

Arterial function is defined by several parameters measured by Arteriograph

- Pulse Wave Velocity (**PWV**) tells you information on the elasticity of the aorta (stiffness). The higher the PWV the stiffer the aorta having affected by atherosclerosis. Vascular Stiffness precedes atherosclerosis and is a risk factor for arteriosclerosis.
- Augmentation Index (**Aix**) provides information on stress level of the arteries (endothelial function): whether the arteries are contracted (stressy) or they are in normal (open) state. It is the difference between the amplitudes of the late (backward) systolic wave (P2) and the early (forward) systolic wave (P1) over the pulse pressure (PP) and multiplied with 100. $Aix = (P2 - P1) / PP * 100$
- **SBPao**: central systolic blood pressure (mmHg) Calculated on the basis of the physiological relationship between diastolic BP, mean arterial BP, peripheral and central Aix and central SBP.
- **PWVao-SD** (m/s): A parameter informing about the quality of the measurement. The PWVao is calculated from each pulse recorded and the standard deviation is featured. Over 1.1 m/s standard deviation its value appears on the screen in red colour. This warns the examiner to the disturbed conditions of the performed measurement (motion, arrhythmia, respiration, etc.). The results of the measurement having an SDpwvao over 1.1 m/s should be disregarded and the measurement should be repeated
- **RT**: Return time (ms) It is the time of the pulse wave travelling from the aortic root to the bifurcation end back.
- **Sys**: Brachial systolic blood pressure (mmHg)
- **Dia**: Brachial diastolic blood pressure (mmHg)
- **HR**: Heart Rate (beat/min)
- **MAP**: Mean Arterial Pressure (mmHg)
- **PP**: Brachial Pulse Pressure (mmHg)
- **ED**: Ejection Duration of the left ventricle (ms) It is the period of the mechanical systole, i.e. the time-span between the opening and closing of the aortic valves.
- **DRA**: Diastolic Reflection Area (Dimensionless index) It provides information about the quality of diastolic filling in the coronary arteries, taking into consideration the duration of the diastole and the area between the expected (theoretical) diastolic pressure curve without reflection and the truly measured diastolic curve with reflection.
- **SAI**: Systolic Area Index (%) It is the systolic part of the area under the entire pulse curve.
- **DAI**: Diastolic Area Index (%) It is the diastolic part of the area under the entire pulse curve.
- **ABI**: Ankle – Brachial Index (Dimensionless Index) The ratio of the ankle systolic blood pressure and brachial systolic blood pressure values.