

# Empower people living with medical conditions and senior adults

Your guide to elevating nutritional care with our Premix Solutions

Together, we can elevate medical nutrition solutions to *truly* champion the health of people living with medical conditions and senior adults. This takes more than ingredients. It takes a consumer-first approach powered by advanced Premix Solutions and the support of an end-to-end partner.





# The right nutritional care can help those in need recover, take back independence and live life to the fullest.

For many of these individuals, medical nutrition has a special, and often critical, role to play – providing the essential nutrients they need to balance nutritional shortfalls, to support therapeutic outcomes and enhance quality of life.

And the need for tailored medical nutrition support – especially products designed for specific conditions or disease states – is growing. This demand is driven by the aging population, increasing prevalence of chronic diseases and growing awareness of the benefits of nutrition for healthy aging and disease management. Coupled with advancements in nutritional science and technology, the market is ripe for innovation.

# Who can benefit from medical nutrition?



1

## Individuals in need of targeted nutritional care

Medical nutrition is an instrumental tool in helping people to stay healthy and independent for longer – including aiding faster recovery from illness. This could help to lower healthcare costs and hospitalizations associated with the ageing population.

2

## Senior adults suffering from decreased appetite

Defined as the loss of appetite due to the aging process, 'anorexia of aging' is a major contributor to undernutrition and adverse health outcomes in the senior population. It affects around 62% of hospital populations and 85% of adults in care homes, underscoring the need for nutritional management.<sup>1</sup>

3

## Individuals undergoing surgery

Malnutrition is a serious risk factor for surgical complications, leading to slower recovery, longer hospital stays, increased infection vulnerability and even higher mortality rates. Yet, only one in five individuals undergo nutrition screening or nutrition intervention before operation.<sup>2</sup>

4

## People suffering from disease-related malnutrition

Disease-related malnutrition arises from specific nutritional needs during treatment or during the course of a disease. While prevalent among senior adults, it can affect any person living with a medical condition.

# Transforming care with condition-specific nutritional solutions

Anyone at any stage of their life may require specialized nutritional support.

With rising demand for medical nutrition, manufacturers face increasing pressure to push the boundaries of innovation and create transformative solutions that make a real difference to the care of those living with medical conditions and senior adults.

This presents opportunities to tackle common challenges in medical nutrition formulation, like poor palatability, low compliance and the need for more targeted products tailored to specific therapeutic areas. By addressing these issues, we can significantly elevate consumer experiences and adherence to nutritional care plans.





## Personal preferences and dietary restrictions

Individual preferences, cultural dietary habits and food allergies or intolerances play a significant role in the acceptance of medical nutrition products. More inclusive solutions that cater to these factors can make medical nutrition more acceptable.

## Reimagine medical nutrition with human-centric and condition-specific innovation

Adopting a human-centric and condition-specific approach to innovation can make a profound difference to medical nutrition acceptance and compliance. This strategy enables manufacturers to develop more targeted solutions that address the special nutritional needs and deficiencies associated with specific disease states, giving those living with medical conditions and senior adults the best possible nutritional management and supporting positive therapeutic outcomes.

### Palatability


Some formulations – particularly those high in protein – can have an undesirable taste, impacting patients' compliance with medical nutrition across healthcare settings. Texture and mouthfeel can also be a barrier, especially for people with difficulties swallowing, like senior adults. Achieving smooth and consistent textures can assist but may be technically challenging. Offering a variety of flavors and formats can help to prevent taste fatigue and support product acceptance.

### Compliance

Ensuring that people living with medical conditions and senior adults comply with nutritional care plans is critical. However, this can be an obstacle if a product is difficult to incorporate into daily routines, requires frequent consumption or must be taken in large quantities. Closely considering product format, portion sizes, packaging and ease of preparation is crucial for improving compliance.

## Taking a condition-specific approach helps to

- ✓ enhance efficacy
- ✓ optimize health outcomes
- ✓ elevate human-centered care
- ✓ increase engagement with nutrition plans
- ✓ reduce healthcare costs
- ✓ support healthy longevity



No two people  
are the same,  
and neither  
should your  
premixes be

Taking a condition-specific approach starts with ingredients.

We've developed evidence-based premix concepts to provide a snapshot of how you can support the unique nutritional needs of people living with medical conditions and senior adults across various therapeutic areas. Rooted in market insights and the latest nutritional science, these premixes combine specific ingredients to address the special nutritional requirements of each disease state.

### Sarcopenia

Sarcopenia is a progressive skeletal muscle disorder involving accelerated loss of muscle mass, strength and function – and a major public health concern in senior adults and clinical settings.<sup>3,4</sup> We've developed customized premixes combining protein, amino acids, omega-3 fatty acids and several vitamins to support improved muscle strength and mobility in individuals with the disease.<sup>5-10</sup>

### Perioperative care

Nutritional interventions can help reduce the risk of surgical complications. We have developed a concept that provides nutrients to help manage inflammation during this time, thereby enhancing surgical outcomes and wound healing.<sup>11-14</sup>

## Cancer cachexia

Cancer cachexia is a prevalent wasting condition in patients with cancer that directly causes more than 20% of cancer-related deaths.<sup>15</sup> Medical nutrition solutions containing nutrients to support muscle mass, immune function, wound healing, recovery and mental wellbeing can elevate the quality of life of these individuals.<sup>16-20</sup>

## Cognitive impairment

Cognitive performance and mental wellbeing are among the greatest medical challenges facing the world's aging population. That's why we've created a concept that targets the maintenance of normal brain health.<sup>21-29</sup>

## Immune health in senior adults

Optimal nutrition is critical for the proper function of immune cells. Delivering the right nutritional care in individuals that are vulnerable to infections, like senior adults, can support immune function and help them stay healthier for longer. Here, ingredients that support immunological performance are critical.<sup>30</sup>

## Chronic wounds

To support more effective wound healing, proteins, amino acids, minerals and vitamins can be utilized to promote tissue and immune health, improve skin barrier function and blood flow.<sup>31-45</sup> Our concept is intended for the nutritional management of patients with diabetic foot ulcers, supporting wound healing by delivering nutrients for healthy skin and muscles.

## Inspired by our concepts?

Together, we can develop customized premixes tailored to your medical nutrition formulation and the needs of your end consumers.

**Connect with one of our experts to help integrate our science-backed premix concepts into your medical nutrition products.**

We can create tailored blends to address the needs of specific consumer groups or people living with medical conditions. As the only vertically integrated vitamin and premix manufacturer globally, we offer superior reliability and sustainability of supply.

**This is powered by;**

**1,300+** production experts

**10** blender types

**13** state-of-the-art premix facilities strategically located around the world





# Unlock next level medical nutrition with advanced Premix Solutions

It takes more than premixes to create life-changing and life-saving medical nutrition solutions that put the consumer first.

**That's why we go beyond ingredients.**

We are an end-to-end solutions provider that can support you along the product development journey. Combining high quality products, customized solutions and expert services, we've created an ecosystem designed to elevate your success in the medical nutrition marketplace with breakthrough products.



# Elevate your product development process

dsm-firmenich is your end-to-end solutions provider and innovation partner in the medical nutrition market.

As your Premix Partner, we can navigate a seamless product development process – together. Explore how our customized Premix Solutions can guide you through pitfalls before they even happen; getting you to market faster, more efficiently and with enduring success.



# Go beyond the blend with material conditioning

We're constantly testing, innovating and improving to provide the solutions necessary for you to stay one step ahead in the medical nutrition market.

Our expert knowledge coupled with Advanced Powder technologies enables us to address several development hurdles, from stabilization to bioavailability, shelf-life, taste and more. By enhancing the quality and effectiveness of your medical nutrition products, you can improve compliance and contribute to better health outcomes.



Unlock your product's potential. Supercharge the functional performance of your premix powders with our cutting-edge technologies:

- ✓ Granulation
- ✓ Milling
- ✓ Spray drying
- ✓ Encapsulation
- ✓ Beadlets
- ✓ Titrations

## Tap into infinite flavor possibilities and sensorial experiences

Our world-renowned taste experts can help you design bespoke taste profiles that support more consumer-centric medical nutrition innovation. Beyond flavors, we are also dedicated to helping address the unique sensory requirements of people living with certain medical conditions via cutting-edge taste solutions.

- ✓ Taste neutral formulations and blends
- ✓ Taste maskers and blockers
- ✓ Taste positive solutions
- ✓ Sugar reductions and enhancers
- ✓ Infinite flavor combinations and flavor formulations

100+  
flavorists

11  
sensory  
facilities  
worldwide

130,000  
flavors

# Pioneering a sustainable future

Sustainability doesn't have to be an afterthought when it comes to medical nutrition innovation.

Our sustainability expert services enable you to create solutions that not only resonate deeper with consumers but consider the planet too.

## Helping you meet your sustainability goals

As the only provider measuring environmental impact – we are setting the standard across our industry for elevating planetary health. As well as working to reduce our own environmental footprint, our proprietary Solution Imp'Act Calculator, supported by our Life Cycle Assessment (LCA) data, helps you to achieve your sustainability targets.

# Together elevating health

Elevating global health takes powerful partnerships. Together, we can continue to push new boundaries in the medical nutrition space – with the needs of people living with medical conditions and senior adults always front of mind.

When you partner with dsm-firmenich, you get **more than ingredients**. You get a **purpose-led partner that brings progress to life**. An expert that delves deeper into consumer insights to understand the complex needs, barriers and solutions to the best nutritional care. And a company that prioritizes sustainability.

**Want to elevate your medical nutrition offering to create impactful change to nutritional care?**

Partner with dsm-firmenich to tailor-make your next medical nutrition product.

Connect with us

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