**Heart Rate**

Beats Per Minute

(Copyright 1997 Siddle & Grossman)

Above 175 bpm:
- Irrational fight or flee
- Freezing
- Submissive behavior
- Voiding of bladder and bowels
- Gross motor skills (running, charging, etc. at highest performance level)

175 bpm:
- Cognitive processing deteriorates
- Vasoconstriction (= reduced bleeding from wounds)
- Loss of peripheral vision (tunnel vision)
- Loss of depth perception
- Loss of near vision
- Auditory exclusion

145 bpm: Complex motor skills deteriorate

115 bpm: Fine motor skills deteriorate

60-80 bpm = normal Resting heart rate

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**EFFECTS OF HORMONAL OR FEAR INDUCED HEART RATE INCREASE**

Notes:
1- These data are for hormonal or fear induced heart rate increases resulting from sympathetic nervous system arousal. Exercise induced increases will not have the same effect.

2- Hormonal induced performance and strength increases can achieve 100% of potential max within 10 seconds, but drop 55% after 30 seconds, 35% after 60 seconds, and 31% after 90 seconds. It takes a minimum of 3 minutes of rest to “recharge” the system.

3- Any extended period of relaxation after intense sympathetic nervous system arousal can result in a parasympathetic backlash, with significant drops in energy level, heart rate and blood pressure. This can manifest itself as normal shock symptoms (dizziness, nausea and/or vomiting, paleness, clammy skin) and/or profound exhaustion.