


Digestive

The digestive health report

Discover your next opportunity
in histamine intolerance

 **Bioiberica**
Taking life science further



A high-angle, top-down photograph of two young women lying on their stomachs on a patterned rug. They are both smiling and eating slices of pizza. The woman on the left is wearing a green sweater and holding a slice of pizza. The woman on the right is wearing a light green sweater and is also holding a slice of pizza. In the bottom left corner, there is a pizza box with several slices of pizza inside. The background is a patterned rug with geometric designs in shades of brown, beige, and black.

This report outlines everything you need to know about the growing digestive health supplements market, specifically exploring the increasing relevance of histamine intolerance and how you can innovate in the space to address this common, yet unmet consumer need.



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Power your innovation with DAOgest

Why is everyone talking about digestive health supplements?

The global digestive health supplements market holds great potential – with an estimated compound annual growth rate (CAGR) of **9.3%** between 2020-2028.¹



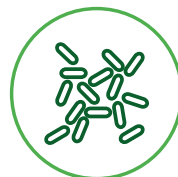
Rising demand for digestive health solutions is being powered by a number of factors:



Growing awareness of the link between gut health and overall health

Although research in this field is still developing, gut health is understood to have a significant impact on overall health, where 'good' gut health is thought to contribute to stronger immunity, heart and brain health, improved mood, better sleep and effective digestion.²⁻⁶

More and more, consumers are viewing the digestive system as the gateway to overall wellness, and are therefore making gut health a priority.



Increasing knowledge of the gut flora

There is rising awareness of the role the gut microbiome can play in unlocking digestive health benefits – such as improved nutrient absorption and digestion – as well as a greater understanding of how to positively influence this, via live bacteria like probiotics for instance.⁷⁻⁹



The rise in digestive health concerns

Digestive health concerns are on the rise worldwide.¹⁰⁻¹⁴ More and more, consumers are improving their understanding and awareness of how to address these issues and concerns, and taking a more proactive approach to digestive health maintenance. This is driving demand for solutions with a gut health positioning.



Dietary health supplements market 2020¹⁵

US\$ **10,548.60** million

7.52%

digestive health
market share*

8.6%

CAGR 2020-2028

Digestive disorders: a growing global issue?

Across the world, digestive health problems are increasingly common, linked to multiple factors, like aging, poor dietary habits and lifestyle choices.¹⁶⁻²⁰ At the same time, there is growing awareness of gastrointestinal issues, while better diagnostic tools are leading to more diagnoses.

In addition, gastrointestinal-related challenges can impact multiple areas of health and wellbeing, like immunity and quality of sleep.^{2,3,21} To prevent or address digestive concerns, health-conscious consumers are increasingly taking control of this aspect of their life and turning to supplements for support.

Digestive health influences

Aging society

- Changes in the digestive system
- Increased medication use
- Inactivity

Lifestyle habits

- Fatigue
- Stress
- Smoking
- Less sleep
- Limited physical exercise

Food choices

- Unhealthy foods
- Irregular meals

Food intolerances come under the spotlight

Food provides us with all the nutrients we need to live. However, certain components in food, or by-products that are produced when food is broken down in the body, can cause a food intolerance.

Also known as food sensitivities, food intolerances are a common digestive disorder, affecting 15-20% of global population.^{23,24} They can cause allergy-like symptoms in some individuals, such as headaches, digestive problems – like gas, abdominal pain or diarrhoea – nausea or tiredness.^{25,26}

Some food intolerances are linked to enzyme deficiency or impaired enzyme activity. This means a certain food or ingredient is not broken down sufficiently in the body, causing it to build up in the digestive system. Enzyme supplementation could therefore be key for these individuals.

40%

of global consumers
say digestive issues
have had an impact
on their quality of life²²



Enzyme-based solutions: an emerging market for food intolerances

The market for enzyme-based food supplements is projected to grow at a CAGR of 10.3% between 2020-2028¹ owing to the growing understanding of how different enzymes can be used to manage a range of digestion challenges – from lactose intolerance to cystic fibrosis.²⁷

However, most enzymes currently on the market – like amylase, lipase and protease – are targeted towards digestion issues only, rather than food intolerances. With growing evidence suggesting that supplementation of specific enzymes may help to manage the symptoms of food intolerance^{27,28}, key market players are highly focused on expanding their digestive health portfolios to include enzyme-based products.

Some food intolerances are caused by an enzyme deficiency, like histamine intolerance.²⁹ Such enzyme deficiency-related issues are increasingly becoming an area for innovation in the digestive health market.

Common food intolerances linked to enzyme deficiencies ²⁴ :
Lactose intolerance (Lactase deficiency)
Fructose intolerance (Fructase deficiency)
Reduced tolerance to sucrose & starch (Sucrase-isomaltase deficiency)
Histamine intolerance (Low amine oxidase activity)

Research in the field of food intolerances is ongoing and current estimations related to the prevalence of lactose, sucrose, fructose and histamine intolerances in the global population vary depending on the scientific source and demographic studied. More conclusive data is anticipated regarding the frequency of these intolerances in the global population.

Discover your next opportunity in the digestive health market

Everything you need to know about histamine intolerance

What is histamine?

Histamine is a naturally occurring molecule produced in the human body and present in a wide range of foods and beverages.

What exactly is histamine intolerance?

Histamine intolerance is a disorder associated with impaired dietary histamine metabolism, whereby histamine is not degraded properly in the body. Histamine is usually broken down by diamine oxidase (DAO) enzyme – a histaminase – in the small intestine of the digestive system.^{30,31} However, when there is not enough DAO enzyme in the body or DAO activity is low, this can lead to an imbalance between the intake of histamine and the body's ability to degrade it; creating an excess of histamine that can trigger allergy-like symptoms.³²

What are the symptoms of histamine intolerance?

The most common symptoms include – but are not limited to – gastrointestinal issues, sneezing, runny nose or congestion of the nose, headache, abdominal pain, hives, itching, flushing and asthma.³³⁻³⁷ The symptoms of histamine intolerance can significantly affect an individual's quality of life.





What causes it?

Histamine is present in many foods and beverages, although levels are higher in some, like cured meats, cheese, chocolate and alcoholic beverages.³⁸⁻⁴⁰ Anyone with histamine intolerance can be triggered when they eat foods that are histamine-liberating (promote the release of histamine in the body) or contain histamine.

It is thought that genetics, certain diseases and medications can increase the risk of histamine intolerance by:

- Impairing DAO enzyme functionality⁴¹⁻⁴⁴
- Inhibiting DAO enzyme activity^{32,45}
- Decreasing DAO production^{46,47}

What is the condition's prevalence worldwide?

Histamine intolerance affects 1-3% of the global population²⁹ – mostly women (80%) and those around 40 years of age are affected.⁴⁸

These numbers are expected to rise as both the medical community and consumers become more aware of the disorder's existence, better diagnostic tools are developed and more data becomes available.

How do individuals currently manage the condition?

There is no known cure for histamine intolerance. However, a low-histamine diet and antihistamines can help to manage symptoms associated with the disorder.⁴⁹⁻⁵³

How can dietary supplement manufacturers support consumers with histamine intolerance?

Growing awareness of digestive health problems – including histamine intolerance – is creating new opportunities for innovation in the digestive health sector. Discover how you can develop new solutions to target this common condition in the next section...

Introducing DAO

The symptoms of histamine intolerance can be improved by a low-histamine or histamine-free diet and antihistamines. However, a low-histamine diet can be very restrictive for consumers and difficult to follow long-term. Meanwhile, side effects like drowsiness, dry mouth and eyes, dizziness and headaches are common with antihistamines. Plus, antihistamines do not lower histamine levels – they mitigate the symptoms of the condition.



The diamine oxidase (DAO) enzyme presents new opportunities to expand product offerings and develop targeted solutions that help to manage histamine digestion. DAO supplementation can help to increase the levels of DAO enzyme in the gut and subsequent DAO activity. Taken before meals, it supports individuals with histamine intolerance by:



**Breaking down histamine
from foods and beverages**



Decreasing histamine levels



**Reducing the symptoms
of histamine intolerance**

This can help to manage histamine digestion, allowing individuals with histamine intolerance to eat (and enjoy) the food they love while reducing the associated allergy-like symptoms.

10.4%

The rising number of diagnosed cases of histamine intolerance across the world is expected to boost demand for DAO-based solutions, with DAO supplements estimated to increase at a CAGR of 10.4% between 2020-2028¹

Partner with Bioiberica

Power your innovation with DAOgest

It's time to start a new chapter in gut health with Bioiberica - your trusted partner for innovation in the digestive health market.

Discover DAOgest.

DAOgest is an effective digestive health supplement providing high-quality DAO enzyme to improve histamine digestion. The solution is a natural extract from porcine kidneys that can bring key benefits to your next innovation.

- Premium ingredient
- Immediate effect
- Low dose (4.2mg/serving)

To innovate in the digestive health market with Bioiberica's DAOgest solution, contact us today.

Visit: www.bioiberica.com
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