

# EquCellpen®

Quick Guide  
EN

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# Introduction

Dear Customer,

Thank you for choosing to purchase the EquCellpen®.

The EquCellpen® is an innovative physical therapy device from the field of plasma medicine. The pen generates a cold atmospheric plasma current by means of high voltage and direct dielectric barrier discharge. This current has an effect on the skin as well as on deeper tissue layers. As with all electrical medical equipment, special care is required with this device to avoid adverse effects and damage to the device.

This Quick Guide will help you.

## NOTE

**This device is intended to be used only by veterinary professionals for the treatment of horses.**

**Please read these operating instructions carefully before using the EquCellpen® and keep this document for future reference.**

# Explanation of symbols



**DANGER** - Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** - Disregarding the warning can cause harm to life and limb.



**CAUTION** - Indicates a low-risk hazardous situation which, if not avoided, could result in mild to moderate physical injury.



**NOTE** - Indicates practical information and tips that allow the product to be used with maximum effectiveness.

# Technical information



## Use of type BF

Galvanically insulated application part.



## EMC-tested

Electromagnetic compatibility.



## Cleaning

Do not clean directly with a spray.



## Disposal

Disposal only via a specialist dealer.  
Do not dispose of in household waste.

# Safety and care instructions

## NOTE

Clean the EquCellpen® and the electrode with disinfectant before and after treatment.



### Procedure:

Ensure that the pen is switched off. Apply disinfectant spray to a cleaning cloth and use it to clean the pen and the electrode.

### Important:

Do not spray the pen directly with disinfectant.



Do not immerse the pen in water or clean it under running water.

## CAUTION



Some electrodes of the EquCellpen® are made of glass and are therefore fragile. Do not carry out treatment if the electrode is damaged. **Never switch the pen on without the electrode inserted.**



Avoid contact between the electrode of the EquCellpen® and other electrical devices, as these may be damaged.



Although the device is EMC tested, we recommend keeping a safe distance of 1 meter from other electronic devices when operating the pen in order to avoid influencing its function.

**⚠ DANGER**



The EquCellpen® must be kept out of the reach of children.



Treatment must never be carried out by people with heart conditions or pacemakers.



Do not attempt any repairs yourself.

**⚠ WARNING**



If the therapist experiences any discomfort during or after the treatment, consult a doctor immediately.



Keep the EquCellpen®, battery, plug and charger away from open flames and hot surfaces.

# Safety and care instructions

## **Correct use**

The EquCellpen® must be used only for the purposes described in this Quick Guide. Use for purposes other than those for which the device is intended and independent technical modification of the device can be hazardous to health.

## **Electrical danger**

- Only charge the EquCellpen® with the charger and batteries supplied.
- Only use the charger with a properly earthed socket.
- Before commissioning, check whether the voltage specification on the charger matches the regional mains voltage.
- Check the EquCellpen®, the charger, the adapter cable and the electrodes regularly for damage.
- If the EquCellpen®, the charger, the adapter cable or the electrodes are damaged, do not use them under any circumstances. Damaged parts must be replaced.
- If the delivery is incomplete or has been damaged during transport, do not use the product. Contact the dealer from whom you purchased the product.
- Switch the device off when it is not being used and remove the battery, otherwise it may discharge.
- For safety reasons, the EquCellpen® switches itself off after 20 minutes. It must then be reactivated using the On/Off switch (see page 14).



# EquCellpen®-Set



## Contents

- Transport Case
- EquCellpen®
- Battery charger with mains adapter cable
- 2 rechargeable batteries
- Quick Guide EquCellpen®
- Space for 5 electrodes

Art. EQU-100

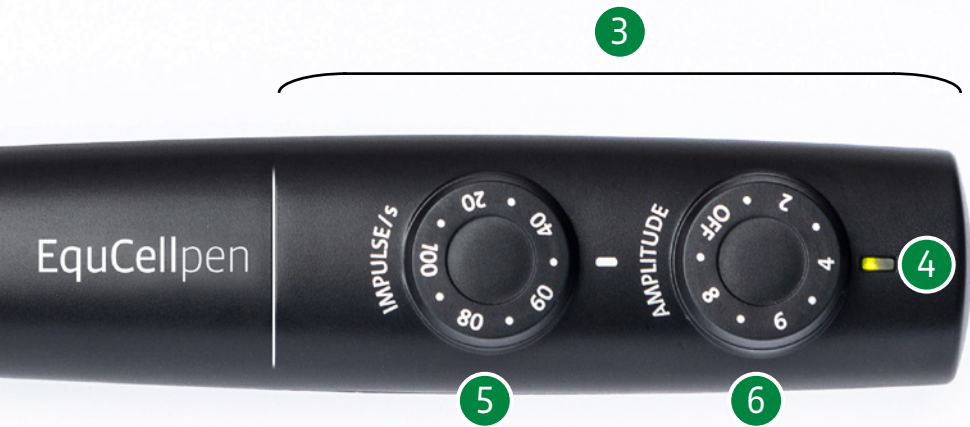
## Available glass electrodes

- Curved  
Art. CP-100.210
- Straight  
Art. CP-100.220
- Comb  
Art. CP-100.230
- Disc  
Art. CP-100.240

# Product description

- 1 Interchangeable electrode
- 2 EquCellpen® shaft
- 3 Handle with 2 rotary switches
- 4 Off position
- 5 «Impulses/s» rotary switch
- 6 «Amplitude» rotary switch with On/Off function
- 7 Rechargeable battery



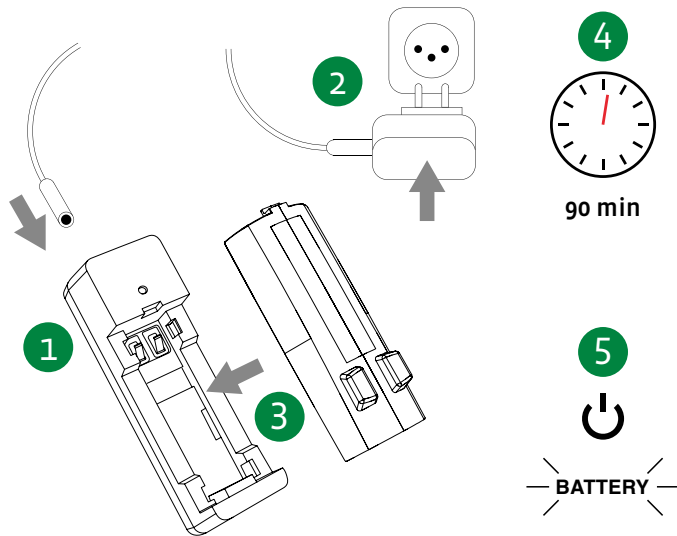


Back of the pen:  
Battery insert



# Charging process

- 1 Plug the mains cable into the battery charger.
- 2 Now connect the charger to a power socket. The charger lamp flashes twice.
- 3 You can now insert the rechargeable battery into the charger. The light will begin to blink continually.
- 4 In 90 minutes, the battery will be fully charged. The light now illuminates continuously.
- 5 When the battery needs to be recharged, the indicator light on the pen flashes red. Remove the battery and charge it.



# Commissioning

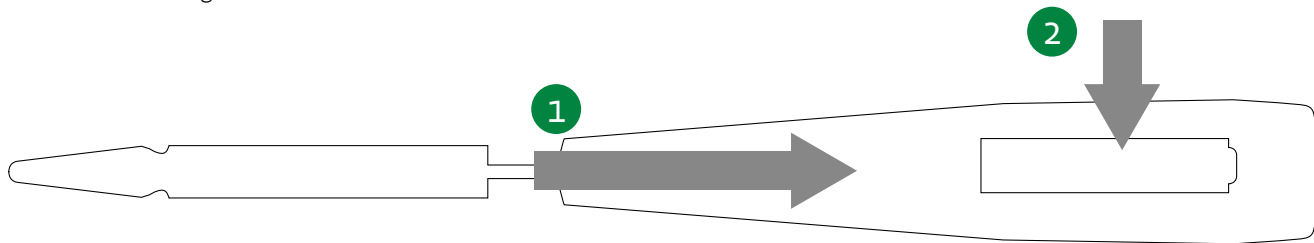
## Inserting the electrode and the rechargeable battery

- 1 Insert the electrode all the way into the EquCellpen® as far as it will go.
- 2 Insert a fully charged battery into the slot on the back of the device. When inserting the battery, pay attention to the alignment of the metal contacts and the locking notch.

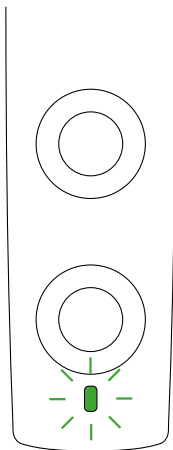
**⚠ CAUTION**



**Make absolutely sure that the «Amplitude» rotary switch is in the Off position before inserting the electrode and battery!**

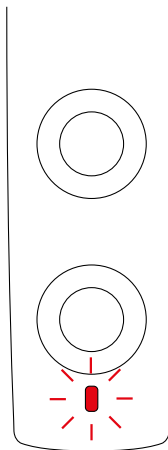


# Commissioning



## Switching on and settings

The EquCellpen<sup>®</sup> has two rotary switches on the handle that can be used to adjust the pen. To switch the pen on, turn the lower rotary switch to the left (if the Off point is adjacent to the light, the pen is switched off). The green light under the switch now lights up. The pen is ready for use. You can determine the values of the pulses and the amplitude during the treatment using the rotary switches. To do this, simply set the desired values to align with the mark.



## Carrying out treatment

Grasp the handle **behind** the line. Place the electrode on the therapy area (distance 0–2 mm). You will hear a crackling sound. Now move the electrode in slowly meandering movements over the surface to be treated without breaking contact.

## Operating time

The operating time of a battery is approx. 30–60 minutes, depending on the settings selected. The LED flashes green when the battery is discharging. If the LED lights up red, the remaining time is approx. 10 minutes.

# Principle of action

## **Direct cold atmospheric plasma (dCAP)**

The cordless pen successfully generates a high voltage from the power of a small 3.7-volt battery to produce therapeutic dCAP by means of direct dielectric barrier discharge. The plasma current can be directed precisely onto the skin surface to be treated with the help of variously shaped electrodes. The medical effect of dCAP has been proven in numerous studies.

## **Cell activity stimulation: promotes healing and inhibits inflammation**

dCAP directly stimulates the body's cells and changes their behaviour. Healing processes are promoted through increased cell proliferation, inflammation is reduced by influencing the formation of cellular mediators, and the immune system is boosted. The remodelling of tissue is improved.

## **Promotion of blood circulation leads to faster healing**

dCAP has an immediate and lasting hyperaemic effect on the treated tissue. The formation of new blood vessels is also stimulated. This improves metabolism and accelerates healing.

## **Antimicrobial and anti-parasitic effect**

The reactive species of dCAP, which contains ozone, hydrogen peroxide and other oxygen and nitrogen radicals, have a powerful antiseptic effect that does not encounter any resistance problems and is therefore effective against multiresistant microorganisms (MRSA). dCAP also has a fungicidal effect and has been shown to impair ectoparasites (lice, demodex).

# Indications/contraindications

For more information on the therapeutic use of the EquCellpen®, please refer to the updated Therapy Guide and the information on our website: [www.equcell.ch](http://www.equcell.ch)

## Selected indications for EquCellpen® therapy:

### Dermatology

- Abrasion injuries
- Decubitus ulcer
- Malanders
- Scars
- Saddle pressure
- Sweet itch
- Problems with wound healing
- Burns

### Orthopedics

- Desmitis of the suspensory ligament (PSD)
- Kissing spines
- Tendon lesions (SDFT/DDFT)
- Tendinitis

### Physiotherapy

- Muscle spasms of the spine
- Trigger points
- Post-operative healing
- Hematomas
- Muscle relaxation

The EquCellpen® is intended exclusively for professional use. This device may be used only by veterinary professionals for the treatment of horses.



**Pregnant animals are excluded from treatment due to insufficient data on safety. For the same reason, patients may not be treated in the following areas:**

- **Eyes**
- **Close to the heart**
- **Jugular groove (Vagus nerve)**



# Dosage rules

## «Impulses/s» rotary switch

- Allows adjustment of the pulse frequency from 10 to 100 Hertz (pulses per second).
- Special function at level 10: the device's pulse frequency and output power are automatically and synchronously modulated up and down from the lowest to the highest setting. The «Amplitude» rotary switch is disabled with this function. This mode allows higher doses to be applied to sensitive areas and ideal for neurodesensitisation.
- The lower the frequency, the greater the depth of penetration into the tissue.
- Low pulse frequencies are suitable for orthopedic therapies.
- High pulse frequencies are suitable for dermatological therapies.

## «Amplitude» rotary switch

- Allows the device's output power to be regulated in 9 steps, which determines the intensity of the therapy.
- For habituation select a low setting and increase it.
- The higher the setting, the greater the depth of penetration into the tissue.

## Therapy duration

- The treatment time per unit area under the electrode is 60–90 seconds at the highest amplitude. Always move the electrode. With a lower amplitude, the therapy duration must be extended according to the lower amplitude selection and thus reduced power.

# Electrode application

## 1. Curved glass electrode

The curved glass electrode is suitable for intensive local treatment with deep penetration, as is often desired for orthopedic therapies. In physiotherapy, this electrode is highly suitable for the treatment of trigger points or the stimulation of acupuncture points. Another example of the application of this electrode is irritating scar tissue.



## 2. Straight glass electrode

This glass electrode can be applied both at the tip and laterally over a wide area and can therefore be used as a versatile universal electrode.

### **Form of treatment: spot-focused**

Particularly suitable for orthopedic use, for example, treatment of tendons.

### **Form of treatment: wide-area**

Particularly suitable for dermatological use, for example, for malanders.



# Electrode application

## 3. Comb glass electrode

This electrode with four prongs was developed for the treatment of areas with long and dense fur and allows multipoint therapy. The wide range of applications extends from dermatology to orthopedics and physiotherapy.



#### 4. Disc glass electrode

This electrode has a larger treatment surface than all other electrodes and is used for wide-area treatment. It is particularly useful in dermatology. Because the power is distributed over a larger surface area, this electrode provides a gentler effect.



# Technical specifications/standards

## Product designation:

Cold plasma therapy device

## Article:

EQU-100.100

## Product:

EquCellpen®

## Generation:

2024



## Conformity:

DIN Spec 91315 Medical plasma source

Harmonized standards:

EN 60529:2014-09;VDE 0470-1:2014-09;VDE 0470-1:2014-09

EN 60601-1:2013-12;VDE 0750-1:2013-12

IEC 61000-3

IEC 61000-4

EN 55011

Directive 2014/30/EU, electromagnetic compatibility (EMC)

Directive 2014/35/EU, to the making available on the market of electrical equipment designed for use within certain voltage limits

Directive 2001/95/EG, general product safety

Directive 2011/65/EU, restriction of hazardous substances in electronic equipment (RoHS)

## Technical specifications

### EquCellpen®:

Max. output voltage: 25 KVAC

Maximum output power straight

glass electrode: 140 mW/cm<sup>2</sup>

Maximum output power disc

glass electrode: 25 mW/cm<sup>2</sup>

Pulse frequency: 10–100 Hz

Operating voltage: 3.7 VDC

### Battery:

Li-ion battery

Output voltage: 3.7 VDC

### Operating environment:

Temperature: 5–25°C

Humidity: 15–80%

### Power supply unit for chargers:

Input voltage: 100–240 VAC

Output voltage: 12 VDC

Max. output current: 1.1 A

### Charger:

Input voltage: 12 VDC

Max. output voltage: 4.2 V

# Warranty conditions

ActivCell Group AG grants a warranty period of 2 years from date of purchase on the pen and its accessories, excluding rechargeable batteries. The rechargeable batteries are guaranteed for one year if stored properly. The product or parts thereof will be repaired or replaced free of charge if the defect is reported in writing by the customer to the distributor within 14 working days after receipt of the goods or the date of occurrence of the damage.

Damage to the glass electrodes as a result of glass breakage and damage as a result of improper handling, mechanical damage as a result of dropping, and water damage to the electronics are excluded from the warranty.

The warranty will be invalidated if technical modifications or independent, improper repairs are made to the products without the written consent of ActivCell Group AG. To the extent permitted by law, liability for damages is excluded.

In particular, ActivCell Group AG is not liable for damage that is attributable to improper use or natural wear and tear, or for damage that has not occurred to the delivery item itself (consequential damage).

## **Manufacturer**

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