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# First-Check-V

## For measuring arterial stiffness, calcification and vascular quality

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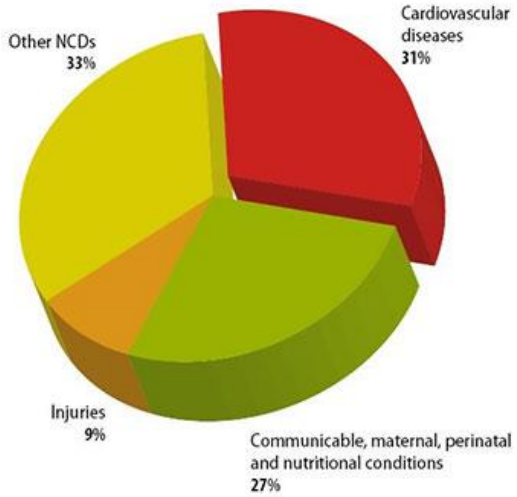
# Cardiovascular disease

- Cardiovascular disease (CVD) is the number one cause of death worldwide.
- Globally, 18 million people die of CVD every year.
- This accounts for 32% of all deaths.
- The number of CVD deaths is dramatically rising due to:
  - aging of the population
  - increase of the world population
  - the increase of CVD risk factors.
- Health care expenditures for CVD in the EU amount 190 billion euros per year.
- Annual CVD costs in the USA amount 545 billion dollars, a number that is expected to exceed 1 trillion in 2030.



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# Risk factors for arterial stiffening and calcification

- Vitamin K-insufficiency
- Vitamin D-insufficiency
- Insufficient intake vitamin A, C, E and B12
- Age
- Gender
- Smoking
- Stress
- Obesity
- Elevated cholesterol
- Unfavourable lipid profile (LDL/HDL)
- Elevated triglycerides
- High blood pressure
- Diabetes mellitus
- Chronic kidney disease

# First-Check-V

- This revolutionary device enables healthcare providers to quickly assess arterial stiffness, calcification and vascular quality.
- The First-Check-V enables the evaluation of the vitamin K status (MGP Index).
- The First-Check-V also measures SpO2 and heart rate.
- It belongs to the group of handheld diagnostic devices and POC.
- The First-Check-V is used on adults and children by healthcare professionals.
- Reliability / Quality of the First-Check-V proven in a clinical study.

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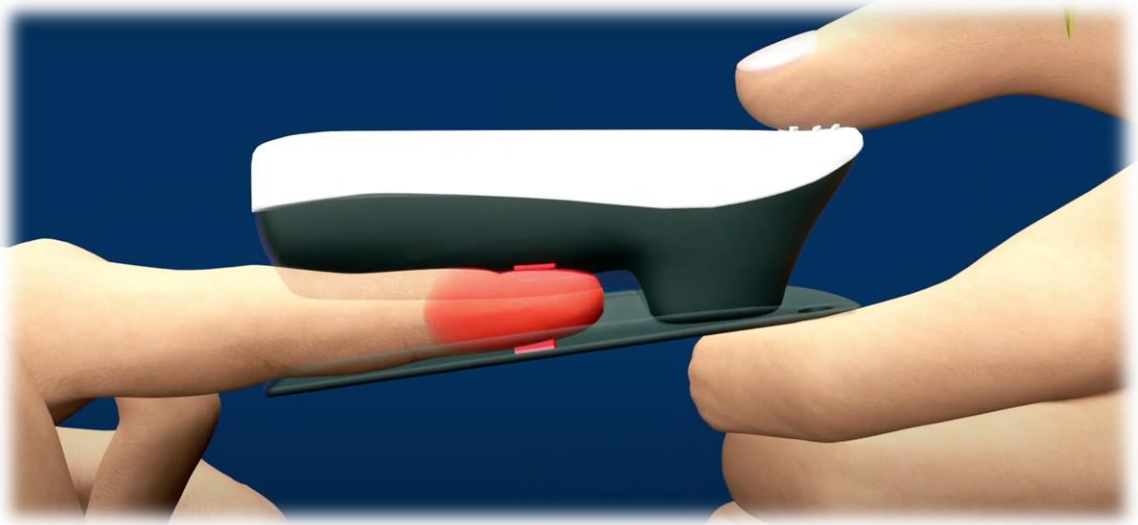
# Principles of measurement with First-Check-V

- The technology is based on the principles of the accelerated plethysmography.

- The First-Check-V establishes the elasticity of the arteries according the “Stiffness” score 1 – 6.



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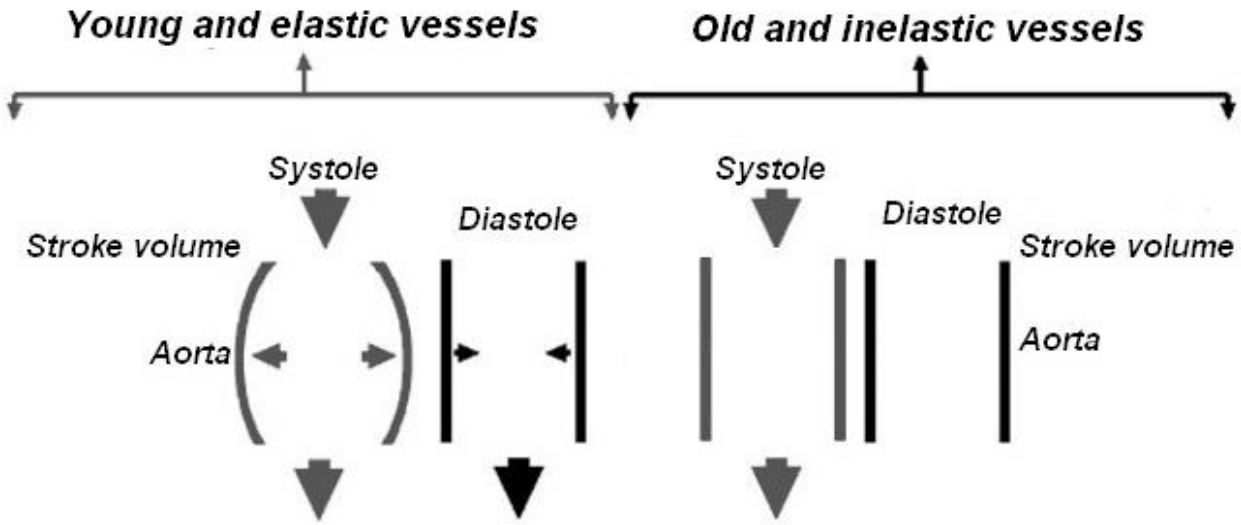
# Vascular quality




***Left panel:***

- Elastic artery expands at systole and accomodates for blood pumped in at each heart stroke.
- During diastole, contraction of artery results in continued blood flow.

***Right panel:***

- Stiff artery results in increased systolic blood pressure and accelerated blood flow at each heart stroke.
- During diastole there is little or no aortic blood flow.

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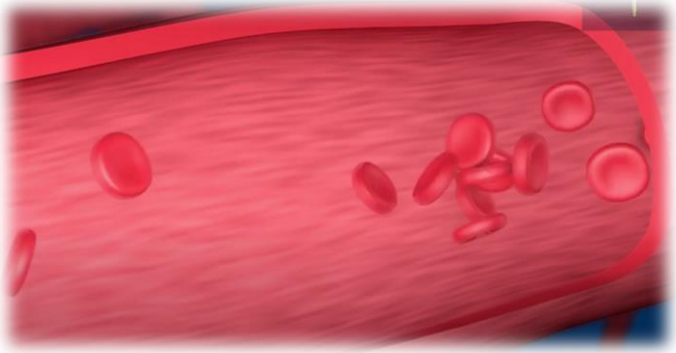
# Cardiovascular disease reduction by prevention

**The First-Check-V can help the healthcare professionals reduce cardiovascular disease in their patient populations through early detection and prevention.**



**The First-Check-V can also monitor the efficacy of treatment modalities and will indicate whether lifestyle changes are necessary.**

**Early detection and prevention are of utmost importance in our efforts to reduce the impact of cardiovascular diseases.**

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# Advantages of the First-Check-V

- High accuracy
- Easy to carry
- Robust and reliable
- User-friendly
- Fast throughput (screening) of patients
- Multiple measurements with one device