## PeriFlux System 5000 Vascular Lab – Common configurations

**BASIC VASCULAR LAB**
- Advanced PAD diagnosis including micro- and macrocirculation.
- Accurate wound healing and amputation level assessments.
- All functionalities in a compact system.
- One leg at the time. One site tcpO₂.

**MULTI-CHANNEL VASCULAR LAB**
- Advanced PAD diagnosis including micro- and macrocirculation.
- Accurate wound healing and amputation level assessments.
- Perfect for the high volume environment.
- Both legs and reference arm simultaneously.
- Several sites tcpO₂.

**BILATERAL TOE PRESSURE SYSTEM**
- Extended macrocirculatory PAD assessment including toe pressures/TBI as well as ABI, segmental pressures and PVR.
- Complete solution for distal pressures.
- Bilateral pressure assessment.
- Reference arm value entered separately.

**TRANSCUTANEOUS OXYGEN**
- Well established microvascular assessment for wound healing potential, amputation level determination, HBO evaluation and more.
- Ideal for Wound Care and Hyperbaric clinics.
- Flexible number of sites.

<table>
<thead>
<tr>
<th>Diagnostic value</th>
<th>BASIC VASCULAR LAB</th>
<th>MULTI-CHANNEL VASCULAR LAB</th>
<th>BILATERAL TOE PRESSURE SYSTEM</th>
<th>TRANSCUTANEOUS OXYGEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toe/Ankle Pressure*</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>ABI/TBI</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>PVR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>Segmental Pressures</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>tcpO₂</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
<td>4 channels per main unit. Several main units may be connected.</td>
</tr>
<tr>
<td>SPP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>Tissue response to local heating</td>
<td>1 site simultaneously</td>
<td>2 sites simultaneously</td>
<td>2 sites simultaneously</td>
<td>–</td>
</tr>
</tbody>
</table>

* To simplify measurement in cold ischemic feet, all described configurations include local heating at the measurement point.

Due to its modular design, additional configurations are possible. Please contact Perimed for more information. The PeriFlux System 5000 Vascular Lab is operated using PSW ExM software. PSW ExM is DICOM compatible.
**Toe Pressure - TBI and Ankle Pressure - ABI**

Toe and ankle pressures, including toe/ankle-brachial index, are well established, objective tests for the diagnosis of Peripheral Arterial Disease (including Critical Limb Ischemia). Toe pressures are of particular importance in patients suffering from arterial calcification, resulting in falsely high ankle pressure values and under-diagnosis of disease.\(^1,2,3\) Laser Doppler technology is used for detection, which has proved to be more sensitive than photoplethysmography in the low pressure range and does not require pulsatility.\(^4\)

**Transcutaneous Oxygen - tc\(p\)O\(_2\)**

A non-invasive method routinely used by clinicians for wound healing prediction and qualification for hyperbaric oxygen therapy, aggressive wound management or revascularization. tc\(p\)O\(_2\) measures local \(O_2\) released from the skin through the capillaries, reflecting the nutritive flow.\(^1,2,5,6\) Remote panel systems facilitate use in a hyperbaric chamber.

**Pulse Volume Recording - PVR**

Based on air plethysmography, PVR measures changes in pressure reflecting arterial pulsatility. PVR can aid in localizing significant occlusive lesions in limbs.\(^1\)

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**Segmental Pressures**

Segmental pressures are similar to toe and ankle pressures with the addition of two or three blood pressure cuffs positioned on the upper and lower thigh, and the upper calf. Segmental pressures can provide an initial indication of the anatomical location of arterial occlusive lesions. Segmental pressures are often combined with segmental pulse volume recordings (PVR).\(^1\)

**Skin Perfusion Pressure - SPP**

SPP reflects the local pressure in the microcirculation. A laser Doppler probe is used to detect the return of flow and is positioned underneath a pressure cuff.\(^7\)

**Tissue response to local heating**

Heat combined with laser Doppler can be used to determine the viability of tissue and the degree of microcirculatory impairment. A thermostatic laser Doppler probe induces local heating at the measurement site, triggering vasodilation. The increase in blood perfusion indicates tissue reserve capacity and endothelial function, important parameters for healing prediction and amputation level determination.\(^8\)

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**References:**

2. Inter-Society Consensus for the Management of Peripheral Arterial Disease (TASCII). Eur J Vasc and Endovasc Surgery, Vol 33 suppl 1 2007
5. The use of transcutaneous oximetry in the noninvasive vascular laboratory. Rocco Int. Angiology vol 11 no 1, 1992

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Due to Perimed’s commitment to continuous improvement of our products, all specifications are subject to change without notice.

*For more information please contact Perimed AB*

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