CASE STUDY

NEW YORK UNIVERSITY

School of Medicine

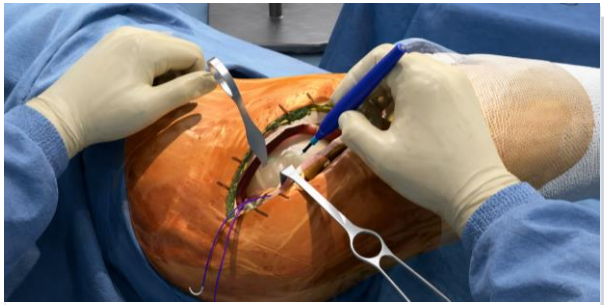
Validating VR Surgical Training Through Clinical Trials

NYU Langone Health | ORama VR

"No patient should be anyone's first."

ORama VR

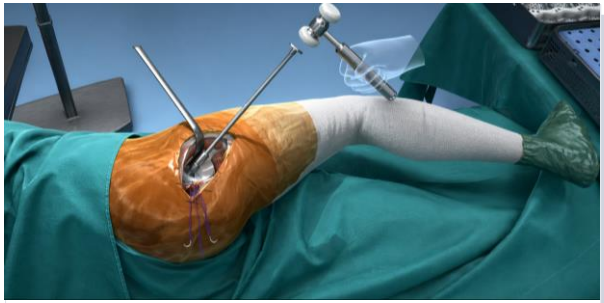
Challenge · Solution · Innovation



THE CHALLENGE

Clinical Trial Comparing VR Training to Traditional Learning

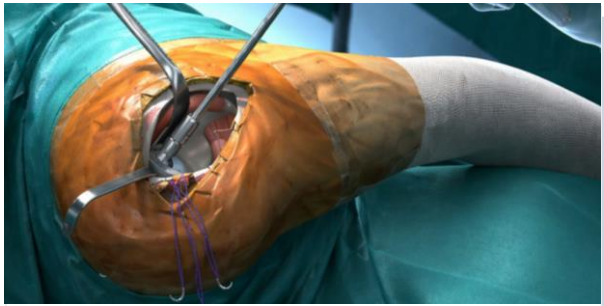
- Validate VR surgical training for psychomotor skills
- Bridge theory to practical expertise
- Enhance PGY-1 orthopedic resident training



THE SOLUTION

Cutting-edge Total Hip Arthroplasty Simulation

- Innovative THA VR simulation built with ORamaVR Creator
- Multiplayer collaborative training across institutions
- Real-time analytics and error detection



THE INNOVATION

Revolutionary VR Trial: 8% Improvement in PGY-1 Surgical Skills

- Blinded RCT published in Journal of Arthroplasty (2019)
- AAHKS FARE Grant Award winner
- First VR surgical training linking four medical schools

ORama VR

Clinical Trial: VR Training Improves PGY-1 Surgical Performance

Cadaver THA Performance

+18 pts

gain in cadaver THA score vs control (P = 0.048)

Both cohorts began at similar baselines. After training, the VR cohort's cadaver THA performance improved significantly, including a significant gain in technical performance (P = 0.009).

Surgical Skill Gain

8%

PGY-1 surgical skill gain vs standard training

VR residents also showed a positive trend in written-knowledge scores (P = 0.078), indicating enhanced theoretical learning alongside their psychomotor gains.

KEY OUTCOMES

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Results That Matter

↑ 8% Skill Gain

PGY-1 improvement vs standard training

Read the clinical trial →

Award-Winning

AAHKS FARE Grant recognition

4-School Network

First international VR co-op trial

Peer-Reviewed

Journal of Arthroplasty (2019)