

BLOCK SIM™

SIMULATOR FOR ULTRASOUND-GUIDED FASCIA BLOCKS



BlockSim™ - simulator for ultrasound-guided fascia blocks

High Fidelity: all the provided exercises reproduce real clinical cases

User-Friendly Interface: simple, fast and effective user interaction with the simulator

Ultrasound Monitoring: real time visualization by a simulated ultrasound monitor

BlockSim™ is an innovative, high fidelity system for the simulation of ultrasound-guided fascia blocks. The simulator includes very realistic ultra-durable inserts (Pectoralis Block insert, Paravertebral block insert and Transversus abdominis plane block insert) including traditional anatomical landmarks, a lightweight, compact and easy to store box equipped with high fidelity sensors for the movement detection, and a virtual ultrasound monitor. **BlockSim™** is able to provide the opportunity to acquire and practice technical skills in a safe, controlled, and reproducible environment without the risk of harm to patient and with the capability to be repeatedly used.

BlockSim™ is the ideal “virtual phantom” for this kind of procedures since is readily available, has got inexpensive inserts/pads and it can provide tactile feedback. BlockSim™ is also able to hold a needle in place and to not generate needle tracks as well as not be a health hazard.

BlockSim™ enables hands-on procedural training and permits, thanks to its realistic insert, coherent simulation of the resistance to penetration of the different tissues traversed by the needle during fascia block procedures.

Ultrasound monitoring includes:

- Monitoring of the procedure by a simulated linear ultrasound probe
- Real time simulation of filling the fascia with local anaesthetic

Permitted movements and ultrasound monitoring:

- Needle movements are allowed both in the forward and in the backward direction
- It is possible to move the ultrasound probe in different directions on the available insert and to observe a coherent and real-time modification of the scene (allowing the user to investigate the volume of the follicles and to choose the proper entry plane for the needle)
- It is possible to rotate the ultrasound probe and to get a transverse view
- Simulated injection of the local anaesthetic driven by an external syringe

Exercise and Simulations

The user can practice and develop competency using simulation scenarios based on real clinical images. The available scenarios take into account:

- The proper movements to reach the target
- The avoidance of critical anatomical structures
- A user's performance can be evaluated on all the above aspects
- At the end of the procedure, an indicative global score will be given to the user based on his performance

The **BlockSim™** includes:

- BlockSim™ main black box with external connections
- 1 Pectoralis Block insert
- 1 Paravertebral block insert
- 1 Transversus abdominis plane block insert
- Instructor notebook
- External LCD Display
- Transport case
- User Manual
- Free updates

BlockSim™ is a product from Accurate, a company blending international experience, scientific research, engineering and development of truly effective hi-tech educational solutions in the medical field. CLINICAL USE DISCLAIMER BlockSim™ is licensed for use for educational purposes only. BlockSim™ is not intended for clinical use. Accurate srl patent.

