Nutrition and energy management with a vegetarian/vegan diet

The ATD sustainability platform is reflecting and opening dialogues concerning how we can better our relationship with the planet and reducing the consumption of animal-based products' is being discussed.

Change needs time and, as the ATD looks into improving the access to more vegetarian/vegan options, is likely you have questions. We thought we'd begin with this one: can I eat a plant-based meal and still have energy perform optimally?

Let's start by saying that what you eat is always your choice. Eating should be a source of energy and something that contributes to a good day.

Let's follow by saying yes, you can eat a plant-based meal(s) and still perform optimally. However, there are a few points that need attention when you choose to privilege plant-based choices:

Vitamin B12: we need it for the production of red blood cells, that carry oxygen in your blood to our muscles, and for the good functioning of the nervous system. Vitamin B12 is exclusive to animal <u>products</u>, and, without supplements, vegan performers are at a higher risk of developing vitamin B12 deficiency. If you are a lacto-ovo vegetarian, meaning if you eat dairy products such as milk, yoghurt, cheese and eggs, you don't need vitamin B12 supplementation. You should be able get enough B12 as it is.

- Iron: we need iron for oxygen to be transformed in energy our muscles can use. We get iron in two forms: heme and non-heme. Animal-based products contain heme and non-heme iron, whereas plant-based products only contain non-heme iron. The bioavailability (absorption) of heme iron is between 15-35% but of non-heme iron this is way lower, about 2-20%. If you have a plant-based diet you have a higher risk of anemia (iron deficiency). This being, someone who is uniquely plant-based has to purposefully eat more iron-rich food like legumes, leafy green vegetables, cereals, dried fruits and nuts to get the right amount of iron. So for the people who don't eat meat it's still possible to get enough iron, you just have to eat more eggs (and if you don't eat that), nuts, legumes, tofu and tempeh.
- Protein: Muscles are made of protein and you need them to perform. Is it possible to build or maintain muscle mass with plant-based nutrition? Yes BUT, as you red before you need to be mindful of your iron intake: ideally you like to have about 20 grams of protein per meal. Meaning, where one portion of meat (70 grams) contains 20 grams of protein, you would have to eat 1 kilo of potatoes to get that same amount (what?!). Of course, you can, and should, mix and match with other products to get the 20 grams of protein. Other products that are protein rich are for example all dairy products like 250 grams of kwark or 80 grams of fish like tuna. Not so much a fan of meat, dairy, fish or 1 kilo of potatoes? You could also choose for meat substitutes like 170 grams of tofu or tempeh to meet the 20 grams of protein.

In summary, when choosing a plant-based meal in your vegan or vegetarian diet remember:

What else did I eat today? What am I going to eat later? Does this meal contain protein rich foods? Does this meal contain a mix of different products that contain iron? And if needed, did I take my vitamin B12 supplement?

It can be a bit of a challenge to meet the optimal nutrition potential: more iron and protein products may also mean a higher fiber intake, which of course is good for you (in combination with water!), but can cause stomach aches when eaten close to practice/rehearsals. Fibers are harder to digest.

Let's end with saying that you should always eat what is best for you personally. Experiment and evaluate how your body responds.

Chanté Samuel, BSc Sports dietitian ATD's dietitian Work days: Wednesday

Do you need help with getting the right amount of nutrients? Make an appointment through the H&P agenda(hyperlink):

https://outlook.office365.com/owa/calendar/AdviceandCareHealthPerformance@ahknl.onmicrosoft.com/bookings/

Do you want to learn more, go to these websites:

https://www.voedingscentrum.nl/encyclopedie/vitamine-b12.aspx (Dutch)

Home | Mysportscience a trusted source of information (English)

Nog meer tips om goedkoop en gezond te eten - I'm a Foodie (iamafoodie.nl) (Dutch)

Healthy diet (who.int) (English)