

# Supplement Stack — Doses, Timing & Evidence

Daily performance stack and immune defense protocol with peer-reviewed citations.

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## DAILY STACK — Performance, Recovery & Sleep

	SUPPLEMENT	DOSE / TIMING	WHAT IT DOES	CITATION
■	<b>Melatonin</b>	0.5–5mg · 30–60 min before bed	Effective for shift workers with disrupted circadian rhythms. Start low — more is not better.	<i>Costello et al., Int J Environ Res Public Health. 2022;19(16):10199.</i>
■	<b>Magnesium Glycinate</b>	200–400mg · Evening	Supports stress resilience, sleep quality, and muscle recovery. Up to 45% of stressed adults are deficient. Glycinate form is gentle on the stomach.	<i>Noah et al., Nutrients. 2020;12(12):3672.</i>
■	<b>Whey Protein Isolate</b>	25–30g · Post-workout or meal gap	Fast-absorbing protein for post-workout recovery or when a real meal is not possible. Keep shaker in car — but take it out.	<i>Morton et al., Br J Sports Med. 2018;52(6):376–384.</i>
■	<b>Serious Mass</b>	Bulking season only	1,250 cal / 50g protein per serving. A tool, not a lifestyle. Pair with resistance training.	<i>Use strategically. Caloric surplus beyond training = fat, not muscle.</i>
■	<b>Casein Protein</b>	40g · 30 min before bed	Slow-release protein feeding muscles 6–7 hours overnight. Reduces breakdown, promotes recovery.	<i>Rae et al., Med Sci Sports Exerc. 2012;44(8):1560–1569.</i>
■	<b>L-Theanine</b>	100–200mg · With coffee or before bed	Amino acid from green tea. Smooths out caffeine jitters, extends concentration without drowsiness.	<i>Owen et al., Nutr Neurosci. 2008;11(4):193–198.</i>
■	<b>Creatine Monohydrate</b>	3–5g · Daily	Supports cognitive function under stress and sleep deprivation. Also supports muscle strength and recovery.	<i>Rae et al., Proc Biol Sci. 2003;270(1529):2147–2150.</i>
■	<b>Sunscreen</b>	SPF 30–50 broad spectrum · Daily	UV-A penetrates car windows. Field clinicians have high cumulative sun exposure. Two minutes in the morning.	<i>American Academy of Dermatology Guidelines, 2023.</i>



IMMUNE DEFENSE — For Clinicians with Daily Pathogen Exposure

SUPPLEMENT	DOSE / TIMING	WHAT IT DOES	CITATION
<ul style="list-style-type: none"> <li>■ <b>Vitamin D3</b></li> <li>■</li> </ul>	2,000–5,000 IU daily · With fat	Receptors on virtually every immune cell. 42% of US adults deficient. Clinicians in cars are high-risk. Target 40–60 ng/mL.	<i>Martineau AR, et al. BMJ. 2017;356:i6583.</i>
<ul style="list-style-type: none"> <li>■ <b>Vitamin C</b></li> </ul>	500–1,000mg · Split doses	Accumulates in immune cells at 50x plasma concentration. Reduces cold duration 8–14% in adults under physical stress.	<i>Hemilä H, Chalker E. Cochrane Database Syst Rev. 2013.</i>
<ul style="list-style-type: none"> <li>■ <b>Zinc</b></li> </ul>	15–30mg daily · With food	Essential for T-cell and NK cell activity. Directly inhibits rhinovirus replication. High-exposure clinicians have higher turnover.	<i>Science M, et al. CMAJ. 2012;184(10):E551–561.</i>
<ul style="list-style-type: none"> <li>■ <b>NAC</b></li> </ul>	600mg once or twice daily	Replenishes glutathione. Supports mucosal integrity. RCT showed reduced influenza-like episodes. Underutilized.	<i>De Flora S, et al. Eur Respir J. 1997;10:1535–1541.</i>
<ul style="list-style-type: none"> <li>■ <b>Elderberry</b></li> </ul>	600–900mg · During high exposure	Meta-analysis: substantially reduced upper respiratory symptom duration. Most effective taken prophylactically.	<i>Hawkins J, et al. Complement Ther Med. 2019;42:361–365.</i>
<ul style="list-style-type: none"> <li>■ <b>Medicinal Mushrooms</b></li> </ul>	Reishi 1–3g · Lion's Mane 500mg–1g	Beta-glucans activate macrophages and NK cells. Reishi modulates immune response under chronic stress.	<i>Wasser SP. Appl Microbiol Biotechnol. 2002;60:258–274.</i>
<ul style="list-style-type: none"> <li>■ <b>Quercetin</b></li> </ul>	500–1,000mg · With bromelain	Direct antiviral activity, zinc ionophore. Pairs with Vitamin C and zinc for synergistic effect.	<i>Aucoin M, et al. Front Immunol. 2021.</i>
<ul style="list-style-type: none"> <li>■ <b>Probiotics</b></li> </ul>	10–50B CFU · Multi-strain	70% of immune tissue lives in the gut. Multiple RCTs in healthcare workers show reduced respiratory infections.	<i>Hao Q, et al. Cochrane Database Syst Rev. 2015.</i>
<ul style="list-style-type: none"> <li>■ <b>Echinacea</b></li> </ul>	400–900mg · During high exposure	35% reduction in cold incidence across 24+ RCTs. Use cyclically not continuously. Caution in autoimmune conditions.	<i>Shah SA, et al. Lancet Infect Dis. 2007;7(7):473–480.</i>
<ul style="list-style-type: none"> <li>■ <b>Omega-3</b></li> </ul>	1–3g EPA+DHA · With food	Precursors to resolvins and protectins — anti-inflammatory, immune-resolving. Already on daily stack; doubles as immune support.	<i>Calder PC. Nutrients. 2010;2(3):355–374.</i>

*These are good ones to consider. Not a prescription. Talk to your own provider before starting anything new. Quality varies by manufacturer — look for NSF, USP, or Informed Sport tested products.*

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