

Enriching Surgical Skills

Learning through Surgical Simulation

When it comes to onboarding new technologies, such as robotic-assisted surgery, simulation has become an important way to expedite the learning curve and augment techniques.¹ Simulation can help enhance psychomotor skills, hand-eye coordination, and ambidextrous instruments handling, which is especially important for endoscopic surgery. Furthermore, the addition of haptic feedback in early training may enhance the trainee's sensory perception and facilitate the transfer of skills from the simulator to the operating room.²

Welcome to Senhance® Simulation

Designed with learning in mind, Senhance Simulation allows surgeons to develop fundamental skills with the Senhance[®] Surgical System in a safe and flexible environment. Using Senhance Simulation, surgeons complete a series of modules to build confidence with the system's instruments and features. Senhance Simulation was developed in partnership with Surgical Science, a leading provider of robotic surgery simulation, to give users a rich and meaningful experience. Simulation can help to enhance psychomotor skills, hand-eye coordination, and ambidextrous instruments handling, especially important for endoscopic surgery. Furthermore, the addition of haptic feedback in early training may enhance the trainee's sensory perception and facilitate the transfer of skills from the simulator to the operating room.²

Accessible Simulation

Training surgeons on new devices is often expensive and difficult to accomplish. With Senhance Simulation, surgeons can maintain digital laparoscopic skill sets, develop techniques with new instruments, and track their progress. From rare to routine, healthcare professionals learn using a variety of modules and quickly build confidence to perform successfully on the Senhance Surgical System.

How does it work?

Senhance Simulation is a mobile platform designed to integrate with the Senhance Surgical System and allow surgeons to practice at the console through a series of purposeful exercises, minimizing the need to schedule and secure lab-based training activities with robotic manipulator arms.



Deliberate Design

Training modules are designed around purposeful practice exercises



High Fidelity Experience

Surgeons enjoy high fidelity representations of instruments, objects, and structures



Performance data provides metrics to monitor progress

EXPERIENCE the Senhance Surgical System in a virtual environment **ENGAGE** surgeons in the Senhance program **SUPPLEMENT** surgical skills development

Features at a glance

- Eye-tracking camera control
- Straight and Articulating instrument manipulation with haptic feedback
- Object manipulation
- Repositioning of handles
 (clutching)
- Needle handling & suturing technique
- Knot tying
- Performance data







Digital Laparoscopy Skills Enhancement



Digital Laparoscopy Instrument Manipulation

The Future of Surgical Simulation

Clinicians

- Expedite the learning curve and augment surgical techniques²
- Expand robotic surgical skills in your own time and at your own pace
- Gain confidence and prepare for surgery
- Track your progress

Hospitals

- Engage surgeons in your robotics program through a capable, portable and flexible simulation platform
- Leverage haptic feedback to enhance surgeon's sensory perception and facilitate the transfer of skills from the simulator to the operating room¹
- Offer an immersive and safe environment with the opportunity to develop rich surgical learning experience for trainees and expect surgeons¹

Developed by Trailblazers

More than a medical device company, Asensus Surgical is led by a team of passionate people driven to challenge the status quo. Today, Asensus is digitizing the interface between the surgeon and patient by pioneering a new standard of surgery for increased control, less variability, and consistently superior outcomes.

Ordering Information	
Order Code	Description
X9007697	Senhance Simulator

Further information about Senhance can be obtained here:





Link to videos of Simulation exercises

1. Nicholas P, Humm G, MacLeod KE, Bathla S, Horgan A, Nally DM, Glasbey J, Clements JM, Fleming C, Mohan HM. Simulation in surgical training: Prospective cohort study of access, attitudes and experiences of surgical trainees in the UK and Ireland. Int J Surg. 2019 Jul;67:94-100. doi: 10.1016/j.ijsu.2019.04.004. Epub 2019 Apr 14. PMID: 30995522.

2. Agha RA, Fowler AJ. The role and validity of surgical simulation. Int Surg. 2015 Feb;100(2):350-7. doi: 10.9738/INTSURG-D-14-00004.1. PMID: 25692441; PMCID: PMC4337453.



www.Senhance.com www.Asensus.com

Senhance Simulation is not a replacement for Senhance Surgical System training nor is it intended to substitute for formal medical training or certification.

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