

What is biohacking?

Biohacking has evolved from science fiction to a niche subculture and now a rapidly growing movement for everyday consumers in the USA.

It's DIY biology. A way to upgrade your body and brain.

From smart pills and cold plunges to sleep gadgets and gene tweaks, biohackers are on a quest to push the human limits of health and performance.

Technology has played a key role in the growth of the biohacking trend.

Apps and wearables provide consumers with real-time data and insights for optimizing their well-being.

It's a pathway to living a longer, healthier, happier life. And who doesn't want that?

In this report, we will analyze how this trend is manifesting in the **Snacking** and **Supplementary Nutrition** spaces.

We will explore the emerging trends and new opportunities for brands in 2025.



Examples of biohacking

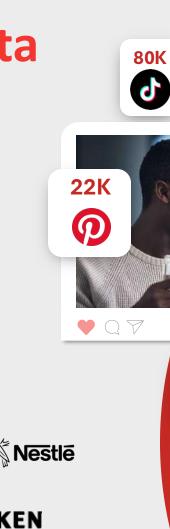
We are **Black Swan Data**

The insights inside this report do not come from surveys, panels or focus groups. There are no questions asked. Nor any prompted responses.

Our technology applies AI and predictive analytics to millions of social and online posts to understand consumer behavior.

It identifies, contextualizes and predicts future consumer needs and emerging trends with 89% accuracy.

Leading CPG brands are leveraging this data to make faster, more confident, evidence-driven decisions along each stage of the innovation process.















Our data explained

Our platform and consultancy is powered by our unique data, methodology and metrics.

How does it work?

Our platform retrieves all the relevant consumer posts in a category; in this example, **61+ million** posts related to **Snacking** in the USA.

We use AI and data science to isolate all the individual trending topics and behaviors and understand how they cluster and ladder-up into category growth drivers.

This dynamic segmentation framework is refreshed monthly and evolves as consumers and the category evolves.

TPV #321 **Growth Drivers Sub-Drivers** 8,729 **Trends**

61,351,692

Online and Social Data Points

TPV #24

Metrics

growth potential.

2-year timeframe.

Volume

Growth

Trend Prediction Value (TPV)

Ranks every trend based on its future

Total number of unique posts over a

The year-on-year increase or decrease

in conversation volume around a trend.

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Why do people biohack?

Our data has uncovered **7 essential needs-spaces** driving biohacking and some of the key themes associated with them.

Sleep Upgrades

Advanced tracking methods reveal how specific nutrients and compounds (such as L-Theanine, Melatonin and Tryptophan) influence sleep cycles and recovery metrics.

Performance Power

Blood panels, nutrient timing algorithms and real-time metrics are used to create individualized nutrition programs that synchronize with training and recovery.



In this report we will focus on how consumers are biohacking their hormones.

Hormone Optimization

The mix of carb cycling, intermittent fasting and other programs with supplementation can enhance endocrine function and hormonal sensitivity.

Stress Reduction

Consumers combine quantifiable data from wearables with meditation, breathwork and mindfulness exercises.

- Improves Sleep
- Helps Improve Sleep Quality
- Promotes Restful Sleep

- Post Workout
- Increases Energy Levels
- Improves Performance

Biohacking

Needs

- Hormone Regulation
- Improves Hormonal Balance
- Hormonal Health
- Supports Brain Function
- Improves Brain Power
- Neuroplasticity

Cognitive Edge

Consumers use cognitive testing, neuroimaging markers and other metrics to create personalized brain-boosting protocols that optimize neural plasticity, information processing and mental clarity.

Metabolism Control

Consumers combine proven weight loss strategies - such as caloric management, protein optimization and regular exercise – with more targeted interventions like metabolic tracking.

• Weight Management

Chronic Stress

Adaptogenics

Controls Stress Levels

- Semaglutides
- Promotes Weight Loss

 Helps Maintain Mood

- Promotes Calm
- Increases Dopamine

Mood Boosts

Mood optimization through nutritional biohacking combines precise dietary intervention with targeted supplementation to enhance neurotransmitter function and emotional resilience.

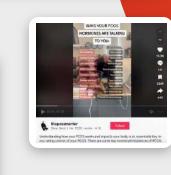
Hormone regulation

Consumers are biohacking their blood sugar levels to manage hormonal conditions.

Disorders like Polycystic Ovary Syndrome (PCOS) and diabetes are being actively managed through DIY combinations of supplements and dietary changes.

Whilst a range of long-standing pharmaceutical options exist in this space – from birth control, androgen blockers, metformin and Ozempic consumers are overwhelmed with the complexity of options available and don't want the nasty side effects.

Instead, they are seeking simpler, more **natural** and holistic solutions for regulating insulin sensitivity and hormonal health.



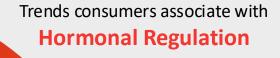
I've been taking the right vitamins for my PCOS for a while

dropping weight like crazy too. I guess this is what it's like

now & my insulin resistance is gotten 1000x better. I'm

to have a normal appetite. Lol.

X



Snacking

TPV #132 Vol: 256 Growth: +11%

Increases Insulin Sensitivity **Supplementary** Nutrition

> TPV #117 Vol: 368 Growth: +16%

Snacking

TPV #271 Vol: 1,156 Growth: +11%

Diabetic Diet

Supplementary Nutrition

> **TPV #3** Vol: 769 Growth: +85%

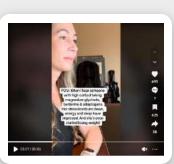
Snacking

Vol: 1,875 Growth: +3% **Balances** Blood Sugar

Supplementary Nutrition TPV #88

> Vol: 1,089 Growth: +30%

#181 is a Trend Prediction Value (TPV). It's a ranking metric based on a trend's predicted growth – helping brands decide which trends to prioritize in a crowded space.





Hormone optimization in snacking

Dietary strategy plays a crucial role in improving insulin sensitivity —

but the snacks on offer make it inconvenient.

Our data reveals consumers are moving towards lowglycemic diets to stabilize their blood sugar and lose weight.

These diets focus on high-fiber foods (like legumes) and complex carbohydrates (such as whole grains) paired with a protein.

Intermittent fasting, low-carb and ketogenic diets are also noted for reducing glucose levels and promoting better metabolic control.

To win this space, brands need to help make these dietary strategies more convenient.

It's hard for consumers to find snacks that align with these diets.

Most ready-to-eat snacks are ultra-processed, high in sugar and refined carbs.

Brands should stop marketing snacks with hidden sugars (like honey or syrups) as 'healthy'.

Unclear labelling also makes the nutrient content of these snacks opaque.



Healthy Oils

Brand spotlight

One Bite's low-glycemic protein bar is a tasty snack that helps to lower blood sugar levels.

Their range of **low-glycemic** bars, gummies and cookies are formulated by medical experts and nutritionists.

The pistachio protein bar in this example includes **inositol** to help manage hormones.

As well as **rosemary**, **blueberry extract**, **marine collagen** and other functional ingredients.

This product is specifically targeted at the key needs in this space.

Not only is it low in sugar, the hero ingredients and key benefits are clearly labelled.

The website even includes a 'science center' with information about **glycemic load**, healthy lifestyle and **longevity**.

One Bite is providing consumers with a ready-toeat snack that fits in with their diets – and making insulin management much more convenient.



Helps Maintain Blood Sugar Levels

TPV #59 Vol: 1,042 Growth: +38%

Inositol

TPV #112 Vol: 3,502 Growth: +27%

Low Glycemic

TPV #229 Vol: 6,346 Growth: +10%

Reduced Sugar

TPV #238 Vol: 5,680 Growth: +7%

High Protein

TPV #309 Vol: 208,024 Growth: +35%

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Hormone optimization in supplements

Consumers are searching for **natural**, **holistic solutions** to complement or even replace traditional medications.

This includes **berberine**, **fish oil**, **flaxseed oil**, **chromium**, **cinnamon**, **alpha-lipoic acid**, **inositol** and **vitamin D** – all known for lowering blood sugar.

Consumers are exploring herbal remedies like chasteberry, black cohosh and myoinositol – particularly for women's health issues.

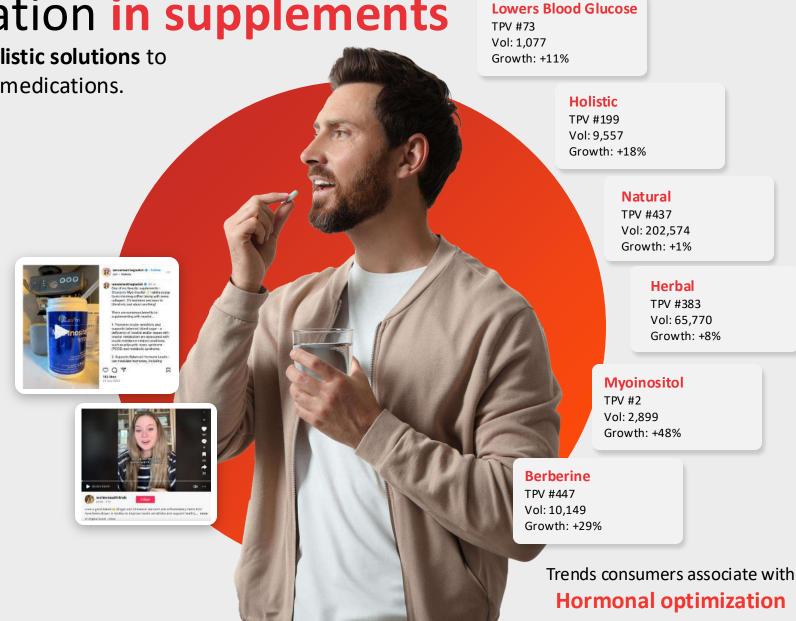
Herbs like **bitter melon**, **turmeric** and **moringa** are also trending due to their antidiabetic properties.

The consumer pain in the supplements space is driven by a distrust of traditional meds.

They don't like having to take more and more pills or ingest unknown chemicals. Consumers are also confused by the multitude of pharmaceutical options and their varying claims.

For nutrition and supplements brands to remain relevant in this space, they must pivot to more **natural formulations**.

Consumers are already moving towards foods and drinks that include these natural, functional ingredients to replace extended pill routines.



Brand spotlight

METABOLOVE by **Love Wellness** is a natural solution for balancing blood sugar.

It's made from mostly natural ingredients, including organic green tea and other botanicals.

The branding includes 'made with love for your hormones'.

With no inclusion of sugars, syrups, artificial colors or flavors.

Chromium Picolinate is a new hero ingredient that helps to support balanced blood sugar levels.

This products appeals to consumers because it consists of very few, traceable ingredients.

It's a more natural alternative to traditional meds for balancing blood sugar, without the side effects.

And while it was still made in a lab, the brand creates a sense that METABOLOVE is not an artificial pharma product – and its benefits stem from natural origins.







METABO

METABOLISM SUPPORT*

Supports healthy thyroid hormone function to boost energy & reduce food cravings*

Made with love for your hormones." Dietary Supplement • 60 capsules

Balances Blood Sugar

TPV #88 Vol: 1,029 Growth: +30%

Trends consumers

METABOLOVE

associate with

Chromium Picolinate

TPV #17 Vol: 1,204 Growth: +31%

Natural TPV #437

Vol: 202,574

Growth: +1%

Improves Hormonal Balance

TPV #280 Vol: 130 Growth: +11%

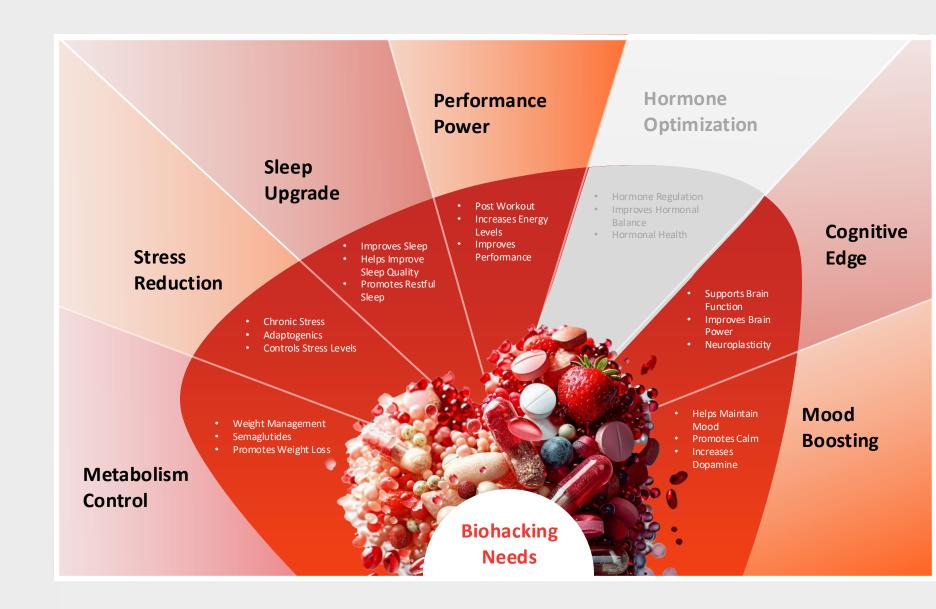
Want the full picture?

In this report we've only explored a fraction of the **biohacking** space.

From **Sleep** to **Performance**, the impact of **Ozempic** or **cross-category** trend influences – we can help answer your burning insight questions.

If you would like to explore the emerging trends and opportunities across any of the other need-spaces, get in touch.

We can also map your brand, portfolio or demand spaces to this framework to analyze and determine 'where to play' and 'how to win' in 2025+.

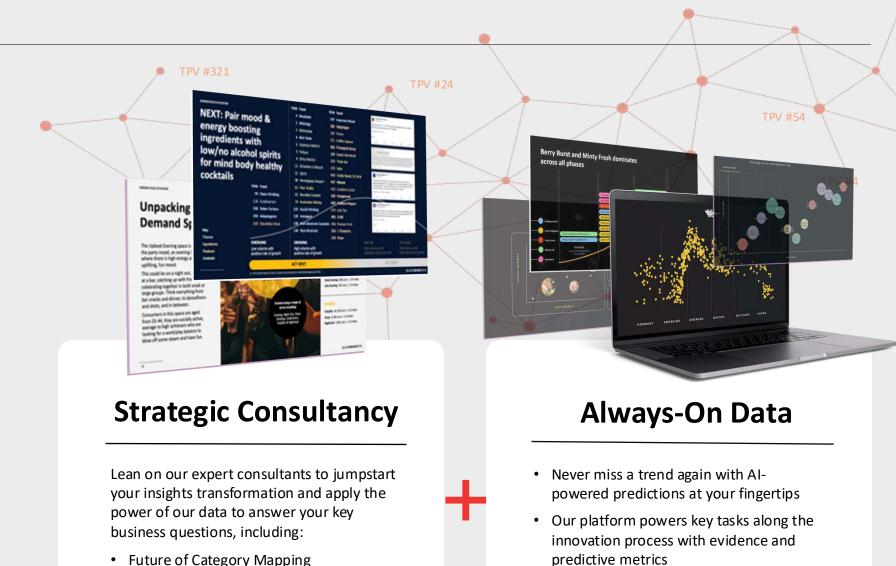


Insight & Innovation solutions that fit your needs

We've only just scratched the surface of how our data and prediction metrics can **identify growth drivers, emerging trends** and **innovation opportunities** in the food and beverages categories.

Our **expert consultancy** and **self-serve platform** deliver the agility and answers our customers need in an increasingly challenging marketplace.

To find out how we can kick-start your innovation process, please get in touch.



Activating Demand Spaces

Ideation and NPD Springboards

• Delivers enterprise-wide competitive

advantage through smarter, faster more

consumer-centric innovation programs



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