



AIT for Rheumatology: Inflammation in General

How AIT Targets Inflammation in Rheumatology

AIT (Autologous Infusion Technology) is exceptionally well-suited for Rheumatology, particularly in managing inflammation-driven autoimmune and degenerative joint diseases such as rheumatoid arthritis, lupus, ankylosing spondylitis, fibromyalgia, and psoriatic arthritis. At the root of most rheumatologic conditions are chronic inflammation, immune dysregulation, oxidative stress, and toxin buildup — all of which AIT directly addresses.

1. Cellular Detoxification Reduces Inflammatory Triggers

Toxins—such as heavy metals, environmental chemicals, and microbial byproducts— can activate inflammatory pathways and mimic autoantigens.

- AIT removes these triggers at the cellular and interstitial fluid level, reducing immune overactivation and cytokine storms.
- This is critical for autoimmune conditions, where detoxification can calm the immune system without suppressing it.

2. Hyperoxygenation Calms Inflammatory Response

Low oxygen levels in inflamed tissues fuel chronic inflammation by increasing reactive oxygen species (ROS) and hypoxia-inducible factors.

- AIT increases oxygen availability, which helps shut down hypoxia-driven inflammation, supports tissue repair, and boosts ATP production—crucial in restoring normal immune and cellular activity.

3. Regulates Immune Activity Without Immunosuppression

Unlike pharmaceuticals that suppress the immune system, AIT restores immune balance by improving cell function and clearing immune-disrupting waste.

- This helps regulate T-cell and B-cell activity, reduce autoantibody production, and support healthy inflammatory signaling.

4. Improves pH and Reduces Acidosis

Inflammatory diseases often lead to acidic internal environments, which promote more inflammation and pain

- AIT raises systemic pH by increasing oxygenation and improving bicarbonate balance, which reduces joint stiffness, swelling, and systemic pain.

5. Enhances Mitochondrial Energy and Reduces Fatigue

Fatigue and muscle pain are hallmarks of many rheumatologic disorders (e.g., fibromyalgia).

- By boosting oxygen and nutrient delivery into the mitochondria, AIT restores cellular energy, reduces lactic acid buildup, and improves endurance and recovery.

Conditions That Benefit from AIT

Rheumatologic Condition	Benefits of AIT
Rheumatoid Arthritis	Reduces joint inflammation, detoxes inflammatory cytokines, supports tissue repair
Systemic Lupus Erythematosus (SLE)	Calms overactive immune response, clears autoantibody triggers
Fibromyalgia	Improves oxygenation in muscles, reduces oxidative stress, relieves fatigue
Psoriatic Arthritis	Combats systemic inflammation and restores skin-joint immune regulation
Ankylosing Spondylitis	Reduces spinal inflammation and improves circulation to affected tissues

In Summary

AIT offers a non-pharmaceutical, side-effect-free approach to managing and even reversing chronic inflammation by:

- **Eliminating the cellular causes** of inflammation (toxins, hypoxia)
 - **Balancing immune responses** without immunosuppression
 - **Accelerating healing and regeneration** of joints, tissues, and organs
- It is a powerful adjunct to conventional care or a standalone regenerative therapy for those seeking long-term relief from inflammatory diseases.

Market Analysis:

There are approximately 5,600 rheumatologists in the United States, each serving between 2,000 and 3,000 patients.

In 2023, the U.S. rheumatology market was valued at \$1.3 billion. Globally, the rheumatology therapeutics market was valued at \$48.8 billion in 2023 and is expected to grow at a compound annual growth rate (CAGR) of 2.6% from 2024 to 2032.

2034, reaching \$65.1 billion by 2034.

Rheumatologists will be a wonderful market for AIT since so much of their work involves treatments that can be generalized throughout the patients body. AIT is one of the few treatments that act comprehensively through the body and is the most effective at doing so.