

## Patient Guide: Kuzmar HairBoost® – Bio-Activation Protocol

Our protocol combines regenerative medicine with systemic metabolic optimization. This guide outlines the necessary post-procedure care, based on current clinical evidence, to maximize follicular response and treatment effectiveness.

### I. Preparation: Optimizing Plasma Quality

The effectiveness of PRP depends directly on platelet viability and the purity of the obtained concentrate.

#### 1. Hydration and Blood Volume

- Drink 2 liters of water 24 hours before the procedure.
- **Scientific rationale:** Adequate hydration optimizes plasma volume, facilitating separation of white and red blood cells during centrifugation, which allows for higher recovery of viable platelets<sup>1</sup>.

#### 2. Low-Lipid Diet and Alcohol Abstinence

- Avoid saturated fats and alcohol 48 hours prior to the procedure.
- **Scientific rationale:** The presence of chylomicrons (lipemia) interferes with buffy coat purity, potentially inducing undesired inflammatory responses<sup>2</sup>.

#### 3. Suspension of Anti-inflammatory Drugs (NSAIDs)

- Do not take ibuprofen, aspirin, or similar medications 3–5 days prior.
- **Scientific rationale:** NSAIDs inhibit cyclooxygenase, blocking platelet activation and the release of essential growth factors such as PDGF and TGF- $\beta$ <sup>3</sup>.

### II. Metabolic Synergy: PRP + Parenteral Supplementation + Oxygen

The “Soil and Seed” concept ensures that the activated follicle has the immediate resources needed to synthesize new hair fibers.

#### 1. Biotin and Water-Soluble Vitamins

- Guarantees substrate availability for keratin synthesis during follicular activation.
- **Scientific rationale:** Biotin acts as a cofactor for carboxylases in fatty acid and amino acid synthesis<sup>4</sup>.

#### 2. Microenvironment Optimization (Oxygen Therapy)

- Increased partial oxygen pressure in the scalp tissue enhances the survival of injected platelets and promotes VEGF-mediated angiogenesis.
- **Scientific rationale:** Improves local microcirculation and follicular response<sup>5</sup>.

### III. Post-Treatment Care: The Bio-Activation Window

The first hours after injection are critical for cellular signaling and follicular activation.

#### 1. Thermal and Chemical Rest

- Do not wash hair or apply topical products in the first 12–24 hours.
- **Scientific rationale:** Growth factors require time to interact with follicular stem cell receptors to initiate the intracellular signaling cascade<sup>6</sup>.

#### 2. Avoid Extreme Vasodilation

- Do not perform intense exercise, sauna, or activities causing heavy sweating for 48 hours.
- **Scientific rationale:** Excessive vasodilation may increase lymphatic clearance, dispersing growth factors before complete absorption<sup>7</sup>.

#### 3. Physical Activity and General Care

- **Day 1:** light walks or gentle cycling; avoid helmet contact or direct friction.
- **Days 2–3:** gradually increase activity; light swimming in a clean pool with a cap, avoiding friction.
- **Week 1:** resume normal exercises if no local discomfort, safe shaving, and use of gentle hair products.
- **Weeks 2–3:** normal swimming, intense exercise, and contact sports if no irritation is present.
- **Week 4 and beyond:** maintain healthy habits, sun protection, hygiene, and medical follow-up.

### References

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