

Post-COVID Syndrome (Long COVID)



Scan for full guide

Post-Acute Sequelae of SARS-CoV-2 (PASC) - an immune-mediated condition

THE IMMUNE CONNECTION

Long COVID is not a mystery - it is immune dysregulation. COVID-19 depletes B cells, triggers autoantibodies, activates mast cells, and drives chronic inflammation. At Veros, we treat the immune root causes, not just the symptoms.

WHAT IS LONG COVID?

Long COVID = symptoms persisting 4+ weeks after COVID-19, even a mild infection. COVID depletes B cells, triggers autoantibodies, activates mast cells via spike protein, causes fibrin microclots, and leaves the immune system chronically inflamed. Immune-targeted treatment gets results where general supportive care does not.

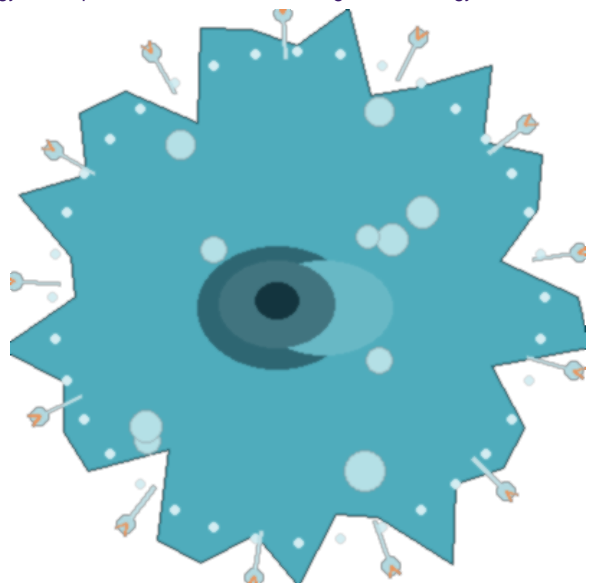
COMMON CO-OCCURRING CONDITIONS

- **Immunodeficiency** - COVID depletes B cells; low IgG/IgA/IgM is well-documented post-COVID
- **MCAS** - spike protein activates mast cells; food intolerances & flushing are classic signs
- **POTS/Dysautonomia** - autoantibodies vs adrenergic receptors; racing heart & lightheadedness
- **ME/CFS overlap** - post-exertional malaise (crashes) affects ~50% of Long COVID patients
- **Autoimmunity** - new-onset autoantibodies: thyroid, ANA, antiphospholipid
- **Micro-clotting** - fibrin microclots impair microcirculation; drive brain fog & fatigue
- **Reactivated viruses** - EBV, HHV-6 reactivation drives ongoing immune activation

COMMON SYMPTOMS

- Extreme fatigue and post-exertional crashes (PEM)
- Brain fog, memory loss, concentration problems
- Shortness of breath or chest tightness
- Racing heart, palpitations, POTS symptoms
- Widespread joint and muscle pain
- Sleep disturbances and unrefreshing sleep
- New food intolerances, flushing, histamine reactions
- Headaches, sensory sensitivities, mood changes

Important - Post-Exertional Malaise (PEM): Do NOT push through fatigue. Overexertion causes crashes and worsening. Pacing - staying within your energy envelope - is the most critical management strategy.



HOW WE EVALUATE & TREAT AT VEROS

Comprehensive immune evaluation first - your mechanism determines your therapy.

Immune panel:

Autoantibodies, IgG/IgA/IgM, B & T cell counts, CRP, ferritin, viral reactivation

IVIG therapy:

For post-COVID low immunoglobulins or autoimmune features (trial NCT06159283)

Biologic therapy:

Baricitinib (JAK inhibitor) in active Phase 3 REVERSE-LC trial

MCAS co-treatment:

Antihistamines, mast cell stabilizers, Xolair, Dupixent

POTS management:

Fluids, salt, compression, pyridostigmine (trial NCT06366724)

Low-Dose Naltrexone:

Anti-neuroinflammatory, immune-modulating - studied in Long COVID/ME/CFS

Multi-specialty:

Neurology, rheumatology, cardiology - immune-focused through Veros

SUPPLEMENTS WITH EVIDENCE

- **Nattokinase/Lumbrokinase** - targets fibrin microclots (trial NCT06511050)
- **CoQ10 + PQQ** - mitochondrial support for post-COVID fatigue
- **Vitamin D3 + K2** - immune-regulatory; optimize to 50-80 ng/mL
- **Omega-3** - anti-inflammatory; supports resolution pathways
- **Quercetin** - mast cell stabilizer; essential with MCAS overlap
- **NAC** - glutathione precursor, antioxidant, immune regulation
- **Magnesium glycinate** - sleep & nervous system support
- **Methylated B12** - nerve repair and energy metabolism

DIET & PACING

- Anti-inflammatory/Mediterranean diet - cut processed foods & sugar
- Low-histamine if MCAS overlap - whatthebleep.com
- Blood sugar stability - low-glycemic, protein with every meal
- Pacing diary - track activity; stay within your energy envelope
- Hydration + electrolytes - 2-3L/day + sodium loading for POTS
- Sleep hygiene - consistent schedule; melatonin if needed

WHY VEROS HEALTH?

- ✓ We treat Long COVID as immune disease - not a mystery
- ✓ IVIG, biologics & immunotherapy for eligible patients
- ✓ We identify & treat MCAS, POTS, and immunodeficiency overlap
- ✓ Multi-specialty: allergy, immunology, neurology, rheumatology
- ✓ 30+ years immune expertise - IMMUNOe Health & Research