

# EndoNaut<sup>®</sup>

Intraoperative navigation system with image fusion  
to optimize endovascular procedures

Aorto-iliac Edition 

## Bring the fusion technology everywhere

Endonaut® is a technologically leading 3D image fusion device that allows the physician to perform navigation directly at the interventional table. Compatible with most current C-arms, it can be intuitively controlled by the user via a smart touchscreen. Intraoperative tools such as predictive simulation of vascular deformation create an outstandingly precise visualization for accurate interventions.



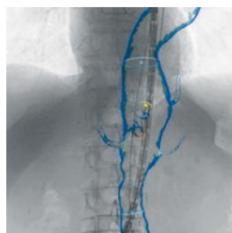
Algorithm based on artificial intelligence

- ✓ Plug & Play
- ✓ Available at an affordable cost
- ✓ Adapts easily to the surgeon's operating room
- ✓ More confidence, accuracy and visual comfort during procedures
- ✓ Immediately ready for use with mobile or fixed C-arms
- ✓ Controlled by the surgeon right from the interventional table
- ✓ Helps reduce contrast media and X-ray dose
- ✓ Stand-alone, independent system – no cloud connection via internet required

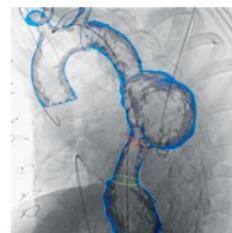
## Applications



EVAR



B/FEVAR



TEVAR



Recanalization / Embolization





### Import your 3D data set to prepare your image fusion

- Benefit from the use of high resolution images from the CT scan as a basis for precise 3D image fusion
- Import the data from EndoSize® with your complete OR planning to have your 3D volume with all relevant information such as all measurements, endograft name and C-arm positioning
- Alternatively, start directly from DICOM to get immediate information for the image fusion when no planning is possible, e.g. in emergencies



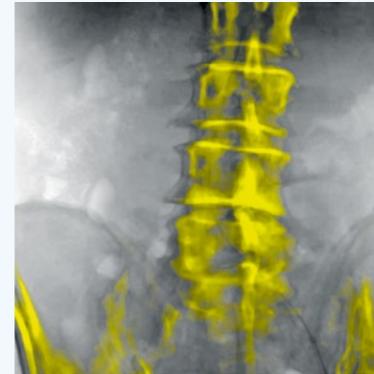
### Check all preoperative data on screen

- Display the preoperative planning digitally on the main screen to get prepared for the upcoming procedure
- Check all information related to the procedure, like CT-Scan, 3D volume, or measurements created by EndoSize® – now and at any time of the procedure



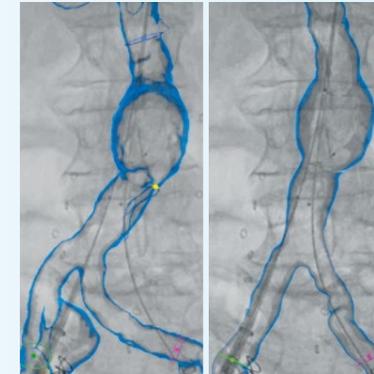
### Connect EndoNaut® flexibly to your imaging systems

- Benefit from the freedom to use EndoNaut® with different imaging systems in your hospital, as it has an open interface to any C-arms and fixed installed systems
- Save time with the Plug & Play solution by connecting EndoNaut® to the imaging system by one DVI cable only
- Move the EndoNaut® easily from one operating room to another as the system is compact and mobile, and place it by the interventional table



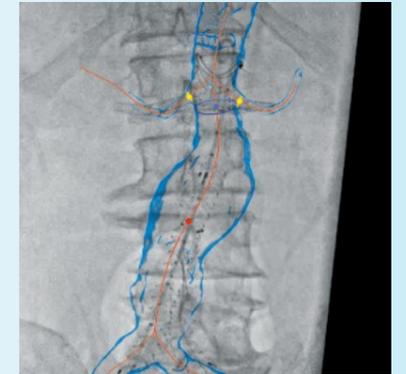
### Generate image fusion with ease

- Merge fluoroscopy and CT images automatically by using a patented image registration algorithm to get your 3D fusion in seconds – easy, fast and reliable
- Work with ready-made 3D volume generated in seconds, with either a small amount of contrast media or none at all (depending on the procedure)



### Estimate anatomical deformation

- Use a predictive visualization of deformed vascular structures as an intelligent algorithm calculates the deformation caused by stiff guidewire and device insertion
- Create a reliable basis for accurate navigation and intra-operative measurement with the predictive estimation of anatomical deformations, which is unique on the market



### Navigate intuitively directly from the interventional table

- Use a smart digital zoom for greater convenience, without the need for zooming with the C-arm or for an additional X-ray dose
- Display the arteries' centerlines and navigate within the 3D anatomy via fingertips, showing specific CT images and taking extra measurements intraoperatively
- Use the ostia and markers set in EndoSize® and add additional markers directly with the touchscreen as necessary during the procedure



## EndoSize®

### Your comprehensive solution for endovascular procedure planning

Create your planning easily in minutes to gain more confidence that all details of the procedure have been taken into account.

**Patented EndoNaut technology:**

U.S. Patent Number 11564750

U.S. Patent Number 10959780

**Request an EndoNaut® demo in your OR.**

Contact us and we will put you in touch  
with your local distributor.

**International support team at your side**

[contact@therenva.com](mailto:contact@therenva.com)

[www.therenva.com](http://www.therenva.com)



EndoNaut® is a registered trademark of Therenva SAS.

In the USA, the EndoNaut® software obtained a substantial equivalence determination and FDA clearance through the CDRH premarket notification process (510(K)).

In Europe, the EndoNaut® software is CE marked (class IIb), not eligible for reimbursement.

The information provided in the labelling and manual is intended for healthcare professionals only.

For the safe and successful operation and use of the device, always read the instructions.

EN\_AI\_2305\_ENG\_Update 2023/05/26. Non contractual document - © 2023 Therenva SAS.

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