

Dieticians are an excellent resource in the community for the soccer team. The dietician would advise them and their families about which nutrients are in foods, how to cook foods in nutritious ways, suitable recipes and where to find them, making meal plans using all the food groups, and general advice on each soccer team members needs considering the amount of exercise they do.

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Nutrients in food: Complex carbohydrates are an essential part of a high energy user's diet and are the main source of fuel and energy for everybody, particularly people like Sam and her team. Carbohydrates are broken down in our bodies as glucose and stored in our muscles as glycogen. Glycogen is the main source of energy for the muscles to perform during exercise, but it is essential for Sam to eat carbohydrates every day as the human body is only able to store a limited amount of glycogen at a time. Wholegrain carbohydrates such as brown bread and brown rice provide a slow release of energy as they contain fibre which is broken down slowly in our system, which is ideal for training or games as the energy is released slowly and consistently rather than fast and all at once. Carbohydrate foods are usually high or low GI - glycaemic index is the ranking of foods based on how they influence blood sugar levels. A low GI pre-exercise meal is recommended for high energy users as it has been proven to maintain better blood sugar during exercise. Carbohydrates such as breads, cereals, fruits, vegetables and legumes are recommended by dieticians and nutritionists to make up more than half of a high energy user's daily energy intake. It is recommended that people like Sam and her team members who are regularly participating in high intensity activity consume up to 8-10g of carbohydrates per kg of body weight a day.

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It is also important for Sam and her team members to acquire accurate pre and post competition and training nutrition. To ensure Sam performs at her best, low GI carbohydrate foods before a game are ideal as they provide a sustained energy release, such as fruit salad and low fat yoghurt, a banana sandwich pasta with tomato based sauce, fruit smoothie, milk shake, baked beans, toast or muesli bar. The team should also make sure the food they are consuming before a game is reasonably low in fibre such as a white jam sandwich, as fibre can upset the bowel which is not ideal while participating in exercise. A pre-competition meal is particularly important as the team are participating in an event which is longer than 30 minutes. In the final 3-4 days before the game, Sam should reduce her exercise while also increasing her carbohydrate intake, for example, 9-10g of carbohydrate per kg of bodyweight each day. The easiest way for Sam to do this is by replacing most of the fat in her diet with carbohydrates such as noodles, rice dishes, potatoes, kumara, cereals, fruit and vegetables. During a high intensity event, (in Sam's case, a soccer game), Sam and the team should plan to consume carbohydrates and fluid at regular intervals (every 20 mins if possible) throughout the game.

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Protein... Vegetables... vitamin B... vitamin C... Iron... Calcium... Liquid intake... Sports drinks...

The family members of Sam and her team mates have a limited budget for food, which means they also have to adapt to having a high energy user in the house. Shopping for cheaper cuts... Eating seasonally... Menu planning... Shopping around... Making a list....

The dietician would also advise the families on how to choose foods wisely at the supermarket and how to read labels/nutrition panels. When showing the family around the supermarket, a dietician would take them around the outside aisles as a way to go for

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searching for healthy, fresh and nutritious produce. That is where most of the whole foods are located, and the energy dense junk foods are usually found in the middle aisles. Shopping for meat, vegetables and fruit, milk, bread and also snacks such as hummus and nuts are found mainly around the perimeter and are the types of foods the families should be looking for. The family would learn to read labels on processed food such as snack food and breakfast cereals so they know which products to choose – it must be under 10g fat, under 10g sugar, over 6g fibre and under 120mg salt per 100g. It is important to read labels when shopping to understand the nutrition of the product as many of the breakfast cereals promoted as being suitable for high energy needs do not meet the recommended sugar, fibre and salt recommendations.

Dieticians may also introduce Sam's family to the Healthy Food Magazine, which contains recipes, advice about healthy food, and general tips on healthy eating...

The media is filled with products being pushed on us, enticing us to buy them... High energy drinks such as V and Red Bull are filled with sugar and empty kilojoules... These high energy drinks also contain large amounts of caffeine, which can disturb sleep patterns...

These are things Sam wants to completely avoid if she is performing at competition level in her soccer team.

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Experts on nutrition such as the Ministry of Health are advising young people to avoid energy drinks. According to new Government recommendations, children under 18 should not be consuming energy drinks... The Ministry of Health's chief advisor on child and youth health, Dr Pat Touhy, says energy drinks used to be sold in smaller quantities, "but now they're being sold in bigger and bigger volumes – up to 600ml - and that makes it easier to exceed an adverse effect level with a single bottle or can". However, as Sam's family have limited knowledge on nutrition... This is why seeing a dietician is a good idea for Sam's family as they will be provided with the information from experts that they previously haven't known about.

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Energy drink companies claims things on their products such as 'It all starts with you' and 'Powerade, the power to reach your goal'. Claims like this entice customers to buy the product as it makes the drink sound superior and special, as if you can conquer anything when you drink the energy drink. The vibrant colours ... can also draw attention to the product, which makes people want to buy them more. It is common for companies to use celebrities or sports ambassadors to advertise their products which inspires young people who wish to be like that celebrity to buy the energy drink, even though it is high in sugar and salt at around 7.5g carbohydrates and 4.6g sodium per 100ml. These companies are well known for their product promotion in order to attract people to buy and try out the new drink, for example, when they bring out a new colour/flavour of a drink. This something Sam and her team mates need to avoid if they are going to perform at their best during trainings and competitions.

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