DeStress Solution (T4509)

Overview

The DeStress Solution is the latest Thought Technology software product, as well as the first time the BioGraph Infiniti software functions with the TPS sensor. The DeStress Solution is intended for health care practitioners who want a tool to evaluate stress markers, teach stress management, and enhance resilience via biofeedback self-regulation. The software offers a complete toolkit of sessions for assessing and reporting stress, self-regulation (biofeedback) training screens and relaxation therapy exercises, based on the modalities on-hand. This product is intentionally positioning itself as a cost-effective and sleek solution for clinicians.

The package will undoubtedly also appeal to practitioners already in the field and familiar with stress metrics, since this tool provides access to the robust BioGraph Infiniti software (whether as a researcher or clinician) using an unobtrusive, low-cost sensor. Previous purchasers of the TPS (alone) will also probably be enticed.

The use of the "DeStress Solution" name in conversation refers to both the TPS sensor for data collection and the Biograph Infiniti software with suite.

Suite content

The DeStress Solution was designed with a number of priorities in mind, all intended to help clinicians integrate stress measurements and biofeedback into their practices.

Easy to understand and use: The DeStress Solution doesn't assume a high level of experience with physiological monitoring and biofeedback equipment and technical jargon is kept at a minimum. The TPS sensor itself already avoids many previous hardships of complex hardware hook-ups.

Clinically relevant: The DeStress Solution is designed from a clinical perspective and its biofeedback and tools are arranged and organised in a way that parallels clinical thinking.

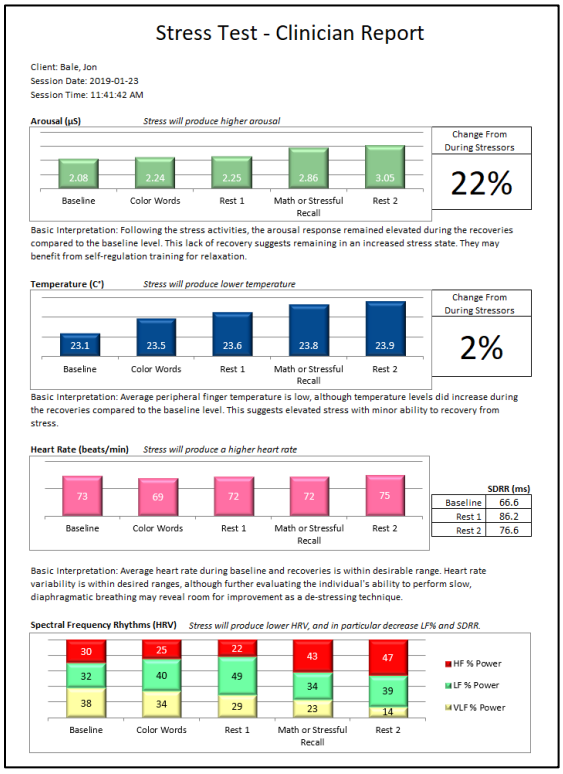
Report self-analysis: The report that follows the Stress Test provides fully written analysis of the results, for both clinician and client. Clinicians new to the field will especially appreciate this guidance for the therapy, and clients will appreciate the simplified ratings.

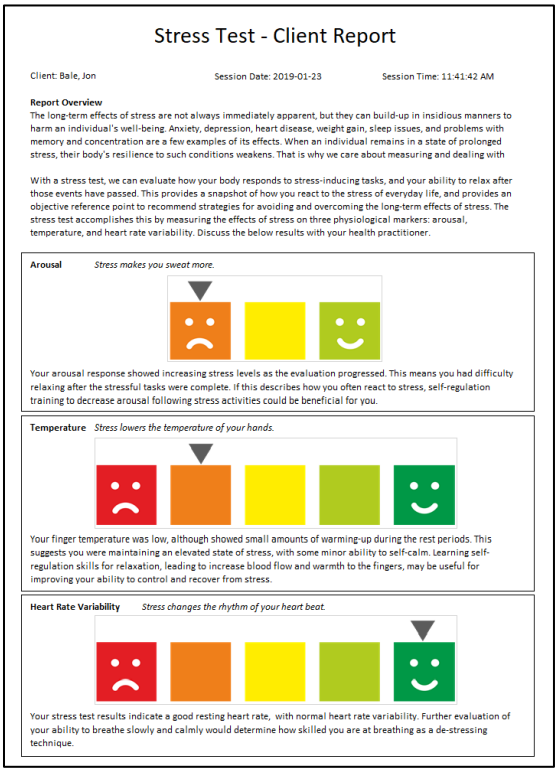
Training assistance when necessary: Each training screen includes PDF instructions that can be pulled up to guide the therapist.

Four metrics of stress: Although the TPS sensor is designed to measure skin conductance, heart rate variability, and temperature, the sensor's accelerometer is used in a unique way for an HRV training screen to provide respiration rhythms.

Assessment

Assessments are scripted sessions during which the software instructs the clinician and the client on what to do. A script guides the client through multiple "activities" which engage the client in different physiological states. Script sessions allow the clinician to see how the client's physiology adapts to stress and how easily it can return to resting baseline values. The DeStress Solution includes one evaluation, called the 5-Activity Stress Test. Lasting 10 minutes, the Stress Test includes 5 activities and has an excel report that automatically performs analysis of the results. The report presents itself as a 2-page document, with one page meant for the clinician and the other for the client.





The reports require Microsoft Excel to be installed.
The assessment can be done with a 1 or 2-monitor setup.

Learning Control with Biofeedback sessions

Self-regulation teaches the ability to become aware of negative physiological responses (ex. noticing that your hands are getting cold when you are stressed) and voluntarily shift to a more desirable response (learn to warm your hands). These 4 session choices enable self-regulation practice based on the modality of interest.

Learning Control: Arousal

- Range of arousal training, from a simple line graph, to videos/music, to an all modality combination.
- 1 or 2-monitor setups.

Learning Control: Heart Rate Variability & Breathing

- Estimate respiration rate to enable respiratory sinus arrhythmia (RSA) training (coherence between respiration and heart rate).
- HRV with very low frequency (VLF), low frequency (LF) and high frequency (HF) power.
- HRV Power Game with completely automated feedback occurring at multiple goal levels.
- 1 or 2-monitor setups.

Learning Control: Temperature

- Range of finger temperature training, from a simple line graph for hand warming, to videos/music, to an all-modality combination.
- 1 or 2-monitor setups.

Learning Control: Zukor Feedback Game

- For use if clinicians buys/own a Zukor Interactive feedback game. Game not sold with package.
- Training of skin conductance, temperature, and heart rate variability (LF% metric) with elaborate feedback game
- 1 or 2-monitor setups.

- ***To help keep the client engaged, the self-regulation screens include music, interesting animations, video instrument for providing movie or YouTube content, and game-like content.***

Relaxation Exercises

For therapists that do not know where to start when it comes to teaching stress management strategies, the relaxation exercises automate learning how to voluntarily "let go" of stress and relax your body. The two available sessions last 13-14 minutes.

Guided Relaxation

- This exercise uses an audio recording of a clinician guiding the client through voluntary relaxing each and every muscle in his body, from head to toes. The session has three phases:
  - Induction, where the clinician guides the person to enter deep relaxation.
  - Integration, where the client is left in silence, to enjoy the relaxation.
  - Wake up, during which the clinician brings the client back to full consciousness with positive suggestions.

Paced Breathing

- This exercise uses a breathing pacer, set to progressively slow the client's breathing from 9 breaths/minute to 6 breaths/minute.

System requirements

- This package is only available for use with the TPS sensor. It cannot function with any other encoder, and the TPS sensor will not function with any other encoder.
- The required version of BioGraph Infiniti for the software is 6.6 or higher. Release of Biograph 6.6 will coincide with the release of the DeStress Solution.

  - Previous purchasers of the TPS can purchase solely the DeStress Solution software (BioGraph license) to use the product.
- The PC requires a Bluetooth-enabled capability to connect with the TPS sensor, whether built-in or provided via a dongle.
  - Thought Technology will not be providing a Bluetooth-enabling dongle.
- Microsoft Excel is required for use of the Stress Test Report.
- 2 monitors are required to take advantage of the 2-monitor setup.

Features

- Low cost, high-value solution compared to equivalent clinical systems on the market.
- The Stress Test, learning control sessions, and relaxation exercises are launched with Quick Starts, making it easy for the clinician to know what to do.
- The Stress Test includes a self-interpreting Excel report, with clinician and client-focused components.
- Learning Control sessions designed to mostly be automated.
- Self-regulation training includes games (whether game-like screens or Zukor Interactive production)
- Software is fully compatible with 1 or 2-monitor setups.
- A detailed reference manual is included.

Comparison to Current Thought Tech Products

The DeStress package resembles the Stress Control Suite; it even borrows many session designs from it. The DeStress Solution, however, goes a step further with the inclusion of HRV metrics and clinical interpretation in the Stress Test Report.

The package also bears some similarities to the HRV Suite, especially since this software contains a component of respiration estimation. Limiting its access to some HRV metrics, what the ProComp 2 + BVP/Resp sensors + HRV Suite offers that DeStress Solution does not offer:

- Access to all HRV statistics that require accurate breathing measurements (HRV Max – Min)
- Resonance Frequency measurements, the cornerstone of many HRV practices and most HRV research. This involves measuring an individual's breathing and HRV to determine what respiration rate maximises their HRV.