

ESTECK Status Report [Abridged]

WARNING! The ES Teck system [www.esteck.ca] does not replace any existing other medical examinations. The ES Teck system[www.esteck.ca] is not used for diagnosis. It is intended for use as a monitoring medical system. Only the Physician can make a diagnosis. All results should be considered in the clinical context of the patient's case history, symptoms, known diagnosis, current medications, treatment plan and therapies. Final status report is the sole responsibility of the practitioner.	
Subject ID	Practitioner
First/Last Name: Geoff Bond	Address:
Weight : 170.0 Pounds	
Height: 5 Feet 8 Inch	Title:
Gender: Male	
Measurement conditions	Name : Administrator
Examination performed at: 9-13-2009 12 : 17	Physician's notes:
Registration method: A1 (70,0,100,100,0) N1 (54,0,100,100,0)	
<i>Examination performed with a ES Teck Sensors Analyzer Manufactured by L.D Technology. ISO 13485 Owner/Operator Number: 9097859. Establishment Registration Number: 3006146787. CE 0535 Class IIa. 510k number K083229 Class 2 Regulation Number: 882.5050 870.2340 / 870 ES Teck sensor is accredited as electrical equipment type BF according to the standards EN 60601-1-1 CEM according to the standards EN60601-1-2</i>	
Clinical context	
Symptoms : CHECK-UP NO SYMPTOM, NO TREATMENT	
Medications :	
Reason for consultation: [Demonstration]	Signature of the practitioner :

SpO2 % and Photoelectrical Plethysmograph

SpO2%: Hemoglobin oxygen saturation in percent

AI (Augmentation Index): Indicator of the elasticity of the carotid artery .Increased value is related to a decreased elasticity of the carotid artery and possible hypercholesterolemia

EI (Ejection Elastic Index): Relation with LV ejection and elasticity of large artery.

DDI (Dicrotic Dilation Index): Relation with contraction, tension and stiffness of small artery.

DEI (Dicrotic Elastic Index): Relation with blood flow to peripheral artery.

PR (Pulse Rate): Heart rate according to the LV ejection

Etc (Estimated Cardiac Ejection time): Estimated Cardiac Ejection time related to the LV function

PH (Pulse Height): Related to Peripheral blood volume

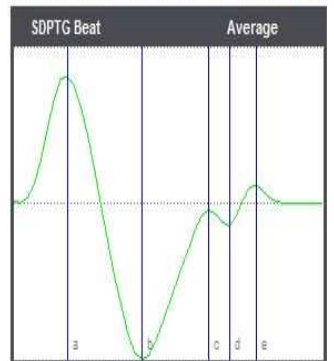
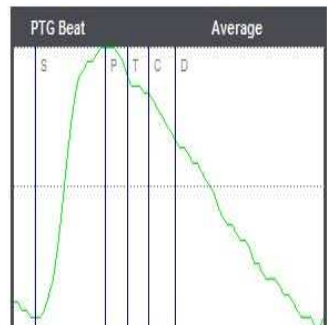
SDPTG Aging: Estimated of the vascular system age [apparently the age of a 25 year old]

SDPTG Aging Index: Mathematical calculation of the aging index from the SDPTG

b/a: The absolute value Increased with age. Marker of the Heart Left ventricle function.

-d/a: The absolute value decreased with age. Marker of Hypertension.

Indicators	Under	Normal	Over	Values	Norms	Units
SpO2 Measurement						
SpO2				98.0	94.0 - 97.0	%
PR (Pulse Rate)				59	68 - 79	bpm
Wave Value				88	75 - 85	mm
PTG Analysis						
AI (Augmentation Index)				1.20	1.05 - 1.35	I.U
EI (Ejection Elastic Index)				0.65	0.40 - 0.80	I.U
DDI (Dicrotic Dilation Index)				0.35	0.20 - 0.40	I.U
DEI (Dicrotic Elastic Index)				0.20	0.10 - 0.30	I.U
PH (Pulse Height)				6.6	2.0 - 8.0	I.U
Etc (Estimated Cardiac Ejection time)				256	260 - 380	ms
SDPTG Analysis						
SDPTG Aging				25		Years
SDPTG Aging Index				-1.20	-0.28 - 0.26	I.U
a-b				87		ms
a-c				176		ms
a-d				228		ms
a-e				372		ms
b/a				-1.26	-0.60 - -0.36	I.U
c/a				-0.02	-0.31 - -0.09	I.U
-d/a				0.21	0.34 - 0.54	I.U
e/a				0.17	0.10 - 0.24	I.U



HRV

Heart Rate Variability (HRV) is the mathematical analysis of the time between the Heart rate.

Time domain analysis Comments

Mean values of RR or NN intervals: means of the time between all intervals between each heart beat.

Maximum values (Mx) : Longest interval in time

Minimum values (Mn) : Shortest interval in time

Mx-Mn : The difference between the longest and shortest interval

MxDMn : Indicator of Irregular Heart beat.

SDNN : SDNN should be an indicator of both sympathetic and parasympathetic regulation.

An SDNN < 50 ms is considered to be a depressed HRV score. Increased (up to 74%) after exercise training. It can be increased in case of stopping smoking (20%) or uptake of supplements (micro nutrition).

RMSSD: Indicator of parasympathetic activity. Reflects the electrical stability of the Heart.

RMSSD and SDNN both reduced indicate an increase in the risk of heart disease occurrence.

NN50 count: Indicator of heart rhythm stability

pNN50 %: Indicator of heart rhythm stability

Stress Index SI: Indicator for coronary contraction

K30/15: Indicator of vagal syndrome

Spectrum analysis comments

5 min total power: indicator for Diabetic neuropathy (Decreased)

Power % VLF: Indicator of psycho emotional tension

Power %LF: Indicator of sympathetic activity. Increased with hypertension.

For Athletic, LF increased should be an indicator of overtraining.

Power %HF: Indicator of parasympathetic or vagal activity. Increased with cardiopathy and hypotensive medications

Indicator of Diabetic neuropathy (decreased). For Athletic, HF should be indicator of training,

LF/HF: Ratio LF/HF. ANS (Autonomic Nervous System) balance. Decreased in case of bad prognostic after MI.

Increased in hyperthermia and fibromyalgia

VLF ms2: No interpretation.

LF ms2: Indicator of both sympathetic and parasympathetic system

HF ms2: Indicator of the parasympathetic or vagal activity

HRV results

Indicators	Under	Normal	Over	Values	Norms	Units
Time domain Statistics						
Quantity of NN intervals				119	136 - 162	I.U
NN50				73	13 - 79	I.U
pNN50				61.9	10.0 - 49.0	%
Heart rate (HR)				59.1	67.0 - 80.0	bpm
Mean value of RR intervals				1015.0	750.0 - 895.5	ms
Standard deviation (SDNN)				72.03	40.00 - 80.00	ms
RMSSD				93.87	35.00 - 65.00	ms
RR - Respiratory rate				15.82	12.00 - 20.00	breaths per minute
Minimum value (Mn)				839.0	750.0 - 895.5	ms
Maximum value (Mx)				1209.0	750.0 - 895.5	ms
Mx-Mn (MxOMn)				370.0	150.0 - 300.0	ms
Stress index (SI)				47.64	50.00 - 200.00	conv. Un.
K30/15	n/a	n/a	n/a	n/a	n/a	n/a
Valsalva ratio	n/a	n/a	n/a	n/a	n/a	n/a
Frequency domain or spectral analysis						
Power VLF				24.02	25.00 - 50.00	%

Frequency domain or spectral analysis

Indicators	Under	Normal	Over	Values	Norms	Units
Power LF				32.67	22.00 - 46.00	%
Power HF				43.31	22.00 - 34.00	%
Ratio of ANS activity (LF / HF)				0.75	0.50 - 2.00	I.U
Total power				9.03	1.60 - 6.40	ms ²
Total power VLF (0.00333 - 0.04) Hz				783.83	815.68 - 1631.37	ms ²
Total power LF (0.04 - 0.15) Hz				1065.94	717.80 - 1500.86	ms ²
Total power HF (0.15 - 0.4) Hz				1412.96	717.80 - 1109.33	ms ²
Measurement's conditions						
Extrasystoles				0	< 4	
Group extrasystoles				0	< 1	
Artefacts				1		

EIS analysis

The EIS system is measuring the human body conductivity. The below indicators are the mathematical analysis of the conductivity signals .

Time domain analysis comments:

SDC (Standard Deviation Conductivity): Indicator of the of the cells’ exchanges level for each specified body system .

EPA-SPA (End Point Average-Start Point Average): Indicator of the tissue oxygen diffusion for each specified body system.

Frequency domain Analysis comments:

ESG graph VLF: Total power of the very low blood flow

ESG graph LF : Total power of the low blood flow

ESG graph HF : Total power of the high blood flow

Ratio HF/VLF: Microcirculation blood flow Index

Indicators	Under	Normal	Over	Values	Norms	Units
ESG graph segmental conductivity domain analysis						
Colons and stomach analysis						
> Standard Deviation (SDC)				29.67	-20.00 - 20.00	I.U
> Delta EPA - SPA				-14.6	-20.0 - -5.0	I.U
Liver and Gallbladder analysis						
> Standard Deviation (SDC)				26.33	-20.00 - 20.00	I.U
> Delta EPA - SPA				-12.3	-20.0 - -5.0	I.U
Pancreas analysis						
> Standard Deviation (SDC)				24.00	-20.00 - 20.00	I.U
> Delta EPA - SPA				-10.0	-20.0 - -5.0	I.U
Left Brain Frontal lobe analysis						
> Standard Deviation (SDC)				-51.00	-50.00 - -10.00	I.U
> Delta EPA - SPA				-6.0	-7.0 - 0.0	I.U
Right Brain Frontal lobe analysis						
> Standard Deviation (SDC)				-47.00	-50.00 - -10.00	I.U
> Delta EPA - SPA				-32.0	-25.0 - -5.0	I.U
Genitourinary system analysis						
> Standard Deviation (SDC)				16.00	-20.00 - 20.00	I.U
> Delta EPA - SPA				-13.0	-20.0 - -5.0	I.U
Thyroid analysis						
> Standard Deviation (SDC)				29.50	-20.00 - 20.00	I.U
> Delta EPA - SPA				-0.2	-20.0 - -5.0	I.U
ESG Frequency domain or spectral analysis						
ESG Graph VLF (0.0-0.05 Hz)				4.72	22.00 - 50.00	%
ESG Graph LF (0.05-0.1875 Hz)				55.39	22.00 - 46.00	%
ESG Graph HF (0.1875-0.50 Hz)				39.88	22.00 - 34.00	%
Ratio HF / VLF				8.44	0.44 - 1.54	I.U