



plasma care[®]

PLASMA CARE[®]

The mobile cold plasma therapy for wounds
and inflammatory skin conditions.

Wound therapy
with cold plasma
as per S2k guideline

WIPKING

HOW PLASMA CARE® WORKS

in just one minute



Physical mode of action

- No known side effects
- No bacterial resistances to cold plasma



Accelerated wound healing

- Activates wound healing
- Inactivates bacteria, viruses & fungi
- Normalizes the pH value



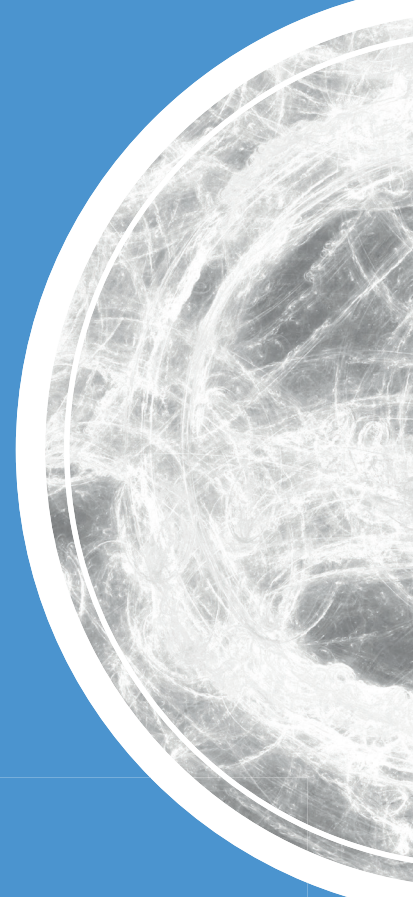
Mobile device

- Handy & battery-operated
- Treatment needs no extra carrier gas
- Simple & safe use



Broad range of indications

- Chronic & acute wounds
- Inflammatory skin disorders
- Foot & nail fungus





COLD PLASMA –

the top innovation
to treat wounds
and inflammatory
skin diseases

- bactericidal
- tissue-stimulating
- anti-inflammatory
- alleviates itching

Average
**reduction of the
wound area by**

76%

in 28 days¹

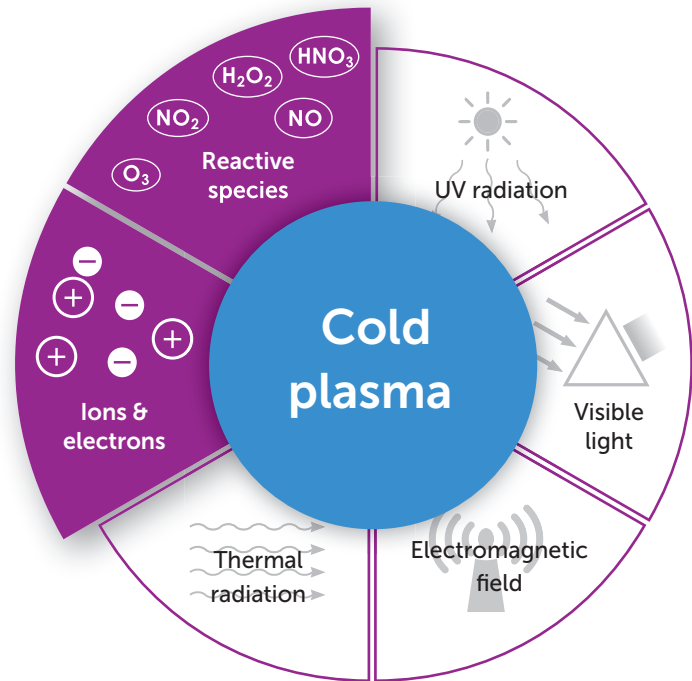


¹ Hämmerle et.al., J Wound Care, 2023

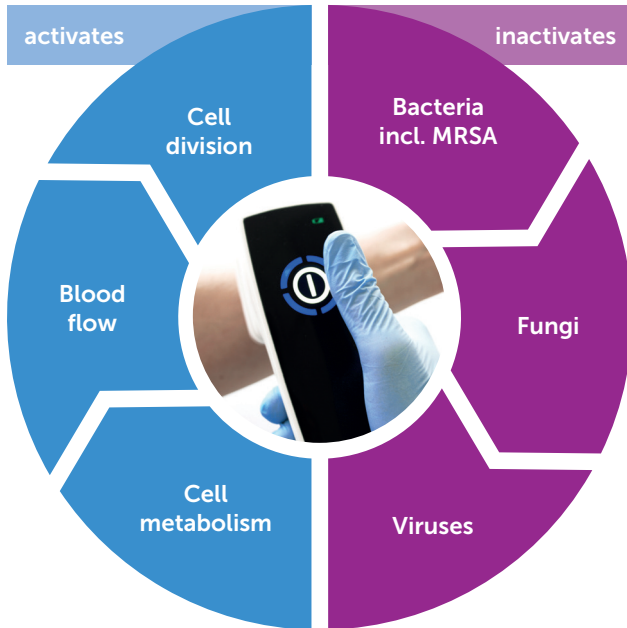
What is cold atmospheric plasma?

Plasma is the fourth physical state after solid, liquid and gaseous. Cold atmospheric plasma (CAP) means that the plasma is produced at atmospheric pressure and does not become warmer than 40°C.

Cold plasma has a number of components – the so-called reactive species (reactive molecules, ions and free electrons) are particularly effective. These reactive species have an effect on the wound and its surroundings. The other plasma components only occur in low concentrations and are irrelevant for efficacy.



The twofold mechanism of action of cold plasma



- Cold plasma has a healing effect on skin and wounds.
- Reactive species stimulate cell division and cell metabolism in human cells through positive oxidative stress.
- CAP stimulates the blood flow by activating micro-angiogenesis.

- Bacteria, viruses and fungi are inactivated by CAP.
- The reactive species destroy the cell's macromolecules and DNA within these prokaryotic cells.
- Resistances are of no importance due to the physical mechanism of action of CAP.



Using the spacer

Both devices require a so-called spacer as an expendable item for treatment. These spacers ensure that the optimum distance to the skin is maintained and that a constant volume of air is used to generate the CAP. In order to ensure a **sterile wound treatment** and to avoid any cross-contamination, the **plasma care®** spacer (above) is individually sterile-packed for wound treatment. The spacer can be clicked onto the device without being touched, thus enabling a sterile treatment of the wound.



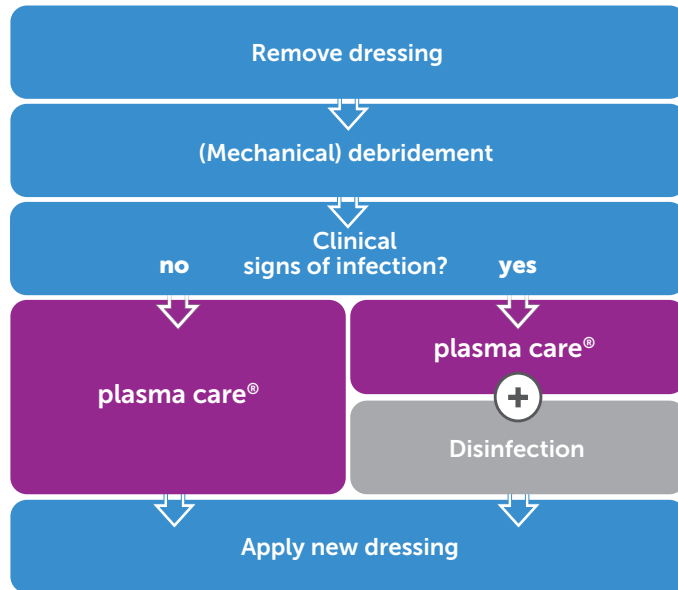
The contact surface of the **plasma derma care®** spacer (right) is padded with a biocompatible foam edge for dermatological treatments. This means that the **plasma derma care®** spacer lies snugly on the skin, even on contoured areas (e.g. the chin or joints).



Plasma therapy is guideline-compliant wound therapy (S2k guideline AWMF): “Rational therapeutic use of cold physical plasma”.

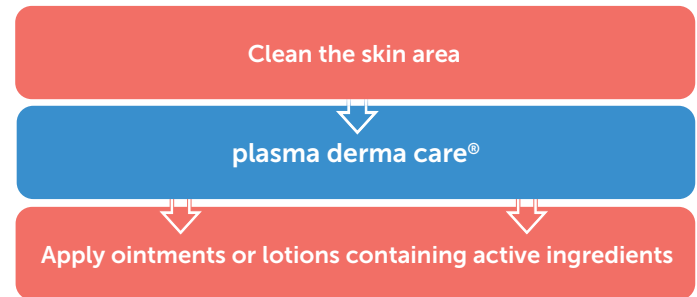
Quick and easy integration into the normal treatment process

plasma care® can easily supplement the guideline-compliant **treatment of wounds** of various origins:



In **dermatology**, the treatment of various inflammatory skin diseases with **plasma derma care®** can reduce the duration and intensity of the illness.

Cold plasma therapy is part of specialist dermatology training.



plasma care® and plasma derma care® in use

Diabetic foot
syndrome
after partial
amputation



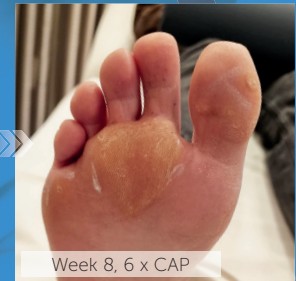
Charcot foot
with incipient
breakthrough



Stump with
wound-healing
impairment



Treating-
foot fungus
with plasma
derma care®



Expand your treatment options with plasma care® and plasma derma care®

With cold plasma, you can offer your patients an up-to-date therapy concept that can improve the results of your treatment and the quality of life of your patients for many indications.



Talk to us and we will make you
an individual offer.

Advantages of plasma care® and plasma derma care®

- **Game changer** for wounds and inflammatory skin diseases
- **Easy** to use
- **Effective** thanks to dual action
- **Top level** therapy
- **Guideline-compliant** wound therapy
- **No side effects**, no development of resistance, no allergies
- **Pain-free** treatment*

*Patients have described their treatment to date with **plasma care®** as pain-free.

Treatment outcomes

Faster wound healing in patients **with accompanying illnesses**

DIABETIC FOOT SYNDROME

Patient (50 y.o.) with diabetic foot syndrome.

Infected ulcers above the metatarsal bones (left) and necrotic 4th toe. Amputation due to worsening wound situation. Wound infection with partially resistant corynebacteria, enterococci and staphylococci.

Course of treatment:

- 2 CAP treatments per week in the first 3 weeks, then 1 CAP treatment every 14 days
- 9 treatments in 12 weeks
- Healed within 12 weeks of starting plasma therapy



Initial situation



Week 1 (2 CAP treatments)



Week 2 (4 CAP treatments)



Week 12 (9 CAP treatments)

Treatment outcome: Amputation of the 5th toe could be averted. Complete wound closure in week 15.

ULCUS CRURIS

Patient (77 y.o.), bedridden due to a spinal injury. Recurrence of a leg ulcer of unclear origin on the right lower leg. No edema, vascular status unclear. Wound healing had stagnated for several months. Partly purulent coverings, patient reports severe pain during mechanical wound cleaning.

Course of treatment:

- 8 CAP treatments (1 Min.) in 4 weeks lead to significant reduction in wound size, progressive hospitalization & pain reduction
- Interruption of CAP treatment leads to recurrent ulcer;
- Complete hospitalization of the wound after 4 weeks renewed CAP therapy (2 x week, 1 min.)



Initial situation



8 CAP treatments



Relapse after interruption of therapy



8 further CAP treatments

Treatment outcome: Pain-free and complete wound closure after 14 weeks.

Case studies from dermatology

CAP in use for inflammatory skin disorders

PSORIASIS ON THE ANKLE

Patient (52 y.o.) with intermittent, very itchy type 2 psoriasis.

The disease has existed for approx. 6 months.

Previous treatment:

The condition was treated with cortisone ointment. This only leads to short-term improvement.

Course of treatment:

- 4 CAP treatments in 7 days
- Additional skin care:
10% urea cream and salicylic acid plasters.



Initial situation



Day 3 (2 CAP treatments)



Day 5 (3 CAP treatments)



Day 7 (4 CAP treatments)

Treatment outcome: Positive feeling, no pain, hardly any itching and no more tightness in the ankle joint.

ACNE VULGARIS

**Female patient (17 y.o.),
no primary diseases**

Pronounced acne, especially on the cheeks and forehead. Papules cause an unpleasant feeling of tension.

Course of treatment:

- 6 CAP treatments in three weeks
- Peeling, professional cleaning, plasma treatment and tonic



Initial situation



Week 2 (4 CAP treatments)



Week 3 (6 CAP treatments)

Treatment outcome: Inflammation and redness are significantly reduced. The feeling of tension has disappeared.



▲
Treatment of neurodermatitis
with **plasma derma care®**



What satisfied users have to say

Clinical and observational studies on cold plasma therapy over the last few years have unanimously show a reduction in both the wound surface area and in wound pain. In many medical practices, outpatient wound clinics and care facilities, **plasma care®** and **plasma derma care®** have become an integral part of everyday life.

simple.
effective.
pain-free.*



"I have been using **plasma care**® for over a year in our dermatology practice for diabetic foot syndrome (DFS) and other problematic wounds.

I am convinced that in future, cold plasma should definitely be part of standard care for DFS."

Dr. med. Nikolaus Scheper, Marl

"Thanks to **plasma care**®, we can easily treat patients with cold plasma at home.

Everything needed for the treatment fits into a small and lightweight suitcase and can be conveniently carried in the car. By using it in an outpatient setting, we can help patients with chronic wounds and limited mobility to improve their quality of life."

Lisa Spreitzer, Wound Expert ICW, Regional Manager Central Bavaria Wundex

*The use of **plasma care**® and **plasma derma care**® has been described as pain-free by patients treated to date.

Manufacturer:



terraplasma medical GmbH

Parkring 32 | 85748 Garching | Germany

Tel. + 49 89 588 055 30

Mail info@terraplasma-medical.com

Web www.terraplasma-medical.com

Jens Kirsch | Managing Director

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