Dynamic Vessel Analyzer/DVA
System for Dynamic Vessel Analysis
Cardiovascular diseases are among the most frequent causes of death in the West. In most cases, morphological and functional changes of vessels occur much earlier.

As a pioneer of retinal vascular analysis, IMEDOS has been active in the research and development for over 20 years and offers outstanding microvascular analysis for clinical application.

**Dynamic Vessel Analysis**

The potential performance of dynamic vessel analysis, which is unique in the world, is the early detection of functional changes of vessels. The function of vessels can be studied in detail by non-invasive approach with the **Dynamic Vessel Analyzer (DVA)**. A video sequence of the retina is recorded by a mydriatic fundus camera. The vessel diameters are determined by the RVA software. Reactions (dilatation and contraction) of the retinal vessel are stimulated by flicker light during the examination. The software records the changes of the vascular diameter and visualizes all analytical results clearly and graphically.

The early detection of other-than-normal responses of vessels helps the systematic prevention of serious systemic vascular diseases, such as cardio- and cerebrovascular disease. The DVA system, which was developed specifically for ophthalmic practice, combines the high-grade fundus imaging system, the powerful functions of the Static Vessel Analyzer (SVA) and the innovative software for dynamic vessel analysis.

**Functions**

**Dynamic vessel analysis** to determine the dilatation capability with flicker light stimulation for examination of the function of microvessels:

- Eye tracking
- Flicker light stimulation
- Automatic flicker evaluation module with log
- Patient-based archiving of analytical values and locations
- Repeat-function (subsequent examinations: automatic assignment of vessels and analytical locations)

**Static vessel analysis** for early detection, trend monitoring and risk stratification of vascular disease:

- Calculation of the arteriovenous ratio (AVR) based on the ARIC (Atherosclerosis Risk In Communities) method
- Automatic definition of the arterial and venous central equivalents
- Analytical log with individual comments
- Uncomplicated data transfer with import and export functions
- Patient-based storage of analytical data
- Docreport for structured reporting (optional)
- Course-tool for subsequent examinations (optional)

**High-resolution digital fundus imaging** based on Visualis software:

- Excellent color images, fluorescence angiography
- User-friendly capture, processing and archiving of images
- Easy documentation of findings and image analysis of ophthalmic diseases
- Brilliant image quality
- Interface for uncomplicated integration of surgery software
- Connections for other image sources

**Components:**

- Fundus camera (mydriatic)
- Digital high-resolution CCD color camera
- CCD video camera
- PC, printer
- Software: RVA, Vesselmap, Visualis
- Workstation