## EMDA® ELECTROMOTIVE DRUG ADMINISTRATION

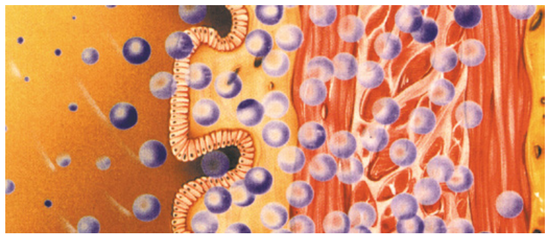
**EMDA®** utilizes a small pulsed electrical current to enhance the delivery of the drug molecules into the tissue by active transport.

A combination of different elettromolecular interactions **improves drug absorption from 4 to 7 times**:

- **IONTOPHORESIS**
  The transport of ionized drug molecules into the tissue by applying an electrical current through a solution containing the ions
- **ELECTROPHORESIS/ELECTROSMOSIS**
  The transport of non-ionized drug molecules associated with the transport of water

**The applied elettric current causes no biological damage to tissue and no chemical modification of drug.**

***Passive administration**:drug penetrates relatevely poorly into the bladder tissue*



***EMDA® administration**: more drug in the bladder tissue*

EMDA®
Electromotive Drug Administration

**EMDA®** method is

**WELL TOLERATED**
**EFFECTIVE**
**EASY TO USE**
**FAST**
**SAFE**
**MINIMALLY INVASIVE**

**EMDA®** system from Physion Srl, is manufactured in Italy. The devices are in full compliance with all current European Medical Device Directives, with Class IIa Device CE-Mark

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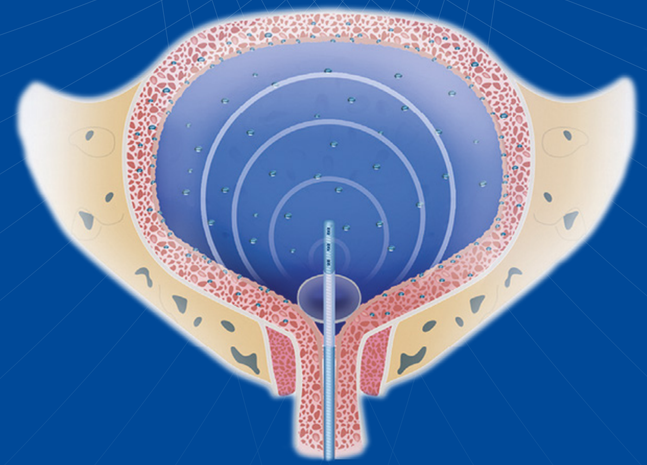
EMDA®
Electromotive Drug Administration

# A comprehensive program for the innovative treatment for urinary bladder diseases



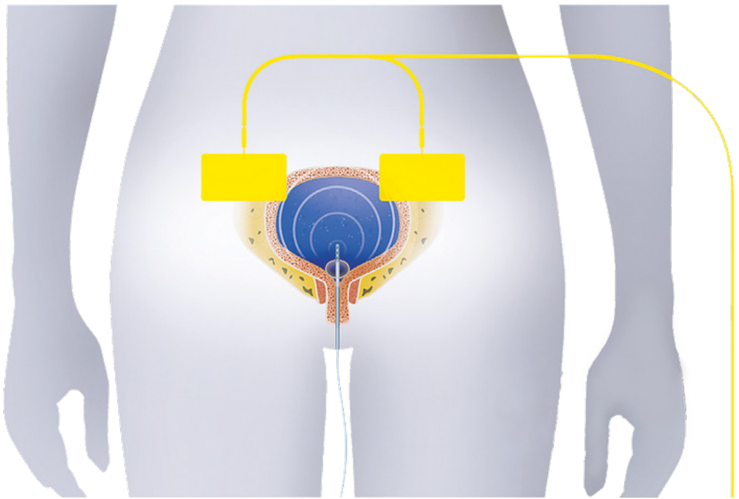
PHYSION®

## EMDA® ELECTROMOTIVE DRUG ADMINISTRATION

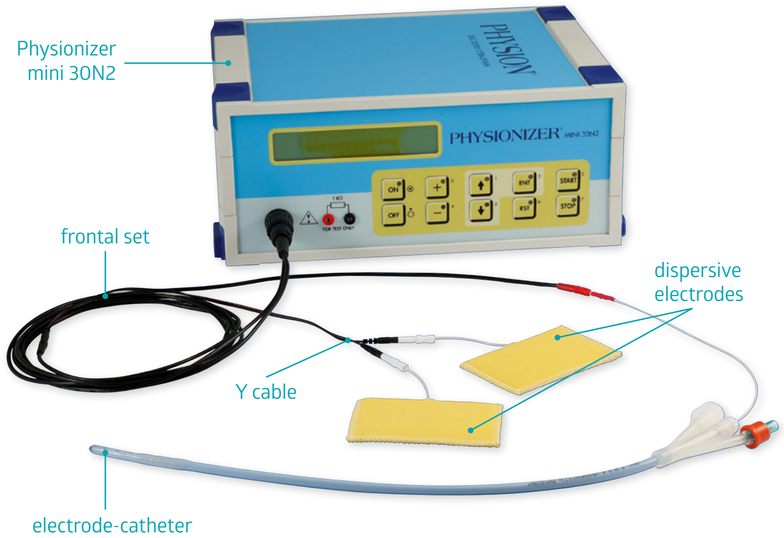
**EMDA®** is an innovative **device-assisted therapy** that **increases drug transport** across the bladder wall under the influence of an **electric field**.

The **deeper drug penetration** and the **greater drug bioavaliability** result in an **increased clinical effectiveness**.

**Many clinical studies show that intravesical drug delivery with EMDA® provides the solution to overcome the limitations associated with passive drug diffusion.**



## EMDA®: STRUCTURE OF THE SYSTEM FOR IN TRAVESICAL INSTILLATIONS

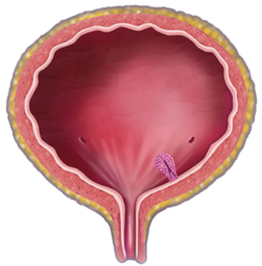



## EMDA® TREATMENT METHOD

- An electrode-catheter is inserted into the bladder through the urethra
- A small balloon at the tip of the inserted electrode-catheter is filled with air. This prevents the catheter from slipping out and ensures a stable position
- Two dispersive electrodes are placed on the side of the navel
- The bladder is drained to remove residual electrolytes
- The drug solution is administered
- A battery operated current generator creates the electric field during the treatment

## URO-ONCOLOGY: NON-MUSCLE INVASIVE BLADDER CANCER

**Since 2017 EMDA® was included into the EAU (European Association of Urology) Guidelines, for the treatment of Non-Muscle Invasive Bladder Cancer**



**High-risk and Intermediate-risk NMIBC**

**BCG Failure**
EMDA®/Mytomicin is a viable option to offer patients than radical cystectomy

**All patients with NMIBC**
EMDA®/Mytomicin PRE-TURBT treatment

## FUNCTIONAL UROLOGY

- Interstitial Cystitis (IC) / Bladder Pain Syndrome (BPS)
- Recurrent bacterial cystitis
- Chemical-and radiation-induced cystitis
- Local bladder anesthesia
- Overactive Bladder (OAB)
- Acontractive daetrusor