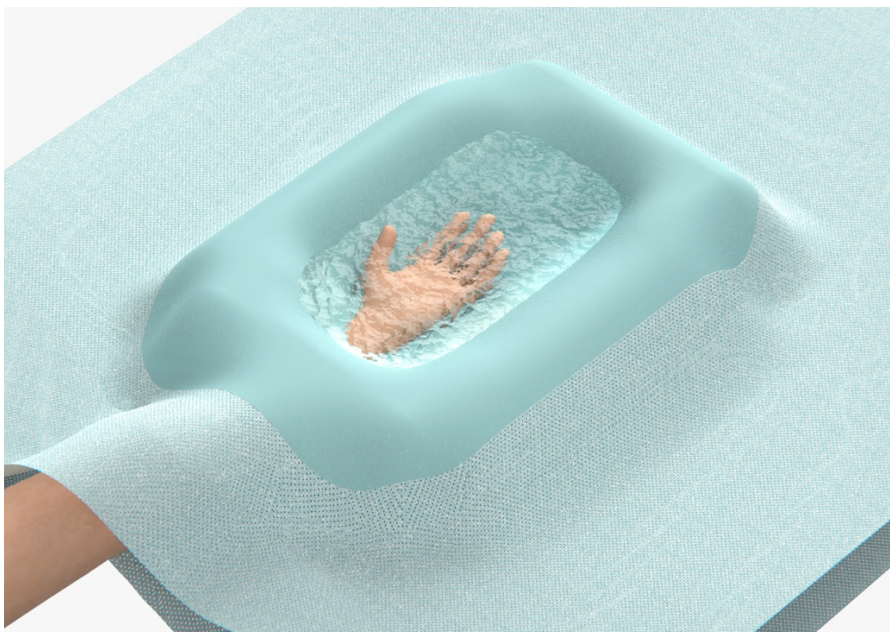


SONO-BATH®

Revolutionizing Ultrasound-Guided Hand Surgery Through Liquid Immersion

Dupuytren's contracture, foreign body removal, precise needle targeting—these are just a few of the challenges hand surgeons face daily.

The **SONO-BATH®** by **SPIRECUT** offers a solution, allowing surgeons to perform ultrasound-guided procedures under a liquid immersion environment. This innovative approach eliminates the need for sonographic gel, reduces skin pressure, and provides excellent tissue visibility for precise interventions.



SONO-BATH®

Key Benefits & Differentiators

1. **Enhanced Ultrasound Imaging**
 - Eliminates the need for ultrasound gel
 - Provides clear contrast of superficial tissues
 - Facilitates better angulation and positioning of the ultrasound probe
2. **Improved Patient Comfort & Surgeon Ergonomics**
 - Reduces the pressure of the probe on sensitive or injured skin
 - Accommodates both the patient's hand and the wrists of the surgical team
 - Immersion in comfortably warmed liquid reduces discomfort
3. **Precise Needle Targeting & Instrument Guidance**
 - Allows direct visualization of the puncture site and instrument trajectory
 - Ideal for percutaneous procedures (e.g., Dupuytren fasciotomy, foreign body removal)
4. **Broad Clinical Utility**
 - Suitable for both traumatic and non-traumatic hand surgery
 - Offers an alternative imaging method when gel is contraindicated (e.g., open wounds, painful fractures), or when the patient cannot tolerate the pressure of the probe (painful fractures, injected wounds)

Indications for Use

- **Dupuytren's Contracture:** minimally invasive percutaneous aponeurotomy
- **Foreign Body Removal:** Precise localization under ultrasound guidance
- **Percutaneous Interventions:** Any procedure benefitting from reduced skin pressure, clear imaging, and accurate targeting

Note: The SONO-BATH® is intended to be used by certified hand surgeons and medical personnel experienced in ultrasound-guided hand procedures. It must be used in an operative environment (e.g., operating room or similarly equipped medical office).

How It Works

1. **Set Up**
 - Place the **SONO-BATH®** on a stable side table next to the operating table.
 - Ensure that the two sterile, impermeable drapes form a watertight container within the **SONO-BATH®**.
2. **Patient Positioning**
 - Disinfect and drape the patient's upper extremity as per standard hand surgery protocols.
 - Secure the drapes to create a sealed basin within the **SONO-BATH®**.
3. **Liquid Immersion**
 - Fill the container (formed by the drapes) with a sterile, lukewarm solution (e.g., sterile saline).
 - Confirm the liquid temperature is safe for both patient and surgical team.
4. **Ultrasound Set-Up**
 - Cover the ultrasound probe with a sterile, transparent sheath.
 - Remove any air pockets between the probe and the cover to maintain image clarity.
5. **Surgical Procedure**
 - Position the probe at the necessary angle, hovering just above the patient's skin (or in slight contact).
 - Perform percutaneous instrument or needle insertion and interventions with real-time ultrasound visualization.

Safety & Precautions

- **Non-Sterile Device**
 - The **SONO-BATH®** itself is delivered in a non-sterile state and does not directly contact the operated hand. The sterile drapes form the actual liquid container.
- **Proper Installation**
 - Always secure the **SONO-BATH®** to prevent spills or falls.
- **Liquid Temperature**
 - Ensure the solution is neither too cold nor too hot to avoid patient discomfort or tissue damage.
- **User Qualification**
 - Only trained healthcare professionals with expertise in hand anatomy, sonography, and hand surgery should operate the **SONO-BATH®**.