



PlasmaDerm®

Plasma Technology for Health



Wound treatment with PlasmaDerm®

**The cold plasma therapy  
with added effectiveness**

# For you. For your quality of life. Wound treatment with PlasmaDerm®



## Do you have a wound that simply won't heal and impacts your quality of life?

The good news is that chronic and infected wounds are not an inevitable fate. PlasmaDerm® can help re-start the healing process and promote wound healing.

## What is PlasmaDerm®?

**PlasmaDerm® is an innovative medical device that has been shown to be effective in the treatment of chronic and infected wounds.**

It works using cold physical plasma and supports wound healing with unique effectiveness, that penetrates down into deep layers of tissue.

**What exactly does that mean?** PlasmaDerm® reduces the germ load and increases microcirculation. Improving the blood flow into the smallest of blood vessels. This enhances the supply of oxygen and nutrients to the wound and surrounding tissue. These combined effects help to minimise inflammatory responses and have a positive impact on wound healing.

## Your benefits at a glance:

- › Promotes wound healing <sup>1,2</sup>
- › Reduces the germ load <sup>3</sup>
- › Increases blood flow <sup>4,5,6</sup>
- › Helps to minimise inflammation
- › Simple, gentle, fast and safe to use
- › No clinical side effects



## PlasmaDerm® – The cold plasma therapy with added effectiveness

**Not all cold plasma therapies are the same.**

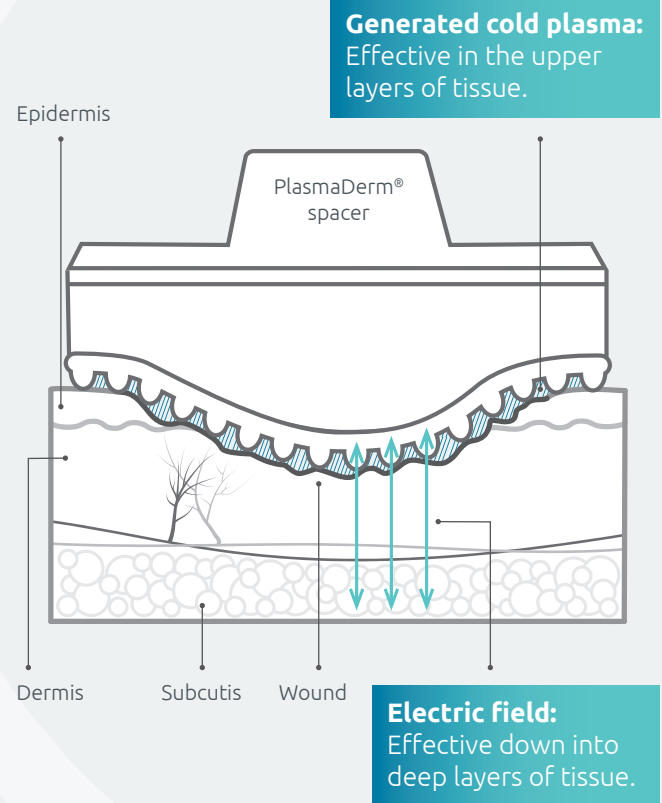
But what exactly is it that makes therapy with PlasmaDerm® so special? PlasmaDerm® generates the cold plasma directly onto the surface of the wound. What's more, the body itself becomes part of the process. In addition to the cold plasma, high-frequency electric fields act on the wound providing crucial improved blood flow and added effectiveness.

**The positive effects:** PlasmaDerm® boosts the microcirculation. More oxygen and nutrients reach the wound and surrounding areas. This effect of the treatment lasts several hours and unique to PlasmaDerm® is verifiably effective into deep layers of tissue <sup>4,5</sup>. A vital detail that makes a significant difference in healing the wound.

### **i** A brief explanation of cold plasma

**Cold plasma is a high-energy gas with an astounding effect.** It is created when electrical energy is added to a gaseous element (ambient air). This leads to the creation of new molecules (called activated species) and small amounts of UV light. The activated species (for example ozone, nitrogen monoxide) play a key role in the **healing process** and **promote germ reducing effects**.

## Effective over several hours down into deep layers of tissue <sup>4,5</sup> – PlasmaDerm® with added effectiveness.



## PlasmaDerm® activates wound healing

An altered wound environment, disrupted blood flow, a lack of nutrients, infections or persistent inflammation, chronic and poorly healing wounds can have many causes, which are often interconnected to each other.

Therefore PlasmaDerm® does not just act on one level, but additionally, addresses several issues at the same time. The interaction of these various modes can crucially improve the conditions for wound healing!

### One problem, many causes: PlasmaDerm® acts at various levels:

- › Promotes wound healing for chronic and infected wounds <sup>1,2</sup>
- › Reduces the germ load and also deactivates multi-resistant pathogens <sup>3</sup>
- › Boosts the microcirculation, the tissue oxygen saturation and the nutrient supply down into deep layers of tissue <sup>4,5,6</sup>
- › Helps to overcome the chronic inflammation phase
- › Can alleviate itching and wound pain and reduce wound odours



### PlasmaDerm® is used successfully for:

- › Chronic and infected wounds
- › Microbially infected skin and wound surfaces
- › Skin conditions caused by pathogens
- › Wound healing disorders resulting from surgery or trauma

## Simple, safe, gentle – that's PlasmaDerm®

**Chronic wounds require consistent care.** This includes changing the dressing at regular intervals; for most patients, this is necessary two to three times a week.

Therapy with PlasmaDerm® is conveniently scheduled to also take place during these appointments. As a result, there is no need to arrange a separate appointment: **the therapy is provided quite easily as part of your next dressing change.**

## Customised treatment with PlasmaDerm® Flex and Cutan

Our spacers PlasmaDerm® Flex and PlasmaDerm® Cutan have different sizes, providing you with customised treatment. Due to their flexible nubbed design and soft foam layer, Flex and Cutan adapt perfectly to the contours of the wound area.

### **i** Good to know

**The duration of the PlasmaDerm® therapy usually depends on the individual situation.** Chronic wounds are normally treated in eight to twelve weeks. The treatment is often shorter for infected wounds, and the recommended treatment is given at shorter intervals until the signs of the infection have subsided.

### Flex spacer – effective over large areas:

- › Ideal for large and extensive wounds



### Cutan spacer – effective where precision is required:

- › Ideal for small or hard-to-reach wounds



## A Few Simple Steps, Noticeable Results

### It's this easy and fast with PlasmaDerm®:

The wound surface and also the wound edges are treated in two intervals of 90 seconds each.

To do this, your therapist places the spacer completely over the wound and begins the therapy session, an acoustic signal will sound once the treatment interval of 90 seconds is reached, signalling the conclusion of the session.



**1. Place spacer  
completely over  
the surface**



**2. Start therapy session**



**3. Repeat after 90-second  
treatment interval**

## Good to know

### Documented and proven: simply PlasmaDerm®!

Our own studies and case series prove the effectiveness of our technology. Many independent studies also demonstrate the positive effect of cold plasma on wound healing.

#### REFERENCES:

1: Hartwig, Stefan; Preissner, Saskia; Voss, Jan Oliver; Hertel, Moritz; Doll, Christian; Waluga, Richard; Raguse, Jan Dirk (2017): The feasibility of cold atmospheric plasma in the treatment of complicated wounds in cranio-maxillo-facial surgery. In: Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery 45 (10), S. 1724–1730. DOI: 10.1016/j.jcms.2017.07.008.

2: Ernst, Jennifer; Tanyeli, Murat; Borchardt, Thomas; Ojugo, Moses; Helmke, Andreas; Viöl, Wolfgang et al. (2021): Effect on healing rates of wounds treated with direct cold atmospheric plasma: a case series. In: Journal of wound care 30 (11), S. 904–914. DOI: 10.12968/jowc.2021.30.11.904.

3: Daeschlein, Georg; Napp, Matthias; Podewils, Sebastian von; Lutze, Stine; Emmert, Steffen; Lange, Anja et al. (2014): In Vitro Susceptibility of Multidrug Resistant Skin and Wound Pathogens Against Low Temperature Atmospheric Pressure Plasma Jet (APPJ) and Dielectric Barrier Discharge Plasma (DBD). In: Plasma Process. Polym. 11 (2), S. 175–183. DOI: 10.1002/ppap.201300070.

4: Schleusser, Sophie; Schulz, Lysann; Song, Jungin; Deichmann, Henriette; Griesmann, Anna-Catharina; Stang, Felix H. et al. (2022): A single application of cold atmospheric plasma (CAP) improves blood flow parameters in chronic wounds. In: Microcirculation (New York, N.Y. : 1994), e12754. DOI: 10.1111/micc.12754.

5: van Welzen, Annika; Hoch, Matti; Wahl, Philip; Weber, Frank; Rode, Susen; Tietze, Julia Katharina; Boeckmann, Lars; Emmert, Steffen; Thiem, Alexander (2021): The Response and Tolerability of a Novel Cold Atmospheric Plasma Wound Dressing for the Healing of Split Skin Graft Donor Sites: A Controlled Pilot Study; In: Skin Pharmacol Physiol (Skin Pharmacology and Physiology), 2021, p. 1-9; doi: 10.1159/000517524

6: Jensen, Jan-Oluf; Schulz, Lysann; Schleusser, Sophie; Matzkeit, Nico; Stang, Felix H.; Mailaender, Peter et al. (2021): The repetitive application of cold atmospheric plasma (CAP) improves microcirculation parameters in chronic wounds. In: Microvascular research 138, S. 104220. DOI: 10.1016/j.mvr.2021.104220.



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## **Your treatment team will be happy to advise you!**

**Are you interested in the cold plasma therapy from PlasmaDerm®?** Or would you like to know more about it and have questions about the treatment process?

Then please contact the team at your practice/wound centre or your clinic. The employees will be only too happy to talk to you about how our innovative therapy can support your healing process.

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