



CENTENARIAN SAVAGE / GUT & LONGEVITY PROTOCOL

THE GUT REPAIR PROTOCOL

An evidence-based framework for healing intestinal permeability, testing for hidden food reactivity, and rebuilding the gut barrier — the exact system behind fixing a leaky gut flare-up at 40.

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What "Leaky Gut" Actually Is

Your gut lining is one cell thick, held together by protein structures called tight junctions. When those junctions loosen, undigested food particles, bacterial fragments, and other things that should stay in the gut leak into the bloodstream — and your immune system reacts.

"Leaky gut" isn't a standalone diagnosis you'll find in a medical textbook — but the mechanism behind it, **increased intestinal permeability**, is well documented in clinical research. It shows up alongside a wide range of conditions, from digestive disorders to metabolic and autoimmune issues, though the exact cause-and-effect relationship is still being mapped by researchers.

The Key Player: Zonulin

Zonulin is the protein that regulates how "open" your tight junctions are. Inflammation triggers zonulin release, which pries the barrier open. This is the biomarker most permeability research tracks — either through a blood/stool test, or the lactulose-mannitol urine test.

What Triggers It

- Dysbiosis (an imbalanced gut microbiome)
- High-fat, high-refined-carb, high-fructose diets
- Alcohol and NSAID use
- Chronic stress
- Intense endurance training — especially in heat
- Repeated exposure to food antigens on an already-inflamed lining

THE GUT-SKIN CONNECTION

Once antigens and bacterial byproducts enter circulation, the immune response doesn't stay contained to the gut. It shows up in the skin — rashes, eczema-pattern flares — and can sensitize you to foods that were never a problem before. This is the exact pattern behind sudden-onset "food allergies" that appear alongside a skin flare.

The Evidence, Graded Honestly

Every input in this protocol, graded by how strong the human research actually is — not marketing claims.

Bovine Colostrum	STRONGEST EVIDENCE
Multiple randomized controlled trials and a 2024 meta-analysis confirm it reduces intestinal permeability markers. Athlete studies show permeability returns to baseline within roughly 3 weeks of daily use — tracked via both urine and fecal zonulin markers. Colostrum carries real repair signals (IGF-1/2, EGF, TGF-β, lactoferrin), not just generic immune support.	
L-Glutamine	SOLID, DOSE-DEPENDENT
The preferred fuel source for gut lining cells. A 2024 meta-analysis found no benefit at typical doses, but a clear, significant reduction in permeability at doses above 30g/day for under two weeks. Dosing is the whole game here — undershooting wastes the intervention.	
Creatine Monohydrate	PROMISING, EARLY-STAGE
Maintaining tight junctions is enormously energy-intensive, and creatine is a core piece of that cellular energy system. Animal and mechanistic studies are compelling — creatine-deficient mice show worse colitis, and IBD patients show reduced creatine transporter expression — but large human trials directly testing gut permeability outcomes don't exist yet.	
Spore-Based Probiotics (Bacillus)	STRONG MECHANISM
Spore-forming strains survive stomach acid intact and reach the colon, where they drive short-chain fatty acid production — the primary fuel source for colon cells. Published data shows roughly 60% reduction in permeability at 30 days with a 5-strain spore blend. Effects are strain-specific, not universal across all Bacillus products.	



The Evidence, Graded Honestly

Lacto / Bifido Probiotic Strains

MIXED, STRAIN-SPECIFIC

Strains like *L. rhamnosus* GG, *L. paracasei*, and *B. lactis* have real mechanistic and human data behind them — *L. rhamnosus* GG is among the most-studied probiotic strains in existence, with documented barrier-protective effects. But the largest controlled human trials on skin/allergy outcomes for these specific strains show mixed results at the population level. Individual response varies more than the marketing suggests.

Longevity Sachet (Multi-Ingredient)

ADJACENT SUPPORT

Not built specifically for gut repair, but several included compounds plausibly help on the margins — NAC (a glutathione precursor, same pathway glutamine feeds), quercetin (a mast-cell stabilizer with some barrier-supportive data), and glycine (a collagen-building amino acid relevant to mucosal repair).

WHY RUN MULTIPLE PROBIOTIC STRAINS

This isn't redundancy — it's covering two different mechanisms. Spore-formers recolonize and recondition the colon. Lacto/Bifido strains are more immune-modulating and barrier-signaling as they pass through the upper GI. Running both classes together is a deliberate, defensible strategy — not "more is better."

Intestinal permeability testing and "leaky gut" as a clinical framework are still evolving areas of science. No supplement stack — including this one — is proven to cure a specific diagnosed condition. This document synthesizes the best current evidence on each individual input. If symptoms return or escalate, see a GI specialist or allergist.



The Protocol

Test first, remove triggers, rebuild the barrier, then reintroduce systematically. Four phases, built to follow in order.

Phase 0 — Baseline

WEEK 0

- Run a food allergy / sensitivity panel **before** starting anything else — testing while the gut is still compromised catches reactivity that gets masked once healing begins
- Optional: baseline zonulin or lactulose-mannitol permeability test for an objective "before" number
- Remove confirmed reactive foods immediately — don't wait for supplements to kick in

Phase 1 — Remove & Fuel Repair

WEEKS 1-4

LAYER	INPUT	PURPOSE
Amino acid fuel	L-Glutamine, titrating to 15-30g/day	Enterocyte fuel + tight junction synthesis
Barrier repair	Bovine colostrum, 10-20g/day	Strongest evidence for barrier restoration
Cellular energy	Creatine monohydrate, 5g/day	Fuels ATP-intensive junction maintenance
Recolonization	Spore-based probiotic, titrated per label	Colon reconditioning + SCFA production
Barrier protection	L. rhamnosus GG	Best-studied strain for antigen-induced permeability
Elimination diet	Panel-flagged foods + alcohol/NSAIDs/excess sugar	Removes independently documented triggers

The Protocol

Phase 2 — Broaden Microbial Support

WEEKS 3-8 (OVERLAPPING PHASE 1)

- Layer in additional Lacto/Bifido strains to fill diversity gaps — not to duplicate what's already covered
- Continue colostrum and glutamine through at least week 6-8; meaningful permeability recovery shows up in the 3-6 week window, not days
- Keep training-load honest: heavy training volume is its own permeability stressor, independent of the original trigger — the repair inputs need to keep pace with it

Phase 3 — Systematic Reintroduction

WEEK 6 ONWARD, ONCE SYMPTOMS ARE STABLE

- Reintroduce one flagged food every 3-4 days, tracking skin, GI, energy, and joint response
- Any re-triggered food goes back on a 90-day hold, then gets re-tested — early reactivity isn't necessarily permanent
- Re-run the permeability/zonulin marker here if tested at baseline, for an objective before/after

Maintenance

ONGOING

- Step glutamine and colostrum down to maintenance dosing once symptoms and reintroduction are stable
- Creatine stays at normal training dose indefinitely
- Keep spore-based and L. rhamnosus GG probiotics running long-term at maintenance dosing; reassess the rest based on ongoing symptom status

What This Protocol Is — and Isn't

This is a synthesis of the best current evidence on each individual input, applied to a real-world pattern. It is not a substitute for medical diagnosis or treatment.

If skin symptoms or food reactivity return or escalate at any point in this protocol, that's a signal to see a GI specialist or allergist — not a signal to add more to the stack. Track your response honestly, reintroduce foods slowly, and let the data (symptoms + testing) drive the timeline, not the calendar.

QUESTIONS ABOUT YOUR PROTOCOL

Reach out directly with any questions about dosing, sequencing, or how this fits your specific training load and history.

References

- Systematic review & meta-analysis, glutamine and gut permeability — *Amino Acids*, 2024
- Oral glutamine and exercise-induced permeability — *Journal of Applied Physiology*
- Creatine and intestinal health, narrative review — *ScienceDirect*, 2026
- Bovine colostrum meta-analysis of RCTs — *Digestive Diseases and Sciences*, 2024
- Bovine colostrum, athlete permeability & zonulin — *Nutrients*, 2017
- Spore-based probiotic mechanism, SHIME model — 2021
- Spore-based probiotic, skin barrier RCT — 2023
- *Bacillus subtilis*, strain-specific tight junction studies — 2019, 2025
- *L. rhamnosus* GG, barrier protection & eczema prevention trials — multiple, PubMed/PMC

This document is for educational purposes and reflects a personal protocol built from published research. It is not medical advice. Consult your physician before beginning any new supplement regimen, especially if you have an existing GI, autoimmune, or dermatologic condition.