Glutathione (GSH) is a small molecule composed of 3 amino acids: cysteine, glutamic acid and glycine. It is a powerful antioxidant found within every cell protecting our cells from free radicals.

This active substance plays an important role in nutrient the regulation of certain cellular events such as gene expression, DNA and protein synthesis and repair, cell growth, immune response, metabolism of toxins and carcinogens, enhancement of the immune system and prevention of fat oxidation. It is involved in detoxification, binding itself to toxins such as heavy metals, chemical pollutants and carcinogens and transforming them into a form which can be easily flushed out of the body.

The body produces and stores the largest amounts of GSH in the liver, where it is used to detoxify harmful compounds. GSH levels decline with age, and a lack of glutathione has been shown to leave the body more vulnerable to damage by free radicals, thus speeding up aging processes. Glutathione neutralizes damaging free radicals and peroxide molecules, and recharges oxidized vitamin C and E so that the body may reuse it.

Glutathione has also been implicated in skin lightening. Studies show evidence of its involvement in the melanogenic pathway and its anti-melanogenic effect.

**DETAILED INFORMATION**

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**PRESENTATION**

Vial | 900 mg Sterile Lyophilized Powder | Box of 5 / 10 vials

**TREATMENTS**

Anti-ageing

Hyperpigmentation

**CLAIM**

Revitalizing serum for tired and ageing skin.

**PRODUCT PREPARATION**

Dilute the content of each vial in 6 ml of deionized water.

**TREATMENTS AND RECOMMENDED MIXTURES**

<table>
<thead>
<tr>
<th>Hyperpigmentation and Depigmentant</th>
<th>Glutathione 900 Lyophilized</th>
<th>6 ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesolift and Anti-ageing</td>
<td>Glutathione 900 Lyophilized</td>
<td>6 ml</td>
</tr>
</tbody>
</table>

1 It is not recommended to mix Glutathione 900 Lyophilized with other active principles.

More information: www.institutebcn.com
TREATMENT PROTOCOLS
Initial considerations

THE IMPORTANCE OF INGREDIENTS: THE MESOCEUTICALS®

It is very important to use sterile and aseptic products in treatments with Meso Pen or Meso Roller. You have to keep in mind that this type of treatment produces small wounds on the skin’s cutaneous surface. Therefore, the application of non-sterile products on the patient’s skin may improve the risk of different cutaneous infections. Plus, the additives, preservatives and perfumes added to non-sterile products suppose a higher risk of allergies because when applied with Meso Pen or Meso Roller they reach a higher depth than with topical use.

The Institute BCN’s mesoceuticals® are:

- Meticulously selected pure active ingredients
- Based on original mesotherapy formulas
- Sterile (no preservatives or additives) and highly tolerant
- Pharmaceutical formulations
- Safe
- Highly concentrated
- Proven effectiveness
- Comfortable application using a gentle cosmetic procedure
- Products can be combined to obtain a specific mix for each individual case to be treated

RECOMMENDED PROTOCOL

Institute BCN team works hard to know and prove the latest improvements on techniques and procedures applied to transdermal mesotherapy treatments. The recommendations you will find below are the result of our daily work.

Institute BCN strongly recommends the following two-phase protocol:

1. Meso Pen (ideally) or Meso Roller treatment.
2. TDS treatment (Transdermal Delivery System)* for the application of a hyaluronic acid layer on face treatments and hyaluronic acid + DMAE layer on body treatments.

* [Electroporation, iontophoresis, ultrasounds, thermotherapy, vacuum therapy, galvanic and continuous currents or radiofrequency, among others]

It is not indispensable to apply the combined technique Meso Pen + TDS. It is also possible to perform the treatment only with Meso Pen, Meso Roller or TDS individually.

For traditional mesotherapy treatments see the applicable law in your country.

BENEFITS OF MESO PEN + TDS PROTOCOL

Meso Pen is an electronic micro needle mechanism that opens more than 1,000 micro channels per second in the skin. These cutaneous micro channels or micro trauma create an innate response on the organism that helps repair the skin, which leads to the following benefits:

- Stimulates collagen and elastin creation.
- Has a firming and rejuvenating effect.
- Improves the appearance of scars and stretch marks.
- Improves skin wrinkles and fine expression lines.
- Reduces pore size.
- Stimulates hair growth and prevents hair loss.
- In addition, favours the penetration of active ingredients. Meso Pen is the most secure, hygienic, quick and effective transdermal penetration system of the market.
The infiltration of a **Hyaluronic Acid 2% (BCN Classics, sterile vial)** layer after the Meso Pen treatment, applied with any of the transdermal delivery systems (TDS), leads to the following benefits:

- Creates a *sealing effect* that fixes the product or mix applied during the treatment, increasing its results.
- This 'sealing effect' contributes to **prevent transdermal water losses** that may arise from Meso Pen treatments and increases skin hydration.
- **Protective** action. It creates a non occlusive film that protects the skin from environmental aggressions.
- **Scar ing** effect. It favours a quick skin re-epithelialisation, in other words, the recovery of its normal functions and cellular communication after disturbances induced by Meso Pen treatment.
- **Filling** action. Hyaluronic acid retains water molecules creating a filling effect and increasing skin volume.
- Also, it offers a *warm and nice sensation* to the patient as the final part of the treatment.

### WARNINGS

- See the applicable law in your country.
- We recommend getting a signed consent from each patient before starting the treatment.
- To avoid infections, make sure the device is not in touch with other objects before the treatment.
- Follow the hygienic standards of medical-aesthetic practice (disinfection, use of gloves, treatment room’s proper cleansing, etc.).
- Examine skin’s patient before treatment. Don’t perform the treatment if the skin is infected, inflamed, injured or if there is any other anomaly.
- Make sure you check the seal, damage and term of validity of the active ingredients before starting the treatment.
- Meso Pen needles are for single use only. Meso Roller is for personal and not transferable use and should be disinfected before and after each treatment.
- Don’t exert excessive pressure with Meso Pen nor and Meso Roller.
- Avoid the contact of Meso Pen and Meso Roller with lips and eye lids, as the skin is thinner in these areas.
- Don’t perform this kind of treatments to under-age people.
- Redness and burning/ itching mild sensation are absolutely normal reactions after the treatment with Meso Pen or Meso Roller. Duly inform the patient about it.
- Follow the instructions, contraindications and warnings supplied by the manufacturer of the device used for the treatment carefully.
- If rashes, allergic reactions or other unwanted effects occur, stop the treatment immediately and contact Institute BCN [customerservice@institutebcn.com](mailto:customerservice@institutebcn.com).

### SESSIONS’ INTERVAL / ACTIVE INGREDIENTS QUANTITY

<table>
<thead>
<tr>
<th>Sessions</th>
<th>We recommend a <strong>14 days</strong> interval between sessions in Meso Pen/Meso Roller treatments. <strong>6 days</strong> in TDS treatments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity / area</td>
<td>Mixtures quantities can be changed according to the treated area and the system used.</td>
</tr>
</tbody>
</table>
1. **Cleansing & Preparation**
   - Cleanse the skin with an appropriate cleansing product.
   - Remove dead cells of the stratum corneum by soft mechanical peel/abrasion to enhance permeability of the skin.
   - Cleanse again and disinfect the skin with an aseptic product (alcohol, etc.) applied with single use sterile gauzes.

2. **Analysis & Mixture**
   Make a diagnosis of the patient’s skin and mix the solutions chosen for the specific treatment either in a vial with dropper or a syringe (remove needle after mixing).

3. **Active Ingredients Application**
   Drop the mixture directly below the Meso Roller/Meso Pen or device’s handpiece onto the skin to be treated, move forward gradually (see figures). If your TDS device needs a conductor gel, mix the solution to it or apply first the gel over the area and drop the mixture.

4. **Treatment with Meso Pen**
   1. Plug in adaptor and insert a sterile needle head into the Meso Pen tip.
   2. Adjust Meso Pen settings (speed and depth) according the area and the treated skin condition.
   3. With the free hand that is not holding the pen gently hold the skin or scalp taught. With the other hand holding the pen:
      - Make little circles from right to left.
      - Treat from top to bottom.
      - Treat diagonally.
      - Exert a gentle (not hard) and constant pressure.
      - Keep dropping the mixture of actives on the area you are working at.

5. **Skin Re-epithelization with Hyaluronic Acid 2% with TDS**
   1. Plug in your transdermal delivery device.
   2. Adjust device settings according the area and the treated skin condition.
   3. With the free hand that is not holding the device’s handpiece gently hold the skin or scalp taught. With the other hand holding the device’s handpiece start the treatment.

6. **Treatment with Meso Roller**
   1. Select the Meso Roller micro-needles length according the area and the treated skin condition.
   2. Disinfect Meso Roller with an aseptic product (alcohol, etc.).
   3. With the free hand that is not holding the roller gently hold the skin or scalp taught. With the other hand holding the roller:
      - Make little circles from right to left.
      - Treat from top to bottom.
      - Treat diagonally.
      - Exert a gentle (not hard) and constant pressure.
      - Keep dropping the mixture of actives on the area you are working at.

7. **Skin Re-epithelization with Hyaluronic Acid 2% without TDS**
   1. Prepare Hyaluronic Acid 2% either in a vial with dropper or a syringe (remove needle after filling). You can add DMAE to Hyaluronic Acid in case of body treatments to tighten the skin.
   2. Apply a thin layer of the product onto the treated area. If your device needs a conductor gel, mix the solution to it or apply first the gel over the area and drop the mixture.
   3. Work with your device and drop little amounts of Hyaluronic Acid 2% directly below the devices’ handpiece.
   4. Remove remaining product with single use sterile gauzes.

8. **Post Treatment Procedure & Recommendations**
   1. Register in the patient’s chart the mixture used, the area treated and other observations.
   2. Optional: recommend not washing the treated area until the next day nor apply any cosmetic product until the next morning.
   3. Avoid any sun exposure during the treatment day. Indicate the use of a total sunscreen and avoid long sun exposures during the next seven days.
   4. Recommend the use of daily care creams to extend and maintain the effects of professional treatment. Anti-ageing treatments: MesoAge® (mornings) and MesoVita® (nights). Cellulite and localised fat treatments: MesoCell®. Hyperpigmentation treatments: MesoBlanche®.
RECOMMENDED TREATMENT TIME PER AREA

TDS

RECOMMENDED DEPTH PER AREA

MESO PEN

Depths over 2mm can only be applied by qualified medical professionals.