

## nuButryate



### How Inflammation Really Works—and the Nutrient That Helps Calm It

Every chronic disease—from autoimmune conditions to gut problems, skin flare-ups, and chronic pain—shares one common thread: **out-of-control inflammation**.

At the center of this storm is something called NF- $\kappa$ B (nuclear factor kappa-light-chain-enhancer of activated B cells). It's a “master switch” inside your cells that controls over **500 inflammatory genes**. When NF- $\kappa$ B gets stuck in the “on” position, the result is a constant flood of inflammation that damages tissues and drives disease.

### The Cellular Cascade of Inflammation

Here's what happens when NF- $\kappa$ B goes unchecked:

- It triggers the release of pro-inflammatory cytokines like TNF- $\alpha$ , IL-1 $\beta$ , and IL-6
- It breaks down I $\kappa$ B proteins, which normally keep NF- $\kappa$ B under control

- It moves into the cell nucleus and flips on inflammatory genes
- It creates a self-sustaining cycle of inflammation that's very hard to stop

Most traditional anti-inflammatory treatments (like pain relievers or steroids) only target the downstream effects of this process. They don't stop the root cause—NF-κB itself.

## Enter Butyrate: Nature's Inflammation Modulator

This is where butyrate comes in. Butyrate is a short-chain fatty acid made by the “good bacteria” in your gut when they break down fiber. It acts as a natural gene expression modulator, directly calming NF-κB.

Here's how butyrate works:

- **HDAC Inhibition** – Prevents NF-κB from switching on inflammatory genes
- **IκB Stabilization** – Keeps NF-κB “locked away” so it can't trigger inflammation
- **Direct Gene Suppression** – Reduces the activation of hundreds of inflammatory genes
- **Metabolic Reprogramming** – Helps gut cells shift into a healthier energy mode, reducing inflammatory stress

## The Clinical Impact

Studies have shown that healthy levels of butyrate can:

- Reduce intestinal permeability (“leaky gut”) by up to **73%**
- Lower inflammatory markers by as much as **60%**
- Improve insulin sensitivity
- Boost immune balance by supporting regulatory T cells
- Strengthen the gut barrier to protect against toxins and pathogens

## Why Most Butyrate Supplements Don't Work

Here's the catch: most butyrate supplements fail to reach the colon, where NF-κB modulation actually happens. The problems are:

- They get absorbed too early in the digestive tract
- They lack true bioavailability
- They often smell and taste unpleasant—hurting compliance

## The Tributyrin Advantage

**nuButyrate™**, which uses **tributyrin** - a form of butyrate that is proven to survive digestion and release in the colon where it's needed most.

Benefits of tributyrin include:

- Protected delivery through the upper GI tract
- Targeted release in the colon for maximum effect
- No bad taste or smell (much easier for patients to take)
- Works synergistically with other anti-inflammatory protocols

## Why Butyrate Belongs in Every Anti-Inflammatory Plan

Butyrate is known as “a vitamin for the gut”, but it's really more than that. It's a foundation for whole-body health because it influences:

- Gene expression and inflammation control
- Immune system balance
- Metabolic flexibility
- Gut barrier strength
- Cellular energy production

If you're only treating inflammation downstream, you're missing the bigger picture. To truly make progress, you have to address inflammatory gene expression at the source.

## Patient-Friendly FAQ

### 1. What exactly is butyrate?

Butyrate is a natural compound made when healthy gut bacteria break down dietary fiber. It's one of the most important nutrients for gut and immune health.

### 2. Do I need a supplement if my body makes butyrate naturally?

Many people don't make enough butyrate because of poor gut bacteria balance or low fiber diets. Supplementing can help restore optimal levels.

### 3. How is nuButyrate™ different from other butyrate supplements?

Most butyrate supplements get absorbed too early in the digestive tract, so they never reach the colon—where they're needed most. nuButyrate™ uses tributyrin, which survives digestion and delivers butyrate directly to the colon.

### 4. Can this help if I don't have digestive symptoms?

Yes. Butyrate doesn't just support digestion—it regulates inflammation throughout the body. People struggling with autoimmune issues, fatigue, skin flare-ups, or brain fog may benefit, even if their digestion feels fine.

### 5. Is it safe?

Yes. Butyrate is a natural substance already found in your body. nuButyrate™ simply helps restore healthy levels in the right place for maximum benefit.

## Take the Next Step Toward Healing

If you're ready to move beyond symptom-chasing and finally address inflammation at the root, **nuButyrate™ is available through Dr. Kevin Greene and Total Body Health.**

Dr. Greene and his team specialize in functional, root-cause medicine—focusing on the root causes of illness, not just the symptoms. We are committed to guiding every patient toward whole-body healing—starting at the cellular level.

**Ask Total Body Health about nuButyrate™ today and discover how targeted inflammation control can transform your health.**

**Total Body Health**

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