

**Polynucleotides (PNs)** are biocompatible, naturally occurring DNA fragments that are increasingly used in skin rejuvenation treatments. Derived from purified salmon DNA (which is highly compatible with human tissues), polynucleotides stimulate skin repair, regeneration, and hydration. They are commonly used in injectable treatments for anti-aging, skin repair, and overall rejuvenation.

## How Polynucleotides Work on the Skin:

### 1. Cellular Repair and Regeneration:

- Polynucleotides promote skin healing by supporting cell proliferation and repair processes.
- They act as building blocks for DNA and RNA, helping damaged cells regenerate and function optimally.

### 2. Hydration and Elasticity:

- PNs attract water molecules due to their high water-binding capacity, deeply hydrating the skin.
- This hydration improves skin elasticity, making it look plumper and more youthful.

### 3. Collagen Stimulation:

- Polynucleotides indirectly boost collagen production by creating an optimal environment for fibroblasts (collagen-producing cells) to thrive.
- This leads to improved skin texture, reduced wrinkles, and increased firmness.

### 4. Anti-Inflammatory Action:

- They reduce inflammation in the skin, making them effective for conditions like redness, irritation, or post-treatment recovery.

### 5. Tissue Repair and Wound Healing:

- PNs enhance microcirculation and promote tissue repair, aiding in the healing of scars, stretch marks, and other skin damage.

## Benefits of Polynucleotides for Skin:

- Improves Skin Quality: Boosts hydration, elasticity, and texture.
- Reduces Signs of Aging: Minimizes fine lines, wrinkles, and sagging.
- Heals Damaged Skin: Repairs scars, stretch marks, and sun damage.
- Brightens Complexion: Enhances skin tone and radiance.
- Safe and Biocompatible: Minimal risk of allergic reactions since they are highly compatible with human skin.

## Applications in Aesthetic Treatments:

- Used in injectable skin boosters or mesotherapy for facial rejuvenation.
- Often combined with other treatments like microneedling, lasers, or dermal fillers to enhance results.
- Suitable for treating delicate areas like the under-eye, neck, and décolletage.

## Results:

- Visible improvement in skin hydration and texture can appear within a few weeks.
- Collagen production and long-term benefits usually develop over 3-6 months.
- Regular treatments (2-3 sessions, spaced 3-4 weeks apart) are often recommended for sustained results.

Polynucleotide-based treatments offer a non-invasive, natural approach to skin rejuvenation, making them a popular choice for those looking to improve skin health and appearance. Always consult a qualified practitioner to determine if this treatment is right for your needs.

