SPIKE PROTEIN & POST-VIRAL INFLAMMATORY RESPONSE

What is happening? After exposure to certain viral infections or vaccinations, some individuals experience a prolonged inflammatory response. The immune system remains activated beyond the initial exposure — continuing to produce inflammatory mediators including monocytes, antibodies, and inflammatory proteins.

Common symptoms of post-viral inflammatory response:
Persistent fatigue · Heart palpitations · Shortness of breath · Exercise intolerance · Brain fog · Food reactions · Skin rashes · Mood changes · Slow recovery from illness

What can help? Research and clinical experience suggest that specific natural enzymes, antioxidants, and plant compounds can help the body process and clear these inflammatory proteins — restoring normal immune function and calming the prolonged activation state.

CORE NATURAL SUPPORT COMPOUNDS — THE FOUR FOUNDATIONS

Nattokinase
Natural enzyme from fermented soybeans (natto)

BENEFITS
- Natural fibrinolytic enzyme — dissolves excess fibrin and abnormal blood clotting
- May help break down spike proteins and other inflammatory peptides
- Supports cardiovascular health and healthy blood pressure
- May improve cholesterol profiles
- Supports arterial health and circulation
- Used in traditional Japanese medicine for generations

DOSE
2,000 fibrinolytic units (FU) twice daily on an empty stomach

CAUTIONS
- ⚠ Blood thinner users: MUST consult provider before use — has blood-thinning properties
- Monitor for: nosebleeds, unusual bruising, bleeding gums, blood in urine or stool
- Discontinue 2 weeks before any scheduled surgery

NAC
N-Acetyl Cysteine — modified amino acid cysteine

BENEFITS
- Direct precursor to glutathione — the body's master antioxidant
- May bind to and help neutralize certain inflammatory proteins
- Powerful antioxidant and anti-inflammatory
- Enhances mitochondrial function and cellular energy
- Supports immune resilience and cognitive function
- Supports natural detoxification pathways

DOSE
1,000–1,200 mg once daily on an empty stomach. If stomach discomfort occurs, take 2 hours after eating instead.

CAUTIONS
- Mild digestive upset possible initially
- May interact with nitroglycerin and certain blood pressure medications
- Consult provider if you have asthma or bleeding disorders

EGCG
Epigallocatechin Gallate — active catechin from green tea

BENEFITS
- May interfere with protein binding to cellular receptors
- Potent antioxidant — among the most studied plant compounds for cellular protection
- Boosts cellular energy production
- Promotes healthy metabolism and blood sugar balance
- May support healthy weight management
- Anti-aging properties; supports cellular cleanup (autophagy)

DOSE
400 mg once daily on an empty stomach (typically 2 capsules)

CAUTIONS
- Contains caffeine if derived from green tea — decaffeinated forms available
- Best absorbed on an empty stomach
- May interact with certain medications — consult your provider

Bromelain
Enzyme complex extracted from pineapple stem and fruit

BENEFITS
- May help break down and clear certain proteins from circulation
- Supports healthy blood flow and circulation
- May prevent excessive platelet aggregation
- Natural anti-inflammatory — inhibits prostaglandin synthesis
- Supports the body's natural fibrinolytic (clot-dissolving) processes
- Traditionally used for centuries; growing body of modern research

DOSE
350–500 mg once daily on an empty stomach

CAUTIONS
- ⚠ Mild blood-thinning effects — exercise caution with anticoagulant medications
- Discontinue 2 weeks before scheduled surgery
- May cause allergic reaction in those sensitive to pineapple
- Can interact with antibiotics and blood thinners

⚠ IMPORTANT SAFETY NOTE — ALL CORE SUPPLEMENTS: Nattokinase and bromelain both have natural blood-thinning properties. If you take any anticoagulant medication (warfarin, heparin, Eliquis, Xarelto, aspirin therapy, etc.), you MUST discuss these supplements with your prescribing provider before starting. Do not discontinue prescribed blood thinners without medical guidance. Always inform your provider of all supplements you are taking.

ADDITIONAL SUPPORTING COMPOUNDS — THE SUPPORTING CAST

Beyond the four core compounds, the following natural plant compounds have shown promise in research for their ability to bind, break down, or interfere with inflammatory proteins — while also providing broad anti-inflammatory and antioxidant support. Many combination products include several of these together.

COMPOUND	SOURCE	KEY ACTION	NOTES
Quercetin & Rutin	*Onions, apples, buckwheat*	Antiviral and antioxidant flavonoids; may bind to spike proteins	Often combined with zinc for enhanced antiviral effect; broad anti-inflammatory
Fisetin	*Strawberries, apples, onions*	Flavonoid with spike-inhibiting effects; senolytic (clears aged cells)	Best taken in higher doses for short duration (2–3 days/month); powerful anti-aging compound
Curcumin	*Turmeric root*	May block spike protein activity; powerful anti-inflammatory; inhibits NF-kB	Take with black pepper (piperine) and fat for best absorption; liposomal forms preferred
Silymarin	*Milk thistle seed*	Liver-supportive; binds spike proteins; protects liver from inflammatory damage	Important support when liver is stressed by post-viral inflammation; add during detox protocols
Apigenin	*Parsley, chamomile, celery*	Spike-blocking potential; anti-inflammatory; supports autophagy (cellular cleanup)	Calming compound; also supports sleep and reduces anxiety from chronic inflammation
Emodin	*Rhubarb, Japanese knotweed*	May prevent spike protein from binding to ACE2 receptors	Less commonly available as standalone supplement; also found in some Chinese herbal formulas

COMPREHENSIVE COMBINATION PRODUCTS — SIMPLIFIED PROTOCOLS

Vascuzyme | Empirical Labs

A comprehensive multi-enzyme formula combining several of the core and supplementary compounds into a single product.

Contains:

- Nattokinase
- Bromelain
- Quercetin
- Rutin
- Lumbrokinase
- Serrapeptase
- Milk thistle / Silymarin
- Additional supportive compounds

Recommended for:

- Individuals experiencing lingering effects from viral infections

BioInfilamax

An anti-inflammatory complex formula targeting systemic inflammation through multiple pathways.

Contains:

- Bromelain
- Quercetin
- Turmeric (curcumin)
- NAC
- Boswellia
- Additional anti-inflammatory compounds

InflaCalm SAP

A complementary anti-inflammatory formula with an enzyme and flavonoid focus.

Contains:

- Bromelain

Sample Protocol Overview

Discuss your specific protocol with your provider — the following is a general framework based on the compounds in this handout.

Foundation (Daily — all on empty stomach):

- Nattokinase: 2,000 FU twice daily
- NAC: 1,000–1,200 mg once daily
- EGCG: 400 mg once daily
- Bromelain: 350–500 mg once daily

OR — Simplified single product:

- Vascuzyme: 1–2 capsules daily on empty stomach
- Add BioInfilamax or InflaCalm for additional anti-inflammatory support

Additional targeted support (as directed):

- Those focused on cardiovascular and circulatory health support
- Anyone wanting a simplified single-product protocol

Dosing:

- Weeks 1–2: 1 capsule on an empty stomach daily
- Week 3 onward: 2 capsules on an empty stomach daily

Always start low and increase gradually. Take away from medications by at least 2 hours.

- Curcumin
- Quercetin
- Rutin
- Serrapeptase
- Complementary ingredients

Both BioInfilamax and InflaCalm SAP are designed to reduce systemic inflammation through multiple simultaneous pathways — often used together or rotated based on patient response.

- Quercetin + zinc: antiviral and receptor support
- Curcumin (liposomal): anti-inflammatory amplifier
- Fisetin: short-course senolytic protocol
- Silymarin: liver protection and spike binding

Duration: Most protocols are run for 3–6 months. Labs and symptom tracking guide duration and adjustment.

LIFESTYLE SUPPORT FOR POST-VIRAL RECOVERY

Diet

- Anti-inflammatory diet: eliminate sugar, gluten, seed oils, processed foods
- Emphasize cruciferous vegetables, wild fish, olive oil, berries
- Intermittent fasting supports autophagy — cellular cleanup of damaged proteins
- Bone broth daily — supports gut lining and provides glycine for glutathione
- Reduce alcohol entirely — impairs liver detox and worsens inflammation

Movement & Rest

- Paced activity — avoid pushing through post-exertional malaise (PEM)
- Start with gentle walking; increase gradually over weeks
- Prioritize 8–9 hours of sleep — immune repair happens during deep sleep
- Heart rate monitoring during exercise helps avoid triggering flares
- Breathwork and vagus nerve exercises support nervous system calm

Detox Support

- Castor oil packs over liver 3–5x weekly — stimulate bile flow and lymph
- Infrared sauna 2–3x weekly — supports toxin elimination through sweat
- Lymphatic drainage: dry skin brushing, rebounding, castor oil packs
- Adequate hydration — minimum half body weight in ounces daily
- Bowel regularity essential — if constipated, inflammation cannot clear

Nervous System & Stress

- Chronic post-viral inflammation activates the HPA axis — manage stress actively
- Mindfulness, meditation, or heart coherence practices daily
- Adaptogenic herbs: ashwagandha, rhodiola (as directed)
- Phosphatidylserine: supports evening cortisol reduction
- Screen time reduction — EMF and light stress increase inflammatory burden

Your immune system can calm. Recovery from post-viral inflammation is real and achievable. Natural enzymes, antioxidants, and plant compounds — combined with diet, rest, and targeted support — give your body what it needs to restore balance.