C L I N I C A L R E S E A R C H

Vascular Surgery

Ensemble Hospitalier de la Côte

Innovating to heal better

Clinical research at the service of patients

Department of Vascular Surgery – EHC, Morges, Switzerland
www.ehc.vd.ch

OUR MISSION

> *"Every patient deserves to benefit from the best medical knowledge. Clinical research is the engine that drives this ambition."*

The Department of Vascular Surgery at the Ensemble Hospitalier de la Côte (EHC) in Morges, Switzerland, treats hundreds of patients each year who suffer from arterial and venous diseases. These conditions, often silent in their early stages, can lead to devastating consequences: heart attacks, strokes, amputations, and chronic debilitating pain.

In the face of these challenges, our team does more than provide care: we are committed to a rigorous scientific approach to understand, evaluate, and improve the treatments we offer our patients.

WHY SUPPORT RESEARCH IN A COMMUNITY HOSPITAL?

Clinical research is traditionally associated with university hospitals. Yet it is in community hospitals like EHC that the majority of patients receive their day-to-day care. This is where "real-world" medicine takes place, with its diverse patient profiles, clinical scenarios, and care pathways.

By developing research within our department, we pursue three goals:

- Generate real-world data that is directly applicable at the patient's bedside.
- Continuously improve the quality and safety of the care we provide.
- Give our patients access to innovative and personalised treatment strategies.

Our research programme currently comprises four prospective clinical registries and two additional studies – one international randomised controlled trial and one dedicated research registry – each addressing a concrete need of our patients. All are conducted with the approval of the Canton of Vaud Ethics Committee (CER-VD) and in strict compliance with Swiss data protection legislation.

A R T E R I A

Understanding and improving the treatment of arterial disease

The problem. Peripheral arterial disease (PAD) affects millions of people worldwide. When arteries narrow or become blocked, blood can no longer reach the legs adequately. The consequences can be severe: pain when walking, wounds that fail to heal, and in the most serious cases, amputation of the affected limb.

The challenge. There is no one-size-fits-all treatment. Depending on where the disease is located (aorta, iliac, femoral, or tibial arteries), the patient's age, and their co-existing conditions, the vascular surgeon may recommend medication, catheter-based intervention (endovascular), open surgery, or a combination. Today, there is insufficient data to determine which strategy delivers the best outcomes for each type of patient.

Our response. The ARTERIA registry systematically collects clinical, radiological, and surgical data from every patient treated in our department for PAD. Through this structured and secure database, we aim to identify the factors that predict favourable or unfavourable outcomes, thereby personalising our therapeutic decisions.

Principal investigator: Dr PD François Saucy, Head of Department
Planned duration: minimum 5 years (450–600 patients per year)
Objectives: Reduce major cardiovascular complications (MI, stroke, death) and major adverse limb events (amputations, reinterventions)

E P I C

Preparing patients before surgery for a better recovery

The problem. Patients undergoing major surgery are often weakened by multiple chronic conditions: diabetes, anaemia, malnutrition, and physical deconditioning. These factors significantly increase the risk of postoperative complications, prolong hospital stays, and slow recovery.

The innovation. Prehabilitation is a groundbreaking concept that involves actively preparing the patient before their operation, much like an athlete prepares before a competition. Our programme is built on three fundamental pillars: correcting anaemia through optimised blood management (Patient Blood Management), nutritional optimisation to restore anabolism, and tailored physical and respiratory conditioning.

Our ambition. The EPIC registry (Evaluation of Prehabilitation In surgery register) is the first comprehensive prehabilitation programme in Switzerland. By collecting data from every patient, we aim to provide scientific evidence that this preparation reduces complications, shortens hospital stays, and improves the patient experience.

Principal investigator: Dr Sarah Garcia, Head of Perioperative Medicine
Co-investigator: Dr PD François Saucy
Objective: Reduce postoperative morbidity in complex patients
54 patients already identified – Data collection ongoing since November 2023

P E A R L

Relieving chronic pelvic pain in women

The problem. Up to 25% of women suffer from chronic pelvic pain. In 30–40% of cases, this pain is caused by pelvic congestion syndrome: varicose veins develop around the uterus and ovaries, causing persistent pain, a sensation of heaviness, pain during intercourse, and vulvar varicosities. This condition, often under-diagnosed, has a profound impact on quality of life.

The treatment. Endovascular embolisation is now the treatment of choice. This minimally invasive procedure, performed on an outpatient basis under local anaesthesia, blocks blood flow in the pelvic varicose veins to achieve symptom regression. However, clear evidence-based guidelines on which patients will benefit most are still lacking.

Our response. The PEARL registry (Pelvic Embolization for vARices and chronic pain evaLuation) collects detailed data before, during, and after the procedure, including validated quality-of-life questionnaires. The goal is to better understand which patients respond best to treatment and to optimise clinical outcomes.

Principal investigator: Dr Hervé Probst, Head of Vascular Surgery
Planned duration: 5 years (100–1,000 patients)
Objective: Establish evidence-based selection criteria
for the treatment of pelvic congestion syndrome

EVER – EUROPEAN VENOUS REGISTRY

Contributing to Europe's largest venous disease database

The context. Deep venous diseases represent a major public health concern across Europe. In 2024, the European Society for Vascular Surgery (ESVS) launched the EveR registry, an ambitious project to gather treatment and outcome data on a continental scale.

Our participation. Our department has been selected to participate in this European registry. This recognition reflects the quality of our clinical practice and our commitment to research. By contributing to this international database, we are helping build the scientific evidence that will guide tomorrow's clinical decisions.

The impact. The data collected includes validated questionnaires (VEINES, EQ-5D) measuring patients' quality of life. This registry will enable comparisons across countries and help harmonise standards of care in venous pathology.

Principal investigator: Dr Hervé Probst, Head of Vascular Surgery
International registry under the aegis of the ESVS
Quality-of-life data collected via validated instruments (VEINES, EQ-5D)
EHC selected among European participating centres

HERCULES – INTERNATIONAL RANDOMISED TRIAL

Improving the treatment of aortic aneurysms with wide necks

The problem. Abdominal aortic aneurysm (AAA) is a potentially life-threatening condition in which the main artery of the abdomen dilates abnormally. Endovascular repair (EVAR) using a stent graft is the standard minimally invasive treatment. However, patients with a wide infrarenal aortic neck (≥ 28 mm) are at higher risk of complications such as endoleak (blood leaking around the graft), graft migration, and aneurysm growth – which can lead to treatment failure and reintervention.

The innovation. Endosuture aneurysm repair (ESAR) is a novel technique that uses EndoAnchor devices (Heli-FX, Medtronic) to mechanically fix the stent graft to the aortic wall, much like surgical sutures. This aims to prevent graft migration and reduce endoleaks in challenging anatomies. The HERCULES trial is the first international randomised controlled trial comparing ESAR to standard EVAR in this high-risk patient population.

Our role. EHC is the only centre in Switzerland to participate in HERCULES, a distinction that reflects the technical expertise of our team and the volume of aortic procedures performed in our department. Patients enrolled are followed for five years with annual CT imaging to assess graft stability, endoleak occurrence, and aneurysm evolution.

Local principal investigator: Dr PD François Saucy, Head of Department
International RCT sponsored by Rijnstate Hospital (Netherlands), in collaboration with Medtronic
Up to 300 patients across 40 centres in Europe and the United States
EHC: only participating centre in Switzerland
5-year follow-up with annual CT imaging

CUREVASC – VASCULAR ERECTILE DYSFUNCTION REGISTRY

Advancing the understanding and treatment of vascular-related erectile dysfunction

The problem. Erectile dysfunction (ED) affects a significant proportion of men, particularly those with cardiovascular risk factors such as diabetes, hypertension, and atherosclerosis. In many cases, the underlying cause is vascular: impaired arterial blood flow to the penile tissue. Despite its prevalence and impact on quality of life, vascular ED remains under-investigated, and treatment outcomes are poorly documented in a structured manner.

The challenge. There is currently a lack of comprehensive data on the vascular assessment, treatment strategies, and long-term outcomes of patients with vascular-related ED. This knowledge gap limits the ability to personalise treatment and to identify which patients will benefit most from vascular interventions.

Our response. The CureVASC registry (Vascular Erectile Dysfunction Treatment Database) systematically collects clinical data from patients presenting with vascular-related erectile dysfunction. Approved by the CER-VD (ref. AO_2024-00074), this registry aims to build a structured evidence base to better characterise the vascular causes of ED, evaluate therapeutic outcomes, and ultimately improve patient care through data-driven clinical decision-making.

Principal investigator: Dr PD François Saucy, Head of Department
CER-VD approved research registry (ref. AO_2024-00074)
Objective: Build a structured evidence base to improve diagnosis and treatment of vascular-related erectile dysfunction

THE CONCRETE IMPACT OF YOUR SUPPORT

Your contribution, regardless of amount, directly funds the resources needed to carry out our research projects:

- The clinical research assistant who coordinates data collection and quality assurance
- Secure IT tools (REDCap platform) for data storage and management
- Statistical analyses required for scientific publications
- Ongoing training of the team in research methodologies
- Conference participation to disseminate our results internationally

By supporting our research, you are investing in better, safer, and more personalised care for the patients of our region and beyond. Every franc contributed helps transform everyday medical practice.

HOW TO SUPPORT US

You can contribute to our research programme through a donation, starting from CHF 10.–, with no upper limit. Every contribution matters.

By QR code or payment slip

[QR code to be inserted here]

By bank transfer

IBAN: [IBAN number to be completed]

Reference: “Donation Vascular Surgery Research EHC”

For major gifts or corporate partnerships

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> *“Clinical research in a community hospital is an act of conviction: the belief that excellence knows no institutional boundaries and that every patient, wherever they are treated, deserves to benefit from the advances of science.”*

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