

# Closing the Cycle of Research, Prevention, Diagnosis, Monitoring and Treatment With a Simple Finger Sensor

Summary: Noninvasive, continuous haemodynamic assessment in clinically proven quality made easy.



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**E**asy-to-use and reliable methods for a clinically valuable cardiovascular assessment have become inevitable at a time when cardiovascular disease (CVD) is the number one cause of death<sup>1</sup> and postoperative complications causing long hospital stays are not the only facts placing significant economic burden on healthcare services worldwide.

Noninvasive, continuous arterial blood pressure monitoring (CNAP®) - as offered by CNSystems - has fulfilled this claim for over 20 years for closing the cycle of prevention, early detection, continuous monitoring and efficient treatment. More than 900 studies in many different application fields reflect the reliability and versatile usability of this market leading technology, which not only enhanced standard intermittent methods with continuous information, but also revolutionised cardiovascular monitoring by providing full haemodynamics from simple finger sensors.<sup>2,3</sup>

The method is, for instance, very much appreciated in the field of hypertension prevention in order to closely investigate its influencing factors with the goal to early detect, predict and ideally prevent this widespread disease. Studies with our technology not only underlined that physical exercise has a positive impact on the CV system,<sup>4,5</sup> but also confirmed that prompt antihypertensive treatment may contribute to a stabilised cardiovascular state and reversed health effects.<sup>6</sup>

Haemodynamic and autonomic assessment also plays an important role in the diagnosis and management of Syncope, which is still a challenging task in medical practice<sup>7</sup> requiring noninvasive, continuous and easy-to-use equipment for efficient haemodynamic and autonomic monitoring. Numerous study groups have used our technology during head-up tilt-tests to provoke unconsciousness and get a detailed



insight in the physiological mechanisms during syncope events.<sup>8,9</sup>

CNAP® has even convinced with its reliability and the potential to improve patient outcome and save cost in the very sensitive field of perioperative medicine. Noninvasive solutions are not only associated with less risks, but also with fewer complications for the patient than invasive methods. Benes et al. showed that Goal Directed Therapy based on pulse pressure variation from CNAP® applied in intermediate risk patients undergoing hip or knee replacement, reduced postoperative wound infection, the number one complication and essential cost driver in surgical patients,<sup>10</sup> by 61%.<sup>11</sup>

The range of applications for our noninvasive technology is wide. CNAP® can be used wherever there is the need for continuous monitoring but no indication for invasive solutions. It is easy to use, practically without any risks and clinically proven with the same accuracy as invasive reference methods. ■

For full references, please email [edito@healthmanagement.org](mailto:edito@healthmanagement.org) or visit <https://iii.hm/zoc>