



Deep heat therapy

Tecarpuls-II
Therapy book

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Electrotherapy in the high-frequency range

Background information

The therapeutic application of electrical and magnetic or electromagnetic fields in the frequency range of 300 kHz – 300 GHz is known as electrotherapy in the HF range. However, only a few narrow frequency bands are permitted for medical applications in the frequency range indicated. What are known as ISM (Industrial Scientific Medical) bands are those in the

- Microwave range 890 – 949 MHz and 2400 – 2500 MHz;
- Decimetric wave (UHF) range in Europe 433.92 MHz $\pm$ 0.2%;
- Radiofrequency (RF) range
 - 13.56 MHz $\pm$ 0.05%
 - 27.12 MHz $\pm$ 0.6%
 - 40.98 MHz $\pm$ 0.05%.

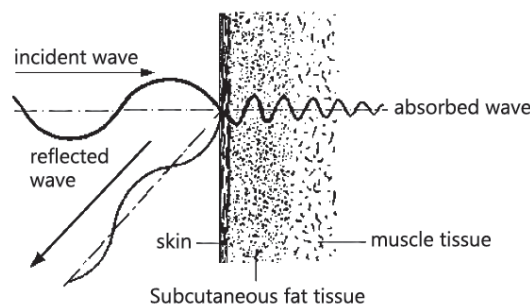
The table lists the electrotherapy methods in the high-frequency range currently used.

Type of therapy	Wavelength (vacuum) frequency/MHz	Stimulation	Application through field typ
Short wave	11.06 m 27.12 $\pm$ 0.2%	Continuously Pulse	Electrical Magnetic
Decimetric wave	69 cm 433.92 $\pm$ 0.2%	Continuous	Electromagnetic
Microwave	12.5 cm 2450 $\pm$ 50	Continuous Pulsed	Electromagnetic

Electrotherapy in the high-frequency range

The most important physiological and therapeutic effect of high-frequency electrotherapy is the heat effect. Effects on the molecular and cellular level as well as the effect in the case of long-term exposure to low-intensity electromagnetic fields are additionally discussed.

In the case of the form of electrotherapy in the high-frequency range examined below, the thermal effect is clearly predominant. This is caused by the conversion of electrical energy into heat in the tissue treated.



Because of the electrical properties, tissue acts like a dielectric of a capacitor with ohmic losses which are converted into heat for therapeutic use in the tissue. The electrical output converted into heat in the tissue is crucial for the therapeutic effect.

This means that a tissue with significant electrical conductivity (low resistance) will be heated less than tissue with low electrical conductivity (high resistance).

Perpendicular to the electrical field is the magnetic field for which body tissues represent practically no resistance such that it flows through the various tissues without any losses. Perpendicular to the field lines of the magnetic field, however, an induced electrical field (eddy currents) develops which is weakened in the tissue through absorption.

In accordance with the electrical properties of the tissue, these induced eddy currents preferentially develop in highly conductive tissues where they are of course also absorbed, more likely resulting in a heating of the highly conductive muscles here. In high frequency, electromagnetic fields lead to a rotation of biological dipoles, thus amphoteric molecules, which have both positive and negative charges and which are outwardly electrically neutral. The rotation generates heat through friction and thus the biological effect is based primarily on a heating of the tissue according to its electrical properties.

Electrotherapy in the high-frequency range

In addition, the electrical potentials of a few mV on the cell membranes also generate a low flow of electrical currents such that a latent activation of the cell membranes can also be assumed. Possible nonthermal effects could be based on mechanisms of this type, thus on biological effects, such as the acceleration of metabolic and healing processes.

The Tecarpuls-II device, with frequencies of 460 kHz and 540 kHz, is in the lower range of high-frequency therapy. The Tecarpuls-II is a long-wave therapy device.

The Tecarpuls-II device forms an electrical field in the tissue between the two plate capacitors which are attached as electrodes to the surface of the body. A current flows between the capacitor plates. An alternating field, as in the Tecarpuls-II device, is what is known as a displacement current because the tissue connects the two plates as a conductive medium. In this case, the size of the current depends on the conductivity of the tissue.

In accordance with the physical properties and the conductive behaviour of the various tissues, the higher frequency (540 kHz) is thus described as capacitive and the lower frequency (460 kHz) is described as resistive.

The various tissue structures act according to their electrical conductivity as ohmic resistances. Since the subcutaneous fat tissue is upstream of the conductive tissues and has a lower conductivity, the energy conversion there becomes particularly high under the therapy electrode as a result of the energy concentration. In the body, the current then follows the paths of good conductivity, such as the muscle tissue. Current flows around tissues with low conductivity, such as the internal organs, which are surrounded by a protective layer of fat, or cells, since they are surrounded by a poorly conductive membrane.

The heating takes place in deeper layers without subjecting internal organs to thermal stress.

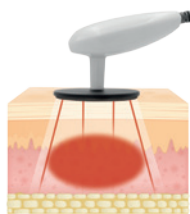


Tecarpuls-II

What is special about the Tecarpuls-II

The Tecarpuls-II has two modes for different areas of application:

- Capacitive mode for superficial structures, such as muscles
- Resistive mode for application to deeper structures, such as tendons, ligaments



Capacitive mode



Resistive mode

The Tecarpuls-II offers various methods for performing the treatment:



One dynamic electrode + one static common electrode

Dynamic 1:

- 1 dynamic electrode
- + 1 static common electrode



Two dynamic electrodes

Dynamic 2:

- 2 dynamic electrode S



Two static self-adhesive electrodes

Hands-free:

- 2 static self-adhesive electrodes

Therapeutic effects

- Stimulation of the heat receptors through heating of tissues (reduction)
- Local increase in perfusion and circulation of blood through vascular dilatation
- Local improvement in flow properties of joint fluid
- Improvement in elasticity of the connective tissue
- Improvement in trophicity, also of bradytrophic tissue
- Reduction in tension and relief of/reduction in pain
- Accelerated repair mechanisms through increased metabolic rate
- Increase in resorption



Contraindications

Contraindications (relative, absolute)

- Pacemakers and all other active implants
- Hearing aids
- Metal implants and other metal objects in the electrical field, such as copper IUDs
- Use in the region of malignant/benign tumours
- Pregnancy
- Thromboses
- Active osteoarthritis and inflammation
- Open wounds
- Treatment on mucous membranes
- Reduced skin or body temperature
- Treatment in the head region
- Treatment over the heart
- Epilepsy
- Angina pectoris
- Cardiovascular diseases
- Nervous disorders
- Neoplasms
- Blood clotting disorders
- Thrombophlebitis
- Abnormal temperature perception

Caution is indicated in the case of persons

- who have sensitivity disorders
- who are not able to adequately express pain
- who are under the influence of drugs and/or alcohol, as significant circulatory stress and inadequate treatment reactions cannot be ruled out.

Application recommendations

Note:

The following recommendations are only guidelines and must of course be adapted to the patient's individual situation!

Preparation

Position the patient comfortably and securely for the treatment.

Select a position in which the person performing the treatment is upright and can easily reach the treatment area and in which the handpiece can be placed flat.



Position the patient comfortably for the treatment.

Applicators

3 applicators of different sizes for capacitive application

3 applicators of different sizes for resistive application

L/M: for applications over larger areas

S: for applications over smaller areas



capacitive



resistive

Common electrodes

Different common electrodes:

- Common electrode made of aluminium
- Self-adhesive common electrode

Placement of the indifferent/common electrode

If possible, the indifferent/common electrode should be placed below the area to be treated.



Common electrode made of aluminium



Self-adhesive common electrode

Application recommendations

Tecarpuls-II cream

Optimal energy transfer can only be guaranteed in connection with the special conductive Tecarpuls-II cream.

Note:

During treatment with Tecarpuls-II, only use the Tecarpuls-II conductive cream specially developed for this application.

The Tecarpuls-II cream is very skin compatible and can even be used on very sensitive skin.

The Tecarpuls-II cream has excellent gliding properties. Because of this, the amount of cream normally needed for a therapeutic application can be reduced and this decreases the cost of consumables.



Treatment time

Depending on the size of the treatment area and the disease state, the recommended treatment time is between 10 and 20 minutes.

Dosage

The dosage should create a gentle warming feeling and depends on the patient's subjective perception.

Note:

The patient should be carefully monitored during the therapy.

Treatment protocols/recommendations

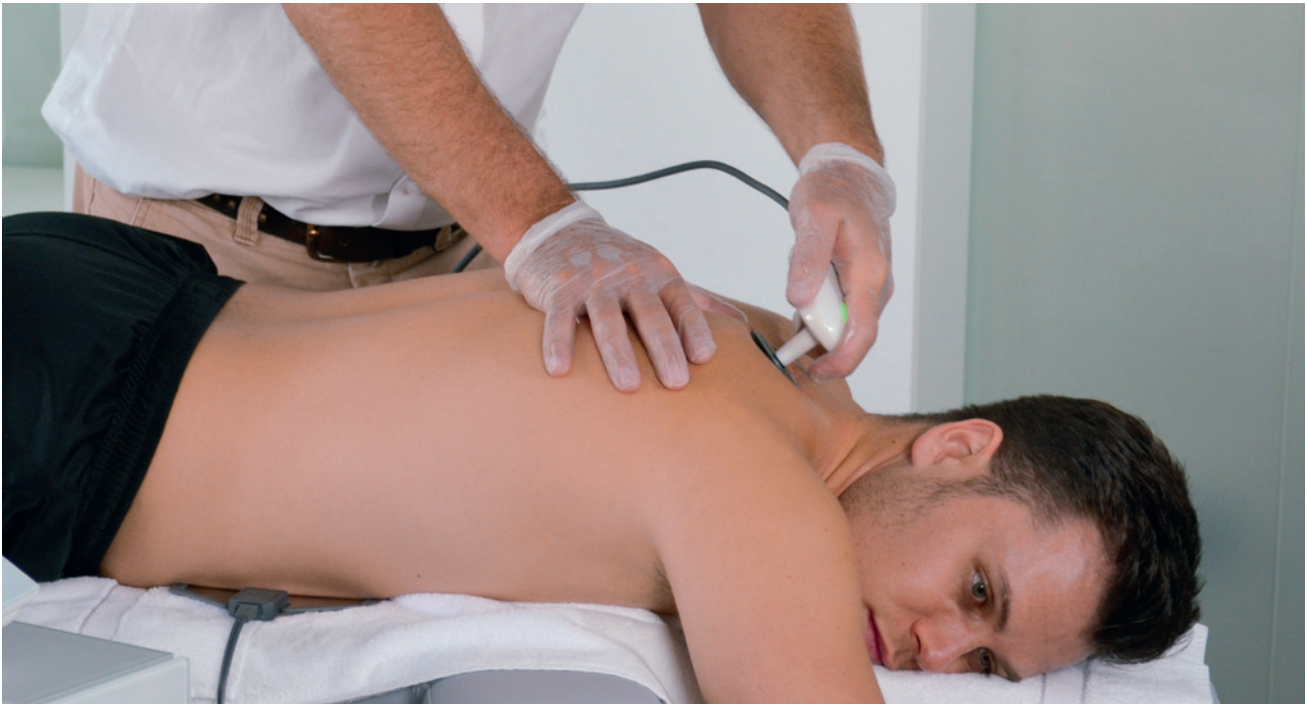
Cervical spine/neck pain



	Acute	Chronic
Position	Prone or supine	Prone or supine
COM electrode XL	Thoracic/lumbar	Thoracic/lumbar
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	16 min.	20 min.
Treatment recommendations	Careful stroking of the muscles of the cervical spine/thoracic spine, focusing on the areas between the shoulder blades and the neck Treatment of trigger points	Massage for the vascularisation of all muscles of the cervical spine with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Cervical spine/osteoarthritis



	Acute	Chronic
Position	Prone or supine	Prone or supine
COM electrode XL	Lumbar spine	Lumbar spine
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	20 min.
Treatment recommendations	Slow, relaxing massage of the areas between the shoulder blades and the neck, focusing on the rhomboids and trapezius muscle Treatment of trigger points	Cervical spine with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Cervical spine/cervicobrachial syndrome



	Acute	Chronic
Position	Prone or supine	Supine or lateral position
COM electrode XL	Shoulder, ventral or thoracic	Shoulder, ventral or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	20 min.
Treatment recommendations	Careful stroking from the cervical spine to the hand along the course of the pain (e.g. in the dermatome) Treatment of trigger points	Vascularising massage of the neck muscles, the trapezius muscle, all flexor muscles and the lower arm pronators along the course of the pain (e.g. in the dermatome) with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Shoulder/osteoarthritis



	Acute	Chronic
Position	Seated or supine	Supine or lateral position
COM electrode L	Upper arm medial or thoracic	Upper arm medial or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	12 min.	18 min.
Treatment recommendations	Slow, relaxing massage from the cervical spine over the acromio-clavicular to the glenohumeral region Treatment of trigger points	Massage in the entire shoulder region with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Shoulder/impingement syndrome



	Acute	Chronic
Position	Supine or lateral position	Supine or lateral position
COM electrode L	Upper arm medial or thoracic	Upper arm medial or thoracic
Applicator	M/S	M/S
Method	Phase 1: Capacitive Phase 2: Resistive	Phase 1: Resistive Phase 2: Capacitive
Duration	Phase 1: 6 min. Phase 2: 6 min.	Phase 1: 8 min. Phase 2: 8 min.
Treatment recommendations	1st phase: Gentle massage glenohumeral and acromiohumeral 2nd phase: Gentle massage of the lev. scap./ trapezius/ supraspinatus muscles Treatment of trigger points	1st phase: Slow massage, gleno- and acromiohumeral region, in the area of the tendon insertion points and bursae 2nd phase: Intensive massage with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Shoulder/rotator cuff lesion



	Acute	Chronic
Position	Supine or lateral position	Supine or lateral position
COM electrode L	Upper arm medial or thoracic	Upper arm medial or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	10 min.	12 min.
Treatment recommendations	Gentle massage in the entire neck and arm region Treatment of trigger points	Intensive massage of the cervical spine/shoulder/arm with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Elbow/bursitis



	Acute	Chronic
Position	Supine	Supine
COM electrode L	Scapular region/thoracic	Scapular region/thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	10 min.	12 min.
Treatment recommendations	Massage around the localisation of the inflammation Treatment of trigger points	Functional massage of the respective structure and muscles
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Elbow/epicondylitis



	Acute	Chronic
Position	Seated or supine	Seated or supine
COM electrode L	Lower arm or thoracic	Lower arm or thoracic
Applicator	M/S	M/S
Method	Phase 1: Capacitive Phase 2: Resistive	Phase 1: Resistive Phase 2: Capacitive
Duration	Phase 1: 5 min. Phase 2: 5 min.	Phase 1: 6 min. Phase 2: 6 min.
Treatment recommendations	1st phase: Massage of the surrounding muscles (e.g. extensor carpi radialis longus, extensor digitorum or biceps brachii muscles) Treatment of trigger points 2nd phase: Massage radioulnar and humeroradial joint	1st phase: Massage radioulnar or humeroradial 2nd phase: Extension to the finger extensors and the upper arm in a prestretched position + cervical massage
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Elbow/fracture sequelae



	Acute	Chronic
Position	Supine	Supine
COM electrode L	Scapular region/thoracic	Scapular region/thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	Massage of the neck and shoulder muscles to the fracture Treatment of trigger points	Functional massage of the neck, shoulder and lower arm muscles with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Hand/osteoarthritis



	Acute	Chronic
Position	Seated or supine	Seated or supine
COM electrode XL	Lower arm or thoracic	Lower arm or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	<p>Massage from the hand to the cubital fossa</p> <p>Gentle massage of the wrist</p> <p>Treatment of trigger points</p>	Functional massage of the muscles at the wrist, elbow and fingers
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Hand/fracture sequelae



	Acute	Chronic
Position	Seated or supine	Seated or supine
COM electrode L	Lower arm or thoracic	Lower arm or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	18 min.
Treatment recommendations	Massage of the arm Treatment of trigger points	Functional massage of the entire arm with/without intensive stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Hand/carpal tunnel syndrome



	Acute	Chronic
Position	Seated or supine	Seated or supine
COM electrode L	Lower arm or thoracic	Lower arm or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	20 min.
Treatment recommendations	Massage on the volar wrist, lower arm, and in the palm Treatment of trigger points	Massage on the volar wrist, lower arm, and palm in a prestretched position
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Hand/tendinitis



	Acute	Chronic
Position	Seated or supine	Seated or supine
COM electrode L	Lower arm or thoracic	Lower arm or thoracic
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	18 min.
Treatment recommendations	Gentle massage of the affected muscles Treatment of trigger points	Intensive functional massage of the affected muscles (tendon sheath) to the cervical spine with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Lumbar spine/lumbosciatica



	Acute	Chronic
Position	Prone	Prone or lateral position
COM electrode XL	Quadriceps muscle	Quadriceps muscle or under contralateral hip
Applicator	L/M	M/S
Method	Capacitive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	Slow massage from the popliteal fossa upwards along the ischiocrural muscles. Treatment of trigger points – Valleix's pressure points	Massage of the lumbar spine and along the entire course of the sciatic nerve with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Lumbar spine/arthritis



	Acute	Chronic
Position	Prone or supine	Prone or supine
COM electrode XL	Thoracic	Thoracic
Applicator	L/M	L/M
Method	Resistive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	Slow massage of all relevant muscles Treatment of trigger points	Intensive massage of all relevant muscles with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Lumbar spine/low back pain; nonspecific pain in the lower back



	Acute	Chronic
Position	Prone or lateral position	Prone or lateral position
COM electrode XL	Thoracic or under the hip	Thoracic or under the hip
Applicator	M/S	M/S
Method	Phase 1: Capacitive Phase 2: Resistive	Phase 1: Capacitive Phase 2: Resistive
Duration	Phase 1: 8 min. Phase 2: 8 min.	Phase 1: 10 min. Phase 2: 10 min.
Treatment recommendations	1st phase: Treatment of trigger points 2nd phase: Massage of all spinal muscles paravertebrally	1st phase: Massage of all muscles of the lumbar spine with/without stretching 2nd phase: Massage along the spinal segments
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Lumbar spine/spondylarthrosis



	Acute	Chronic
Position	Prone or lateral position	Prone or lateral position
COM electrode XL	Thoracic or under the hip	Thoracic or under the hip
Applicator	L/M	L/M
Method	Phase 1: Capacitive Phase 2: Resistive	Phase 1: Capacitive Phase 2: Resistive
Duration	Phase 1: 8 min. Phase 2: 8 min.	Phase 1: 8 min. Phase 2: 10 min.
Treatment recommendations	1st phase: Slow, relaxing massage of the spinal muscles, treatment of trigger points 2nd phase: Application in the entire paravertebral region	1st phase: Massage of all muscles of the spine in a stretched position 2nd phase: Massage of the spinal structures
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Hip/piriformis syndrome



	Acute	Chronic
Position	Prone	Prone or lateral position
COM electrode XL	Quadriceps muscle	Quadriceps muscle or under contralateral hip
Applicator	L/M	L/M
Method	Capacitive	Capacitive
Duration	12 min.	15 min.
Treatment recommendations	Slow massage between the sacral region and trochanter Treatment of trigger points	Slow massage along the back muscles and between the sacral region and trochanter with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Hip/trochanteric bursitis



	Acute	Chronic
Position	Prone	Prone or lateral position
COM electrode XL	Quadriceps muscle	Quadriceps muscle or under contralateral hip
Applicator	L/M	L/M
Method	Capacitive	Resistive
Duration	12 min.	12 min.
Treatment recommendations	Massage along the myofascial chain From calf to lumbar spine	Slow massage between the buttock and thigh region with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Groin/osteitis pubis



	Acute	Chronic
Position	Supine	Supine
COM electrode XL	Lower arm or thoracic	Lumbar spine
Applicator	L/M	L/M
Method	Phase 1: Capacitive Phase 2: Resistive	Phase 1: Capacitive Phase 2: Resistive
Duration	Phase 1: 6 min. Phase 2: 6 min.	Phase 1: 8 min. Phase 2: 8 min.
Treatment recommendations	1st phase: Massage along the adductor muscles Treatment of trigger points 2nd phase: Massage along the tendon insertion points at the pubic bone.	1st phase: Massage along the adductor muscles 2nd phase: Slow massage along the tendon insertion points at the pubic bone with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Groin/osteoarthritis of the hip



	Acute	Chronic
Position	Prone or supine	Prone or supine
COM electrode XL	Quadriceps muscle or lumbar spine	Quadriceps muscle or lumbar spine
Applicator	L/M	L/M
Method	Capacitive	Resistive
Duration	12 min.	12 min.
Treatment recommendations	<p>Slow massage in the region of the buttocks and thighs</p> <p>From a supine position – in the adductor and groin region</p> <p>Treatment of trigger points</p>	<p>Slow massage between the buttock and thigh region as well as from a supine position in the adductor and groin region with/without prestretching.</p>
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Leg/muscle fibre injury



	Acute	Chronic
Position	Prone	Prone
COM electrode XL	Quadriceps muscle	Quadriceps muscle or lumbar spine
Applicator	L/M	L/M
Method	Capacitive	Resistive
Duration	15 min.	15 min.
Treatment recommendations	Massage along the myofascial chain From calf to lumbar spine	Massage for decontraction of the affected muscle to restore the muscle length and elasticity of the muscle, with/without prestretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Knee/reconstruction of the anterior cruciate ligament



	Acute	Chronic
Position	Supine or prone	Supine or prone
COM electrode XL	Gluteal/ischiocrural or quadriceps muscle	Gluteal/ischiocrural or quadriceps muscle
Applicator	L/M	L/M
Method	Capacitive	Capacitive
Duration	12 min.	20 min.
Treatment recommendations	<p>Massage in para- and suprapatellar region and/or of the calf to the lumbar spine.</p> <p>Treatment of trigger points</p>	Functional massage of the leg muscles ventrally and/or dorsally and around the patella
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Knee/osteoarthritis of the knee



	Acute	Chronic
Position	Supine	Supine or prone
COM electrode XL	Buttocks region or quadriceps muscle	Buttocks region or quadriceps muscle
Applicator	M/S	L/M
Method	Capacitive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	Circular massage in the parapatellar and popliteal regions Treatment of trigger points	Functional massage along the leg muscles ventrally and/or dorsally and around the patella with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Knee/tendinitis



	Acute	Chronic
Position	Supine	Supine
COM electrode XL	Gluteal/ischiocrural	Gluteal/ischiocrural
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	18 min.
Treatment recommendations	<p>Massage at the quadriceps muscle, quadriceps tendon, and around the patellar tendon.</p> <p>Treatment of trigger points</p>	<p>Functional massage of the quadriceps muscle, parapatellar region and the patellar tendon with/without prestretching</p>
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Foot/supination trauma



	Acute	Chronic
Position	Prone or supine	Prone or supine
COM electrode XL	Quadriceps muscle or gastrocnemius muscle	Quadriceps muscle or lumbar spine
Applicator	L/M	L/M
Method	Capacitive	Resistive
Duration	15 min.	20 min.
Treatment recommendations	Massage of the leg muscles from the foot to the lumbar spine Treatment of trigger points	Functional massage of the leg muscles and the external ligaments
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Foot/plantar fasciitis



	Acute	Chronic
Position	Prone	Prone
COM electrode XL	Gastrocnemius muscle or quadriceps muscle	Gastrocnemius muscle or quadriceps muscle
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	Massage from the ball of the foot to the heel region and the gastrocnemius muscle Treatment of trigger points	Intensive massage in plantar region and to the lumbar spine with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Foot/fracture sequelae



	Acute	Chronic
Position	Prone or supine	Prone or supine
COM electrode XL	Ischiocrural/gluteal or quadriceps muscle	Ischiocrural/gluteal or quadriceps muscle
Applicator	M/S	M/S
Method	Capacitive	Resistive
Duration	15 min.	20 min.
Treatment recommendations	Massage from the sole of the foot with consistent, slow longitudinal and lateral movements, going up to the thigh, with the application of gentle pressure. Treatment of trigger points	Massage along the leg muscles with/without stretching
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

Treatment protocols/recommendations

Foot/Achilles tendinitis



	Acute	Chronic
Position	Prone	Prone
COM electrode XL	Ischiocrural or quadriceps muscle	Ischiocrural or quadriceps muscle
Applicator	M/S	L/M
Method	Capacitive	Resistive
Duration	12 min.	15 min.
Treatment recommendations	<p>Slow massage from the heel to the soleus muscle and along the gastrocnemius muscle to the Achilles tendon</p> <p>Treatment of trigger points</p>	<p>Intensive massage from the heel to the soleus muscle and further on to the ischiocrural muscles with/without prestretching</p>
Objective	Relief of pain/muscle tension	Improvement of mobility and vascularisation

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NOTE

Please also always follow the instructions for use for the Tecarpuls-II device. The device may only be operated or used by skilled and specially trained operators. Enraf-Nonius, as a company, cannot provide a recommendation on the contents or a commitment regarding the contents of this information. The contents are provided exclusively for information purposes.

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Deep heat therapy

Tecarpuls-II
Therapy book