





Introduction

Science-driven and rapidly evolving, the sports nutrition category's performance-driven benefits used to serve a core athlete cohort but, today, it is increasingly serving almost any demographic, from office workers to active seniors. In this report, we look at some of the drivers behind this change as well as the on-trend ingredients that brands can use in their products.

The Sports and Active Nutrition Report is written in two parts that will be published throughout 2023. This is part two.









or many invested in the space, the very concept of sports nutrition has become meaningless, or has at least expanded into active nutrition – something well beyond mere nutrition for sportspeople.

This emerging active nutrition category that includes sports drinks, foods and supplement forms like gels, gummies, powders, and soft gels is projected to be worth about \$46 billion in 2023 and set to nearly double to \$82bn by 2030 – an impressive 7.5 % annual growth over that period, according to Grand View Research (GVR).¹

Expanding demographics might be driving such spectacular growth but fitness enthusiasts still account for 40% of the market and core areas like pre-workout supplements remain strong (35% of total sales), GVR found in its recent report.

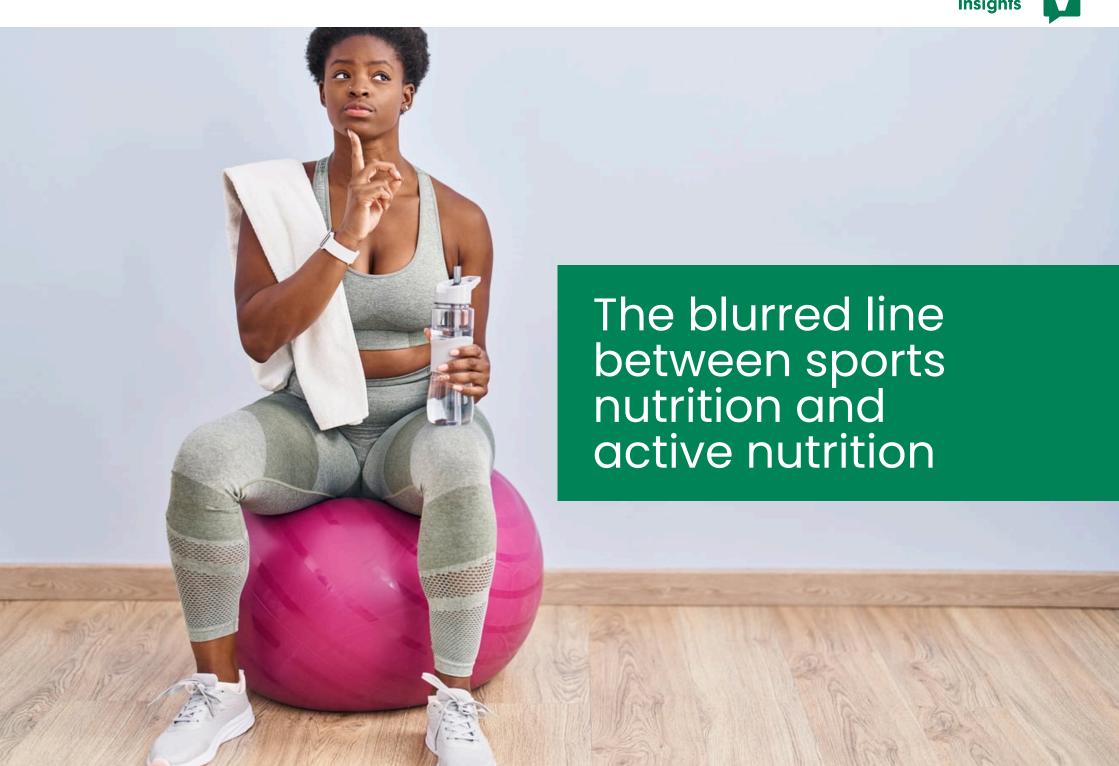
A 2020 study published in the *Journal of* the *International Society of Sports Nutrition*

found about 44% of gym-goers regularly used dietary supplements for performance and wellness gains.²



"There's recognition that the market is expanding out to active people, people who want to be active, so it's less clear cut in sports nutrition than it used to be, which is good because it brings in fresh ideas," said Dr Sue Hewlings, a veteran nutritionist and co-founder of US-based consultancy, Substantiation Sciences. "It's a wider market."





he athletic core clearly remains strong but it is areas like recovery, energy, and cognition that are most easily stretching to new brand offerings and bands of consumers.

These kinds of gains are easily translating from the elite arena to the casual sports person and also to people who are more interested in active nutrition products to improve their concentration or energy levels at work, aid their recovery from a long bike ride, or just help improve their overall health and wellbeing.

"Do those people themselves want to be truly faster, higher, stronger – or just be better for the purposes of being healthier?" asked Nutrition Integrated founder Nick Morgan at a Vitafoods Europe seminar in May this year.

For food and supplement players, "that creates a bit of a blurred line. I think, in the grand scheme of things it's good. From an industry perspective, all it does is

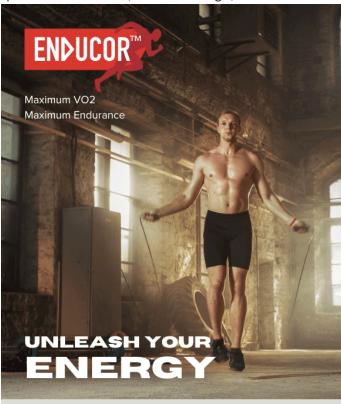
challenge brands through the lens of a permission perspective as to who their target consumer is", he added.

It's about a broader suite of active people that fits within the realm of our original definition of sports nutrition, Morgan added.

So, where elite and competitive athletes will naturally value sports nutrition offerings as a key dietary component of optimum performance, the broader suite of active people will likely see sports nutrition products as a means to better health and wellness – an embellishment of their regular diet, or a replacement of a particular component.

Morgan said: "The more you become health orientated, you can naturally become more food and more convenience-orientated and I think it naturally moves people towards being more of an active consumer."

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This can translate into people being more interested in the bars, gels, tablets, biscuits, liquids, drops and more that are the dominant sports nutrition formats due to the precision with which they can deliver active nutrients.

These include the likes of CoEnzymeQ10, branched-chain amino acids (BCAAs), astaxanthin, beetroot, CBD, creatine, L-

carnitine, magnesium, caffeine, polyunsaturated fats, and adaptogens like ginseng.

Recovering from an intense workout – or a busy day

Drilling into recovery reveals a complex field encompassing muscle maintenance, muscle repair, inflammation, carbohydrate processing, hydration, the gut microbiome, and more.

Ingredients often used for sports recovery include rhodiola, glutamine, beetroot, collagen peptides, and tart cherry extracts.

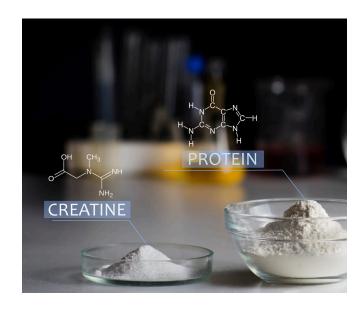
Speaking at a Vitafoods Europe seminar, High Performance Nutrition founder Dr Susan Kleiner, who is also a scientific adviser to, and co-founder of, the International Society of Sports Nutrition (ISSN), pointed out the broad appeal of sports nutrition ingredients.

"Take creatine," said Dr Kleiner. "Think of it

as an energy vessel – it's helping to deliver the energy for the exercise – but it also is a very potent anti-inflammatory."

Creatine typifies these blurred lines as it started out in the bodybuilding world, Kleiner said, but "...now is perhaps an essential nutrient to supplement for everyone. We're in the throes of trying to understand that".

It could be particularly useful to everyday consumers "in those times when you may not have had time to prepare food", she added.





Regulating sports nutrition products in the EU



here are calls to more clearly demarcate mainstream sports nutrition offerings from those sports nutrition products aimed at elite sportspeople.

The European Specialist Sport Nutrition Alliance (ESSNA) vice chair and European associate director of regulatory and quality compliance at US sports nutrition firm Nutrabolt, Claudia Mucciardi, recently criticised 2020 EU food labelling proposals that would lump sports nutrition products like gels or sports powders that might be high in sugars or salts in with regular foodstuffs.³

Speaking at Vitafoods Europe 2023, she said the proposal would create a situation where health claims would not be permitted on-pack for sports nutrition products falling outside high fat, salt, sugar and fat (HFSS) thresholds to be established under EU-wide nutrient profiles.

This would "unfairly penalise sports

nutrition", Mucciardi said. "This is really because the underlying model actually refers to the general public and doesn't take into account the specific dietary needs of those who are engaging in a lot of sports."



Such a rule, "could therefore be confusing to consumers and potentially give them the impression that these products are actually unhealthy whereas they would actually be quite beneficial for them."

If health claims were not permitted, consumers would miss out on being informed about product benefits on-pack.

The trade association, ESSNA, therefore advocates for any regulations to recognise the unique characteristics of the sports nutrition sector, and the formulations that exist in it, essentially exempting them from any HFSS-restricting regulations.

"It could have negative repercussions for the industry like reputation loss, which would then lead to a decrease in demand," the ESSNA vice chair said, adding that reformulation and relabelling costs would be "heavy".

"To avoid any kind of economic damage and reputational losses, we really must push to make sure that the exemptions for the sector are actually achieved."

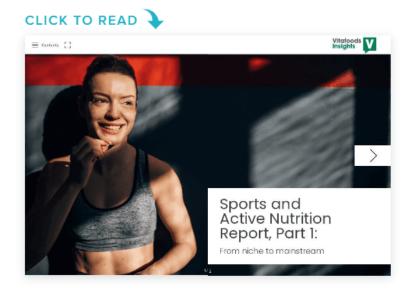




ith improvements in taste profiles and costings, plant proteins such as soy, pea, and hemp are on the rise but their ability to match animal proteins in terms of recovery benefits is not fully supported in the scientific literature – although sources, formulations, and outcomes vary greatly.

A 2022 survey by analyst FMCG Gurus found a growing number of people sought out plant-based options, but concerns remained about quality, taste, and price were registered with about two thirds of respondents.⁴





"Nearly half of all consumers state that they turn to dairy alternatives to some extent. The top reason for this is that they are considered healthier than animal derived products," it noted.

For Nick Morgan, this is manifesting in plant-based offerings whose formulation and marketing are tending toward the holistic and away from the athletic core.

"If you take a whey protein in a powder format, then that will almost certainly talk about muscle strength and recovery," he observed.

A similar plant-based, protein powder product, "will typically add in more actives" like prebiotics and probiotics, omega-3s, and minerals with marketing tilting toward concepts like microbiome modulation as well as terms like 'protein throughout the day'; health; and daily recovery.



"Plants are definitely being seen as a conduit to more people and to understand this whole idea of recovery."

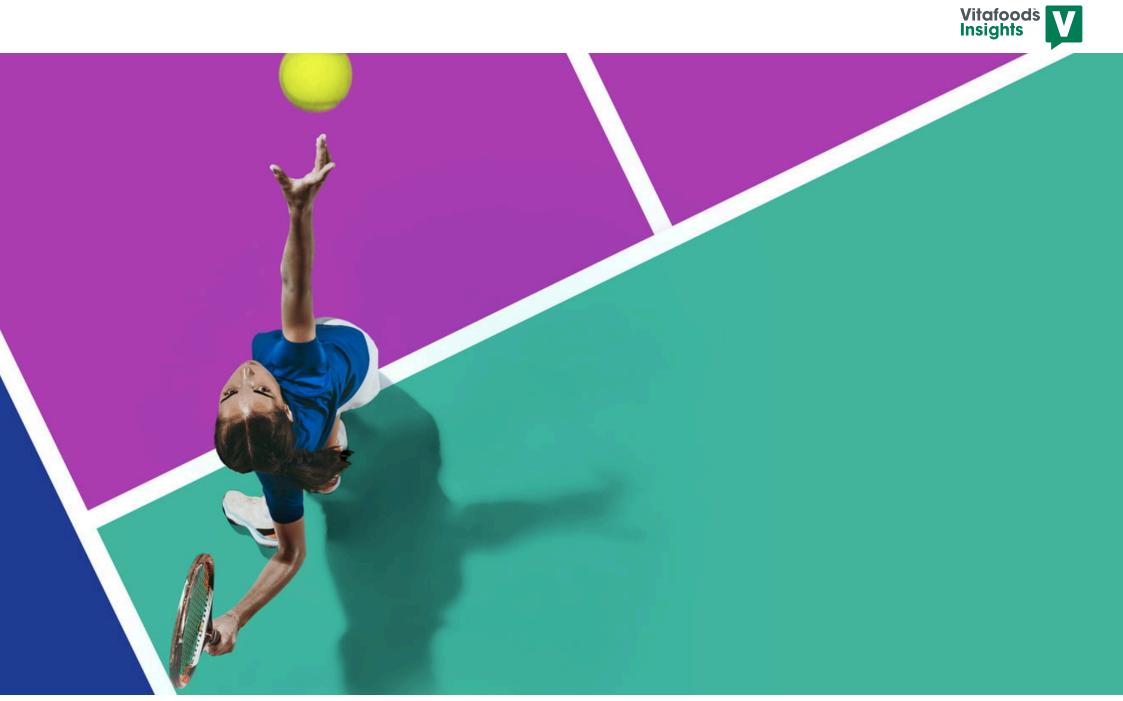
Morgan said the space was presenting, "a lovely blueprint of different opportunities where some good evidence and science needs to be done...but consumers are definitely moving toward brands that have more sustainable, plant-based DNA".

Many brands possess both plant and animal protein powders in their suites and some have begun blending the two protein forms into formulations.

Dr Kleiner agreed plant proteins had much to offer the recovery space.

"Getting a plant protein that is fairly soluble, that tastes good, that has a good distribution of amino acids, all the things that are being worked on right now and improving them to be equivalent functionally as much as possible with a whey protein, allows for it to build in the variety even into your protein supplementation," she said, noting the rise of precision fermentation was also presenting another vegan protein alternative. "It is really an exciting time. It's going to be very interesting to see where the industry goes."

The approval of insect proteins as a food source is providing additional novel sources.



The broadening energy premise

nergy drinks have been a mainstream success for many years and were recently boosted by an animal study that found energy drink staple, the amino acid taurine, extended lifespans of mice, monkeys, and worms.⁵



Energy drinks, most of which are formulated around stimulants like caffeine, green tea, and health claim-backed B vitamins, are a good example of a beverage used frequently and widely by both elite athletes and the general public.

While not all sports nutrition nutrients are backed with approved health claims, firms can back their marketing slogans – such as Red Bull's "gives you wings" – with harder, if less catchy, EU-approved claims such as those available for B vitamins including:

- Contributes to normal functioning of the nervous system (B1, B2, B3, B6, B12)
- Contributes to normal mental/ psychological function (B1, B3, B5, B6, B9, B12)
- Contributes to the reduction of tiredness and fatigue (B2, B3, B5, B6, B9, B12)

Dr Hewlings at Substantiation Sciences said the energy space was witnessing a lot of innovation from the likes of adaptogens that can include ginseng, ashwagandha, and mushroom extracts and other botanicals.

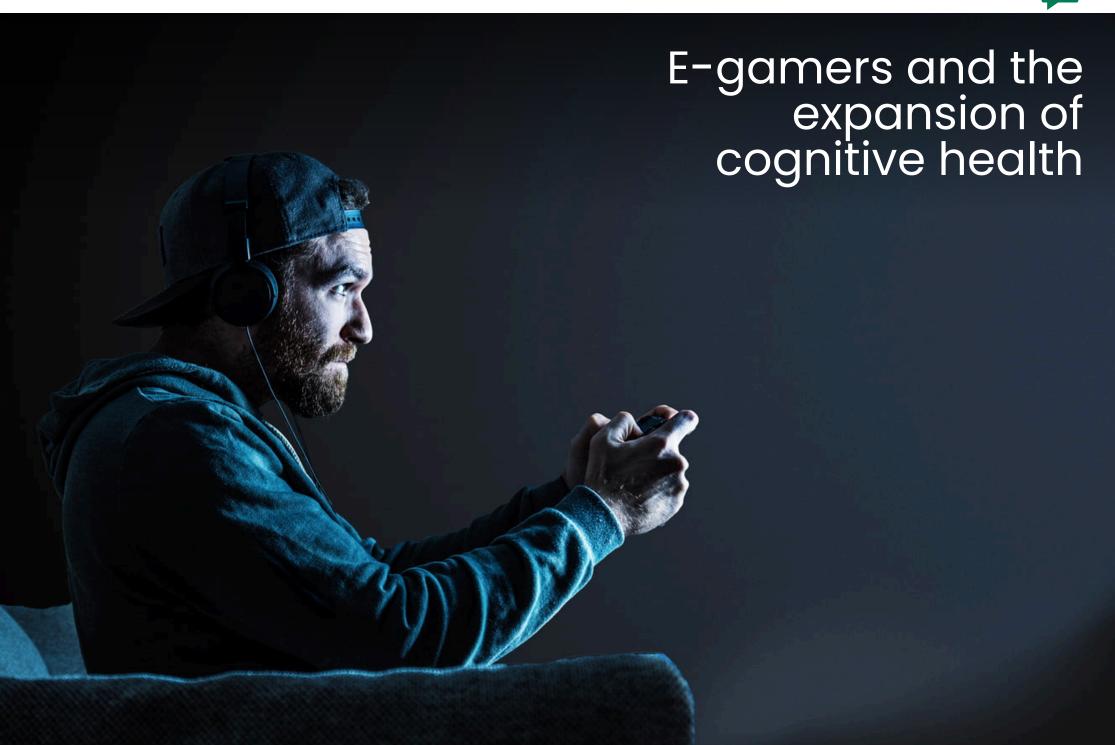
"Mushrooms are popping up everywhere, different types of mushrooms for different applications." But she noted, "when it comes to the energy category, you really can't beat caffeine. That's kind of the main stage – it's not going anywhere."

Her co-founder at Substantiation Sciences, Dr Douglas Kalman, also an ISSN cofounder, said theacrine, a caffeine derivative commonly found in kucha tea (Camellia sinensis), was another phytochemical exciting the energy category. A 2020 study found it delivered energy benefits.⁶

"It's been gaining in popularity and use [in] commercial products and there is some supporting research – although no approved claims," Dr Kalman said, noting green tea extracts were finding their way into more and more formulations.

Others like CoEnzymeQ10⁷ and pyrroloquinoline quinone⁸ (some forms are known as ubiquinol) have shown energy stipends at the mitochondrial cellular level.





В

rain health is another area where sports nutrition benefits like focus and alertness are easily transferring into broader usage.

E-gaming is a classic example. Nootropic formulations in the form of drinks, bars, pills and bespoke nutrition stacks can include a



wide range of nutrients from caffeine and other botanicals, to B vitamins, minerals like magnesium, and omega-3s.

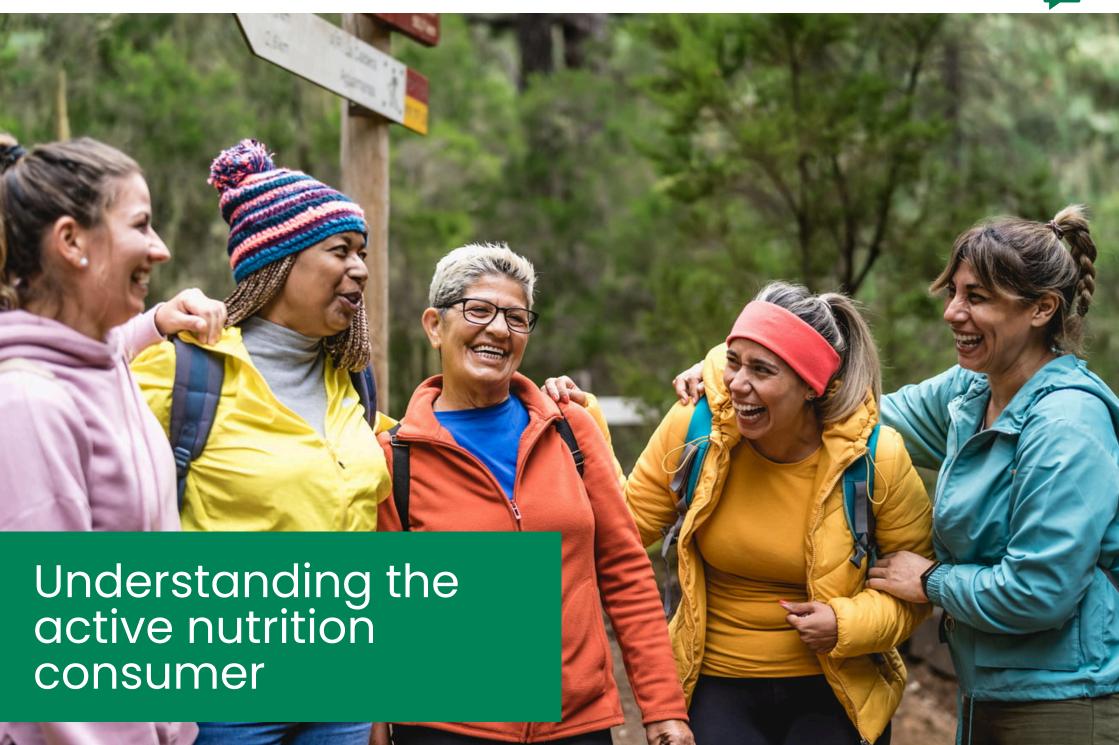
These kinds of formulations purport to help electronic gamers attain benefits such as:

- · Faster thinking and learning
- · Reduced physical pain and anxiety
- · More energy and reduced mental and physical fatigue
- Superior vision including eye tracking, depth of perception, colour dissemination, and visual memory
- · Heightened concentration
- Boosted short term memory
- · Improving reflex and reaction time

G Fuel is one brand that refers to itself as the "best gaming and esports energy drink" and promotes its products around three pillars of energy, focus, endurance – although it does not reference any particular science. G Fuel packs 300 mg of caffeine (equivalent to about four standard coffee cups) into its 473 ml canned energy drink.

Much of the marketing occurs via rapidly expanding in-game advertising that was worth more than €20bn in 2022, according to Market Research Future.⁹





aria Pavlidou, senior strategy director at functional food

marketing specialists, Healthy Marketing Team, has drilled deeply into various demographics and their relation to nutrition propositions.

Those buying into active nutrition are energised by the idea of optimised health and wellbeing but also cognitive benefits like stress reduction, inner balance, recovery, and sleep, she said.

She highlighted nutrients like ashwagandha, CBD and lion's mane mushroom extract as performing well in this space.

Active lifestyle adherents "need to have a product and mentor ingredient that fits their lifestyle;

[it] needs to be new and different and trendy, and it needs to align with their values".



For this reason, social media influencers and nutritional experts play an important role for this demographic.

"They need easy-to-engage, easy-to-follow advice to trend upwards here," Pavlidou said.

"It's not hardcore sports products anymore; it's more products that offer more holistic, multi-purpose benefit, and more like real food somehow."

Proteins, carbs, and healthy fats: Some nutrients never go out of vogue

What is clear from the active nutrition snapshot presented in this report is that the category has expanded and welcomed many players, large and small.

Further expansion seems assured for those propositions that can find the right balance between efficacious formulations, targeted marketing, and appropriate price points.

And, of course, none of this precludes the staples like carbs, proteins and fats, nor does it overlook the importance of macro foods in healthy diets.

As Dr Kleiner of High Performance Nutrition noted, some nutritional fundamentals never go out of vogue.

"Try and combine protein, carbs, and healthy fats every time you eat throughout the day, but around exercise, typically we like to limit the amount of fat because it slows down digestion," Dr Kleiner said.

In the case of carbs, according to Dr Kalman: "You have your easier absorbing carbs and then you have your more complex carbs, and they both place value and utility for either sport performance, health, maintenance and health promotion, depending upon what the goals are for the short term and longer term."



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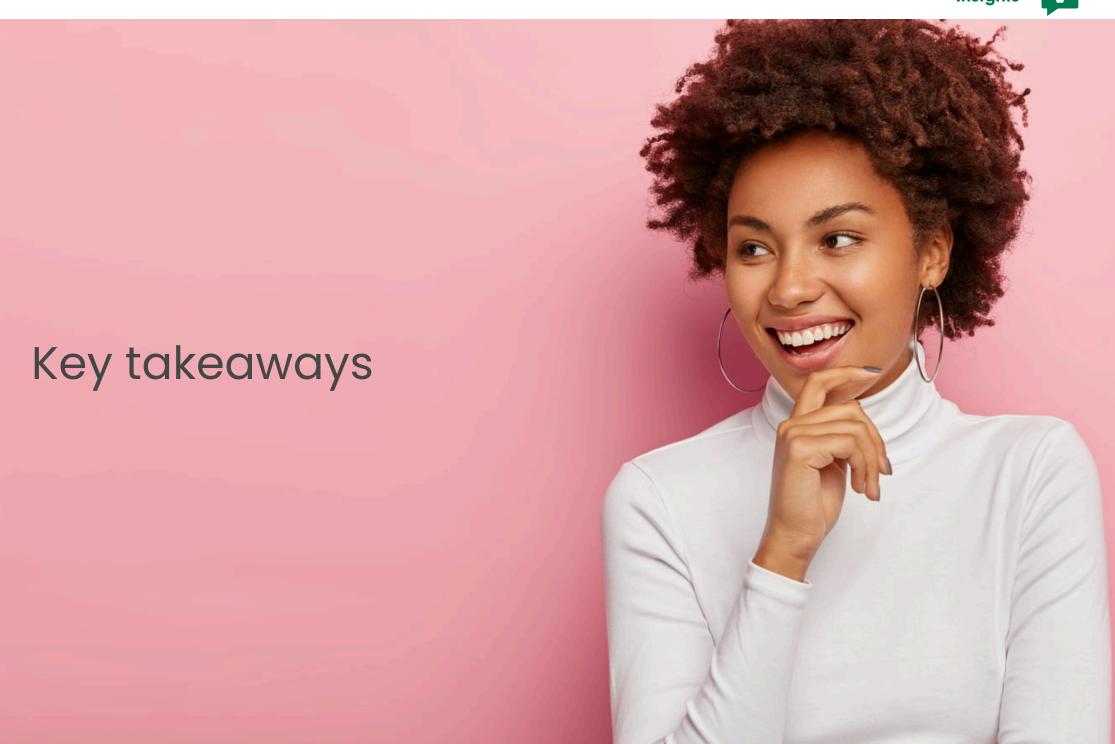
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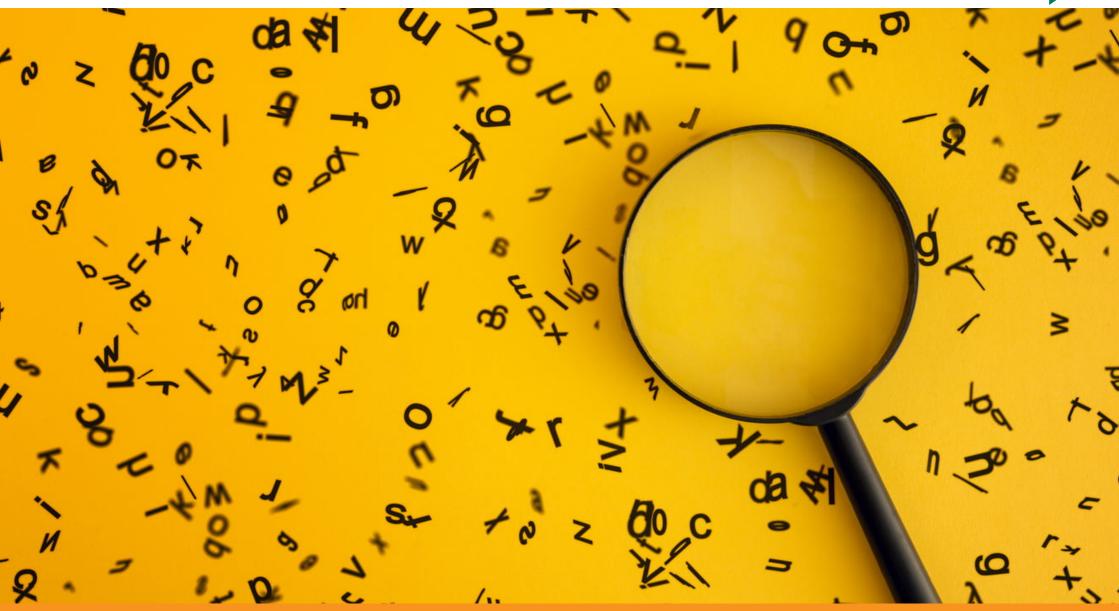




- One size does not fit all. More of the general public might be interested in active nutrition but that doesn't mean they'll be interested in your product. Who is it aimed at? Why should they buy it?
- Plant-based has some issues around taste, price, and quality but the macro-trend toward it is undeniable. Ignore it at your firm's peril.
- Authorised health claims are not the be-all-and-end-all but they are potent and do resonate with consumers. Are you
 investing enough in validating the benefits of your ingredients and formulations?
- Don't forget about the basics: carbs, proteins, and fats. Ongoing research is always showing new ways these
 physiological building blocks can be consumed, with what, when and how. Finding innovative ways to tell some of
 these stories to differing bands of consumers can yield abundant results.
- The e-gamer demographic is experimental, chatty, and results-focused. Collectively, they are an active nutrition innovation hotbed waiting to be tapped.







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