HDO®
High Definition Oscillometry

Essential Facts of HDO®
(High Definition Oscillometry)
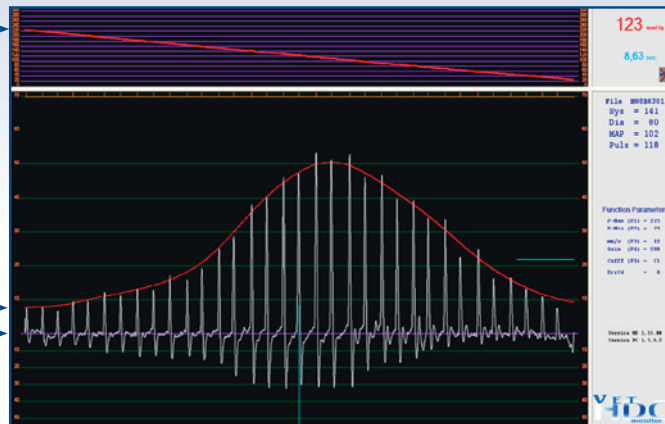
Normal distribution of pulse wave in a healthy dog

linearity line (red): linear deflation

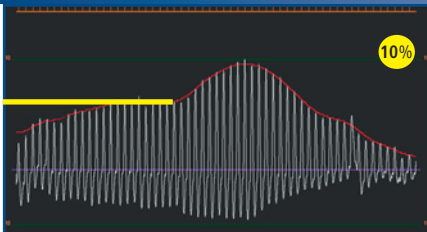**bell shape curve:** arterial opening behaviour

base line

measurement results:
-Sys, Dia, MAP, Pulse

parameters:
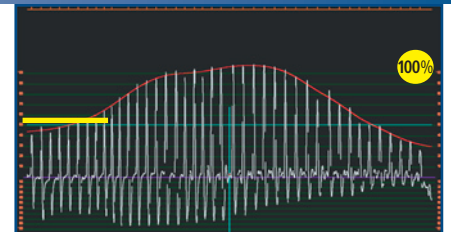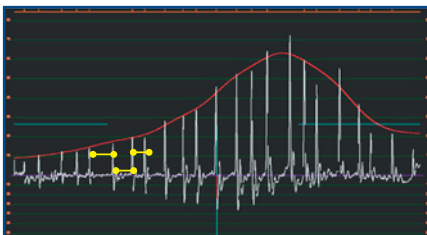- P-Max / P-Min
- mm/s
- Gain
- Cuff

PW Analysis

high presystolic amplitudes, low CO (10 %) in a giant Schnauzer with DCM
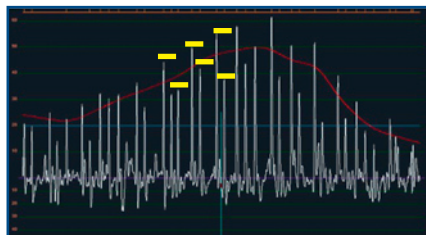
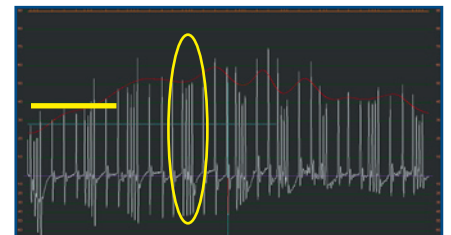low presystolic amplitudes due to vasodilation (e.g. septicemic shock)

a hypertensive dog with CKD; Gain ⚠ too high >100%

distance between amplitudes = rhythm
Dog with respiratory sinus arrhythmia

height of amplitude: stroke volume
Stroke Volume Variances (SVV) and arrhythmia due to extra beats (frayed pattern)

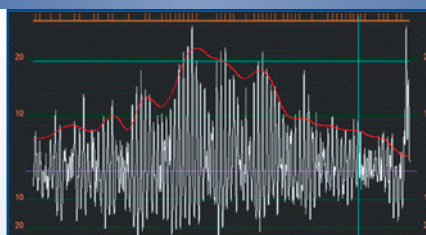high presystolic amplitudes and arrhythmia during anesthesia with Ketamine, Rompun and Isoflurane

Trouble Shooting

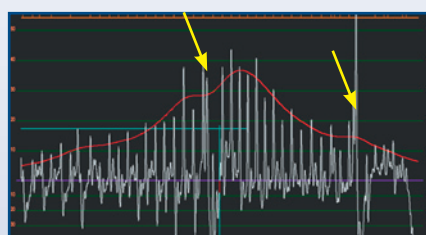trembling artefacts only (no pulse amplitudes)
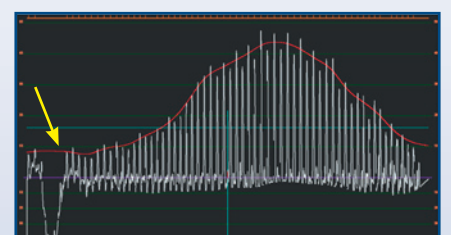
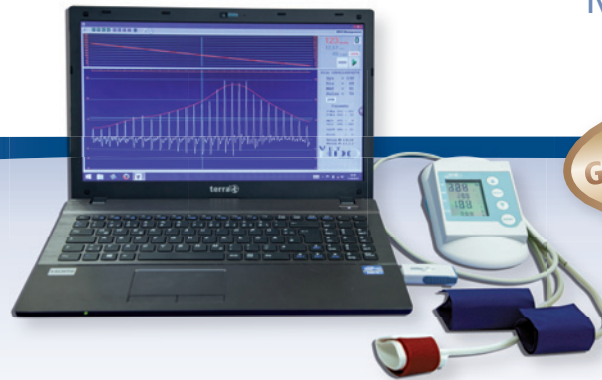severe breathing pattern due to stress

cuff too tight

cuff too loose
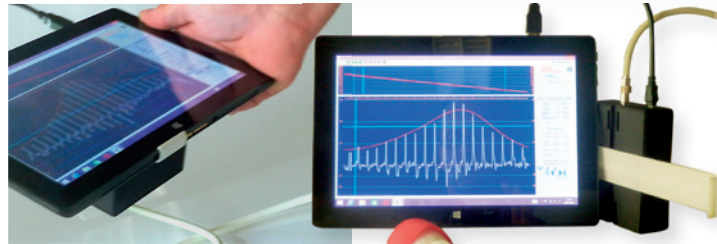
movement artefacts

artefact due to change in position

S+B medvet GmbH Neuer Weg 4 | D-64832 Babenhausen | www.submedvet.de | www.vet-HDO.com

Distributor:

GOLDSTANDARD

EQUIPMENT

☐ VET HDO MD PRO / USB

☐ VET HDO MD PRO / USB /
  BT (Bluetooth)

☐ VET HDO MD Equine / USB / BT

☐ VET HDO Tablet

Includes:
3 cuffs: C1 D1 D2
USB 2.0 cable
Manuals HDO / MDSWIN
MDSWIN Analyse Software (windows)

HDO - Evidence based!

1 - First and only NIBP Gold Standard
2 - Real time analysis
3 - The only true pulse wave representation
4 - BP and cardio-vascular parameters

Typ of Hypertension	SAP	DAP	Risk of Target Organ Damage
mildly elevated BP	> 150 mmHg	> 95 mmHg	mild
medium	> 160 mmHg	> 100 mmHg	medium
severe	> 180 mmHg	> 120 mmHg	severe
ACVIM Consensus Statement 2007			

Therapy YES / NO?

**ACVIM Consensus
Statement 2007
www.vbps-online.org**

Measure BP
Identify TOD &
concurrent diseases

BP < 150/95 mmHg

BP ≥150/95 mmHg

Minimal risk of TOD
Re-evaluate in 3-6 months

Ocular/CNS TOD present

No ocular/CNS TOD present

Candidate for
initiation or escalation of
antihypertensive therapy

Re-measure BP
within 7 days

Moderate and high risk of TOD

BP < 150/95 mmHg

BP 150-159/95-99 mmHg

BP 160-179/100-119 mmHg

BP ≥180/120 mmHg

Re-measure BP
in 1-3 months

Evidence of TOD?

Evidence of TOD
or cause of
secondary hypertension?

YES:
Candidate for
initiation or escalation of
anti-hypertensive therapy

YES:
Candidate for
initiation or escalation
of anti-hypertensive therapy

NO:
Manage causes of
secondary hypertension.
Re-measure BP in 1-3 months

YES:
Candidate for
initiation or escalation of
anti-hypertensive therapy

NO:
Clinical judgement: Candidate for
anti-hypertensive therapy - or -
re-measure BP in 1 month