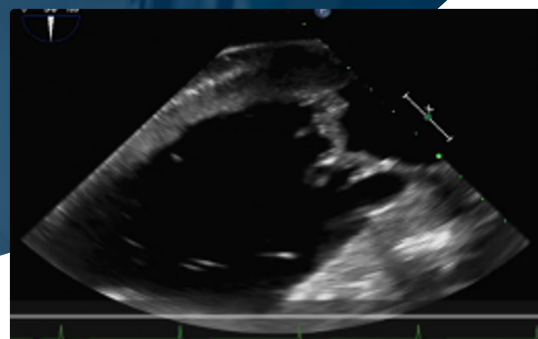


BioSimulation Featuring LifeTec Simulation Technology

Visualize Device Delivery & Deployment in a Pressurized Heart

Our **Cardiac BioSimulator** is a one-of-a-kind heart platform designed to test, iterate, and prove out functionality and feasibility of surgical and interventional devices and procedures. We use a real heart in a lab-controlled setting, creating **hemodynamic conditions and cardiac behavior**.



Experience the power of seeing **your cardiac device in action**, iterating, and testing your improvements, all in a single day, **expediting development**, and **saving costs**.

Test. Train. Perfect.

Our BioSimulator is a popular training platform, allowing surgeons, cardiologists, and radiologists to train on virtually any procedure in a highly realistic setting. Shorten learning curves, test devices, and accelerate development, ultimately improving patient outcomes.

Compatible with a variety of medical imaging modalities, such as **3D ultrasound**, **fluoroscopy**, **CT**, **MRI**, and **intracardiac endoscopy**, our BioSim solution can show you progress, from the inside out.

Our team has extensive, hands-on tissue experience, enabling us to guide design studies, provide valuable insights on specimen-device interactions, and get you closer to device success, quicker.

- Preclinical Research
- R&D Acceleration
- Bioskills Training & Workshops
- Soft Embalming
- Clinical Training
- Customized Set Up (i.e. simulations of specific diseases to determine efficacy and performance).
- & More

Solutions are available for lease at your site or in live iteration at our BioSim Lab where we manage the simulator so you can focus on your device.

How will Biosimulation Technology Support You?

Real World Scenario

With the biosimulator, we can create a specific valve pathology and treat it with a minimally invasive procedure. The efficacy of the treatment on valve performance and behavior can be assessed by hemodynamic monitoring and visual endoscopic evaluation.



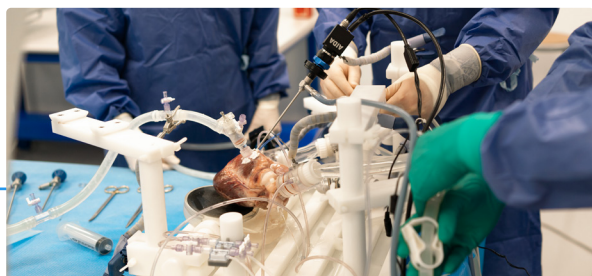
How BioSimulation works

Highly skilled operators support you during your studies and training sessions.

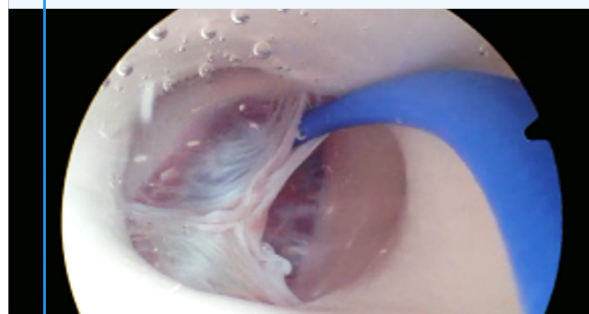
A pulsatile pump system allows the application of desired hemodynamic conditions (heart rate, stroke volume, systolic fraction).

The hearts are connected to a circulatory loop with adjustable preloads and afterloads to simulate different systemic or pulmonary impedance.

An easy connection system allows for swift replacement of hearts.



Our BioSimulator is mobile, allowing for studies, demonstrations, and/or training on location.



A one-day campaign allows up to six hearts per system for assessment and/or training purposes.

An intracardiac endoscopy system is available to acquire live video and images of the cardiac valves and heart chambers.

Like in a clinical setting, medical imaging techniques can be used with the BioSimulator.

Multiple pressure and flow sensors allow for hemodynamic monitoring before, during and after an intervention.

Ask about our other BioSimulation platforms: BioLiver Platform, Heart Valve Assessment, Osteochondral Platform, PhysioHeart, Vascular Bioretractor

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