

IMMUNO ARMOUR™

Clinical Evidence Library

19 Peer-Reviewed Studies • 5 Key Ingredients • Compiled 2026

This document summarises clinical trials and peer-reviewed research supporting the five key ingredients in Immuno Armour™: *Bacillus subtilis*, *Saccharomyces cerevisiae*, Vitamin C, Vitamin D3, Zinc, and Selenium. All studies referenced are publicly available through PubMed, Cochrane Library, or equivalent academic databases.

01 | BACILLUS SUBTILIS

01 *Bacillus subtilis* CU1 — Immune Stimulation in the Elderly

Randomised, Double-Blind, Placebo-Controlled Trial | Immunity & Ageing | Lefevre et al. • 2015

Consumption of *Bacillus subtilis* CU1 produced a 45% increase in salivary IgA relative to the placebo group, along with increased serum IFN-gamma levels, indicating meaningful immune stimulation in a senior population during the common infectious disease period.

View Study → <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4669646/>

02 *Bacillus subtilis* CU1 — Safety Assessment for Human Use

Clinical Safety Study | ScienceDirect • 2016

Bacillus subtilis CU1 was safely consumed at 2×10^9 spores per day across all clinical subjects, with no undesirable physiological effects on liver and kidney function, blood counts, hemodynamic parameters, or vital signs — confirming its safety profile for use in food and supplement preparations.

View Study → <https://www.sciencedirect.com/science/article/pii/S0273230016303452>

03 *Bacillus subtilis* DE111 — Gastrointestinal & Immunomodulatory Effects

Randomised Controlled Trial | MDPI International Journal of Molecular Sciences | Colorado State University • 2021

A clinical study of *Bacillus subtilis* DE111 in 46 healthy adults examined gut microbiota profiles, immune cell populations, and inflammatory markers. Researchers observed an increase in anti-inflammatory immune cell populations in response to ex vivo stimulation, supporting the immunomodulatory potential of this spore-forming probiotic strain.

View Study → <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7957723/>

02 | SACCCHAROMYCES CEREVISIAE

04 EpiCor (Dried Yeast Fermentate) — Cold & Flu Symptoms in Adults

12-Week Randomised, Double-Blind, Placebo-Controlled Trial | PubMed • 2008

In a 12-week randomised, double-blind, placebo-controlled trial of 116 participants, daily supplementation with 500mg of EpiCor (dried *Saccharomyces cerevisiae* fermentate) was compared to placebo to assess incidence and duration of cold and flu-like symptoms in healthy adults vaccinated for seasonal influenza.

View Study → <https://pubmed.ncbi.nlm.nih.gov/18335698/>

05 EpiCor — Cold/Flu Symptoms in Non-Vaccinated Individuals

12-Week Randomised, Double-Blind, Placebo-Controlled Trial | PMC • 2019

A concurrent 12-week randomised, double-blind, placebo-controlled trial of 116 non-vaccinated subjects found that once-daily supplementation with 500mg of dried modified *Saccharomyces cerevisiae* oral fermentate (EpiCor) reduced the incidence and duration of cold and flu-like symptoms.

View Study → <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6498863/>

06 EpiCor — Cold/Flu Symptoms in Children (Ages 4–12)

Randomised Controlled Trial | Pediatric Research / Nature • 2024

256 children aged 4–12 years attending school or daycare were randomised to either EpiCor or placebo for 84 days during the 2022–2023 flu season. EpiCor postbiotic had previously been demonstrated to improve immune function in adults by reducing the incidence of cold, flu-like, and allergy symptoms — this trial extended that investigation to the paediatric population.

View Study → <https://www.nature.com/articles/s41390-024-03331-z>

07 Yeast Beta-1,3/1,6 Glucan — Upper Respiratory Tract Infection in Older Adults

Double-Blind, Placebo-Controlled Trial | ScienceDirect • 2017

A double-blind, randomised, placebo-controlled trial of Wellmune (a beta-1,3/1,6 glucan derived from the cell wall of *Saccharomyces cerevisiae*) was conducted over 90 days in community-dwelling adults aged 50–70 years, assessing its impact on upper respiratory tract infections and innate immune function.

View Study → <https://www.sciencedirect.com/science/article/abs/pii/S0899900717300539>

08 Yeast Beta-Glucan — Antibody Response to Influenza Vaccination

Double-Blind, Randomised, Placebo-Controlled Pilot Trial | Taylor & Francis • 2025

90 adults were recruited across two vaccination seasons and randomised to receive 500mg of yeast beta-glucan or placebo daily, assessing the potential adjuvant effect of beta-glucan supplementation on antibody titer response to influenza vaccination and its impact on cold and flu symptoms.

View Study → <https://www.tandfonline.com/doi/full/10.1080/19390211.2025.2539876>

03 | VITAMIN C

09 Vitamin C Reduces Severity of Common Colds

Meta-Analysis of 10 Placebo-Controlled RCTs | BMC Public Health | Hemilä et al. • 2023

Across 15 comparisons from 10 randomised, double-blind trials, vitamin C supplementation (at least 1g/day) significantly decreased the severity of the common cold by 15% compared to placebo (95% CI 9–21%).

View Study → <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10712193/>

10 Vitamin C as Supplementary Therapy for Common Cold

Meta-Analysis of 10 RCTs | BioMed Research International | Ran et al. • 2020

A meta-analysis of 10 randomised controlled trials found that vitamin C supplementation produced significantly better outcomes than antiviral therapy alone — improving total efficacy, time to symptom amelioration, and time to healing in common cold patients.

View Study → <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7569434/>

04 | VITAMIN D3

11 Vitamin D3 Supplementation for Upper Respiratory Tract Infections (VIDARIS Trial)

18-Month Randomised Controlled Trial | JAMA | 322 Healthy Adults • 2012

An 18-month randomised controlled trial of 322 healthy adults in New Zealand assessed the effect of vitamin D3 supplementation on the incidence and severity of upper respiratory tract infections, providing important evidence on its role in respiratory immune defence.

View Study → <https://jamanetwork.com/journals/jama/fullarticle/1367547>

12 Vitamin D Supplementation to Prevent Acute Respiratory Infections

Systematic Review & Meta-Analysis of 46 RCTs | The Lancet Diabetes & Endocrinology • 2021

An updated meta-analysis building on a 2017 analysis of 25 RCTs confirmed that vitamin D supplementation has a protective effect against acute respiratory infections, representing one of the most comprehensive reviews of vitamin D and respiratory immune health to date.

View Study → [https://www.thelancet.com/journals/landia/article/PIIS2213-8587\(21\)00051-6/fulltext](https://www.thelancet.com/journals/landia/article/PIIS2213-8587(21)00051-6/fulltext)

13 Vitamin D3 — Prevention of Acute Respiratory Infection in Older Adults

Double-Blind Randomised Controlled Phase II Trial | PMC • 2017

A double-blind, randomised, controlled phase II trial of vitamin D3 supplementation over 12 months found that high-dose vitamin D3 reduced the incidence of acute respiratory infections in older adults, with vitamin D identified as playing an important role in many aspects of immune function, particularly innate immunity.

View Study → <https://pmc.ncbi.nlm.nih.gov/articles/PMC5357189/>

05 | ZINC

14 Zinc Supplementation & Immune Factors in Adults

Systematic Review & Meta-Analysis of 35 RCTs | Critical Reviews in Food Science & Nutrition | 1,995 Participants • 2022

A comprehensive meta-analysis of 35 randomised controlled trials comprising 1,995 participants examined the effect of zinc supplementation on immune factors in adults, confirming zinc's broad immunomodulatory role across multiple markers of immune response.

View Study → <https://www.tandfonline.com/doi/abs/10.1080/10408398.2020.1862048>

15 Zinc Promotes Th1 Immune Response in Children with Pneumonia

Randomised Controlled Clinical Trial | Frontiers in Pediatrics | 103 Children • 2019

In a randomised controlled trial of 103 children aged 1 month to 5 years with pneumonia, zinc supplementation significantly improved clinical status, respiratory rate, and oxygen saturation in fewer hours compared to placebo, and was associated with an increase in IFN- γ and IL-2 — key markers of a Th1 immune response.

View Study → <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6874056/>

16 Zinc for Prevention and Treatment of the Common Cold

Cochrane Systematic Review | Cochrane Library • 2024

The 2024 Cochrane review examined zinc for the prevention and treatment of the common cold across multiple randomised trials, drawing on a substantial body of evidence linking zinc status to immune function and susceptibility to respiratory infections.

View Study → <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD014914.pub2/references>

06 | SELENIUM

17 Selenium & Immune Function — Systematic Review & Meta-Analysis

Systematic Review & Meta-Analysis of RCTs | American Journal of Clinical Nutrition • 2023

A systematic review and meta-analysis of experimental human studies examined the effect of selenium supplementation on immune function across multiple randomised controlled trials, measuring plasma selenium concentrations and immune outcomes before and after intervention.

View Study → [https://ajcn.nutrition.org/article/S0002-9165\(22\)10528-9/fulltext](https://ajcn.nutrition.org/article/S0002-9165(22)10528-9/fulltext)

18 Selenium Supplementation Reduces Inflammatory Markers (CRP)

Systematic Review & Meta-Analysis of RCTs | ScienceDirect • 2020

A meta-analysis of randomised controlled clinical trials found that selenium supplementation significantly reduced serum CRP levels, particularly in patients with elevated baseline inflammation — supporting selenium's role as an antioxidant and anti-inflammatory micronutrient that enhances CD4⁺ T cell differentiation into Th1 effector cells.

View Study → <https://www.sciencedirect.com/science/article/abs/pii/S2451847620300026>

19 The Immunomodulatory Effects of Selenium — Comprehensive Review

Review | Nutrients Journal | MDPI • 2024

A 2024 review of selenium's immunomodulatory mechanisms reported that randomised double-blind controlled trials using 200 μ g of selenium per day for 12 weeks demonstrated meaningful effects on immune markers, with selenium's antioxidant activity helping control inflammatory processes through the scavenging of reactive oxygen and nitrogen species.

View Study → <https://www.mdpi.com/2072-6643/16/19/3324>

This document is intended for informational and educational purposes. All studies are publicly available through PubMed, Cochrane Library, or equivalent peer-reviewed academic databases. Immuno Armour™ is a registered trademark of MyHealth365. © 2026 MyHealth365.