

Nestlé® scientists discover bioactive nutrients to support muscle health and healthy longevity

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As the global population continues to age, understanding the mechanisms behind ageing becomes increasingly important. Nestlé® is investigating science-based nutritional solutions for specific age-related health issues, such as muscle loss and physical fatigue.

Age-related muscle decline, known as sarcopenia, leads to decreased physical performance and increased frailty, significantly affecting the quality of life in older adults. In two recent studies, Nestlé® scientists have uncovered specific mechanisms that contribute to muscle decline and have identified certain bioactive ingredients that target these aspects of ageing.

In a study published in the Journal of Clinical Investigation, in collaboration with the Centre National de la Recherche Scientifique - Institut NeuroMyoGène in Lyon and other external partners, Nestlé® scientists discovered a unique combination of bioactive nutrients that promotes faster muscle regeneration during recovery and as one ages.

Skeletal muscles depend on local stem cells for growth and repair; however, these cells become less effective over time. The researchers screened over 50,000 natural molecules and found that two specific vitamin B-related nutrients, Nicotinamide and Pyridoxine, can work together to activate these cells, facilitating quicker muscle regeneration and recovery of strength.

"Ageing impairs the regenerative capacity of muscles at the cellular level," said Dr Pascal Stuelsatz, Senior Specialist for muscle growth and recovery at Nestlé® Research. "Our study identified a novel solution that can target regeneration and help mitigate age-related muscle decline through nutrition."