



# Density Platelet Gel

FOR SUPPORT REGROWTH  
OXO - DENTAL  
AND HAVE GUARANTEED  
AUTHENTIC BEAUTY

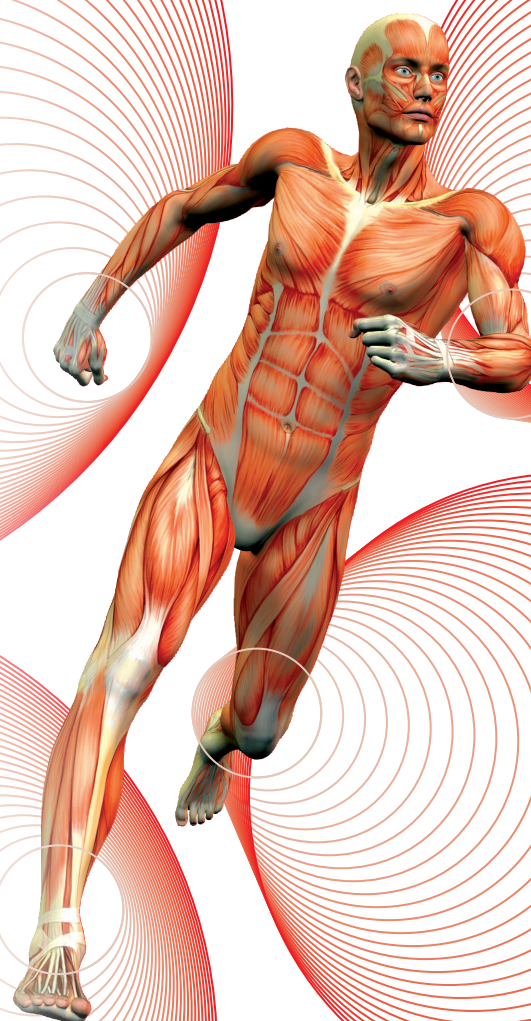
The particularity and the advantages of Density Platelet Gel

## SODIUM CITRATE

- Prevents blood clotting
- It is used in vivo

## THIXOTROPIC GEL

- Quantitative absorption
- Higher platelet concentration
- Separation defined between the layer
- Perfect fixation of red blood cells
- Not affect the composition of the plasma PRP



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SISTEMA PER LA RIGENERAZIONE DEI TESSUTI  
TISSUES REGENERATION SYSTEM

MADE IN ITALY

# Density Platelet Gel

DISPOSITIVO MEDICO  
MEDICAL DEVICE

BASIC

FACTOR M

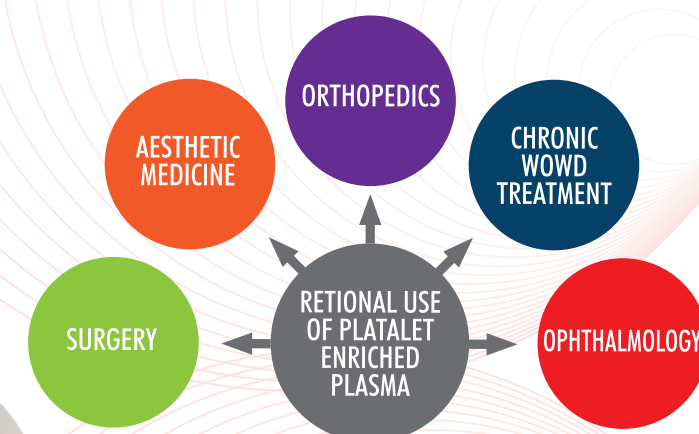
FACTOR HA

FACTOR B

PRP  
PLATELET RICH  
PLASMA



Platelet poor plasma  
Platelet rich plasma  
Red blood cells



Density Platelet Gel

THE SOLUTION IN STEP WITH THE THIRD MILLENNIUM.  
THE NEW THERAPEUTIC FRONTIER FOR CELL REGENERATION.

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# Density Platelet Gel

## THE SOLUTION IN STEP WITH THE THIRD MILLENNIUM

The development of biotechnology and research work are giving the scientific community inputs of primary interest, research is offering ideas that deserve to be analysed. These new ideas include the use of the growth factors contained in the PRP. Thanks to enormous technological developments this technique has found a new push. The acronym PRP (PLATELET RICH PLASMA) translated into platelet rich plasma is a biological gel obtained from the combination of two blood components: platelet rich plasma containing numerous and important growth factors, and thrombin as a reagent. He

activated platelets process, store and release various growth factors (PDGF, TGFalfa and Beta, IGF IE II, EGF, VEGF) which promote neoangiogenesis, i.e. the appearance of new vessels, chemotaxis i.e. the migration of macrophages and fibroblasts and their proliferation, the synthesis of collagen and hyaluronic acid. In essence, the growth factors released by the platelets are able to stimulate and accelerate the regeneration processes. Therefore the effects of plasma regeneration guarantee spontaneous induced healing whenever they are applied: they activate the processes of repair of the

connective tissue and of the osteoarticular system as well as accelerate the processes of tissue regeneration (cosmetic surgery).

Specific indications in orthopedics are traumatic cartilage lesions, post-operative conditions, chondral detachments, micro-fractures, inflammation of the tendons and ligaments, muscle lesions, arthrosis and pseudarthrosis, radiculitis in the case of neurosurgery, insertions, facet joint syndrome and chondromalacia.

A significant reduction in pain after 4-6 infiltrations is observed in patients suffering from chondromalacia with a weekly intra-articular infiltration of autologous plasma. This therapy is also reflected with indications of tendinosis and post-operative regenerations in the reconstruction of the anterior cruciate ligament.

### PREPARATION PRP

The blood is composed of a corpuscular part consisting of cells and a liquid part containing proteins, hormones and nutrients. The blood cells of the corpuscular part are red blood cells (erythrocytes), white globules (leukocytes) and platelets. The liquid part, that is the plasma, is instead made up of 90% water with the addition of proteins and hormones. To separate the different components of the blood, a process called centrifugation is used which accelerates the separation of bodies that have different densities.

Centrifugation will give us a clear division between the plasma and the corpuscular part; the denser part will be placed at the bottom of the test tube while the less dense one, that is the plasma in the upper part. It will therefore be sufficient to take the upper part of our test tube to have our "platelet enriched plasma" ie the plasma and the part of platelets / white blood cells. Once our PRP is obtained, it will be processed in the laboratory enriching it with activators that must trigger the work of white blood cells and growth factors (hormones) and then be used directly on damaged tissue. the physiological process of repairing a tissue is made up of various phases, during the succession of the healing phases it can be seen how the platelets function as physiological starters and modulators for the repair, the multiple growth factors (TGF, PDGF, EFG .. )

promote cell proliferation and migration not that protein synthesis and finally other modulators act on tissue revascularization.

### ADVANTAGES AND LIMITATIONS

This technique in its use is giving encouraging results with data and percentages that are different from those of the comparison sample data. The relatively low costs compared to a surgical operation and a very low impact factor on the patient make it an instrument that can certainly have a great use.

The fact that the sampling is done directly on the patient himself cancels any rejection problem going to act in areas that due to the

very low vascularization would not have the possibility of receiving so many aids to be able to heal spontaneously. Keeping also in mind that the slice of chronic tendinopathies in the sports sector is clearly growing, it could return well to a sports world where times are getting tighter and more precious.

### WHEN CAN IT BE INDICATED?

Platelet gel has been used for years in orthopedic surgery, maxillofacial surgery, odontostomatology, ophthalmology and in the treatment of chronic skin ulcers. Research has recently extended its commitment to aesthetic medicine for biorevitalization and skin rejuvenation, also in association.

- (P.R.P. PLATLET RICH PLASMA)

- (G.F.GROWTH FACTORS) OR

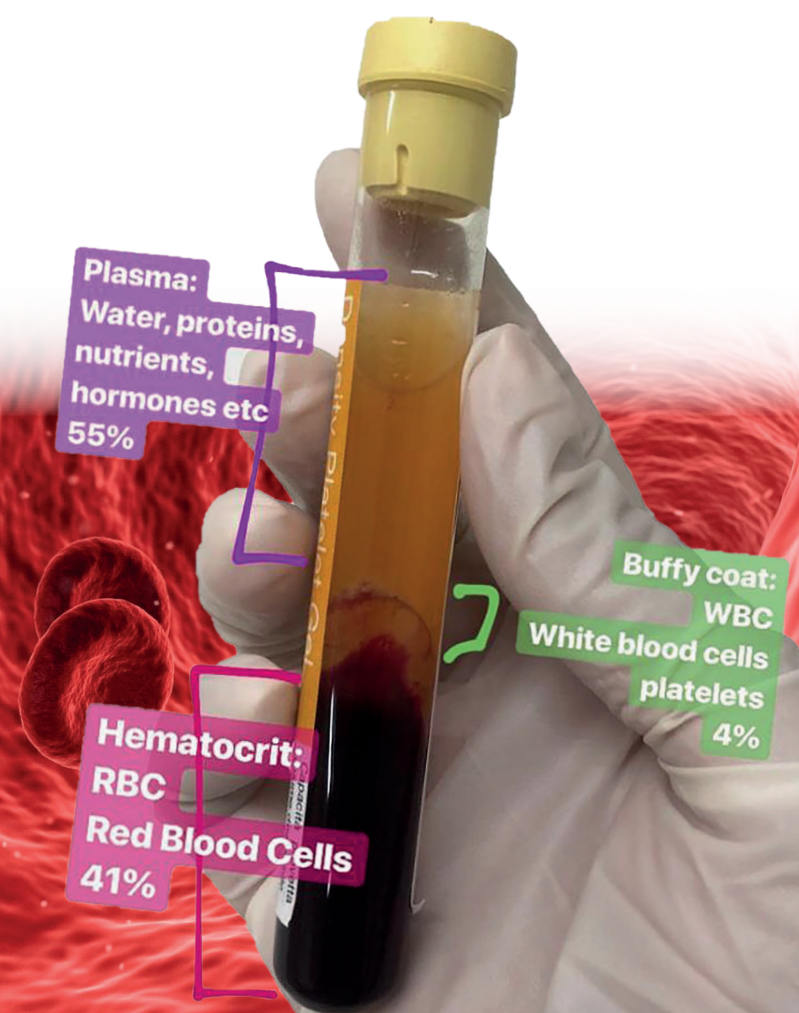
AUTOLOGOUS THERAPY FOR CELL

PROLIFERATIONS AND TISSUE REGENERATION

## The most important PRP action are:

- Proliferations and differentiation of various cell types (Stamina cell, Osteoblasts, Epidermal )
- Increases and modulates the production of proteoglycan collagen and TIMP (Tissue inhibitor of Metal-Proteinase )
- Stimulates angiogenesis
- Chemotaxis

These beneficial effects are determined from synergistic effects of growth factors

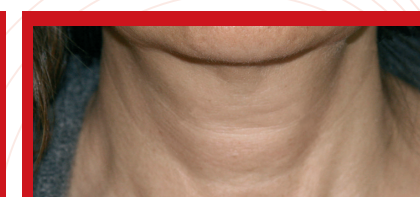


## KITS ARE APPLIED FOR:

- Skin with lack of elasticity
- Cell stimulation and repair
- Signs of skin aging
- Alopias
- Risk of allergic reaction
- Cartilaginous lesions
- Microfractures
- Inflammation of the tendons and ligaments
- Muscle injury



Before treatment



Before treatment



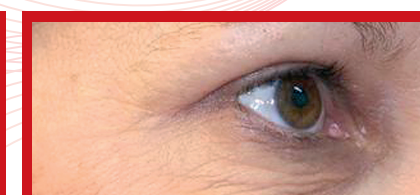
After 12 months



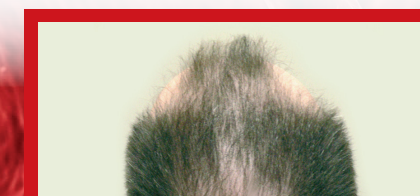
After 12 months



Before treatment



After 12 months



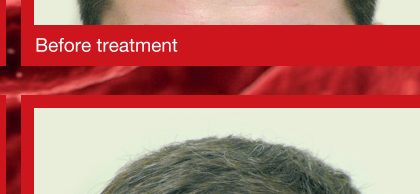
Before treatment



Before treatment



After 12 months



After 12 months

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