



Innovation For Surgical Education

WHY

Until now, there were no objective methods to evaluate the quality of the practice of vessel anastomosis (vascular suture) for cardiac surgeons, vascular surgeons, and surgical trainees.

It was not possible to know how a surgically created vessel suture will behave, and what its long-term effectiveness will be.

Although complications may arise from surgical technical reasons, surgical education fails to provide customized suggestions in surgical skill-training. Since there are no available methods targeting specific student needs, trainees begin their practice based on false pre-conceptions and beliefs.

HOW

Our technological innovations provide objective feedback on the quality of anastomoses during surgical training.

Our training techniques can be used as convenient and gamified systems, for surgical education and training for medical practitioners, trainees and students from all levels of expertise.

We provide high definition 3D models from every performed anastomosis. Blood flow analysis is achieved, by computationally simulating the behaviour of an anastomosis. Customized, case-specific surgical situations, from real patients, serve as the basis of our surgical training.

WHAT

Your Anastomosis offers anastomosis (vascular suture) analysis for surgeons, surgical trainees and medical students.

Our technology provides simulated environments, by digitizing and blood flow conditions, and evaluating short and long-term results of the specific vessel.

The innovation in our technology allows for an objective assessment of an anastomosis, creating clear surgical and technical suggestions for improvement.



“Surgical knowledge depends on long practice,
not from speculations.”

MARCELLO MALPHIGI

‘Letter to Borghese’ (27 July, 1689)’

WIDE RANGE OF APPLICATION

COMPREHENSIVE ASSESSMENT & IMPROVEMENT OF SURGICAL SKILLS



SURGEONS, TRAINEES & MEDICAL STUDENTS

Your Anastomosis is the most flexible and effective techniques to further master your anastomosis skills, and quantify prognostic long-term anastomosis behaviour.

All you need is a 3D printed version of your specified surgical situation, our artificial vessels and software application.

Train anywhere, anytime - even perform anastomoses from the comfort of your desk. Check the results and analyses of your anastomoses online, or with our mobile application.

No need to adjust your schedule to suite course times. No need for large and expensive equipment that takes up half of your working space.

Objective, clear suggestions from vessel suture analysis. Endless number of surgical simulator models, representing a specified operation - as a realistic surgical situation, from actual surgeries, on actual patients.

Our assessment tools allow review of your previous work, and suggest step-by-step development methods, on which areas you should improve, why, how and in what order.



UNIVERSITIES & HEALTHCARE PROVIDERS

Solutions for the difficulties caused by staff members attending training and courses. Innovation and practicality to support your staff management with mandatory Continued Medical Education.

With Your Anastomosis kits and web-based applications, your employees have the ability to train whenever and wherever convenient, reducing the cost and burden of absenteeism.

Efficiency, with time-saving and cost-effective methods for surgical training. Transparency, by tracking employee training progress. With an insight to your team's capabilities, staff management becomes even easier.

For universities, the students-to-instructors ratio causes an increasing struggle each year, due to an increasing number of incoming students.

Your Anastomosis bridges the gap of conventional surgical student-training, with personalised, step-by-step educational tools, continuous progress monitoring and tracking systems, allowing students the opportunity to develop sophisticated anastomoses techniques.



COMPANIES, DISTRIBUTORS & COURSE PROVIDERS

Gain access to a larger customer base, more frequently - prestigious training courses are often only available to a small fraction of the market, due to limited time and budget of customers.

Our solutions offer advantages and opportunities to provide multiple courses, and training equipment, guaranteeing the progress of surgical skills for a wide audience.

Your Anastomosis delivers affordable and easily scalable products, reaching a greater number of customers, more often.

Coupled with our unique, objective analyses platforms, we enable more effective training than any other conventional education method available.

Our gamified training systems keep attendees engaged with competitive efforts to improve performance, and effectiveness of hands-on training is benchmarked with our scoring systems.

With an endless number of case-specific surgical simulator variations and web-based e-learning platforms, course providers have a continually expanding customer base, in any geographical location.

Improving...

CASE-SPECIFIC SIMULATORS OF ACTUAL SURGICAL CASES

3D printed surgical scenarios offer enhanced appearance of a particular, specified surgical case. User can select from numerous replications of operative situations.

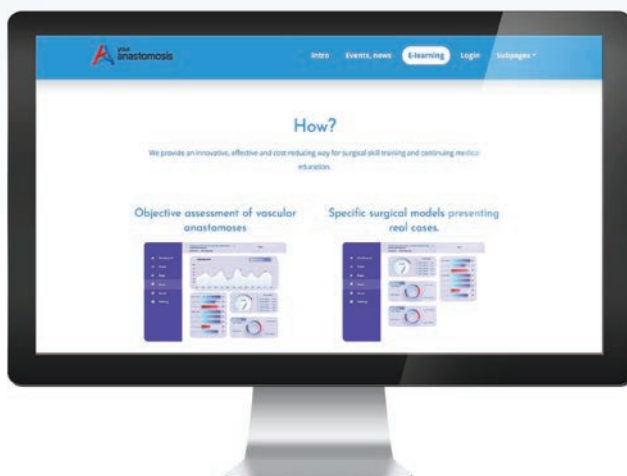
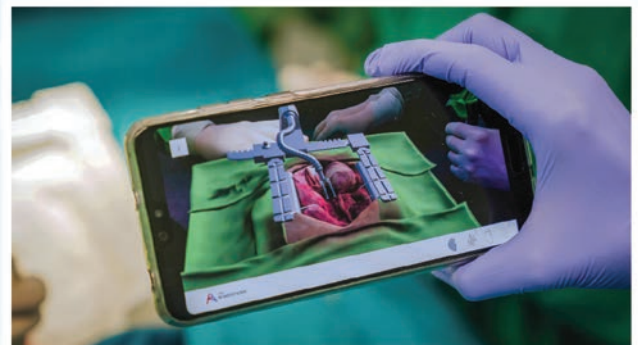


DETAILED, OBJECTIVE ANALYSIS OF VASCULAR SUTURES & BLOOD FLOW

Feedback with results from each anastomosis offers scoring and predictive evaluation. Users receive clear and continuous suggestions how to improve the quality of their anastomosis.

AUGMENTED REALITY APPLICATIONS FOR ENHANCED SIMULATIONS

Visualizations displayed as augmented reality (AR) on mobiles or AR glass devices - for every customized model. Case-specific topography, texture, with results and recommendations from previous anastomosis.



E-LEARNING, ONLINE MATERIALS FOR CONVENIENT SKILL TRAINING

Tutorials and training videos are provided for all products. Increasing amounts of data gained from analyses, for more effective training and knowledge of potential pitfalls.

Surgical Outcomes...

ABOUT YOUR ANASTOMOSIS

Your Anastomosis has been founded to establish objective solutions for prognostic, short and long-term anastomosis quality and behaviour of vascular sutures.

Our methods are also applied to educational training systems, to enhance medical skills, giving clear guidance to surgeons on their techniques, reducing risk and improving surgical outcomes overall.

We provide clear, objective evaluation on anastomoses performance, with precisely measured data – by expertise from a range of medical and technological fields, combined with state-of-the-art high-tech advances.

Your Anastomosis offers 3D printed suture kits, performance analysis with computational fluid dynamics (CFD), and online training platforms to a variety of stakeholders in the medical field, from universities, course providers, through to experienced surgeons.

There are clear and significant differences between the effectiveness of Your Anastomosis training approaches, compared with traditional education methods - after a short period of time, rapid progress of anastomoses quality is observed among practitioners and students training with our techniques.

HOW IT WORKS

UNIQUE METHODS AND BREAKTHROUGHS IN THE FIELD OF ANASTOMOSIS TRAINING, WITH BOTH HARDWARE AND SOFTWARE PRODUCTS

HARDWARE PHASE

- STEP 1:** Order a 3D printed, realistic and customized surgical model, with separate vessel-like tubes.
- STEP 2:** Perform anastomosis on vessel imitation tubes.
- STEP 3:** Return vessels back to us, keeping the 3D model to allow continuation of training with the same kit - order new artificial vessels when required.
- STEP 4:** After receiving your anastomoses vessels, we prepare them for analysis in our software.

SOFTWARE PHASE

- STEP 5:** Blood flow is simulated with computational fluid dynamics (CFD) in our software, resulting in closest possible estimation for the performance of anastomoses in clinical circumstances.
- STEP 6:** We provide you with a comprehensive evaluation of your anastomoses, with clear suggestions for improvement – all evaluations and plans, including previous data are stored in your profile in our online applications.
- STEP 7:** Continue with your practice and further develop your anastomosis skills.
- STEP 8:** Choose other customized kits for gaining extended surgical experience and repeat the cycle...





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