



MACDERMOL[®]
BioHair

A NATURAL AND SAFE
HAIR LOSS TREATMENT



WHAT IS MESOFILLING ?



Mesofilling is a new concept of injectable treatment between dermal filling and mesotherapy.

Mesotherapy, a safe, effective and established non-surgical medical technique developed by the French doctor Dr. Michel Pistor in the 1950's, involves local, multiple injections (intraepidermal, intradermal or subcutaneous) of micro-doses of active therapeutic substances. The advantage of this procedure is to deliver potent molecules directly on the area of tissue to be treated, providing superior effectiveness and safety compared to other routes of administration (epicutaneous, oral, intravenous etc.).

Mesofilling combined this technique with the injection of biomaterial. Basically, a mesofiller is a low concentrated dermal filler supplemented with active ingredients.

MACDERMOL BIO HAIR is a mesofiller indicated to improve the clinical appearance of hair loss.

WHAT IS IT USED FOR ?

■ SCALP AND HAIR RESTORATION

Hair loss is a condition experienced by a very large proportion of both men and women. Unfortunately, most of the hair loss treatments on today's market offer ineffectiveness, side effects or major procedures.

MACDERMOL BIO HAIR is a natural and safe treatment that maintains scalp vitality and acts against hair loss and thinning hair. It will protect hair follicles from dihydrotestosterone (DHT), free radicals and glycation process and will restore deep hydration, balance deficiencies and increase blood supply in the scalp to irrigate and oxygenate it.

MACDERMOL BIO HAIR helps to reduce hair loss, optimises new hair growth, and strengthens thinning hair. The result is an improvement of the clinical appearance of hair loss as well as a stronger and healthier hair.

MACDERMOL BIO HAIR is also recommended to repair hair prematurely damaged by external aggressions (sunlight, smoke, pollution etc.) and to create a healthy environment for hair transplants.

■ ACTIONS

- protects hair follicle from DHT
 - neutralizes free radicals and glycation process
 - hydrates and revitalizes the scalp
 - Improves blood circulation to the scalp
 - stimulates and nourishes hair follicles
 - enhances collagen and GAGs synthesis
 - increases cell migration and proliferation
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HOW DOES IT WORKS ?

MACDERMOL BIO HAIR contains a specific proprietary complex of highly concentrated active ingredients including:

- **L-ARGININE:** stimulator of growth hormone and precursor of nitric oxid, an important vasodilator which will promote the production of new hair follicles
- **ZINC GLUCONATE:** involved with important functional activities in the hair follicle, zinc is a potent inhibitor of hair follicle regression and it accelerates hair follicle recovery
- **B5, B6 AND B8 VITAMINS:** essential cofactors for multiple enzymes and inhibitors of the glycation of keratin, they will help to prevent and reduce hair loss
- **L-CYSTEINE:** major component of the keratin, this sulphur-containing amino acid will optimize the production of this protein to strengthen and restore weak hair

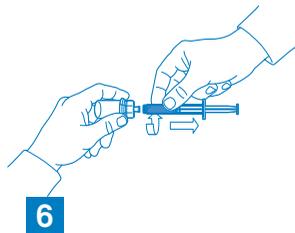
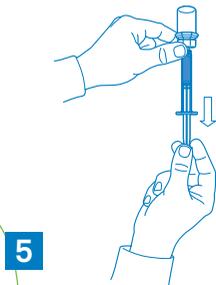
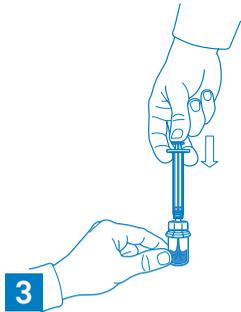
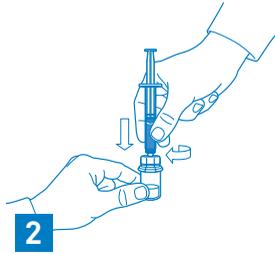
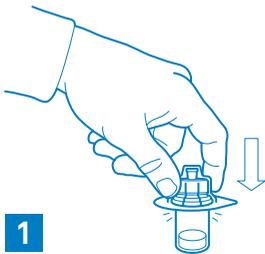
MACDERMOL BIO HAIR is composed of a naturally and lightly cross-linked HA which provides a better resistance to enzymatic degradation compared to a linear HA but also a higher water absorption and fibroblast stimulation compared to highly cross-linked HA.

The HA in **MACDERMOL BIO HAIR** has four major effects:

- **SCALP REGENERATION:** stimulates the production of collagen and glycosaminoglycanes and facilitates cell migration and proliferation
- **CELL PROTECTION:** protects hair follicle from oxidative damage and DHT which strongly affects hair growth
- **TISSUE HYDRATION:** attracts water and retains it in the tissues to nourish and revitalize the scalp
- **DRUG RELEASE:** enables an optimal delivery of the active molecules



MIXING PROCEDURE



■ PHASE 1

Remove the Flip-Off button from the vial and disinfect the rubber top of the vial with an alcohol pad. Remove the cover from the vial adapter package. Do not remove the vial adapter from the blister package. Use the blister pack to handle the adapter and seat it on the vial by pushing down until the spike penetrates the elastomeric stopper and the adapter snaps in place.

■ PHASE 2

Remove the blister package and attach the prefilled syringe to the adapter.

■ PHASE 3

Transfer the content of the syringe into the vial by slowly pushing the plunger all the way in.

■ PHASE 4

Gently swirl the vial to make sure the product is thoroughly mixed.

■ PHASE 5

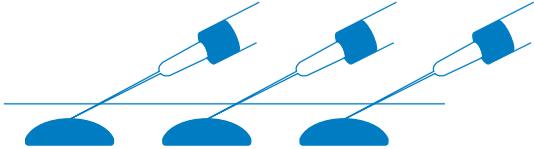
Withdraw the mixed solution from the vial into the syringe.

■ PHASE 6

Remove the syringe from the adapter. The product is now ready for administration.

ADMINISTRATION

INJECTION PROCEDURE



MACDERMOL BIO HAIR is injected by the multi-puncture technique into the dermis in the bald area of the scalp.

Injection of about 0,05 to 0,1 ml at 1 cm intervals. The total injection volume is dependent upon the area to be treated.

The injection of **MACDERMOL BIO HAIR** is reserved for medical practitioners trained in the intradermal techniques.

TREATMENT REGIMEN



Envisage 2 to 3 initial sessions 2 to 3 weeks apart according to the result, an additional session 2 months after, and then a maintenance session approximately every 4-5 months.

Other techniques and treatment regimens exist. The choice is at the discretion of the physician.

TECHNICAL DATA

COMPOSITION	Water for injection, L-arginine, calcium pantothenate, dexpanthenol, pyridoxine, L-cysteine, hyaluronic acid, sodium chloride, biotin, zinc gluconate.
HA CONCENTRATION	12 mg/ml after mixing
INDICATION	Alopecia
EFFECTS	Helps to reduce hair loss, optimises new hair growth, and strengthens thinning hair
TREATMENT ZONE	Bald area of the scalp
ADMINISTRATION	Multi-injections into the dermis
HOW SUPPLIED	One syringe containing 1 ml of HA-based gel and one vial containing 1 ml of Bio Hair solution (a complex of active ingredients) to be mixed before use.
STERILIZATION	Autoclave + Microfiltration
STORAGE	Between +2°C and +25°C
SHELF LIFE	2 years





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