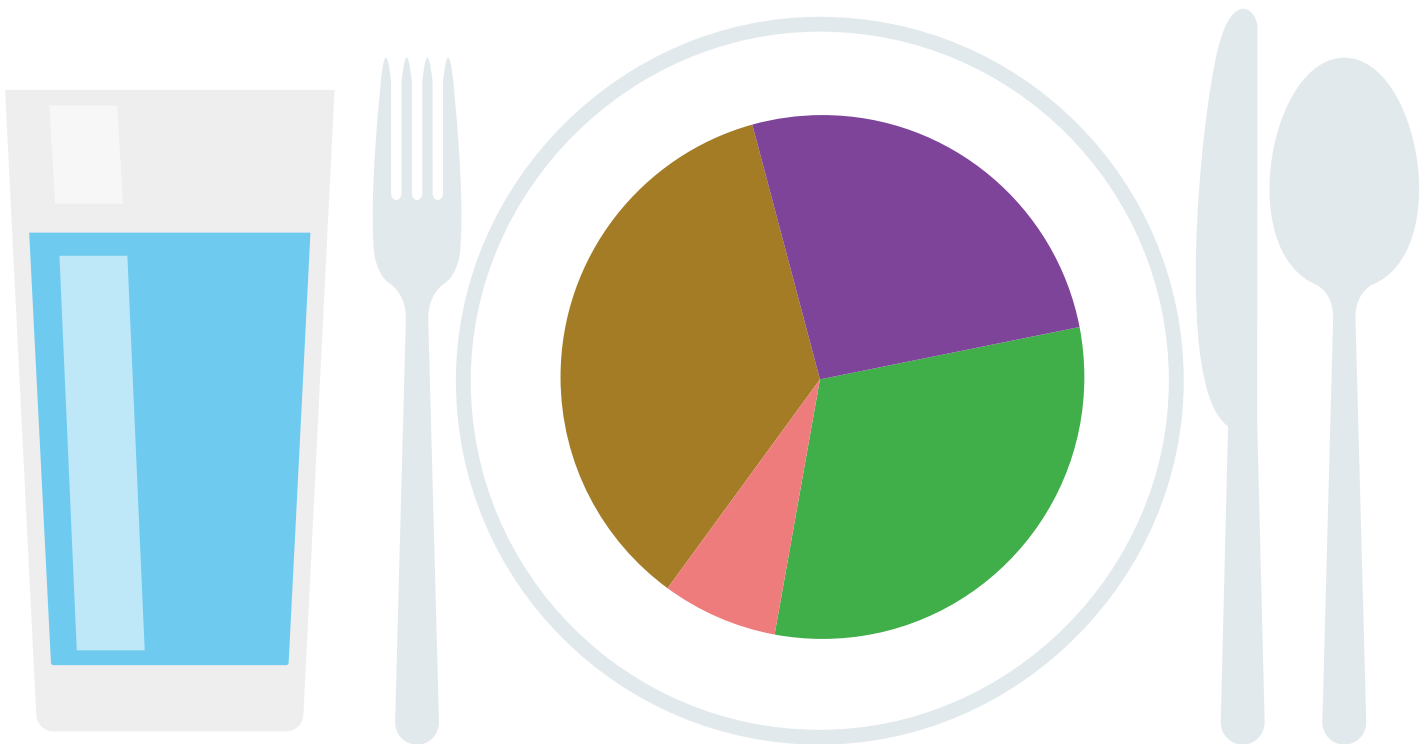
eggs, milk, greek yoghurt

LUNCH:

chicken, tofu, cheese, ham, quorn, pulses

DINNER:

salmon, cod, beef, quorn, beans, edamame beans



HYDRATION TO STOP DEHYDRATION!

ALL MEALS:

drink 1-2 glasses of water with each meal.
Try squash for matches and milk
after tennis!

HEALTHY FATS PROTECT OUR BODY!

ALL MEALS:

avocado, olive oil, olives, nuts, seeds,
oily fish, red meat, milk, cheese

FRUIT + VEGETABLES OUR HEALTH FOODS!

ALL MEALS:

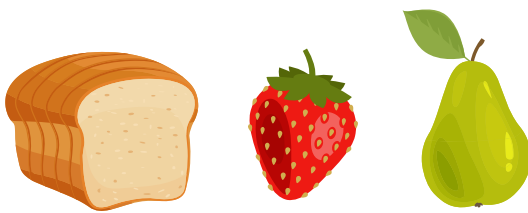
berries, banana, apples, kiwi, mango,
spinach, broccoli, carrots, peppers,
courgettes

**3 BALANCED MEALS A DAY ALONGSIDE REGULAR SNACKS (3-4 A DAY) CAN
HELP US GET ALL THE MACRONUTRIENTS AND MICRONUTRIENTS OUR BODY
NEEDS TO BE HEALTHY AND STRONG TENNIS PLAYERS.**

Energy Balance

ENERGY INTAKE

The only energy we take in is food! If we don't have enough food our body breaks down muscle in our body and uses it for energy so it is really important that our energy intake (food) is enough to support our exercise.



ENERGY EXPENDITURE

Energy expenditure includes the energy our body uses just to stay alive, everyday exercise like walking to school, eating, talking as well as purposeful exercise like tennis training!



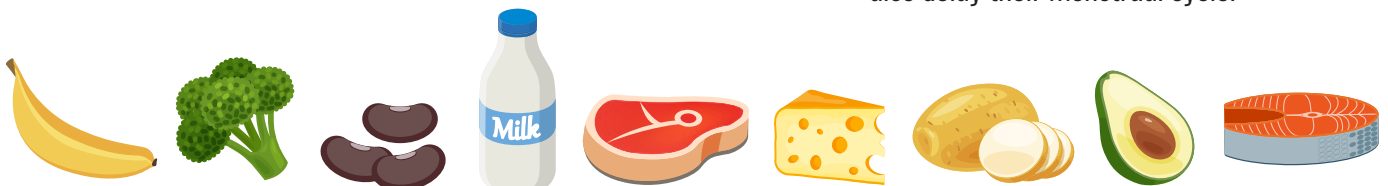
THERE IS ONLY ONE WAY WE CAN TAKE IN ENERGY (EATING) AND MANY WAYS WE USE ENERGY DURING THE DAY

FOOD IS FUEL!

get the balance on the scales right

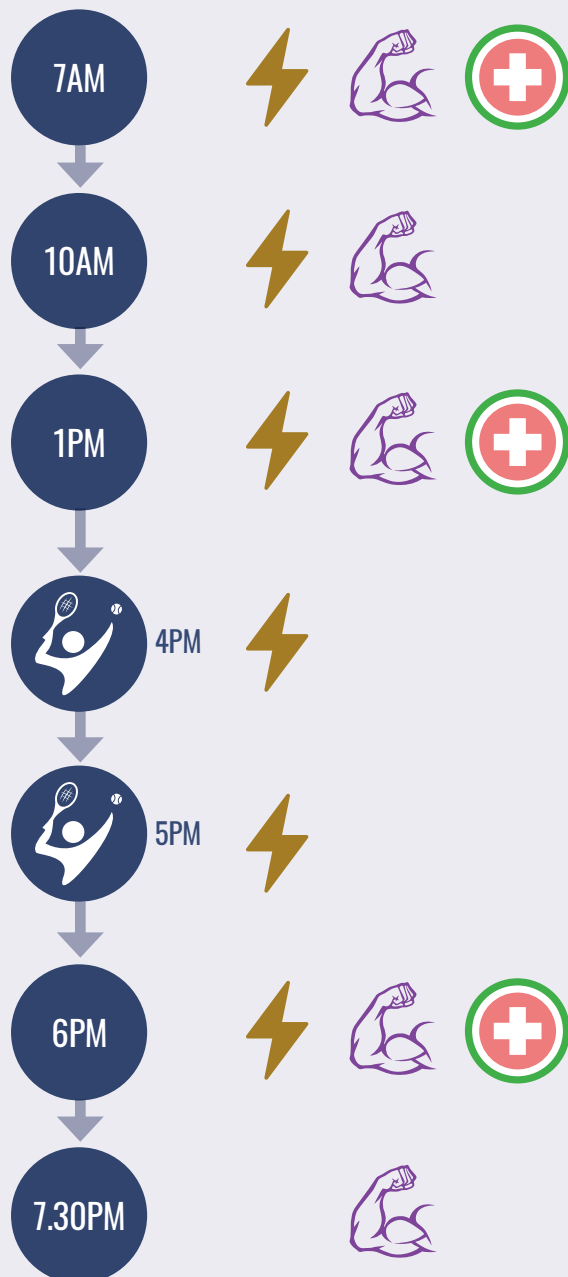
If energy intake is higher than energy expenditure, we have more energy in the body than is needed. For 10U players, being in a **small POSITIVE** energy balance helps us get the nutrients we need to grow and develop since our body requires a lot of energy. However, if energy intake is too high it can lead to weight gain and increase the risk of health conditions.

If energy expenditure is higher than energy intake, we only have a small amount of energy available to fuel exercise and the daily needs of our body. For 10U a **chronic NEGATIVE** energy balance harms growth and development because energy is required to grow new tissue. For female players, a negative energy balance can also delay their menstrual cycle.



Fuel to Train

PRIORITY



EXAMPLES

- Porridge, milk, banana and honey
- Muesli, milk and berries
- Scrambled eggs and spinach on wholegrain toast
- Granola bar, apple and greek yoghurt
- Banana and handful of peanuts
- Smoothie (oats, milk/yoghurt, frozen fruit, honey)
- Chicken salad sandwich and cereal bar
- Roasted vegetable + hummus wrap with cucumber sticks
- Roast sweet potato with tuna and salad
- Porridge oat bar
- Ham + cheese sandwich
- Bowl of cereal
- Fruit
- Dried fruit e.g., mango, raisins
- Energy balls
- Banana
- Vegetarian chilli with rice
- Salmon, noodles and broccoli
- Tofu rice stir fry
- Glass of milk / Chocolate milk
- Peanut butter on oat cakes
- Handful of nuts



CARBOHYDRATES



PROTEIN

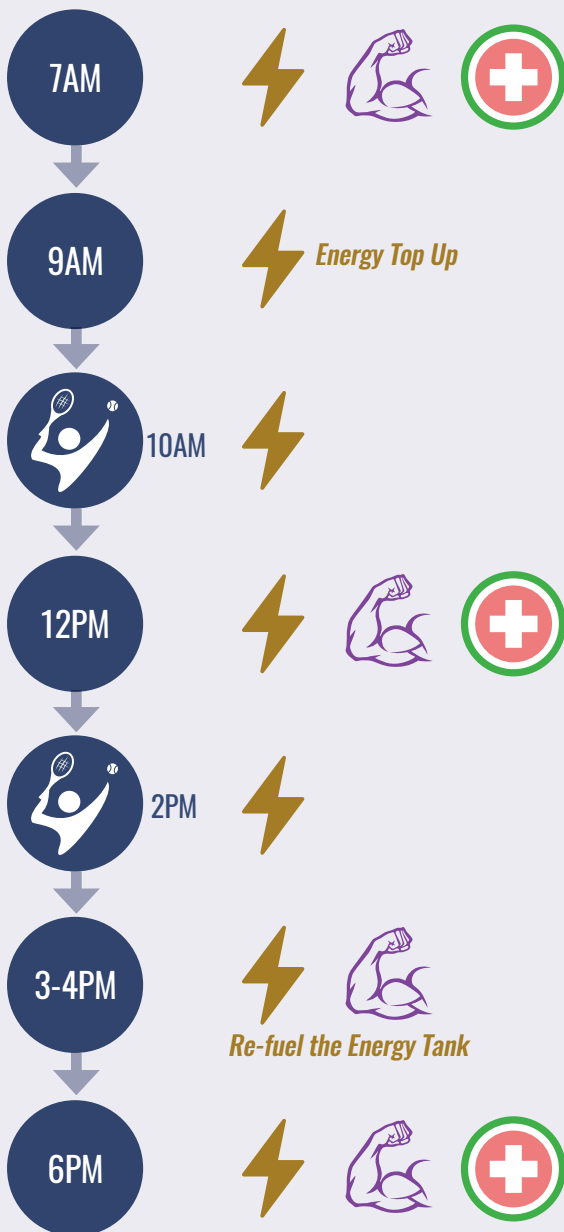


HEALTH FOODS
(FRUIT, VEGETABLES,
HEALTHY FATS)

Note that foods can be in more than one category, for example bananas give us energy but also keep us healthy. These are just ideas of meals and snacks but foods can be adapted based on diet or player preferences. If home is over an hour away from training bring something high in protein and carbohydrate for the car e.g., chocolate milk.

Fuel to Compete

PRIORITY



Re-fuel again before bed with protein snack like you do on training days


CARBOHYDRATES


PROTEIN


HEALTH FOODS
(FRUIT, VEGETABLES,
HEALTHY FATS)

EXAMPLES

- Weetabix, milk and berries with jam bagel
- Greek yogurt and granola with banana and honey on white toast
- Porridge with milk and a glass of orange juice
- Smoothie
- Banana
- Porridge oat / Granola bar
- Dried fruit or normal fruit (e.g., mango)
- Jelly babies / Jaffa cakes
- Malt loaf bars
- Ham and cheese bagel and an apple
- Tuna pasta salad and grapes
- Falafel and feta wrap with vegetables sticks
- Energy balls
- Fruit
- Oat bars
- Chocolate milk
- Peanut butter and banana sandwich
- Yogurt and fruit
- Spaghetti bolognese with vegetables
- Lentil dahl with white rice
- Chicken / Quorn with potatoes and vegetables

The difference between training and competition days is that we need more energy foods (carbohydrates) when we compete because we burn more energy. Therefore, we look to more simple carbohydrates (that are low in fibre) that will give us a quick energy boost. It is important to re-fuel well after competitions with a focus on carbohydrates and protein together in a meal.

5 Tips For Good Food choices!



Be prepared - plan out snacks and food the night before so players don't get hungry during the day and resort to easy but less nutritious food choices.



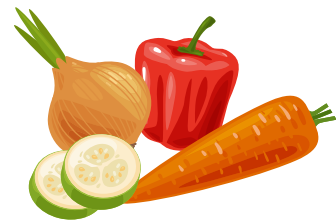
Get the player involved - let the player be involved in food shopping, snack options for during a match and in making meals. This lets them understand the importance of nutrition and how to fuel themselves.



Everything in moderation - a healthy mindset around food means eating when hungry. No food is "good" or "bad", instead it is making more nutritious food choices based on macro and micronutrients, to fuel the player's body.



Hidden vegetables - hiding vegetables in pasta sauces by blending them means that food still tastes delicious but fussy eating is avoided! The same can be done within smoothies or soups.



Shop frozen or tinned - frozen fruit and vegetables or tinned beans, chickpeas or tomatoes are a great way to meet your 5 a-day and protein intake. They are also cheaper than fresh produce and easily stored.

