# Whole-body Electric Bioimpedance Measurement in the Evaluation of Vascular Function

# Errata

**Whole-body Electric Bioimpedance Measurement in the Evaluation of Vascular Function**

**Page 11:** IDF International diabetes **federation**

**Page 21:** **Missing reference;** Parameters commonly used to characterise the (local) elastic behaviour of the arteries are compliance (C) and distensibility (dist), defined as the absolute ($\Delta V$) and relative ($\Delta V/V$) change in local arterial volume (V) for a change in pressure ($\Delta p$) **(Reneman et al. 2005)**.

**Page 23:** **Missing reference;** When applied simultaneously to the posterior and anterior walls of the artery, direct information on the change in diameter over time (distension waveform) is provided (Figure 2.2) **(Nichols et al. 2001)**.

**Page 24:** …the major determinants of PWV are arterial wall thickness and lumen diameter (Asmar et al. 1995, Cavalcante et al. 2011).

**Should read;** …the major determinants of PWV are arterial wall thickness, **wall material properties** and lumen diameter (Asmar et al. 1995, Cavalcante et al. 2011).

**Page 31:** **Equation 20 ($v_0$-$v_1$, not $v_1$-$v_0$);** $\Delta R=R_n-R_0=\rho\cdot l^2\cdot[(\mathbf{v_0-v_1})/(v_0\cdot v_1)]=-(\rho\cdot l^2\cdot\Delta v)/(v_0\cdot v_1)$ $=-(\rho\cdot l^2/v^2)\cdot\Delta v$

**Page 31:** **Missing reference;** where $v_0$ is the original volume of the object and $v_1$ the volume after the addition of blood, which for small changes in v is $v_0 \approx v_1$. Thus, the relationship between the volume of a blood pulse and the related resistance change can be rewritten as **(Kauppinen 1999)**:

**Page 31:** $\Delta R$ (from the equation 21) is replaced by the first derivative (dZ/dt) of the amplitude of the heart synchronous impedance variation ($\Delta Z$).

**Should read;** $\Delta R$ (from the equation 21) is replaced by the **product of the maximum negative rate of the** first derivative (dZ/dt) of the amplitude of the heart synchronous impedance variation ($\Delta Z$) **and T**.