

# PLACEMENT

BROCHURE



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# Understanding **TENS** and **EMS**:

## Harnessing Electrotherapy for Pain Relief and Muscle Activation

**TENS** (Transcutaneous Electrical Nerve Stimulation) and **EMS** (Electrical Muscle Stimulation) are two forms of electrical stimulation therapy that offer non-invasive and drug-free alternatives for pain relief and muscle activation. These therapies employ low-level electrical currents to target nerves and muscles. While both therapies share the common goal of improving well-being, they operate through distinct mechanisms and offer unique benefits.



# HOW DOES IT WORK?



SOOTHING PULSES INTERCEPT PAIN SIGNALS BEFORE THEY REACH THE BRAIN.



THEY STIMULATE THE PRODUCTION OF ENDORPHINS, YOUR BODY'S NATURAL PAIN KILLERS.



THAT RELAXES MUSCLES AND INCREASES BLOOD FLOW TO WASH AWAY INFLAMMATORY TOXINS.





# TENS:

## Two Theories at Work

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1

TENS therapy is grounded in two essential theories that underpin its effectiveness in alleviating pain. The first theory, known as the “gate control theory,” provides insights into how TENS works on a physiological level. According to this theory, pain and non-pain impulses travel through the local nervous system, with the spinal cord acting as a gatekeeper, selectively allowing certain impulses to reach the brain. By employing TENS devices to stimulate the nerves with non-pain impulses, stronger signals effectively “control the gate,” overriding pain signals and reducing the perception of pain [Source: Melzack and Wall, 1965].

2

In addition to the gate control theory, the second theory focuses on the release of endorphins. TENS therapy is believed to stimulate the production and release of endorphins, natural pain-relieving chemicals present in our bodies. Endorphins interact with pain receptors, effectively blocking the perception of pain, much like pharmaceutical painkillers such as morphine but without the associated side effects.

*TENS therapy offers a versatile approach to pain management, and it can be used to treat a variety of pain conditions, including:*

- Chronic pain
- Acute pain
- Pain from injuries
- Arthritis (osteoarthritis and rheumatoid arthritis)
- Muscle tension and tightness
- Back pain (lower and upper back)
- Neck pain and stiffness
- Shoulder pain (including frozen shoulder)
- Knee pain (including conditions like patellar tendinitis)
- Headaches (including tension headaches and migraines)
- Nerve pain (neuropathic pain, such as diabetic neuropathy or sciatica)
- Postoperative pain
- Menstrual cramps
- Labor pain (used by some women during labor)
- Fibromyalgia
- Sports injuries
- Carpal Tunnel Syndrome
- Phantom limb pain
- Chronic pain conditions (e.g., chronic regional pain syndrome or CRPS)
- Cancer-related pain (especially when used alongside other treatments)
- TMJ pain (associated with temporomandibular joint disorders)
- General muscle pain in different parts of the body

TENS therapy empowers individuals to take control of their pain and enhance their overall quality of life, providing an alternative to medication and minimizing discomfort.

# EMS:

## Empowering Muscles for Strength and Recovery

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EMS therapy focuses on activating motor neurons to stimulate muscle contractions. Motor neurons act as messengers, conveying signals from the brain to the muscles, triggering their contraction. By employing EMS, individuals can unlock a range of benefits that promote muscle strength, mobility, and recovery.

*EMS can be used to treat a variety of conditions, including:*

- Muscle Strengthening: EMS can be used for muscle strengthening and toning.
- Rehabilitation: It's effective for post-injury or post-surgery muscle rehabilitation.
- Athletic Performance: Athletes use EMS for enhancing muscle performance and recovery.
- Muscle Atrophy Prevention: EMS can help prevent muscle atrophy, especially after long periods of inactivity.
- Spinal Cord Injury: EMS is used in rehabilitation programs for individuals with spinal cord injuries.
- Stroke Rehabilitation: EMS can assist in stroke rehabilitation for muscle retraining.
- Improving Blood Circulation: EMS may improve blood circulation in certain conditions.
- Incontinence: EMS therapy can help address certain types of urinary incontinence.
- Muscle Spasms: EMS is effective in reducing muscle spasms and cramps.
- Enhancing Range of Motion: It can assist in improving joint flexibility and range of motion.







# SUMMARY

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TENS and EMS therapies offer a multitude of remarkable benefits, providing effective pain relief and muscle activation. TENS therapy is firmly grounded in well-established concepts such as the gate control theory and the release of endorphins. By utilizing non-pain impulses and promoting the production of natural pain-relieving chemicals, TENS therapy effectively controls pain signals and enhances overall well-being.

In contrast, EMS therapy takes a different approach, with a primary focus on stimulating motor neurons to activate muscles. By targeting specific muscle groups and inducing powerful contractions, EMS therapy contributes to enhanced strength, improved mobility, and faster recovery.

What truly sets the HiDow device apart is its unique ability to combine both TENS and EMS simultaneously, synergizing the advantages of both therapies. This dual functionality elevates the overall effectiveness and versatility of the device, empowering you to customize your therapy sessions according to your specific needs, whether you seek pain relief, muscle strengthening, improved range of motion, or other therapeutic benefits. The HiDow device offers a comprehensive solution for your well-being.





# ELECTRODE GEL PADS

## SIZES



**Small Electrode Gel Pads**  
(set of 2): 1.75" x 1.25" each



**Extra Large Electrode Gel Pads**  
(set of 2): 3.5" x 1.75" each



**Lower Back Electrode Gel Pad**  
(1 pad): 8.75" x 3.5"



**Spartan Electrode Gel Pad**  
(1 pad): 6.8" x 7.3"



**Large Electrode Gel Pads**  
(set of 2): each with a diameter of 2.4"



**Hypoallergenic Electrode Gel Pads**  
(set of 2): 2" x 2" each



**Butterfly-Lumbar Electrode Gel Pad**  
(1 pad): 6.5" x 3.75"



**Heated Electrode Gel Pad**  
(1 pad): 3" x 6.25" (Front/Fabric)  
2.5" x 2.5" (Back/Conductive Gel)

# SETUP AND CONNECTION GUIDE

## *For WIRED Devices*

1. Start by ensuring that your TENS/EMS device is turned OFF and disconnected from any power source.
2. Connect the snaps on the electrode wire to the corresponding snaps on the gel pad(s), ensuring a secure and snug connection.
3. Once the pads are connected to the wire, carefully peel off the protective film from the gel pads to expose the adhesive surface.
4. Place the gel pad(s) on the area of your body where you want to apply the electrical stimulation, ensuring a firm and secure placement against your skin.
5. Once the gel pads are properly positioned, connect the other end of the electrode wire to your TENS/EMS device.
6. With everything securely connected, power ON your TENS/EMS device. It will automatically start in Mode 1.
7. To change modes, press the M button. Gradually adjust the intensity by pressing the + button to increase and the - button to decrease. Always start with the lowest intensity and gradually increase as needed. Avoid starting at a high-intensity level.



Sit back and enjoy the deep, soothing pulses. We recommend 2-3 sessions per day, each lasting 40-60 minutes, over a 10-day period for one course.

(Tip: Enhance the sensation by applying a spritz of the HiDow Perfect Conductor Spray to the electrode pads before use.)

Remember to consult the user manual specific to your TENS/EMS device for detailed instructions and safety guidelines.



# SETUP AND CONNECTION GUIDE

## *For WIRELESS Devices*

1. Start by ensuring that your TENS/EMS device is turned OFF and disconnected from any power source.
2. Connect the snaps on the back of the Universal Receiver to the corresponding snaps on the gel pad(s), ensuring a secure and snug connection. (Make sure each connection point on the receiver has a pad attached.)
3. Once you have the pad(s) connected to the Universal Receiver, carefully peel off the protective film from the gel pad(s) to expose the adhesive surface.
4. Place the gel pad(s) on the area of your body where you want to apply the electrical stimulation, ensuring a firm and secure placement against your skin.
5. With everything securely connected, power ON your TENS/EMS device. It will automatically start in Mode 1.
6. To change modes, press the M button. Gradually adjust the intensity by pressing the + button to increase and the - button to decrease. Always start with the lowest intensity and gradually increase as needed. Avoid starting at a high-intensity level.



Sit back and enjoy the deep, soothing pulses. We recommend 2-3 sessions per day, each lasting 40-60 minutes, over a 10-day period for one course.

(Tip: Enhance the sensation by applying a spritz of the HiDow Perfect Conductor Spray to the electrode pads before use.)

Remember to consult the user manual specific to your TENS/EMS device for detailed instructions and safety guidelines.







# ENHANCING YOUR PAD EXPERIENCE:

## TIPS AND CARE INSTRUCTIONS

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### Preparation

- **Clean and Dry Skin:** Ensure your skin is clean and dry before applying electrode pads for optimal performance.

### Proper Usage

- **Turn off the Device:** Always check that your TENS or EMS device is turned off before attaching or detaching electrode pads.
- **Use in Pairs:** Electrode pads should be used in pairs (two pads on each channel) to create a complete circuit for proper signal flow.

### Application

- **Easy Peel-Off:** Gently lift and peel the electrode pads from their protective film, starting at one corner and pulling with care.
- **Superior Conductivity:** Check the condition of the electrode pads to ensure optimal conductivity. Pads should maintain their tackiness for effective stimulation.
- **Beat the Heat:** In hot weather, the gel on electrode pads may soften. If this occurs, store the pads (sticky side down) back onto the protective film and inside their pouch, and refrigerate them until they regain their normal consistency.
- **Comfort and Care:** Ensure a proper connection to avoid discomfort or skin irritation. If any discomfort arises, soothe your skin post-session with an Aloe Vera-based solution.

### Maintenance

- **Preserve and Protect:** After each use, store the electrode pads in their protective film and inside the resealable pouch to protect them and extend their durability.
- **Restoring Stickiness:** If the electrode pads lose their stickiness, consider using our Perfect Conductor Spray or applying a small drop of water and spreading it across each pad. Refrigerating the pads (sticky side up) for a few hours can also help restore their adhesiveness.
- **Prolonged Lifespan:** Unopened electrode pads have a shelf life of two years. Storage conditions, especially high temperatures or low humidity, can impact their longevity.
- **Personalized Use:** Our electrode pads are designed for single-person use to ensure a hygienic and personalized experience.
- **Reusable Reliability:** Each set of electrode pads can typically be used for 10 to 30 applications, providing reliable performance over multiple uses.

Make the most of your electrode gel pads by following these tips and care instructions. Enjoy a comfortable and effective electrical stimulation therapy experience with HiDow electrode pads.

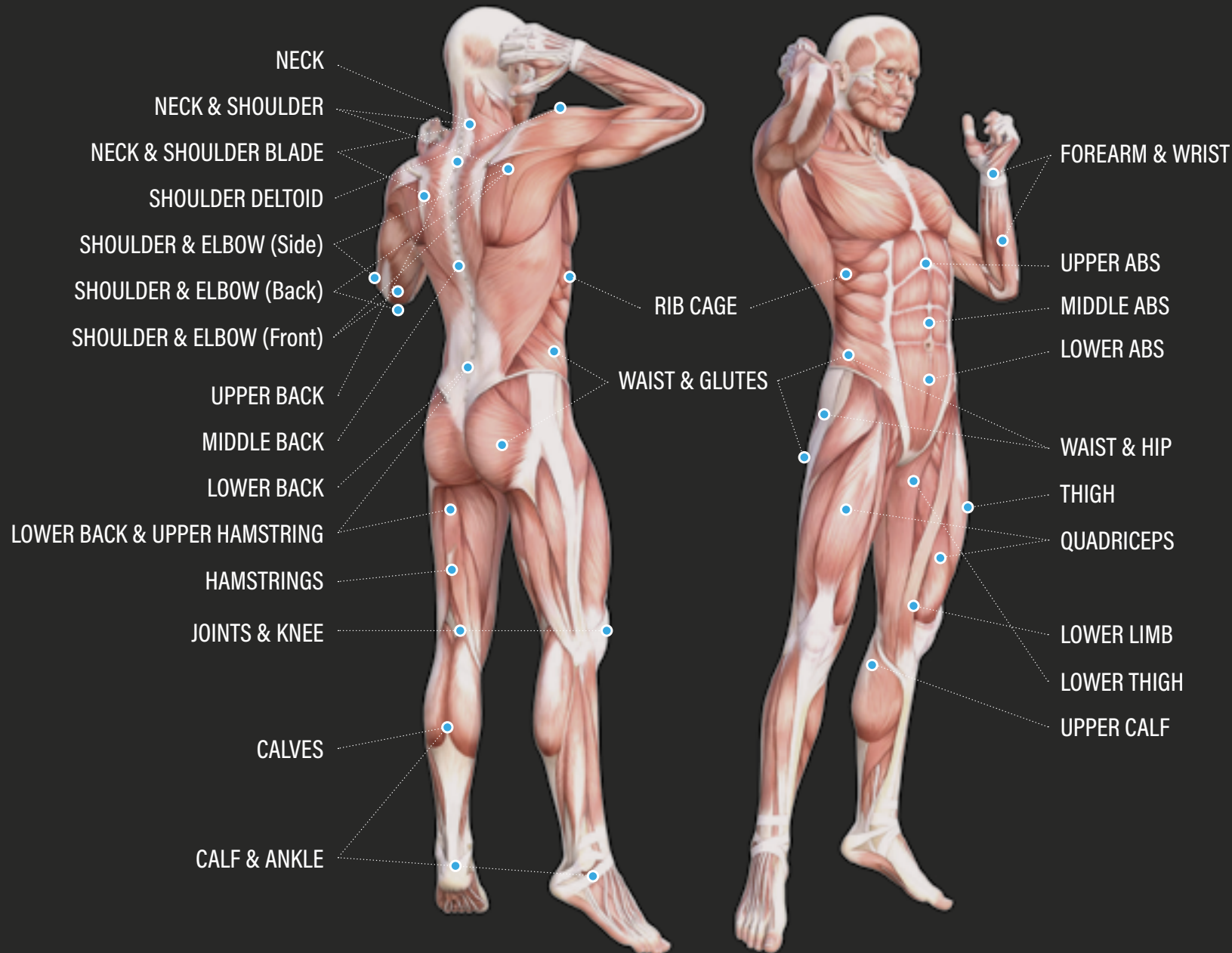
**Note:** For detailed instructions and specific care recommendations, refer to the user manual of your TENS or EMS device.







# ELECTRODE PAD PLACEMENT RECOMMENDATIONS FOR YOUR **HIDOW** DEVICE



## PAD PLACEMENT

# NECK

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- Place pads on either side of the neck near the base of the skull.
- Effective in reducing tension in the neck and shoulders, addressing stress-related discomfort, and assisting athletes dealing with muscle tightness.



## PAD PLACEMENT

# NECK & SHOULDER

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- Position one pad on the neck as described above, and one on the shoulder.
- Effective in reducing tension in the neck and shoulders, addressing stress-related discomfort, and assisting athletes dealing with muscle tightness.





## PAD PLACEMENT

# NECK & SHOULDER BLADE

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- Apply one pad on the neck as described above, and one on the upper back.
- Promotes relaxation and addresses tightness or discomfort in these areas, suitable for individuals experiencing muscle tension and athletes seeking relief.





## PAD PLACEMENT

# SHOULDER DELTOID

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- Place one pad on the front of the shoulder, and one on the back (or side) of the shoulder, targeting the deltoid muscle.
  
- Ideal for strengthening and promoting better shoulder mobility, benefiting athletes and individuals recovering from shoulder injuries or impingement.



PAD PLACEMENT

# SHOULDER & ELBOW (FRONT)

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- Position one pad on the front of the shoulder and one on the front of the elbow.
- Useful for addressing conditions like shoulder or elbow pain, tendonitis, or bursitis, benefiting athletes and those with repetitive strain injuries.



PAD PLACEMENT

# SHOULDER & ELBOW (SIDE)

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- Apply one pad on the side of the shoulder and one on the side of the elbow.
- Effective for athletes and individuals with lateral shoulder or elbow discomfort, targeting muscles involved in throwing or lifting activities.





## PAD PLACEMENT

# SHOULDER & ELBOW (BACK)

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- Place one pad on the back of the shoulder and one on the back of the elbow.
  
- Beneficial for athletes and individuals with posterior shoulder or elbow discomfort, targeting muscles used in pushing or pulling motions.



PAD PLACEMENT

# FOREARM & WRIST

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- Position one pad on the forearm and one on the wrist.
- Effective for addressing conditions like forearm or wrist pain, tendonitis, or carpal tunnel syndrome, providing relief for individuals with repetitive wrist movements.





## PAD PLACEMENT

# UPPER BACK

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- Apply four pads on the upper back as needed.
- Effective for individuals experiencing upper back pain due to prolonged sitting and athletes with upper back muscle tension.



## PAD PLACEMENT

# MIDDLE BACK

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- Position pad(s) on the middle back.
- Effective for individuals with middle back pain due to poor posture and athletes with muscle tension in this area.





## PAD PLACEMENT

# LOWER BACK

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- Place pad(s) on the lower back.
- Useful for addressing lower back pain, muscle tension, or lumbar strain in athletes and individuals with lower back discomfort.



## PAD PLACEMENT

# RIB CAGE

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- Position pad(s) on the side of the rib cage.
- Beneficial for individuals with rib pain, muscle tension, or intercostal strain, providing relief in the rib cage area.





## PAD PLACEMENT

# UPPER ABS

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- Place pad(s) on the upper abdominal region.
- Helps activate and tone abdominal muscles, benefiting individuals aiming for core strength and athletes with specific training goals.

*Upper, Middle & Lower Abdominals: Various uses for pain relief, rehabilitation, muscle stimulation, postpartum recovery, relaxation, digestive support, menstrual cramp relief, and chronic abdominal pain management. For personalized guidance and addressing specific medical concerns, please refer to the manufacturer's instructions and consult with a healthcare professional.*



## PAD PLACEMENT

# MIDDLE ABS

---

- Place pad(s) on the middle abdominal region.
- Helps activate and tone abdominal muscles, benefiting individuals aiming for core strength and athletes with specific training goals.





## PAD PLACEMENT

# LOWER ABS

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- Place pad(s) on the lower abdominal region.
- Helps activate and tone abdominal muscles, benefiting individuals aiming for core strength and athletes with specific training goals.



## PAD PLACEMENT

# LOWER BACK & UPPER HAMSTRING

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- Apply one pad on the lower back and one on the upper hamstring to target sciatica-related discomfort.
- Ideal for those with discomfort in the lower back and upper hamstring area, as well as athletes recovering from related strains or tension.





## PAD PLACEMENT

# WAIST & GLUTES

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- Position two pads on the front and back of one side of the waist, and two pads on the front and back of one side of the gluteal muscles.
- Useful for addressing lower back pain, muscle tension, or gluteal tightness, benefiting individuals and athletes with lower back discomfort.



PAD PLACEMENT

# WAIST & HIP

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- Place pads on the side of the waist and hip.
- Useful for individuals with waist and hip discomfort due to daily activities, as well as athletes working on hip flexibility and strength.





## PAD PLACEMENT

# THIGH

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- Apply two pads on the front or back of the thigh.
- Helpful for addressing muscle strain, quadriceps tightness, or general thigh discomfort in athletes and those experiencing leg muscle tightness.



PAD PLACEMENT

# QUADRICEPS & THIGH

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- Place two pads on the front of the thigh, targeting quadriceps muscles.
- Ideal for athletes aiming to recover from quadriceps strain or tightness, and individuals with general thigh discomfort.





PAD PLACEMENT

# HAMSTRINGS

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- Apply pad(s) on the back of the thigh, targeting hamstrings.
- Beneficial for athletes recovering from hamstring strains or tightness, and individuals with discomfort in the back of the thigh.



PAD PLACEMENT

# QUADRICEPS

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- Position pad(s) on the front of the thigh, targeting quadriceps.
- Ideal for athletes focusing on quadriceps muscle recovery and individuals with discomfort in the front of the thigh.





## PAD PLACEMENT

# LOWER THIGH

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- Position pad(s) on the back of the thigh.
- Effective for individuals with lower thigh strain, tightness, or discomfort, as well as athletes aiming to relieve muscle tension.



## PAD PLACEMENT

# LOWER LIMB

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- Place pad(s) on the desired area of the lower limb, such as the shin, calf, or just above the knee.
  
- Suitable for individuals with lower limb discomfort due to everyday activities, as well as athletes in need of targeted recovery.





## PAD PLACEMENT

# JOINTS & KNEE

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- Apply four pads around the knee joint.
- Beneficial for athletes with knee pain or joint stiffness, as well as individuals with knee discomfort due to everyday activities.



## PAD PLACEMENT

# UPPER CALF

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- Place pad(s) on the upper calf.
- Beneficial for athletes focusing on upper calf muscle stimulation and individuals with discomfort in this area.



## PAD PLACEMENT

# CALVES

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- Place two pads on the calf muscles.
- Beneficial for athletes dealing with calf muscle fatigue, cramping, or general calf discomfort, as well as individuals on their feet all day.





## PAD PLACEMENT

# CALF & ANKLE

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- Position one pad on the calf muscles and one on the ankle.
- Suitable for athletes with calf tightness, ankle pain, or Achilles tendonitis, and those experiencing discomfort due to prolonged standing or walking.



**Note:** The pad type and size recommendations mentioned above are general suggestions and can vary based on personal preferences, body size, and the specific TENS/EMS device you are using. Always refer to the instructions provided by the manufacturer of your HiDow device and consult with a healthcare professional if you have any specific medical conditions or concerns.

# CONTRAINDICATIONS

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## **Pacemakers or other implanted electronic devices:**

TENS/EMS devices may interfere with the proper functioning of these devices or cause unintended effects.

## **Pregnancy:**

The use of TENS/EMS devices during pregnancy should be done under the guidance of a healthcare professional.

## **Epilepsy or seizure disorders:**

Electrical stimulation may trigger seizures or interfere with antiepileptic medication.

## **Active cancer or tumors:**

Electrical stimulation may promote tumor growth or interfere with cancer treatments.

## **Deep vein thrombosis (DVT) or blood clotting disorders:**

Electrical stimulation may increase the risk of blood clots or interfere with blood thinning medications.

## **Cardiac conditions:**

Individuals with heart conditions, such as arrhythmias, should use TENS/EMS devices with caution and under medical supervision.

## **Skin conditions or open wounds:**

Applying electrical stimulation over irritated or broken skin can worsen the condition or cause discomfort.

## **Sensory impairment:**

Individuals with reduced sensation or impaired skin integrity may not be able to properly detect or tolerate the stimulation.

## **Active infections or fevers:**

Electrical stimulation may exacerbate infections or interfere with the body's natural healing process.

## **Hypersensitivity or allergy to electrode gel or adhesive materials:**

Some individuals may experience allergic reactions to the gel or adhesive used in the electrode pads.

Remember, this list serves as a general guideline, and it is important to consult with a healthcare professional to determine whether using a TENS/EMS device is appropriate for your specific situation.



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**HiDOW**  
Dedicated to Pain-Free Living





## CONTACT

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