



INGREDIENTS

Allantoin: The wonder ingredient for the skin

POSTED ON APRIL 27, 2013 BY SAMANTHA MILLER - LAST UPDATED ON DECEMBER 27, 2020



Contents

1. What the heck is allantoin?
2. Allantoin's benefits in skincare
3. Conclusion

Is your skin parched and dry and in serious need of a moisture hit?

Or maybe you require something more fortifying, to prop up your skin's protective barrier.

Or could it be your skin's feeling a little blah and needs a pick me up?

Whatever the concern we have you covered, in the form of wonderful allantoin, an ingredient that often flies under the radar.

But because it has so much going for it, we've made it our mission, to give this skin-loving ingredient the spotlight it deserves.

What the heck is allantoin?

Allantoin is also known as 5-ureidohydantoin or glyoxyldiureide.

The active moisturising ingredient found in the root of **Comfrey**. In its organic form it is found in several other plants, such as sugar beet, comfrey, chamomile, tobacco seed, and wheat sprouts.

Traditionally the comfrey leaves were used to help heal minor skin injuries and swelling. Today, this versatile ingredient is used to treat wounds, eczema, burns, psoriasis, acne inflammation, and other skin eruptions.

As if that wasn't enough, allantoin also works as an antioxidant, encouraging new cells, and shedding dead skin cells, helping to give skin that youthful glow. (Thornfeldt, 2005).

Allantoins benefits in skincare

Allantoin is non-allergenic, non-toxic, odourless, and completely safe for use. It has been approved by the FDA to temporarily prevent and protect chafed, chapped, and cracked skin speeding up the natural processes and increasing water content.

Exfoliating: Allantoin is clever in that it actually interacts with the skin's keratin to thin out an abnormally thick epidermis (outer layer of skin). This is great because we want this layer to be constantly shedding and producing more cells, which is how you get a faster transit time of the epidermal skin cells, keeping skin healthy and plump.

Anti-ageing: As we age, the transit time of the cells from the base layer of the epidermis to the top layer takes longer, causing the skin to become dull and dry. Allantoin, with its natural exfoliating action, helps with cell proliferation, replenishing depleted, dry skin. Allantoin also helps in the synthesis of collagen – a fibrous protein found

in the dermis (lower layer of skin), that keeps skin elastic and supplies, decreasing with age leading to sagging skin – allantoin boosts this.

Hydrates: It helps to hydrate the skin by exfoliating and removing dead skin cells that prevent natural humectants from binding and retaining water in the skin's tissues. Allantoin used in cosmetics is a by-product of Diazolidinyl Urea's production, which is also considered a hydrating ingredient. At larger percentages, it is thought that allantoin may also have the same keratolytic effects as [urea](#).

Repairs: It is well-known for its ability to stimulate rapid cell regeneration, stimulating healthy tissue growth. [Research](#) has found that it is extremely healing for wounds and can clear away dead skin cells, making healthy new tissue. In fact, did you know? One of the reasons that maggots have such a beneficial effect on the healing of infected wounds is because they excrete allantoin.

Moisturises: Allantoin acts as an emollient that keeps skin moisturised, helping to counteract dryness and roughness.

Protects: Various research has demonstrated that allantoin in combination with onion extract is successful at treating scars, one [study](#) found, that it also helps to protect against UV-induced cell damage.

Softens: A large number of proteins and lipids are naturally found in the outer layer of skin referred to as keratinization, if this gets out of balance, more keratin than usual is produced, and the structure of the [barrier function](#) is changed, skin becomes rough and scaly and inflamed. As discussed under the exfoliation section – allantoin by its very nature is keratolytic, gently softening the keratin, keeping the skin smooth.

Soothes: It is considered an excellent anti-irritant, and calming agent, soothing inflamed skin, encouraging sensitive skin to become more resilient.

More than a match for very dry or irritated skin, both [Miracle Cleanse](#) and [Nectar Treatment Balm](#) harness the benefits of this wonderful herb in the form of comfrey, helping to bring comfort and relief to troubled skin.

Allantoin is a hair saviour: No article would be complete without mentioning its wonderful benefits to the hair and scalp; Its anti-irritant properties help to reduce redness and leaves the scalp feeling soothed. Allantoin has active keratolytic properties, which means it is the ideal ingredient for combatting dandruff; breaking

down large particles in dead skin cells. It also helps improve the softness and elasticity of hair whilst improving shine.

Wow, after reading this we think you'd agree, it's a beautifying ingredient we really need to introduce into our skincare routine—all hail allantoin.

Conclusion

When I first journeyed into the world of formulation, I was fortunate enough to work with a well-known herbalist from Switzerland who introduced me to the wonderful properties that Allantoin has to offer as a skincare ingredient, and its ability to regenerate the skin at a cellular level.

Even at low concentrations of up to 0.5%, it can be very effective; one [study](#) found that the inclusion of just 0.2% demonstrated significant improvement in over 90% of women with redness and cracking symptoms.

But wait! There is more. Allantoin is thought to be amphoteric; this means it also reacts as an acid as well as a base. Essentially, this means that when used in combination with various other chemical substances, it neutralises them, which is thought to avoid the potential irritation caused by other ingredients, thus making it a great inclusion for use in products for sensitive skincare.

One final note, as one of my readers kindly pointed out; most of the allantoin used in cosmetics is largely lab-synthesised now, that is, of course, unless you are lucky enough to work with a traditional herbalist, as I have had the good fortune to do, here at NC we use this nature-identical form.

References and Further Reading

Profile of wound healing: https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-86502010000500014

An evidence-based review of topicals: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4506744/>

Biological activity of allantoin: <https://onlinelibrary.wiley.com/doi/abs/10.1002/ptr.5356>

Face cream and life-extending effects: <https://www.sciencedaily.com/releases/2015/12/151216231254.htm>

ingredients and keratolytic effect: https://www.akema.it/pdf/AKEMA_BROCHURE_2010.pdf