WHY CONTROLLING INFLAMMATION BEFORE SURGICAL AND ORTHOBIOLOGIC PROCEDURES MATTERS

Lower inflammation. Better healing. Better outcomes.

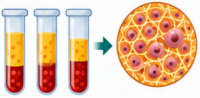
HOW SURGERY AND ORTHOBIOLOGIC PROCEDURES WORK

Surgery

Removes or repairs damaged tissue to restore function.

Orthobiologic Procedures

Use your body's own healing substances (e.g., platelet-rich plasma, cellular therapies) to support tissue repair and reduce pain.



By improving the biological environment, these procedures help tissues heal more effectively.

WHY INFLAMMATION MATTERS

High levels of inflammation in your body can:

Reduce effectiveness of surgery and orthobiologic procedures
Inflammatory molecules compete with and block healing signals.

Shorten the time healing factors stay in the area
Fibrinolysis can break down growth factor scaffolds too quickly.

Reduce new blood vessel formation and tissue repair
Inflammation impairs the body's ability to build healthy new tissue.

Increase risk of complications
Higher inflammation is linked to infection, poor wound healing, blood clots, and flare-ups of chronic disease.

Lowering inflammation before your procedure sets the stage for better healing, less pain, and longer-lasting results.

KEY BIOMARKERS WE MAY CHECK

BIOMARKER	WHAT IT SHOWS	WHY IT MATTERS FOR YOU
hs-CRP (High-Sensitivity CRP)	Overall level of inflammation in your body	High levels can predict a weaker or shorter response to procedures and a higher risk of complications.
IL-6 (Interleukin-6)	Upstream inflammation signal (especially from fat tissue)	Helps us understand the source of inflammation and guide optimization.
D-Dimer (Fibrin Breakdown Product)	How active your body's fibrinolysis (clot breakdown) system is	High levels can cause scaffolds used in orthobiologic procedures to break down too fast, reducing benefit and may signal a clotting or other medical issue.
Fibrinogen (Clotting Protein)	Building block for healing scaffolds	Too low or too high can affect the strength and stability of healing scaffolds.
PAI-1 (Plasminogen Activator Inhibitor-1)	Inhibits fibrinolysis (more common in metabolic syndrome)	May over-stabilize or impair normal tissue remodeling. Best improved with weight loss and better metabolic health.
HbA1c (Average Blood Sugar)	Shows your average blood sugar over 3 months	Poor control (over 7.5%) can impair healing, angiogenesis, and response to treatment.

WHO SHOULD CONSIDER TESTING?

- Overweight/Obesity or Metabolic Syndrome
- Diabetes or Prediabetes
- Inflammatory Arthritis (RA, PsA, AS)
- History of Blood Clots or on Blood Thinners
- Prior Surgery or Orthobiologic Procedure That Didn't Work as Expected
- Chronic Kidney Disease or Liver Disease
- Unexplained High Inflammation or Fatigue

WHEN MIGHT WE DELAY PROCEDURES?

Active Infection (CRP >20 mg/L with symptoms) → Treat the infection first.

Inflammatory Arthritis Flare (CRP >20 mg/L or ESR >60 mm/hr) → Work with your rheumatologist first.

D-Dimer >1000 ng/mL (Possible clot, cancer, or other issue) → Investigate and treat before proceeding.

HOW WE OPTIMIZE YOUR INFLAMMATION

Anti-inflammatory Diet
More whole foods, omega-3s, less processed sugars.

Regular Exercise
Helps lower inflammation and improves results.

Weight Loss
Losing 10% body weight can lower inflammation by 30–50%.

Medications
Statins, metformin, and other meds can reduce inflammation.

Sleep & Stress Management
Better sleep lowers inflammation and improves healing.

MINIMUM LABS FOR MOST PATIENTS

CBC with Platelet Count
Checks your cells and platelet supply.

hs-CRP
Measures overall inflammation.

HbA1c
Shows your blood sugar control.

Additional tests may be added based on your health history and risk factors.

THE GOAL

- **Identify and lower hidden inflammation**
- **Optimize your health before treatment**
- **Personalize your procedure or protocol**
- **Improve healing, reduce complications, and get you back to doing what you love**

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