# AI-driven personalised nutrition market set to grow nearly fourfold by 2031 amid genomic advances



Artificial intelligence (AI) is fundamentally transforming the landscape of personalized nutrition, creating new pathways for tailored health solutions driven by genetic insights. According to a recent market assessment, the global AI in personalized nutrition market is projected to soar from a current valuation of approximately $3.56 billion in 2023 to an astounding $12.71 billion by 2031, representing a robust compound annual growth rate (CAGR) of 17.6% during this period. This surge reflects a growing consumer demand for nutrition tailored to individual health goals and genetic predispositions.

As the AI and nutrition sectors intertwine, the emphasis on personalisation is increasingly powered by advancements in genomic profiling. By harnessing AI alongside genetic testing, health professionals are enabling highly customised dietary strategies that consider factors such as nutrient absorption and metabolic predispositions. Such individualised plans aim not only to enhance overall health but also to mitigate the risk of diseases influenced by genetic factors. The expanding reach of at-home genetic testing kits further facilitates this trend, making it easier for consumers to gain insights into their genetic makeup and, consequently, their optimal nutrition.

The drive towards personalized nutrition is reinforced by a broader societal shift toward health and wellness, particularly in the wake of rising chronic disease rates and obesity. Industry experts note that the integration of AI and advancements in nutrigenomics—an evolving field studying the relationship between genetics and nutrition—are pivotal in this growth. A parallel report identifies a projected CAGR of between 15% and 17% for the personalized nutrition market over the next five years, underscoring the crucial role of technology in facilitating personalised health solutions.

However, the ascent of AI in this domain is not without challenges. One significant hurdle includes the protection of sensitive health-related data, with privacy concerns being paramount as individual dietary recommendations become increasingly algorithm-based. Experts stress the importance of validating AI-driven dietary guidelines to ensure their safety and efficacy. Additionally, the complexity of integrating these advanced technologies with existing healthcare systems poses logistical difficulties. Consumer trust also remains an area requiring attention, as apprehensions about algorithmically generated dietary plans compared to traditional expert advice could hinder widespread adoption.

Regionally, North America is set to lead the market for AI-driven personalized nutrition, buoyed by a highly engaged consumer base and a mature technological landscape. Advances in digital infrastructure here further facilitate the uptake of personalised dietary solutions. Concurrently, Europe is gaining traction with strong governmental support for healthcare technology and growing public interest in wellness in general.

The AI in personalized nutrition market is characterised by a diverse array of players, including startups focused on innovative tech solutions and established companies expanding their portfolios in health and nutrition. Prominent names such as Nutrino Health Ltd., DayTwo Ltd., and Viome exemplify the sector’s dynamic landscape, each employing unique approaches to marrying AI technology with nutrition and health outcomes.

As the understanding and application of AI in nutrition continue to mature, it is clear that this intersection represents a significant frontier not only for individual health management but also for the broader wellness industry. Enhanced nutrition, influenced by genetic insights and powered by technology, holds the promise of not just better health outcomes but also potential reductions in healthcare costs associated with chronic illness management. The future of nutrition appears increasingly personalised, supported by a backdrop of emerging technologies, and integrating insights from the ever-growing field of genomic analysis.

The convergence of these elements heralds an exciting era for both consumers and health practitioners, marking a substantial shift toward precision in dietary recommendations that aligns closely with individual needs and genetic backgrounds.

### Reference Map

1. Paragraphs 1, 2, 4, 5, 7.
2. Paragraph 3.
3. Paragraph 4.
4. Paragraph 1, 6.
5. Paragraph 4.
6. Paragraph 5.
7. Paragraph 6.

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## Bibliography

1. <https://www.openpr.com/news/4029830/ai-in-personalized-nutrition-market-driven-by-genetic-insights> - Please view link - unable to able to access data
2. <https://www.pharmiweb.com/press-release/2025-04-22/next-generation-personalized-nutrition-market-to-witness-15-17-cagr-by-2030-driven-by-ai-genomics-and-consumer-wellness-trends> - This article discusses the projected growth of the personalized nutrition market, estimating a compound annual growth rate (CAGR) of 15–17% between 2025 and 2030. The growth is attributed to increased consumer focus on health and wellness, advancements in nutrigenomics, the rising prevalence of chronic diseases, and the integration of digital health technologies into nutrition solutions. The article emphasizes the role of AI and genomics in driving this market expansion.
3. <https://www.accessnewswire.com/newsroom/en/food-and-beverage-products/global-nutrigenomics-industry-to-reach-usd-23421-million-by-2034-pioneeri-961984> - This article highlights the rapid expansion of the nutrigenomics industry, projecting a market value of USD 2,342.1 million by 2034. It discusses how personalized nutrition solutions are reshaping the weight loss and wellness industry by leveraging genetic data to create individualized meal plans. The integration of AI and machine learning in processing genetic and nutritional data is also emphasized, along with the expansion of at-home genetic testing kits and the development of functional foods targeting genetic profiles.
4. <https://honestaiengine.com/ai-in-personalized-nutrition-driving-growth-with-rising-consumer-demand-for-tailored-health-solutions-based-on-genetic-insights> - This article provides an overview of the global AI in personalized nutrition market, highlighting its valuation at US$ 3.56 billion in 2023 and projected to reach US$ 12.71 billion by 2031, with a CAGR of 17.6%. It discusses how AI is transforming personalized nutrition by enabling tailored dietary solutions aligned with individual health goals, nutritional needs, and genetic predispositions. The article also lists prominent players in the market and outlines market dynamics, including drivers, challenges, and regional trends.
5. <https://www.globenewswire.com/news-release/2024/11/26/2987467/0/en/Nutrigenomics-Market-Projected-to-Reach-USD-2-365-22-Million-by-2032-Driven-by-Rising-Demand-for-Personalized-Nutrition-and-Precision-Health-Research-by-SNS-Insider.html> - This article discusses the rapid expansion of the nutrigenomics market, projecting a market value of USD 2,365.22 million by 2032, growing at a CAGR of 16.86%. It highlights the increasing demand for personalized nutrition and the prevalence of chronic diseases as key drivers. The article also mentions the growing adoption of genetic testing services and related products, emphasizing the role of genomics in personalized health solutions.
6. <https://www.futuredatastats.com/press-release/global-artificial-intelligence-in-personalized-nutrition-market> - This article discusses the projected growth of the AI in personalized nutrition market, estimating a market size of USD 10.5 billion by 2030, with a CAGR of 21.9%. It explores how AI is revolutionizing personalized nutrition by leveraging sophisticated segmentation strategies, analyzing vast datasets, and providing tailored dietary recommendations. The article also highlights trends such as genomic profiling, integration with IoT and wearable devices, personalized meal delivery, and AI-driven nutraceuticals.
7. <https://www.insightaceanalytic.com/report/ai-in-personalized-nutrition-market/2691> - This article provides a comprehensive analysis of the AI in personalized nutrition market, detailing its valuation at US$ 3.56 billion in 2023 and projected to reach US$ 12.71 billion by 2031, with a CAGR of 17.6%. It discusses various market segments, including types of AI technologies, applications, end-users, and providers. The article also outlines market dynamics, drivers, challenges, and regional trends, emphasizing the role of AI in transforming personalized nutrition through tailored dietary solutions.