



Plasmacure

Wound Healing from **Years** to **Weeks**
with Cold Plasma



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953462.

Proud winner of the
Accenture Innovation Award
2016, Health & Well-Being



Our mission

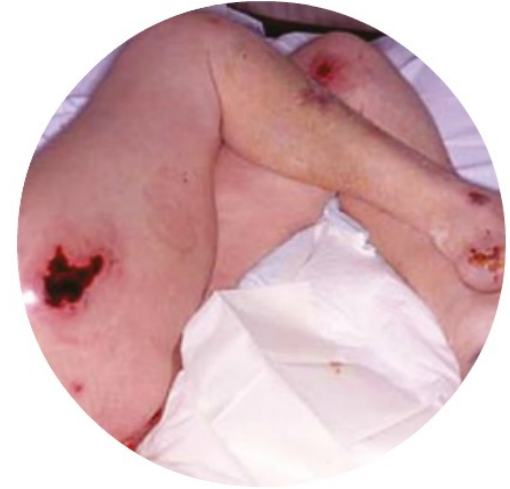
We envision a world where people
no longer suffer from chronic wounds



Diabetic foot ulcers



Venous leg ulcers



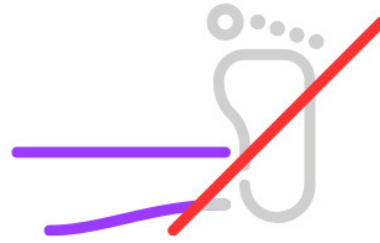
Pressure ulcers

Unmet need: 25% of all chronic wounds do not heal, **a silent epidemic**

5-year mortality rates: higher than prostate and breast cancer



140 million people worldwide
2% of the population



80% of amputations thru
diabetic foot ulcers.
One amputation **every 30 sec.**



Yearly global costs: **\$200B.**

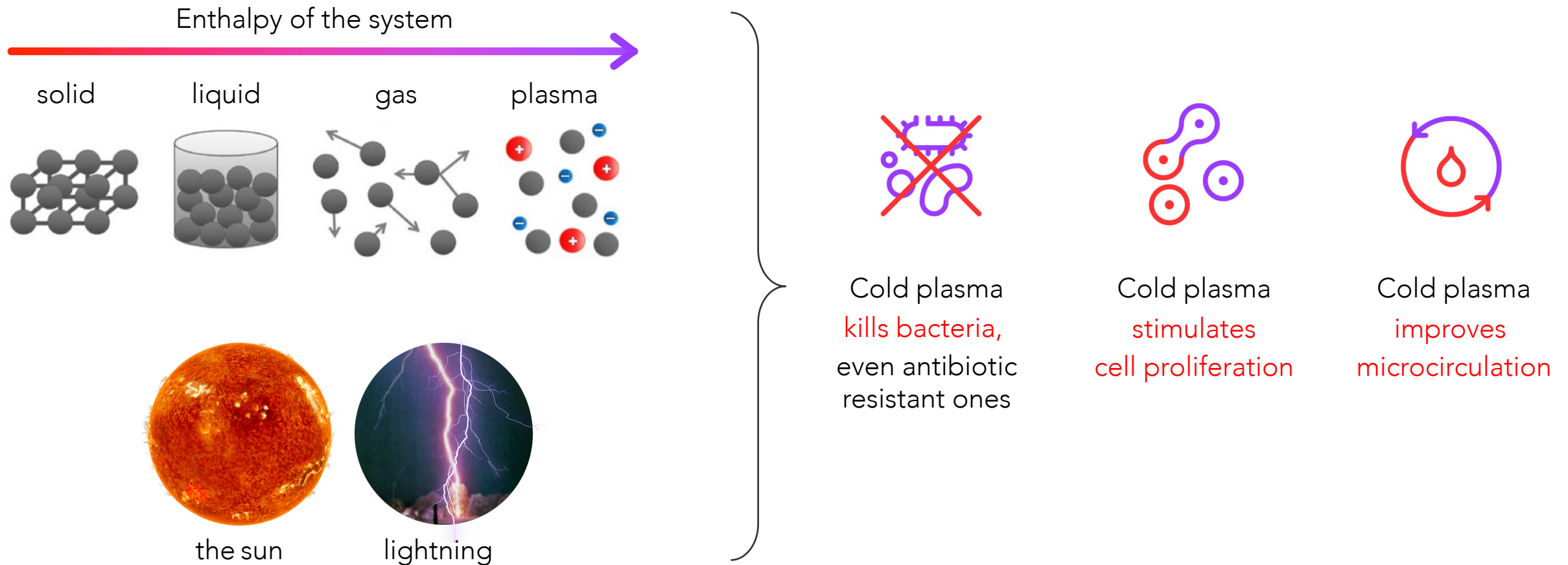
These wounds **cannot be cured with any treatment available today** and may persist for years.

Ref: Järbrink et al. Prevalence and incidence of chronic wounds and related complications: a protocol for a systematic review. Systematic Reviews (2016) 5:152

Ref: Prompers, Schaper, et al. Eurodiale Study

A new advanced therapy: cold plasma for Wound Healing

Transform atmospheric air into active gas with a.o. ozone and charged particles



Our solution PLASOMA: 2 minutes treatment, for clinical and home use

PLASOMA protected by various IP rights, 2 patents granted and 3 patent applications



PLASOMA cold plasma pad



2 Minutes

Fits in regular consult



PLASOMA cold plasma pulser

Clinical and home use

Cold plasma works, PLASOMA shows quantifiable results with 60% closed wounds

JAMA Network Open

Original Investigation | Diabetes and Endocrinology

Effect of Cold Atmospheric Plasma Therapy vs Standard Placebo on Wound Healing in Patients With Diabetic Foot A Randomized Clinical Trial

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Abstract

IMPORTANCE Diabetic foot ulcers are a common complication of diabetes and require specialized treatment. Cold atmospheric plasma (CAP) has been associated with benefits in wound infection and healing in previous smaller series of case reports. Yet the effect of CAP compared with standard care therapy in wound healing in diabetic foot ulcers remains to be studied.

OBJECTIVE To determine whether the application of CAP accelerates wound healing in diabetic foot ulcers compared with standard care therapy.

DESIGN, SETTING, AND PARTICIPANTS A prospective, randomized, placebo-controlled, patient-blinded clinical trial was conducted at 2 clinics with recruitment from August 17, 2016, to April 20, 2019. Patients were scheduled to remain in follow-up until April 30, 2024. Patients with diabetes and diabetic foot ulcers described using the combined Wagner-Armstrong classification of 1B or 2B (superficial or infected diabetic foot ulcers extending to tendon) were eligible. A patient could participate with 1 or more wounds in both groups in both intervention and control groups. Wounds were randomized separately, allowing a participant to be treated several times within the study following a 2 × 2 × 2 randomization strata considering sex, smoking status, and age (≤68 years and >68 years).

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Pilot study on the influence of cold atmospheric plasma on bacterial contamination and healing tendency of chronic wounds

Maurice Moelleken¹, Finja Jockenhöfer¹, Cornelia Wiegand², Jan Buer³, Sven Benson⁴, Joachim Dissemond¹

Cold atmospheric plasma as an effective method to treat diabetic foot ulcers: A randomized clinical trial

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Cold atmospheric plasma (CAP) was shown to decrease bacterial load in chronic wounds. It was also presented as a novel approach to healing wounds in both *in vitro* and *in vivo* experiments. We aimed to examine the first randomized clinical trial for the use of CAP in diabetic foot ulcers. Patients (n = 44) were randomly double-blinded, and assigned to receive standard care (SC, n = 22) without or with CAP, to be applied three times a week for three consecutive weeks (SC + CAP, n = 22), using block randomization with mixing block sizes of four. The trial was conducted at the Diabetes Research Center in Tehran, Iran. CAP was generated from ionized helium gas in ambient air, and driven by a high

Wound area decreased, reduction in pain

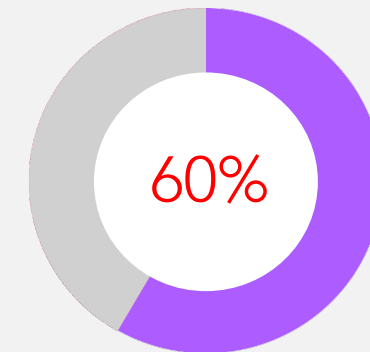
Meaning: In this study, the application of cold atmospheric plasma resulted in improvement in wound healing, which is

Wound surface reduction, reduction time to wound closure

Reduce wound size, accelerate wound healing

USP of PLASOMA - healing through:

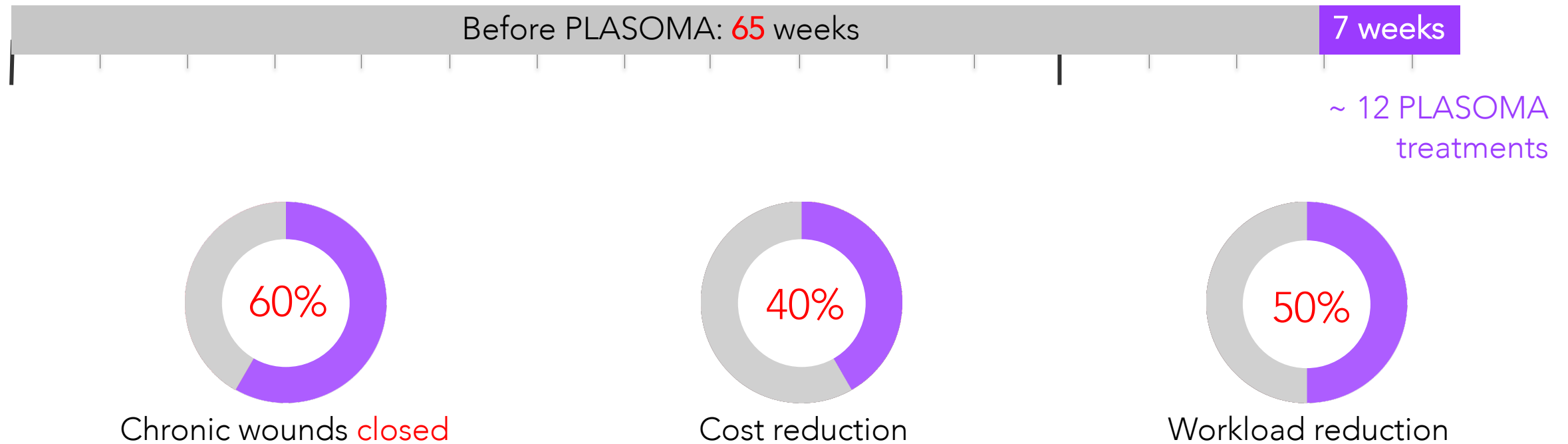
- direct plasma in the wound
- very strong plasma, high concentration
- 4 healing mechanisms in parallel



Chronic wounds closed

Superior clinical results fuel a strong ROI

Average wound age versus treatment duration until closure with PLASOMA:



Case studies report: www.plasmacure.nl/case-studies

100% healing after 119 days and regular PLASOMA treatment



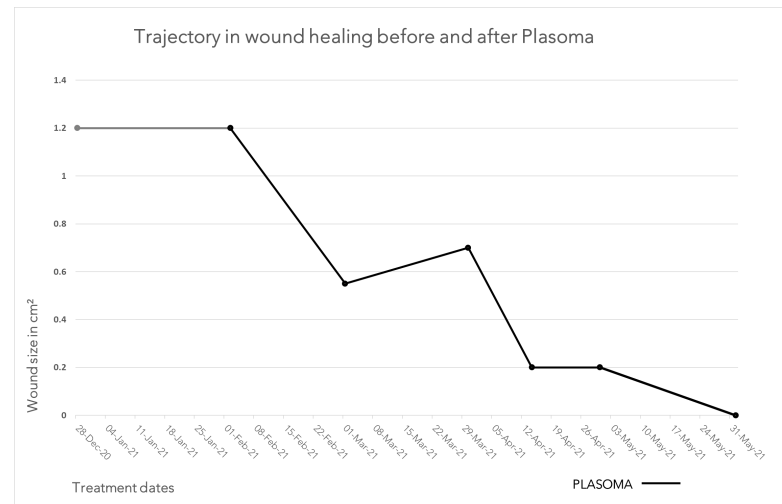
61 year old male with a neuropathic diabetic foot ulcer for 1737 days. The wound closed within 119 days.

Days

1737

119

Patient struggled with pressure relief on the wound area, the wound size was stagnant for a long time. The patient found the treatment to be helpful and improved his outcome.



Building strong foundation of PLASOMA accounts

Accounts:



Upcoming product placements:



Planned international expansion:



Plasmacure
wound healing

Questions to the audience:

Plasmacure sponsors 50 patients with PLASOMA treatments in the Netherlands.

- Do you know wound care organisations interested in trying PLASOMA cold plasma system?
- Are you interested in an internship for international business and market development?
- Do you know patients interested in participating in our clinical studies?



Your speaker today:

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