# HeartMath® Inner Balance™ Trainer Coherence Scoring System

Coherence score is a measure of the degree of coherence in the heart rhythm pattern. A coherent heart rhythm is a stable regular repeating rhythm resembling a sine wave at a single frequency between 0.04-0.24 Hz (3-15 cycles per minute). The scoring algorithm continuously monitors the most current 64 seconds of heart rhythm data and updates the score every 5 seconds. The more stable and regular the heart rhythm frequency, the higher the coherence score. Scores range from 0-16. With practice and regular use your will begin to notice your own normal coherence score level and how it fluctuates when you have more or less focus and when you experience greater levels of inner balance, use your score range as your guide to setting challenge levels and achievement goals.
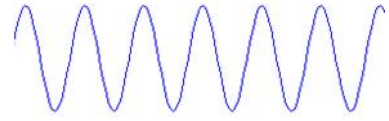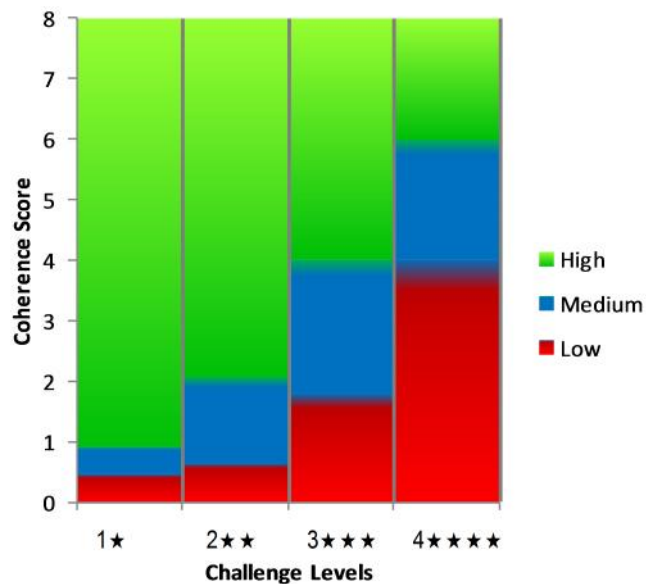
Coherence Score Guide
0.5   basic – good beginner level
1.0   good
2.0   very good
3.0+   excellent

Achievement Score is the total of all coherence scores awarded every 5 seconds during a session. The scoring algorithm updates your coherence score every 5 seconds during an active session and adds them together throughout the session giving you a sum of coherence scores for the entire session. You may want to set a daily achievement goal for yourself, an achievement score of 300 points per day is a good place to start. This could be accumulated in a single session or split across two or more sessions depending on your schedule or preferences.

Challenge Level settings are thresholds or levels of coherence that determine if you are in low (Red), medium (Blue) or high (Green) coherence. There are four different challenge levels; 1, 2, 3, and 4. As your coherence score rises you shift from one range (low, med or high) to the next. The coherence score threshold between the three ranges is gradually increased at each higher Challenge Level. The following table and figure shows the threshold setting for each challenge level. Coherence and Achievement scores are not affected by the challenge level setting.

Challenge Level Thresholds		
	Low/Med	Med/High
1★	0.5	0.9
2★★	0.6	2.1
3★★★	1.8	4.0
4★★★★	4.0	6.0

Coherence Over Time is a graphical display that charts your coherence scores over the entire length of the session. The chart is updated every 5 seconds with each new score. The background of the chart reflects the coherence level thresholds for the current Challenge Level setting; Red = low, Blue = medium, Green = high.
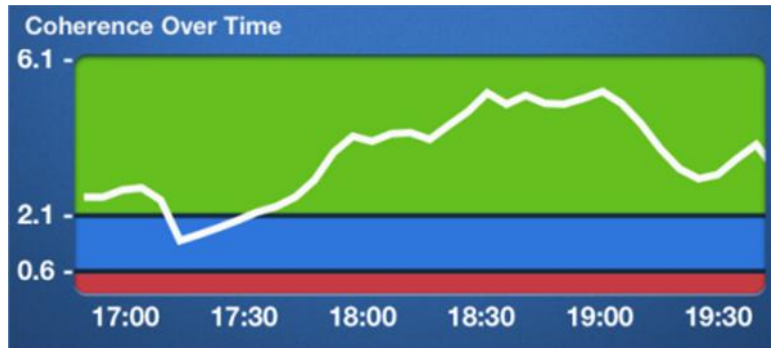
Coherence Ratios are a session summary of the amount of time, as a percentage of the total session length, in each of the three Challenge Level ranges. If your session was 3 minutes long and your coherence score was in the low, medium, and high range for 1 minute each then the coherence ratio display would show 33 low, 33 medium, and 33 high.


Power Spectrum display is a graphical breakdown of the frequency components in the heart rhythm waveform. The slowest (low) frequencies are show on the left hand side of the graph and faster (high) frequencies on the right. As the heart rhythm becomes more coherent the frequency distribution becomes more concentrated into a signal peak. The spectrum is updated every 5 seconds. For more in-depth explanation please see: http://www.heartmath.org/research/science-of-the-heart/heart-rate-variability.html

Low Coherence   High Coherence
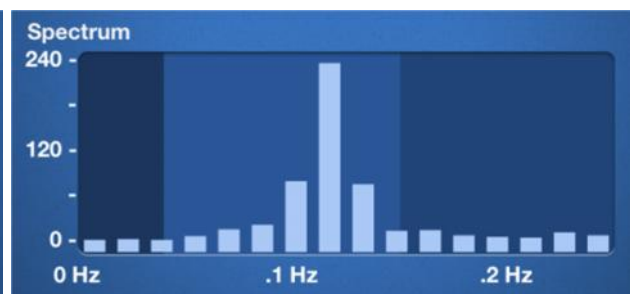
For more in the Inner Balance Trainer, go to www.innerbalanceapp.com

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