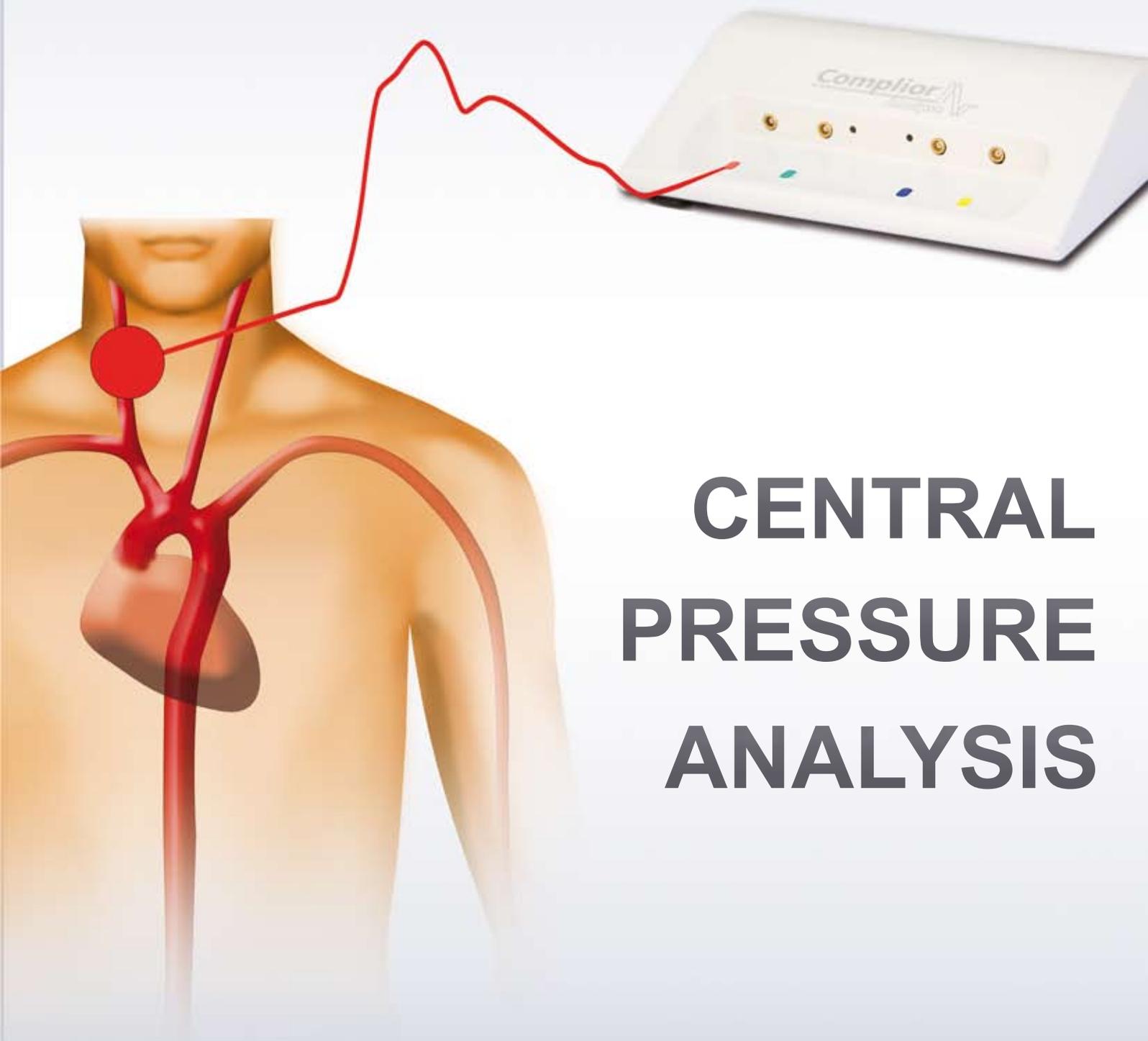


# **Complior**<sup>®</sup>

*Analyse*



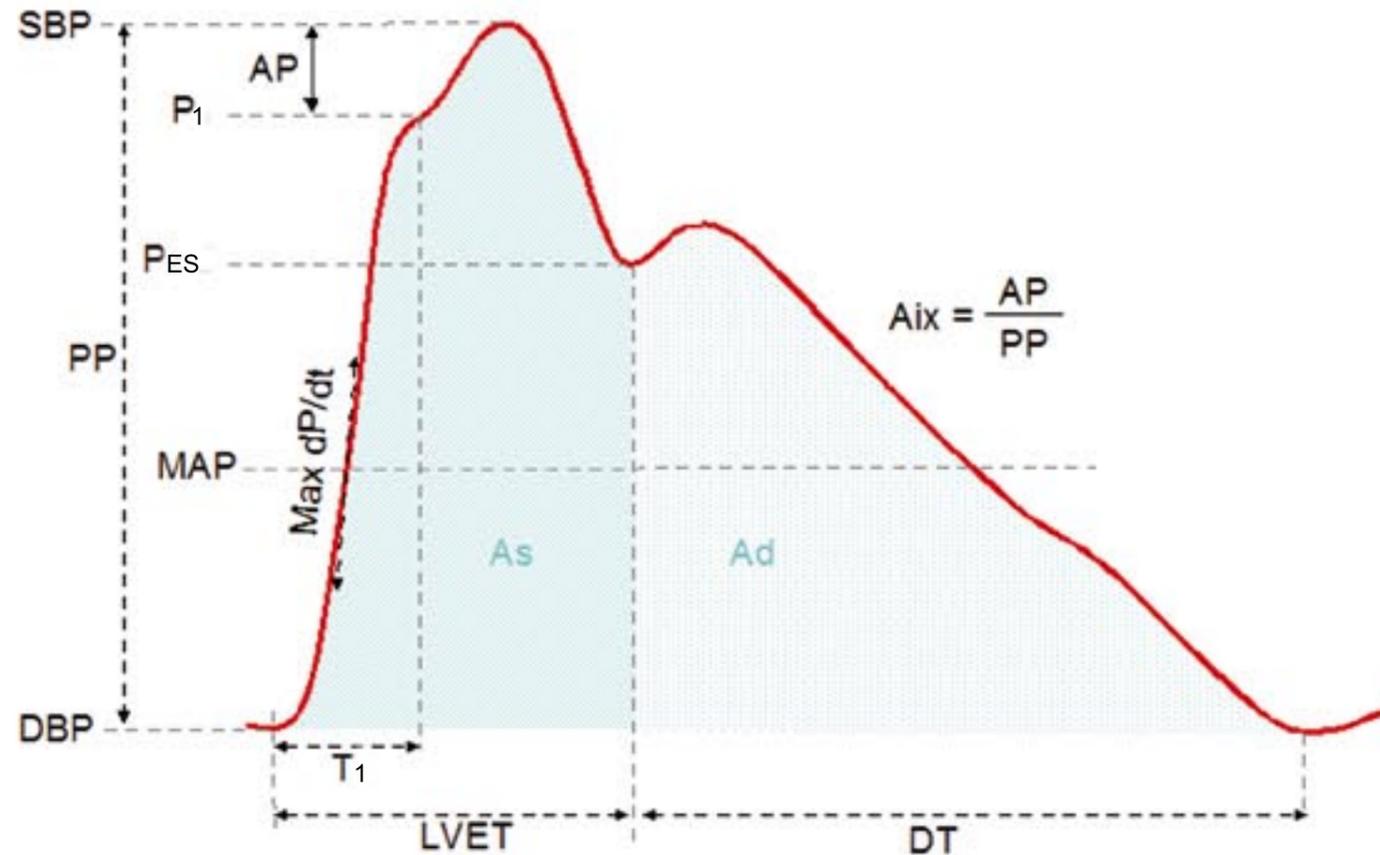
## **CENTRAL PRESSURE ANALYSIS**

## Central pressure, and pulse wave analysis

Central arterial pressure is the pressure in the main large arteries (aorta, carotids). It represents the pressure load of target organs such as the heart, the brain and the kidneys. However central pressure is not equal to peripheral pressure measured with a standard cuff and it has been shown that central pressure has a superior cardiovascular prognostic value<sup>1-4</sup>.

Central pressure measured on the carotid is the method used in the majority of studies demonstrating that central systolic and/or central pulse pressure are better predictors of cardiovascular events than brachial pressure<sup>1-4</sup>.

With the analysis of central pressure, numerous parameters characterizing cardiac and arterial function can be calculated, such as the Augmentation index which is related to wave reflection.



## Complior Central pressure from Carotid

- ▶ **Hand-free, operator non-dependant technology**  
Connected to a PC, Complior records carotid pressure signal from the piezoelectric sensor. With the neck holder, central pressure is measured simply and easily.



- ▶ **Direct measure of central pressure, with no estimation nor transfer function**  
Carotid pressure is virtually identical to pressure in the ascending aorta and can be used interchangeably<sup>5-6</sup>.
- ▶ **Recognized calibration method with no controversies**  
Carotid signal is calibrated from diastolic and mean blood pressure<sup>5</sup>.

1- Safar ME et al. Central pulse pressure and mortality in end-stage renal disease. *Hypertension* 2002;39(3):735-8.

2- Pini R et al. Central but not brachial blood pressure predicts cardiovascular events in an unselected geriatric population: the ICARE Dicomano Study. *J Am Coll Cardiol* 2008;51(25):2432-9.

3- Wang KL et al. Central or peripheral systolic or pulse pressure: which best relates to target organs and future mortality? *J Hypertens* 2009;27(3):461-7.

4- Vlachopoulos C et al. Prediction of cardiovascular events and all-cause mortality with central haemodynamics: a systematic review and meta-analysis. *Eur Heart J* 2010 March 2.

5- Van Bortel L et al. Non-invasive assessment of local arterial pulse pressure: comparison of applanation tonometry and echo-tracking. *J Hypertens* 2001;19(6):1037-44.

6- Chen CH et al. Validation of carotid artery tonometry as a means of estimating augmentation index of ascending aortic pressure. *Hypertension* 1996;27(2):168-75.

- ▶ In its full version, Complior Analyse measures carotid-femoral pulse wave velocity, the reference for aortic stiffness, and central pressure analysis in a single acquisition.

# Specifications

Sensors:	up to 4 piezoelectric sensors: carotid, femoral, radial, distal
Acquisition:	up to 30s covering at several breathing cycles
Dimensions:	43 x 150 x 128 mm (HxWxD)
Weight:	450 g (PC excluded)
Power supply :	USB port
PC specifications:	processor 1GHz, 256MB RAM, 2 USB port, Microsoft Windows
Conditions of use:	from +10°C to +40°C, humidity < 95%
Regulatory:	CE Mark (class IIa), IEC 601-1-1, IEC 601-1-2



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