The KARDIVAR device for diagnosing issues affecting the nervous, hormonal and immune system

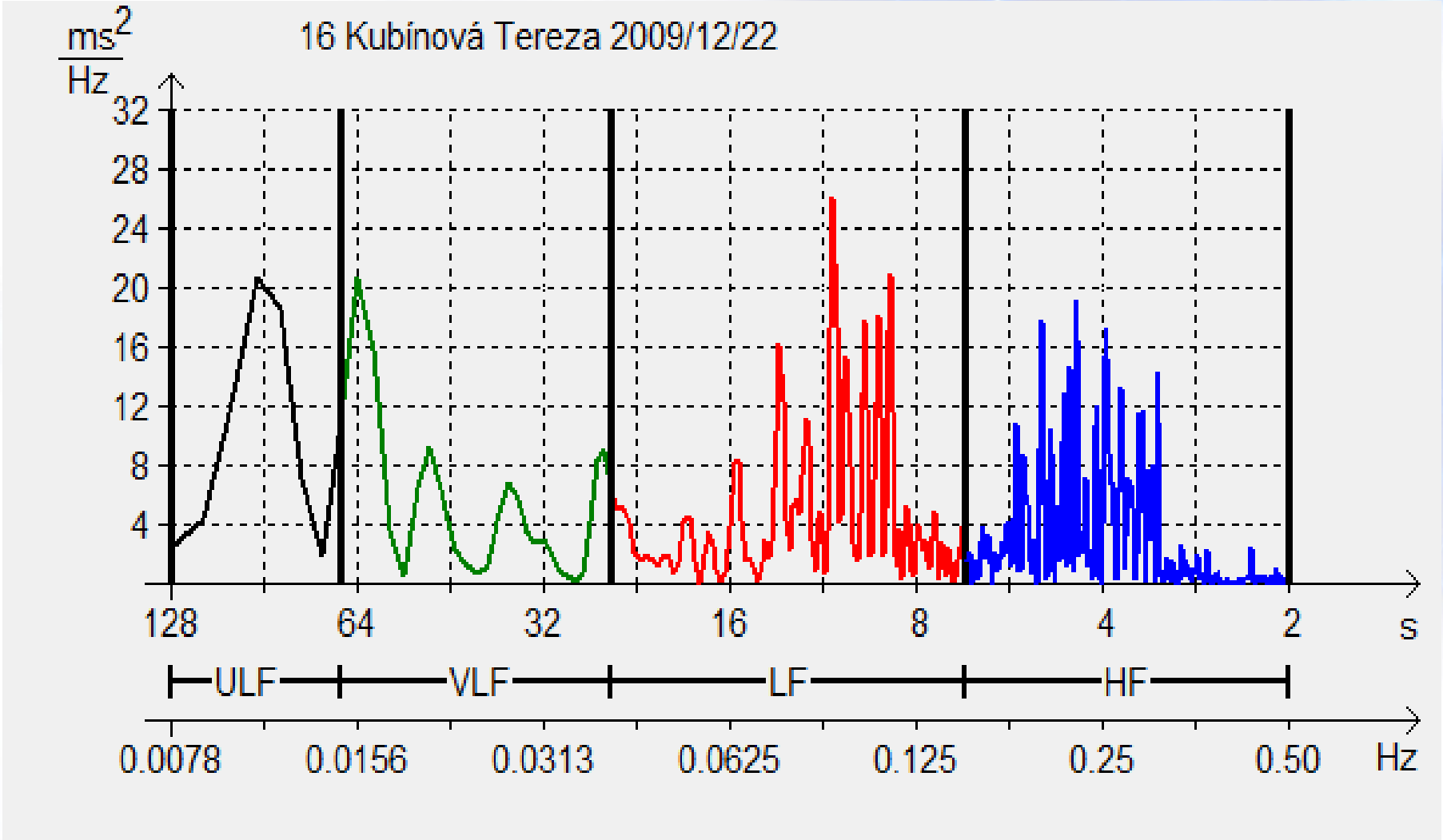
It is a medical device which undertakes to:

- Analyse the stress of an individual and the risk for his or her health.
- Measure the absolute levels of stress and risks
- Measure the level of reserves in an individual
- Enable measurement of the effectiveness of therapeutics protocols e.g supplementation, electro magnetics (biophysical).

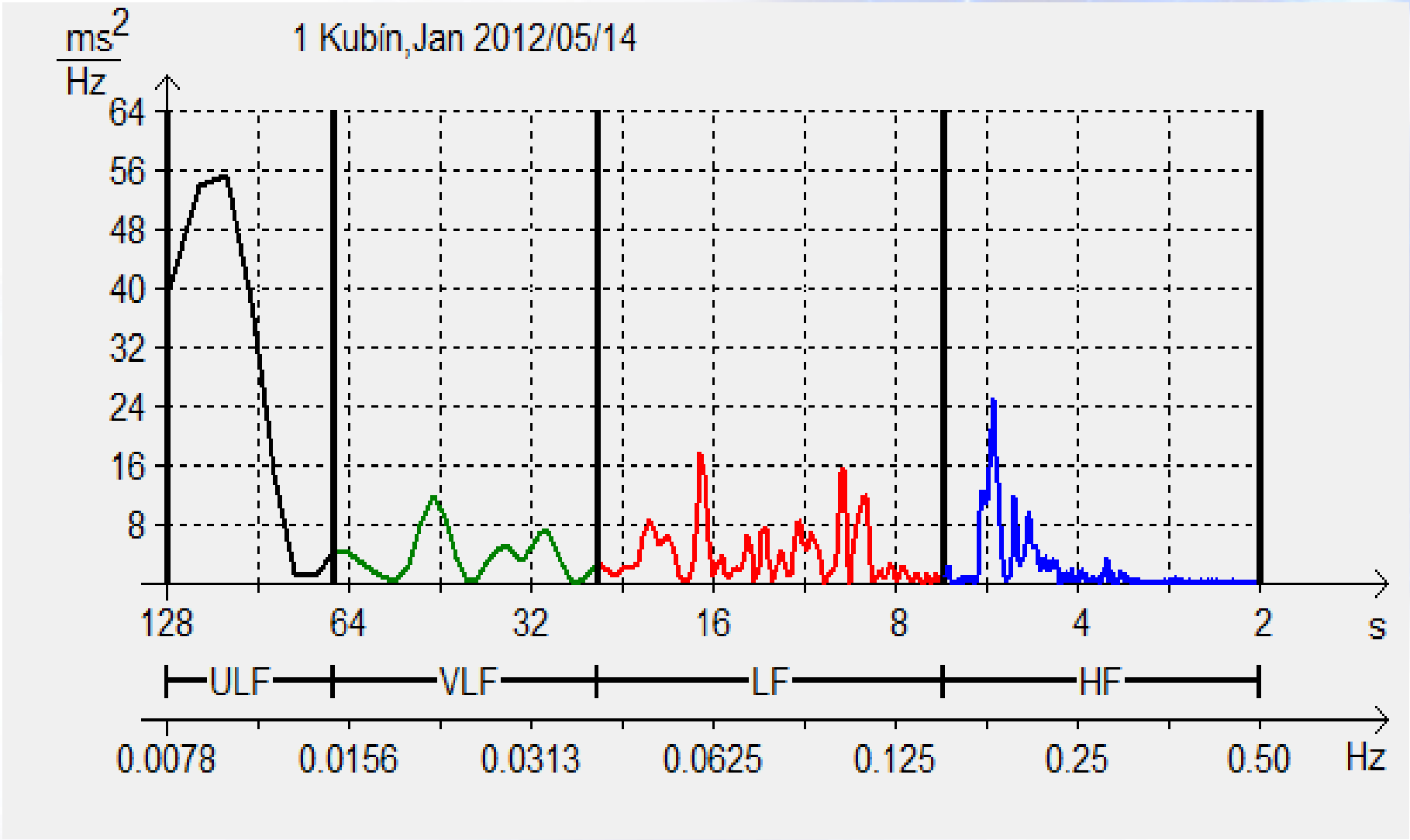
What we are measuring with the Kardivar

- We are measuring the different activities of the regulatory systems.
- The results of these different activities as measured by the Kardivar will differ for long term disease states and short term.
- When the organism is under stress this causes the body to shut down non essential functions. This is done via the regulatory system i.e. parasympathetic.
- When this stress is chronic this what can cause long term problems
- It is important to differentiate between short-term and long-term adverse changes.

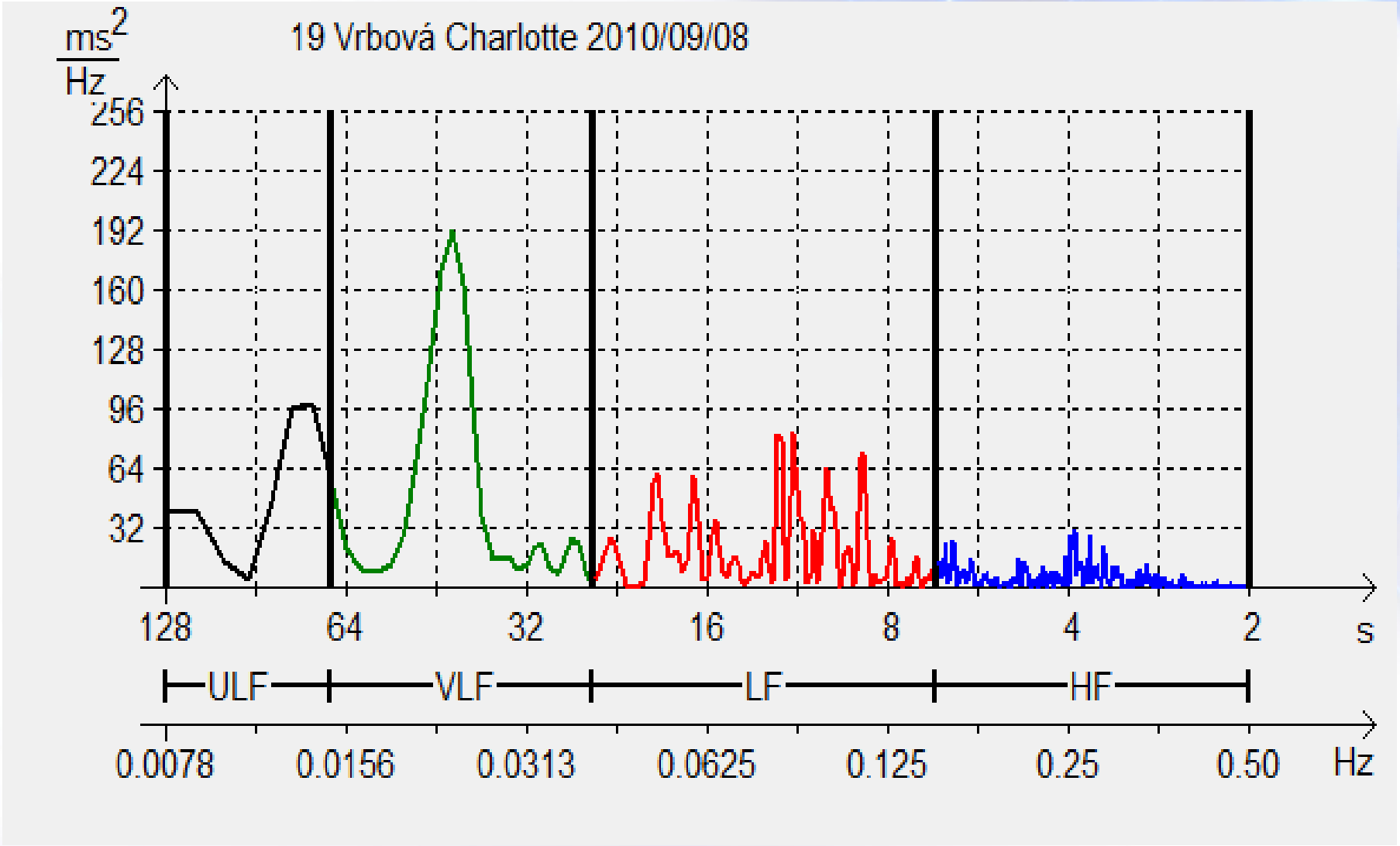
Healthy Young Person (aged 26)



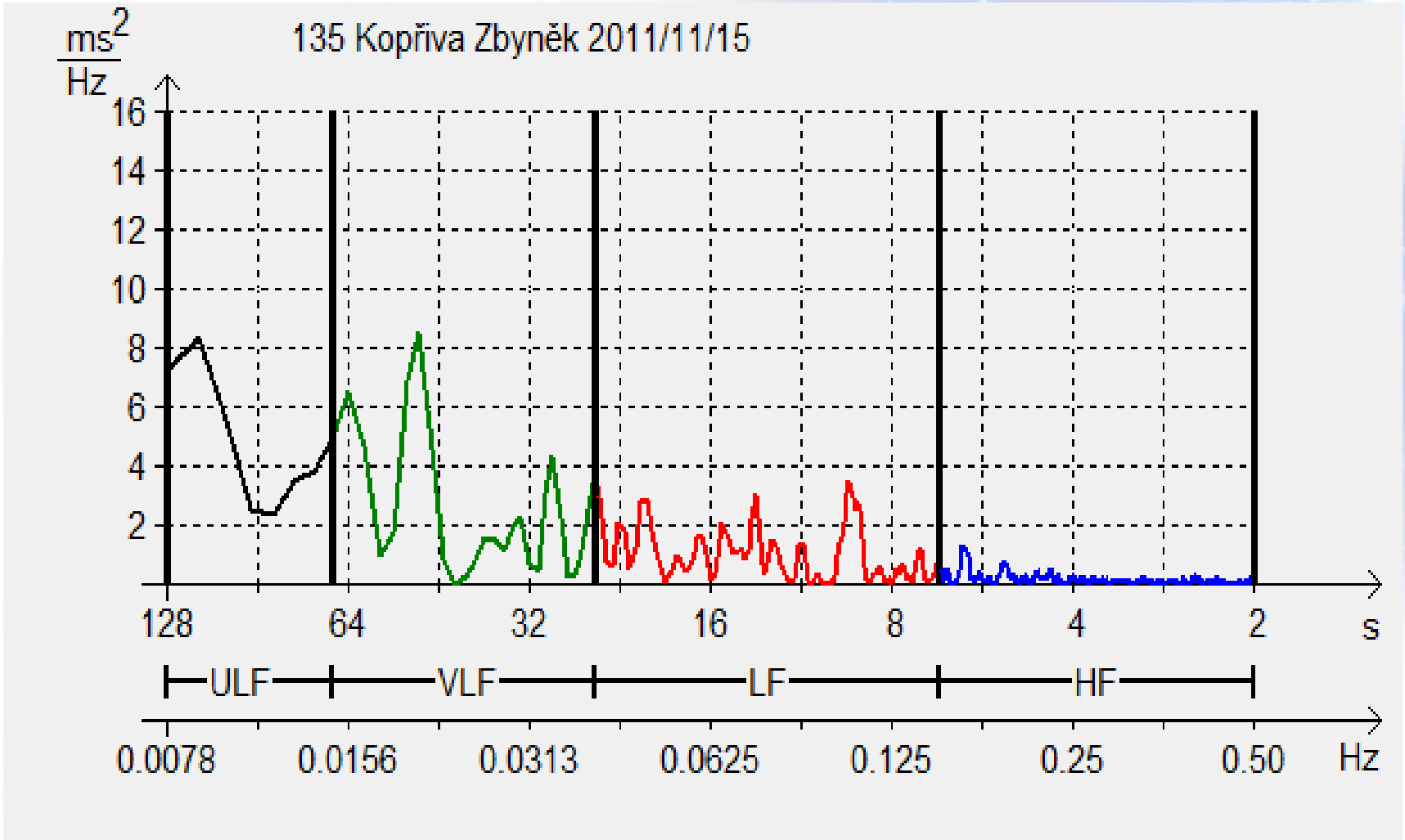
Healthy Adult (aged 48)



Unhealthy (Aged 18)



Unhealthy adult (aged 52)



Health Objectives and Goals

- The goal is an optimal combination of sympathetic and parasympathetic branches of the nervous, endocrine and immune system. This is an expression of optimum adaptability of the organism.
- Rigid or Low heart rate variability indicates a reduced adaptability of the organism.
- This indicates the risk of serious diseases such as hypertension, diabetes, hormonal imbalance, cardiovascular diseases, mental disorders, neuropathy and even cancer etc.

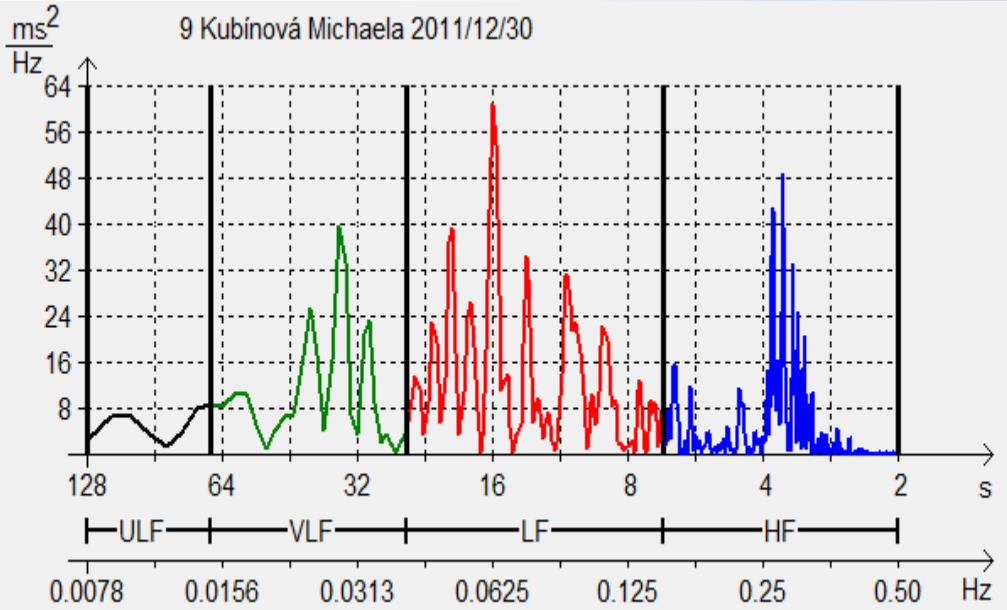
Parameters of the Kardivar.

- The results from the Kardivar are expressed as actual values. These are then looked at in terms of a range of parameters which are considered to be “normal”
- We like the values of the parameters in the “normal”. Parameters in the “normal” zone mean a healthy body.
  Extreme parameters i.e. outside the norm and this is all relative indicate problems.
- The cells and organs of the body know how to communicate and transmit energy in health and we respond to the external environment and to daily stress however . Limited and blocked communication means increasing problems.

Graphs and parameters for short –term problems

For the following parameters:
HF(blue)
LF (red)
VLF(green)

If the peak is between the right side to centre of the range this is good



RESULTS of HEART RATE VARIABILITY ANALYSIS

Number 9 Kubínová Michaela					
Date	Time	Sex	Age	HR	Rec. time
2011/12/30	12:28	female	42	50	00:05:01

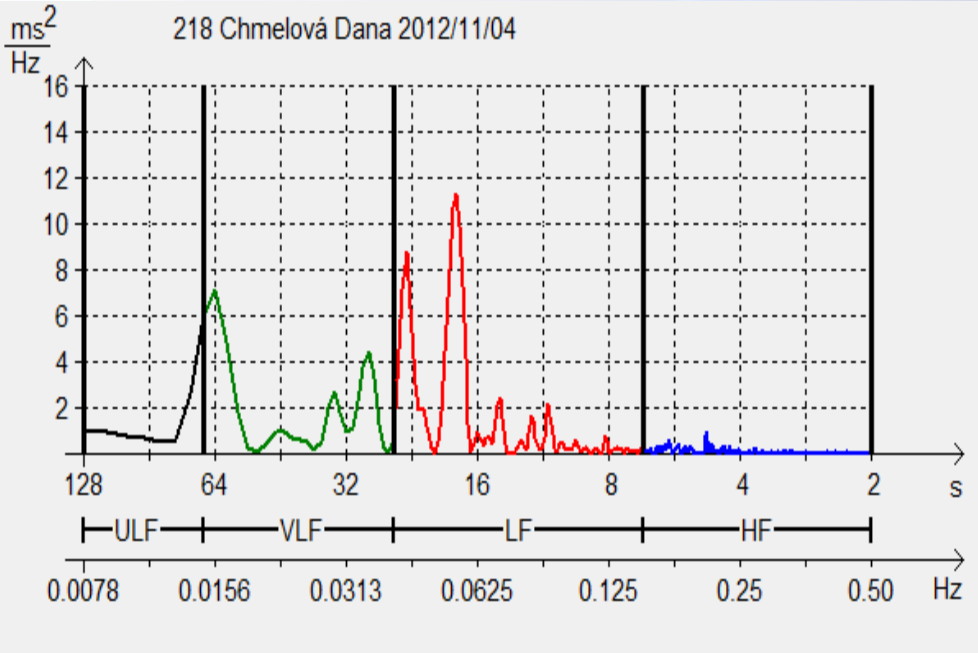
Basic heart rhythm variability parameters

Parameter	
Statistical and autocorrelation analysis	
1. Beats per minute (60/Mean value)	50
2. Mean value of intervals, ms	1211
3. Maximum value (Mx), ms	1463
4. Minimum value (Mn), ms	1068
5. Difference Max-Min (MxDMn), ms	395
6. Quotient Max/Min (MxRMn)	1.37
7. RMSSD, ms	73
8. pNN50, %	47.6
9. Standard deviation (SDNN), ms	67.33
10. Coefficient of variation (CV), %	5.6
11. Dispersion (D), ms^2	4533.2
12. Mode (Mo), ms	1176
13. Amplitude of Mode (AMoSDNN), %	39.0
14. Amplitude of Mode (AMo50), %	33.3
15. Amplitude of Mode (AMo7.8), %	5.6
16. Autocorrelation funtion index (CC1)	0.578
17. Autocorrelation funtion index (CC0)	4.509
18. Nr. of arryhthmias (NArr), %	0.0
19. Stress index (SI)	36
Spectral analysis	
20. Total power (TP), ms^2	2972.47
21. Total power HF, ms^2	1353.03
22. Total power LF, ms^2	1293.28
23. Total power VLF, ms^2	281.21
24. Total power ULF, ms^2	44.95
25. Max HF (HFmx), ms^2/Hz	48.72
26. Max LF (LFmx), ms^2/Hz	60.71
27. Max VLF (VLFmx), ms^2/Hz	39.68
28. Max ULF (UFmx), ms^2/Hz	8.06
29. Max.period HF, sec	3.61
30. Max.period LF, sec	16.00
31. Max.period VLF, sec	35.31
32. Max.period ULF, sec	73.14
33. Power HF, %	46.2
34. Power LF, %	44.2
35. Power VLF, %	9.6
36. LF/HF	0.96
37. Index of centralization (VLF+LF)/HF (IC)	1.16

Graphs and parameters in detail: The long-term problems

For these parameters:
HF(blue)
LF (red)
VLF(green)

If the peak is between the left side to the centre this indicate a longer term issue which is more problematic.



RESULTS of HEART RATE VARIABILITY ANALYSIS

Number 218 Chmelová Dana					
Date	Time	Sex	Age	HR	Rec. time
2012/11/04	15:47	female	51	101	00:05:01

Basic heart rhythm variability parameters

Parameter	
Statistical and autocorrelation analysis	
1. Beats per minute (60/Mean value)	101
2. Mean value of intervals, ms	594
3. Maximum value (Mx), ms	636
4. Minimum value (Mn), ms	548
5. Difference Max-Min (MxDMn), ms	89
6. Quotient Max/Min (MxRMn)	1.16
7. RMSSD, ms	6
8. pNN50, %	0.0
9. Standard deviation (SDNN), ms	18.6
10. Coefficient of variation (CV), %	3.1
11. Dispersion (D), ms^2	346.1
12. Mode (Mo), ms	582
13. Amplitude of Mode (AMoSDNN), %	34.3
14. Amplitude of Mode (AMo50), %	61.5
15. Amplitude of Mode (AMo7.8), %	15.0
16. Autocorrelation funtion index (CC1)	0.731
17. Autocorrelation funtion index (CC0)	3.914
18. Nr. of arryhthmias (NArr), %	0.0
19. Stress index (SI)	597
Spectral analysis	
20. Total power (TP), ms^2	215.27
21. Total power HF, ms^2	25.93
22. Total power LF, ms^2	129.00
23. Total power VLF, ms^2	47.82
24. Total power ULF, ms^2	12.51
25. Max HF (HFmx), ms^2/Hz	0.93
26. Max LF (LFmx), ms^2/Hz	11.29
27. Max VLF (VLFmx), ms^2/Hz	7.16
28. Max ULF (UFmx), ms^2/Hz	2.64
29. Max.period HF, sec	4.76
30. Max.period LF, sec	17.96
31. Max.period VLF, sec	64.00
32. Max.period ULF, sec	73.14
33. Power HF, %	12.8
34. Power LF, %	63.6
35. Power VLF, %	23.6
36. LF/HF	4.97
37. Index of centralization (VLF+LF)/HF (IC)	6.82

Using the Kardivar for Prevention and measuring the success of treatment

The Kardivar uses heart rate variability to

- follow the structure and cycles of communication within the body and measure change of adaptation mechanisms.

Generally:

- The lower or smaller the variability is the higher the stress which in turn increase the risk of a number of lifestyle diseases

Our Objectives

Diagnosis:

- Ascertain quantitatively the structure of communication and the dynamics of communication.
- Determinate short-term v long-term problems
- Compare reading with the norm or the last measurement.
- Classify the stage the client is at.

Therapeutic:

- Offer a solution or change in treatment respectively to improve the state of their organism.
- Offer a proposal for a holistic, individualised treatment

References:

- Prof. Ervin Staub - HRV, baroreflex
- Prof. Schreiber - the study of neuropeptides, functional polypeptides - great capability of adaptation. 1) homeostasis (internal environment). 2) homeodynamics (capability of adaptation, in-out communication, individuality by genetics given the sensitivity of receptors).
- Prof. Malik journal Circulation 96, 1996 (London 80 professors World standards)
- Prof. Rolf Luft (lymphocytes)
- Joe Wallach - betaglucans
- Alexis Carrel - processes in a cell

Companies:

- European Society of Cardiology
- American Heart Association
- Heart Rhythm Society
- National Technical University of Ukraine "Kyiv Polytechnic Institute"

Let us learn to respect nature,

its structure, its mechanisms building the billion years