



HYLADERM 2% – Intensive Hydration & Barrier Boosting

Composition and Mechanism:

HYLADERM 2% is a straightforward yet highly effective **hyaluronic acid skin booster**. Its defining feature is a **high concentration of non-crosslinked hyaluronic acid (2% w/v)**, which equates to 20 mg/mL of HA. This is a significant concentration, comparable to or higher than many dermal filler products, but because the HA is not chemically cross-linked, it behaves as a pure hydrator rather than a volumizer. The mechanism of HYLADERM 2% is predominantly biophysical: upon intradermal injection, the hyaluronic acid

attracts and binds water molecules into the dermis, thereby **replenishing moisture** in the extracellular matrix. This rehydration plumps up the skin from within, improving elasticity and reducing the appearance of fine crepey lines caused by dryness. Importantly, HA also contributes to the extracellular milieu by interacting with cell surface receptors (such as CD44 on fibroblasts and keratinocytes), which can promote cell migration and wound healing. While HYLADERM's HA is not crosslinked to stay for very long, during its residence time it creates a reservoir of hydration and possibly stimulates fibroblasts through **mechanotransduction** – the subtle swelling of the dermis can stretch fibroblasts slightly, which has been shown to induce them to produce collagen and elastin in response^{xxxiii}. This is one proposed explanation for why skin quality improves after HA booster treatments beyond just a few weeks of direct hydration.

The “2%” concentration suggests that each mL of the product contains 20 mg of hyaluronic acid. By comparison, many mesotherapy HA products contain around 10–15 mg/mL, so HYLADERM 2% delivers a robust dose. The HA is produced via bacterial fermentation (biotechnology), ensuring it is of **non-animal origin** and with high biocompatibility (minimizing risk of immune reaction). Being uncrosslinked, it is fully biodegradable and will gradually be broken down by enzymes (hyaluronidases) over a few weeks to months, depending on individual metabolism and how deep it's

placed. During that period, it will continuously impart moisture to the surrounding tissue. Also, because it is not crosslinked, it spreads easily in the dermal tissue, allowing **coverage of a larger surface area** for a given volume injected, which is ideal for treating global skin quality. Unlike a filler that stays in one place to lift a wrinkle, HYLADERM's HA diffuses and can hydrate an entire region (e.g. the whole cheek or forehead).

Another key aspect is **barrier function support**: well-hydrated skin has a healthier stratum corneum barrier. Many skin conditions like irritation, redness, and sensitivity are exacerbated by a compromised barrier and dryness. By rehydrating the dermis and epidermis from within, HYLADERM 2% helps restore the skin's barrier integrity and reduces trans-epidermal water loss. This can translate to calmer skin with less redness or flaking. It is essentially an "internal moisturizer." Additionally, because it contains no other active stimulants or additives, it is extremely well tolerated – making it suitable for even sensitive or reactive individuals.

Clinical Indications: HYLADERM 2% is indicated wherever **hydration, luminosity, and basic dermal conditioning** are the primary goals. It serves both as a foundational treatment for patients new to injectables and as a maintenance or adjunct treatment for those in between more aggressive procedures. Key indications include:

- **Dry, xerotic, or flaky skin** – especially in climates or

seasons that cause dehydration (e.g. winter). Patients with chronic xerosis (dry skin) on the face, or flaky patches around the nose/mouth, will notice improvement as the HA restores moisture balance. The product can be a remedy for "winter skin" that is dull and rough.

- **Dull skin lacking glow** – often due to dehydration and slight loss of elasticity. By improving hydration and light reflectivity of the skin, HYLADERM gives a **radiance boost**. It's commonly used before events for a quick skin refresh in those who just need a glow.
- **Immediate post-procedure healing** – After treatments like fractional laser, radiofrequency (RF) microneedling, or even chemical peels, skin can be left inflamed and dehydrated. HYLADERM 2% can be gently injected or micro-channeled to speed up rehydration and soothe the tissue. Its simple composition (just HA) is non-stimulatory, so it won't irritate freshly treated skin. This makes it a great **adjunct aftercare** measure to reduce downtime.
- **Flushed, sensitive skin requiring barrier restoration** – e.g. mild rosacea-prone skin or skin that easily gets red and irritated. Often such skin has a weakened barrier. By delivering HA, HYLADERM

supports the skin barrier and can reduce chronic redness and discomfort. It doesn't contain lidocaine or anything that might sting; injections are superficial. Over a few sessions, sensitive skin tends to become more resilient.

- **Preparation for aesthetic procedures** – Hydrated skin responds better to procedures like laser or even filler injections (some physicians advise improving skin hydration before doing a filler so that results are better and bruising may be less). As a **pretreatment**, HYLADERM 2% can condition the skin a week or two prior, ensuring it's in optimal shape for whatever comes next.
- **Fine superficial lines and crepiness** – especially in areas like the cheeks, under eyes (carefully done), neck, or perioral area where the issue is more about skin texture than deep wrinkles. By adding a bit of volume through water retention, the product can smooth out fine crinkling (for example, fine lines on the neck or subtle "crêpe" texture on the cheeks of a middle-aged patient).
- **Patients with low tolerance for aggressive treatments** – Some individuals (perhaps with autoimmune issues or simply needle-phobic) want improvement but with minimal risk. HYLADERM 2% is so basic in its components that it's almost universally

safe; even immunocompromised patients or those with allergies can often tolerate it well since HA is a natural molecule in the body. It's an excellent entry-level injectable for young patients in their 20s who want preventative care without any change in appearance.

- **Adjunct in certain dermatoses** – e.g., in seborrheic dermatitis, where flaking and barrier disruption are issues, added hydration can alleviate symptoms (of course it's not a primary treatment for the condition, but it can complement topical therapy to keep skin comfortable)

Overall, **HYLADERM 2% is the "deep hydrator"**. Think of it whenever the skin is parched, stressed, or needs gentle restoration. It is often the first product used in a multi-step protocol: for instance, a clinic may start a patient on HYLADERM for a couple of sessions to get the skin healthy, then move on to a more stimulatory booster like PDRN or collagen for additional benefits.

Ideal Patient Profile: Because hydration is a universal need, the patient profile for HYLADERM 2% is very broad. It can range from a 25-year-old with no specific aging concerns but dull skin, to a 65-year-old who wants to improve skin quality without aggressive treatments. All Fitzpatrick skin types (I–VI) and essentially all genders can benefit, with **no particular contraindications by skin type**. It is

especially popular among younger patients (20s-30s) who may not need anti-aging but do experience environmental skin stress (like urban pollution, air-conditioned offices causing dry skin). It's also a staple for patients who regularly undergo other cosmetic treatments as a "maintenance" in between – for example, someone might get HYLADERM microinjections every 3-4 months to keep their skin optimally hydrated alongside their yearly laser session. Patients who have sensitive or allergy-prone skin (unable to tolerate vitamins or other mesotherapy cocktails) are ideal candidates because pure HA is usually non-reactive. Also, individuals who want a quick boost before an event with minimal risk appreciate this treatment.

Essentially, **HYLADERM 2% is the most universally applicable product in the SeduSkin line**, often used as the entry point for new patients or as a baseline hydrator in combination protocols.

Scientific Rationale and Evidence: The reason hyaluronic acid is central to skin boosters is that **HA is fundamental to skin physiology** – about 50-60% of the body's total HA is found in the skin, where it hydrates and maintains the extracellular matrix structure. As we age, HA content in the skin diminishes, and the remaining HA has lower molecular weight (due to enzymatic cleavage), which reduces its water-binding capacity.

Replenishing HA can counteract these changes. Biopsies from treated skin showed **increases in epidermal hydration markers (like Aquaporin-3) and an increase in**

papillary dermal collagen content post-treatment^{xxxiv}. This indicates that HA injection not only adds water but also indirectly promotes a more robust dermal matrix. Another aspect is that HA injections have been noted to induce expression of genes related to dermal remodeling. In one genomic analysis, skin treated with HA booster had upregulation of genes associated with dermal structure and repair compared to untreated skin^{xxxv}. The physical presence of HA can also act as a scaffold: it occupies space in the dermis, which can have a **supportive effect on skin architecture** and serve as a template for collagen fibers to align around as new collagen is produced^{xxxvi}.

From a safety and tolerance perspective, HA is an endogenous substance and the risk profile is very low. There is no risk of granulomas or fibrosis with non-crosslinked HA as it does not persist long enough to cause foreign body reactions. The main side effects are injection-related (minor bruising, swelling). This makes HYLADERM 2% an attractive option for **regular use**. Some patients opt for quarterly "skin hydration shots" as part of their skincare routine, analogous to doing periodic facials but with more substantial effects.

In terms of differentiation: if one compares HYLADERM 2% to other boosters – it is pure and focuses solely on hydration. If a patient's only issue is dryness or they are very sensitive, this is the go-to. If they also need collagen or regeneration, one might layer or switch to another

product after initial rehydration. But hydration itself has a cascading positive effect: well-hydrated skin functions better, looks more plump, and even reflects light more evenly, giving a youthful glow.

Clinical Example: *A 45-year-old male executive complains of his face looking “tired and weathered,” especially after long winters. He has no deep wrinkles but overall rough texture and tight-feeling skin. He undergoes two sessions of HYLADERM 2% injections over one month. After treatment, his stratum corneum hydration (measured by a corneometer) improved significantly, correlating with visible results – his skin appears smoother and dewy. Fine lines on his forehead are less apparent because the skin is better moisturized and slightly plumped. He reports that his skin feels more elastic and less sensitive to cold wind. These observations match clinical findings that injectable HA improves both superficial and deep skin hydration and elasticity^{xxxvii}. In this case, a simple hydration-focused approach was sufficient to refresh the patient’s appearance without any use of toxins or fillers. The patient schedules maintenance sessions every 4-6 months to keep his skin quality high. This case underscores the role of HYLADERM 2% as a **foundation skin booster** – by saturating the dermis with HA (“saturate your skin with life” as the slogan goes), it restores a youthful baseline for the skin.*
