Factors influencing

HAIR LOSS, DORMANT HAIR FOLLICLES, AND PREMATURE GREY HAIR:







Aging Factors



Oxidative Stress



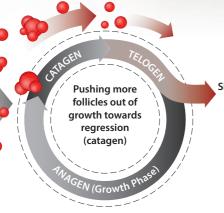
Environmental



Factors



produces chemical molecules that alter hair growth cycle signaling



Malnutrition

The complete set for home treatment in collaboration with EW BIOMEDICAL

HFR Extract and HFR Spray are formulated with bioactive ingredients such as amino acids and growth factors derived from stem cells that helps to nourish the hair follicles, promote natural hair cycle, induce hair growth and keep your scalp healthy.





Distributed by: European Biological Medicine Inc.

For inquiries: Mobile: +63 969 235 6879 • +63 945 205 8514

29th Floor, Spaces, World Plaza Building 5th Ave, Global City, Taguig, Metro Manila



STELLAR BIOMOLECULAR RESEARCH



re for illustrative purposes only. Differences in screen or printing qualities may cause nctual product to appear differently from the website and marketing materials. also note that the product may come in different packaging in accordance with their technica requirements. Please consult our specialist for the specific packaging available to you.





HFR EXTRACT

HAIR FOLLICLE REGENERATOR EXTRACT

A proprietary blend of Hair Growth Factors derived from stem cell that promote the development of hair follicles and generate hair growth.

3ml x 10 vials per box

INGREDIENTS AND FUNCTIONS

- **✓ PLATELET-DERIVED GROWTH FACTOR (PDGF)** Stimulate the regeneration of hair follicle tissue
- **✓ VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF)** Induce cell growth in outer root sheath and dermal papilla of hair follicle tissue
- **✓ FIBROBLAST GROWTH FACTOR (FGF)** Promote tissue repair, cell growth, collagen production, hyaluronic acid production



INGREDIENTS AND FUNCTIONS

HAIR GROWTH PEPTIDES

- ✓ Stimulate regeneration of hair follicle tissue
- ✓ Induce cell growth in outer root sheath and dermal papilla of hair follicle tissue
- ✓ Promote tissue repair, cell growth, collagen production, hyaluronic acid production
- ✓ Effective stimulator of hair follicle development
- ✓ Promotion of epithelial cell growth, angiogenesis & promotion of wound healing

- **✓ INSULIN-LIKE GROWTH FACTOR (IGF)** Effective stimulator of hair follicle development
- **✓ EPIDERMAL GROWTH FACTOR (EGF)** Promotion of epithelial cell growth, angiogenesis, promotion of wound healing
- ▼ TRANSFORMING GROWTH FACTOR BETA (TGF-β) Growth and neogenesis of epithelial cells and vascular endothelial cells, promotion of wound healing

HFR SPRAY

HAIR FOLLICLE REGENERATOR SPRAY

A lightweight and non-greasy serum containing a proprietary blend of hair growth peptides and nutrients. It is formulated to combat hair loss caused by stress, unhealthy scalp and nutritional deficiency which disrupt the hair growth cycle and starve the follicles of their needs.

 $10ml \times 3$ bottles per box (10ml = 200 sprays)

AMINO ACIDS, VITAMINS & MINERALS

- ✓ Plays an important role in cell integrity and protects sensitive cells in the skin and hair follicles
- ✓ Stimulating new hair growth
- ✓ Nourish scalp and hair follicles with nutrients
- ✓ Strengthen and condition the scalp

MICRONED STAMPER

WITH 24K GOLD EW BIOMEDICAL

HOW THE MICRONED STAMPER WORKS

- Promotes the delivery of bioactive Hair Follicle Regenerator Extract into the hair follicles to increase the product effectiveness in regenerating the health of hair follicles.
- Improves the blood flow and nutrients to the air follicles that are essential in supporting
- Helps stimulate the production of stem cells that will contribute to higher production of progenitor cells in hair follicles.

The MicroNed Stamper works by making micro punctures in the scalp that instigate the inflammation-proliferation-maturation cycle and prompts the skin to stimulate collagen production.

Collagen is present around the hair follicle bulb, and it thickens around the hair root during the Anagen phase to support the growth of new hair. Hair follicle loses a few layers of collagen when hair starts to shed.

Packaging info Home Treatment Needles Length (mm) 0.25 mm

The MicroNed Stamper allows you to target more specific areas of the scalp. It is also safer as there is less risk of damaging surrounding hair follicles by pulling the hairs out at the root.

IMPORTANT: MicroNed Stamper should only be performed on very clean dry scalp and always sterilize the tool before use; failure to do so can lead to infection and other such issues. Do not share the device with other people to avoid the transfer of blood-borne disease

How to use the MicroNed Stamper:

- 1 Sterilize both the stamper and bottle with 75% alcohol before using
- 2 Transfer the content of Hair Follicle Regenerator Extract into the MicroNed Stamper bottle.
- 3 Tighten the stamper cap onto the bottle and tighten to ensure
- 4 Shake content well before use.
- On a clean, dry hair/scalp, place the Microned Stamper at the areas to be treated (thinning hairline, bald patch, or the side of the temples). Apply the device horizontally across the treatment area, using vertical and diagonal stamping motions, for 3 to 5 seconds each round. Apply enough pressure for the needles to penetrate the scalp and feel a slight prickling or tingling, but not enough to cause pain.
- 6 After usage, clean the MicroNed Stamper with water then sterilize with 75% alcohol. Keep in a dry place.

REFERENCES:

Ben Amitai D, Lurie R, Laron Z. I-GF-1 signalling controls the hair growth cycle and the differentiation of hair shafts. J Invest Dermatol. 2006;126:2135. author reply 2135–2136.

2. Gentile, P., & Garcovich, S. (2019). Advances in Regenerative Stem Cell Therapy in Androgenic Alopecia and Hair Loss: Wnt pathway, Growth-Factor, and Mesenchymal Stem Cell Signaling Impact Analysis on Cell Growth and Hair Follicle Development. Cells, 8(5), 466. https://doi.org/10.3390/cells8050466 3. Guo, E. L., & Katta, R. (2017). Diet and hair loss: effects of nutrient deficiency and supplement use Dermatology practical & conceptual, 7(1), 1–10. https://doi.org/10.5826/dpc.0701a01 4. Li, Jingjie & Yang, Zhihong & Li, Zheng & GuaY, unbo & Sung, Changkeun. (2014). Exogenous IGF-1

promotes hair growth by stimulating cell proliferation and down regulating TGF-β1 in C57BL/6 mice in vivo. Growth Hormone & IGF Research. 24. 10.1016/j.ghir.2014.03.004. 5. Li, Wei & Man, Xiao-Yong & Li, Chun-Ming & Chen, Jia-Qi & Zhou, Jiong & Cai, Sui-Qing & Lu, Zhong-Fa

& Zhena, Min, (2012), VEGF induces proliferation of human hair follicle dermal papilla cells through VEGFR-2-mediated activation of ERK. Experimental cell research. 318. 1633-40. 6. Johnson, K. E., & Wilgus, T. A. (2014). Vascular Endothelial Growth Factor and Angiogenesis in the

eous Wound Repair. Advances in wound care, 3(10), 647–661. 7. Kwon, T., Oh, C.T., Choi, E.J., Park, H.M., Han, H.J., Ji, H.J., & Kim, B.J. (2015). Human placental extract

exerts hair growth-promoting effects through the GSK-3 β signaling pathway in human dermal papilla cells. tional Journal of Molecular Medicine, 36, 1088-1096. https://doi.org/10.3892/ijmm.2015.2316 8. Rompolas P., Greco V. Stem cell dynamics in the hair follicle niche. Semin. Cell Dev. Biol. 2014;25-26:34-42. doi: 10.1016/j.semcdb.2013.12.005.

9. Rogers NE, Avram MR. Medical treatments for male and female pattern hair loss. J Am Acad Den 10. Seo, Hyung-Sik & Lee, Dong-Jin & Chung, Jae-ho & Lee, Chang-Hyun & Kim, Ha & Kim, Jai-Eun & Kim, Byung & Jung, Myeong & Ha, Kitae & Jeong, Han-Sol. (2016). Hominis Placenta facilitates hair re-growth by upregulating

cellular proliferation and expression of fibroblast growth factor-7. BMC Complementary and Alternative Medicine, 16, 10,1186/s12906-016-1180-3. 11. Trüeb R. M. (2018). Further Clinical Evidence for the Effect of IGF-1 on Hair Growth and Alopecia. Skin

appendage disorders, 4(2), 90–95. https://doi.org/10.1159/000479333 12. Trüeb RM. Hormones and hair growth (in German) Hautarzt. 2010;61:487–495. 3. Yano K, Brown LF, and Detmar M: Control of hair growth and follicle size by VEGF-mediated angiogenesis. J

14. Zhana, D., Lijuan, G., Jingjie, L., Zhena, L., Wana, C., Wana, Z., Liu, L., Mira, L., & Suna, C. (2011). Cow placenta dermatology, 56(1), 14-18. https://doi.org/10.4103/0019-5154.77544

HFR HAIR LOSS TREATMENT STEP BY STEP

A general guideline for home treatment



STEP 1 - WASH

Before treatment, wash hair to make sure the scalp is clean.



STEP 2 - STAMP

On a dry hair and clean scalp, apply HFR extract using the MicroNed Stamper. Stamp horizontally - vertically - diagonally (3s - 5s each round. Use every once a week)



STEP 3 - SPRAY

Spritz HFR Spray towards the scalp to optimise absorption. Can be used daily or after hair wash.

SYNERGY EFFECT OF HFR EXTRACT AND HFR SPRAY FOR THICKER AND FULLER HAIR WITH HEALTHY HAIR FOLLICLE

Testimony 1: A 24-year-old patient with hair loss problem is treated with HFR treatment for 6 months.



tient treated with HFR Extract with 1 vial

per sessions and followed by HFR Spray for













nt treated with HFR Extract with 1 vial er sessions and followed by HFR Sprayfor 3



there is always the risk of complications and adverse effects. The most common side effects include:

- Redness*
- Inflammation*

As the procedure involves intentional wounding, Some should not use the MicroNed Stamper without the supervision of a doctor:

- ★ Women who are pregnant
- ✓ Men and women with hemophilia, or other conditions that inhibit wound healing
- ★ Those on blood thinners or similar medications
- ✓ Anyone with a history of/or fresh open wounds, or prone to acne or on the scalp or hairline.



ted with HFR Extract with 1 vial per sessions and followed by HFR Spray for

- Irritation
- Bruisina









HAIR LOSS, DORMANT HAIR FOLLICLES,
AND PREMATURE GREY HAIR:



Hormonal Changes



Aging Factors



Oxidative Stress



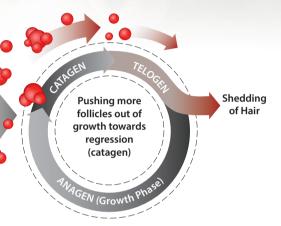
Malnutrition



Environmental Factors



Micro-inflammation produces chemical molecules that alter hair growth cycle signaling



The complete set for home treatment in collaboration with EN BIOMEDICAL

HFR Extract and HFR Spray are formulated with bioactive ingredients such as amino acids and growth factors derived from stem cells that helps to nourish the hair follicles, promote natural hair cycle, induce hair growth and keep your scalp healthy.

Accumulation of oxidative stress and nutrition deficiency can cause your hair to change colour, be weakened, or suffer hair loss. Hair derives its nutrients from the blood through the hair follicle, and metabolic requirements of follicle cells such as minerals and vitamins must be satisfied for optimal hair growth. When hair follicles are still present, even in a dormant state, it is possible to prevent and reverse hair loss.





HFR EXTRACT

HAIR FOLLICLE REGENERATOR EXTRACT

A proprietary blend of Hair Growth Factors derived from stem cell that promote the development of hair follicles and generate hair growth.

3ml x 10 vials per box

INGREDIENTS AND FUNCTIONS

- ✓ PLATELET-DERIVED GROWTH FACTOR (PDGF)
 Stimulate the regeneration of hair follicle tissue
- ✓ VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF)
 Induce cell growth in outer root sheath
 and dermal papilla of hair follicle tissue
- ✓ FIBROBLAST GROWTH FACTOR (FGF)

 Promote tissue repair, cell growth, collagen production, hyaluronic acid production



INGREDIENTS AND FUNCTIONS

HAIR GROWTH PEPTIDES

- ✓ Stimulate regeneration of hair follicle tissue
- ✓ Induce cell growth in outer root sheath and dermal papilla of hair follicle tissue
- ✓ Promote tissue repair, cell growth, collagen production, hyaluronic acid production
- ✓ Effective stimulator of hair follicle development
- ✓ Promotion of epithelial cell growth, angiogenesis
 & promotion of wound healing

- ✓ INSULIN-LIKE GROWTH FACTOR (IGF)
 Effective stimulator of hair follicle development
- ✓ EPIDERMAL GROWTH FACTOR (EGF)

 Promotion of epithelial cell growth,
 angiogenesis, promotion of wound healing
- ▼ TRANSFORMING GROWTH FACTOR BETA (TGF-β)
 Growth and neogenesis of epithelial cells and vascular endothelial cells, promotion of wound healing

HFR SPRAY

HAIR FOLLICLE REGENERATOR SPRAY

A lightweight and non-greasy serum containing a proprietary blend of hair growth peptides and nutrients. It is formulated to combat hair loss caused by stress, unhealthy scalp and nutritional deficiency which disrupt the hair growth cycle and starve the follicles of their needs.

 $10ml \times 3$ bottles per box (10ml = 200 sprays)

AMINO ACIDS, VITAMINS & MINERALS

- ✓ Plays an important role in cell integrity and protects sensitive cells in the skin and hair follicles
- ✓ Stimulating new hair growth
- ✓ Nourish scalp and hair follicles with nutrients
- ✓ Strengthen and condition the scalp

MICRONED STAMPER



HOW THE MICRONED STAMPER WORKS

- Promotes the delivery of bioactive Hair Follicle Regenerator Extract into the hair follicles to increase the product effectiveness in regenerating the health of hair follicles.
- Improves the blood flow and nutrients to the hair follicles that are essential in supporting hair growth.
- Helps stimulate the production of stem cells that will contribute to higher production of progenitor cells in hair follicles.

The MicroNed Stamper works by making micro in the scalp that instigate the inflammation-proliferation-maturation cycle and prompts the skin to stimulate collagen production.

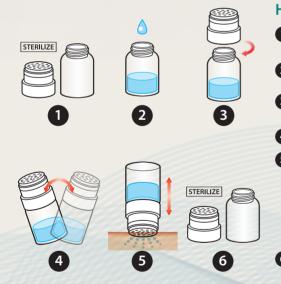
Collagen is present around the hair follicle bulb, and it thickens around the hair root during the Anagen phase to support the growth of new hair. Hair follicle loses a few layers of collagen when hair starts to shed.



Packaging info	Home Treatment
Needles Length (mm)	0.25 mm

The MicroNed Stamper allows you to target more specific areas of the scalp. It is also safer as there is less risk of damaging surrounding hair follicles by pulling the hairs out at the root.

IMPORTANT: MicroNed Stamper should only be performed on very clean dry scalp and always sterilize the tool before use; failure to do so can lead to infection and other such issues. Do not share the device with other people to avoid the transfer of blood-borne disease.



How to use the MicroNed Stamper:

- Sterilize both the stamper and bottle with 75% alcohol before using it for treatment.
- Transfer the content of Hair Follicle Regenerator Extract into the MicroNed Stamper bottle.
- Tighten the stamper cap onto the bottle and tighten to ensure tight fit.
- Shake content well before use.
- On a clean, dry hair/scalp, place the Microned Stamper at the areas to be treated (thinning hairline, bald patch, or the side of the temples). Apply the device horizontally across the treatment area, using vertical and diagonal stamping motions, for 3 to 5 seconds each round. Apply enough pressure for the needles to penetrate the scalp and feel a slight prickling or tingling, but not enough to cause pain.
- After usage, clean the MicroNed Stamper with water then sterilize with 75% alcohol. Keep in a dry place.

REFERENCES:

- 1. Ben Amitai D, Lurie R, Laron Z. I-GF-1 signalling controls the hair growth cycle and the differentiation
- of hair shafts. J Invest Dermatol. 2006;126:2135. author reply 2135–2136.
 2. Gentile, P., & Garcovich, S. (2019). Advances in Regenerative Stem Cell Therapy in Androgenic Alopecia and Hair Loss: Wnt pathway, Growth-Factor, and Mesenchymal Stem Cell Signaling Impact Analysis on Cell Growth and Hair Follicle Development. Cells, 8(5), 466. https://doi.org/10.3390/cells8050466
- 3. Guo, E. L., & Katta, R. (2017). Diet and hair loss: effects of nutrient deficiency and supplement use. Dermatology practical & conceptual, 7(1), 1–10. https://doi.org/10.5826/dpc.0701a01
- 4. Li, Jingjië & Yang, Zhihong & Li, Zheng & GuaY, unbo & Sung, Changkeun. (2014). Exogenous IGF-1 promotes hair growth by stimulating cell proliferation and down regulating TGF-β1 in C57BL/6 mice in vivo. Growth Hormone & IGF Research. 24. 10.1016/j.ghir.2014.03.004.
- 5. Li, Wei & Man, Xiao-Yong & Li, Chun-Ming & Chen, Jia-Qi & Zhou, Jiong & Cai, Sui-Qing & Lu, Zhong-Fa & Zheng, Min. (2012). VEGF induces proliferation of human hair follicle dermal papilla cells through VEGFR-2-mediated activation of ERK. Experimental cell research. 318. 10.1016/j.yexcr.2012.05.003.
- 6. Johnson, K. E., & Wilgus, T. A. (2014). Vascular Endothelial Growth Factor and Angiogenesis in the Regulation of Cutaneous Wound Repair. Advances in wound care, 3(10), 647–661. https://doi.org/10.1089/wound.2013.0517
- 7. Kwon, T., Oh, C.T., Choi, E.J., Park, H.M., Han, H.J., Ji, H.J., & Kim, B.J. (2015). Human placental extract

- exerts hair growth-promoting effects through the GSK-3β signaling pathway in human dermal papilla cells. International Journal of Molecular Medicine, 36, 1088-1096. https://doi.org/10.3892/ijmm.2015.2316
- 8. Rompolas P., Greco V. Stem cell dynamics in the hair follicle niche. Semin. Cell Dev. Biol. 2014;25-26:34-42. doi: 10.1016/j.semcdb.2013.12.005.
- 9. Rogers NE, Avram MR. Medical treatments for male and female pattern hair loss. J Am Acad Dermatol. 2008:59(4):547-566.
- 10. Seo, Hyung-Sik & Lee, Dong-Jin & Chung, Jae-ho & Lee, Chang-Hyun & Kim, Ha & Kim, Jai-Eun & Kim, Byung & Jung, Myeong & Ha, Kitae & Jeong, Han-Sol. (2016). Hominis Placenta facilitates hair re-growth by upregulating cellular proliferation and expression of fibroblast growth factor-7. BMC Complementary and Alternative Medicine. 16. 10.1186/s12906-016-1180-3.
- 11. Trüeb R. M. (2018), Further Clinical Evidence for the Effect of IGF-1 on Hair Growth and Alopecia. Skin appendage disorders, 4(2), 90–95. https://doi.org/10.1159/000479333
- 12. Trüeb RM. Hormones and hair growth (in German) Hautarzt. 2010;61:487–495.
- 13. Yano K, Brown LF, and Detmar M: Control of hair growth and follicle size by VEGF-mediated angiogenesis. J Clin Invest 2001; 107:409.
- 14. Zhang, D., Lijuan, G., Jingjie, L., Zheng, L., Wang, C., Wang, Z., Liu, L., Mira, L., & Sung, C. (2011). Cow placenta extract promotes murine hair growth through enhancing the insulin - like growth factor-1. Indian journal of dermatology, 56(1), 14–18. https://doi.org/10.4103/0019-5154.77544

HFR HAIR LOSS TREATMENT STEP BY STEP

A general guideline for home treatment



STEP 1 - WASH

Before treatment, wash hair to make sure the scalp is clean.



STEP 2 - STAMP

On a dry hair and clean scalp, apply HFR extract using the MicroNed Stamper.

Stamp horizontally - vertically - diagonally (3s - 5s each round. Use every once a week)



STEP 3 - SPRAY

Spritz HFR Spray towards the scalp to optimise absorption. Can be used daily or after hair wash.

SYNERGY EFFECT OF HFR EXTRACT AND HFR SPRAY FOR THICKER AND FULLER HAIR WITH HEALTHY HAIR FOLLICLE

Testimony 1: A 24-year-old patient with hair loss problem is treated with HFR treatment for 6 months.



Before: Dec 2018



During: Mar 2019



During: Mar 2019



After 6 months: June 2019

Testimony 2:Patient treated with HFR Extract with 1 vial per sessions and followed by HFR Spray for 14 sessions.



Before: 25/2/2020



After: 20/5/2020

Testimony 3:

Patient treated with HFR Extract with 1 vial per sessions followed by HFR Spray for 8 sessions.



Before: 7/3/2020



After: 7/5/2020

Testimony 4:

Patient treated with HFR Extract with 1 vial per sessions and followed by HFR Spray for 2 sessions.



Before: 19/3/2020



After: 16/4/2020

Testimony 5:Patient treated with HFR Extract with 1 vial per sessions and followed by HFR Spray for 6 sessions.



Before: 9/4/2020



After: 21/5/202



Scalp Close up: New hair growth after 2nd session

Testimony 6:

Patient treated with HFR Extract with 1 vial per sessions and followed by HFR Sprayfor 3 sessions.



Before: 30/4/2020



After: 20/5/202

POTENTIAL SIDE EFFECTS AND COMPLICATIONS

As the procedure involves intentional wounding, there is always the risk of complications and adverse effects. The most common side effects include:

- Irritation
- Redness*
- Bruising
- Inflammation*
- Tingling *quite common and should subside after five days.

Some should not use the MicroNed Stamper without the supervision of a doctor:

- ★ Women who are pregnant
- Men and women with hemophilia, or other conditions that inhibit wound healing
- ★ Those on blood thinners or similar medications
- Anyone with a history of/or fresh open wounds, or prone to acne or on the scalp or hairline.



Distributed by: European Biological Medicine Inc.

For inquiries: Mobile: +63 969 235 6879 · +63 945 205 8514 Email: customerservice@europeanwellnessretreat.com

29th Floor, Spaces, World Plaza Building 5th Ave, Global City, Taguig, Metro Manila www.europeanwellnessretreat.com



MF PLUS LFD.

Product images are for illustrative purposes only. Differences in screen or printing qualities may cause actual product to appear differently from the website and marketing materials.

Please also note that the product may come in different packaging in accordance with their technical requirements. Please consult our specialist for the specific packaging available to you.