

## **CLINICAL DATA – THIOCTIC ACID**

### **Thioctic Acid: Info and *In Vitro* data**

Thioctic Acid is naturally occurring in the body. It is both a water and oil soluble antioxidant that reduces fine lines, inflammation and enlarged pores, while encouraging natural skin rejuvenation.

Thioctic Acid can significantly improve sun-damaged skin and reduce fine lines and wrinkles. Thioctic Acid is well tolerated and readily absorbed and delivered to target cells.

### **Topical skin benefits**

1. Co-factor in the biochemical pathway responsible for energy production in human cells.
2. Inhibits cross-linking between proteins or other large molecules. Cross-linking contributes to the ageing process by causing glycation ageing in the skin as well as hardening of arteries and stiffening of joints.
3. Has a moderate anti-inflammatory effect.
4. Is able to neutralise and remove toxic metals from body fluids and tissues.

### ***In Vivo* data:**

Randomized, placebo-controlled study published in the British Journal of Dermatology. 33 women used a 5% Thioctic Acid cream on one side of their face and a placebo cream on the other twice a day for 3 months.

At the end of the 12-week period, there was a significant improvement in;

- skin roughness
- fine lines
- inflammation and redness

Compared to the side treated with a placebo.

### **Thioctic Acid skin benefits:**

- Thioctic Acid is one of the most powerful anti-ageing, antioxidant, anti-inflammatories available.
- Thioctic Acid is called “the universal antioxidant” because it is both fat- and water-soluble. This means that Thioctic Acid is easily absorbed through the lipid layers of the skin and works equally well as a free-radical fighter in the cell plasma membrane and in the watery interiors of the cell.
- Key mediator for energy production in the cells
- Inhibits cross-linking of protein which causes wrinkling of the skin (advanced glycation ageing - AGE)
- Able to neutralize toxic metals in the body
- Thioctic Acid is excellent at decreasing the appearance of lines and wrinkles
- Regulates production of nitric oxide, which controls blood flow to the skin. Able to transform the complexion from dull and pasty to vibrant and glowing.
- Decreases under eye circles and puffiness, reduce swelling and puffiness in the face.

- Anti-inflammatory effect reduces redness
- Thioctic Acid will help to reduce pore size