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Table S1

Most common metrics of HRV analysis in time, frequency and non-linear domain for applied settings in sports medicine and exercise science (see also 11, 25, 57, 60, 61, 63). PNS=parasympathetic nervous system, SNS=sympathetic nervous system; n.u.=normalized units; *=more research is warranted; #SD1 and SD2 are linear features of a non-linear plot, directly related to SDNN and RMSSD (17).

METHOD	MEASURE OF VARIABILITY	UNIT	DEFINITION	AUTONOMIC/PHYSIOLOGIC REFLECTION	RECOMMENDED RECORDING LENGTH
TIME DOMAIN					
Statistical	SDNN	ms	Standard deviation of NN intervals within the measurement area	Total variability including PNS and SNS activity	>60 s
	RMSSD	ms	Root mean square of successive differences of NN intervals	PNS activity	>60 s
	pNN50	%	Percentage of consecutive NN intervals that deviate from one another by more than 50 ms	PNS activity	>2 min
Geometric	HRV triangular index	-	The integral of the density distribution (number of all NN intervals divided by the maximum (height) of the density distribution) or ratio of the absolute number of all NN intervals to the number of all modal NN intervals	No clear autonomic assignment	2 min
	TINN	ms	Triangular interpolation of NN interval histogram: is the baseline width of the minimum square difference of the triangular interpolation for the highest value of the histogram of all the NN intervals	Total variability	2 min
FREQUENCY DOMAIN					
Fast Fourier Transformation (FFT), Autoregressive Modelling (AR), Time-Frequency Analysis (e.g., Short-time Fourier Transform, Time-varying Autoregressive Modelling, Time-Frequency Representation, Wavelet Decomposition; see 41)	TP	ms^2	Total power: total performance or total spectrum; corresponds to power density spectrum between 0.00001 to 0.4 Hz	Total variability	Mostly reported for 24 h recordings
	ULF	ms %	Ultra low frequency: power density spectrum below 0.003 Hz; percentage of total spectrum	Includes non-linear components and baseline trends as well as circadian rhythms and daily activity*	24 h
	VLF	ms^2 %	Very low frequency power: power density spectrum in the frequency range of 0.003 to 0.04 Hz; percentage of total spectrum	In long-term recordings: thermoregulation, renin-angiotensin-aldosterone system, PNS activity; also includes non-linear components and baseline trends*	>50 min
	LF	ms^2 % n.u.	Low frequency power: power density spectrum in the frequency range of 0.04 to 0.15 Hz; percentage of total spectrum (and without ULF / VLF)	PNS and SNS activity, baroreceptor modulation*	>5 min
	HF	ms^2 % n.u.	High frequency power: power density spectrum in the frequency range of 0.15 to 0.40 Hz; extended to maximal breathing frequency during exercise; percentage of total spectrum (and without ULF / VLF)	PNS activity, respiratory sinus arrythmia	>1 min
NON-LINEAR DOMAIN					
Poincaré Plot	SD1#	ms	Standard deviation of the distances of the points from the minor axis	(Short-term) PNS activity	>90 s
	SD2#	ms	Standard deviation of the distances of the points from the major axis	(Long-term) PNS and SNS activity	>90 s
Detrended Fluctuation Analysis (DFA)	alpha1	-	Short-range correlation properties (e.g., scaling 4<n<16) is often used as a non-linear parameter for short durations of recording	No clear autonomic assignment, (short-term) correlation properties of the signal*	>2 min
	alpha2	-	Long range correlation properties (e.g., scaling 16<n<64) is often used as a non-linear parameter for RR intervals of longer durations of recording	No clear autonomic assignment, (long-term) correlation properties of the signal*	>3 min
Entropy	ApEn	-	Used to assess the regularity and complexity of a time series	No clear autonomic assignment, predictability of fluctuations in successive R-R intervals*	>10 min
	SampEn	-	Used to assess the regularity and complexity of a time series	No clear autonomic assignment, predictability of fluctuations in successive R-R intervals*	>3 min