IT'S ABOUT BALANCE!

Stress-Management, Renewal and Well-Being

Knowledge, Ideas, and Tools
for a Demanding, Opportune Time

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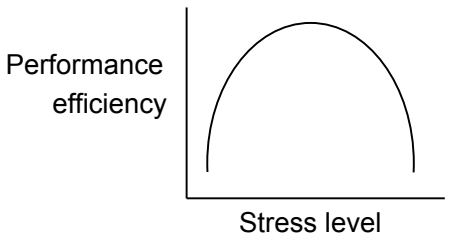
SOME DEFINITIONS….

- **Stress is the non-specific response of the body to any demand made upon it.**
  Dr. Hans Selye, 1936
- **Any situation that demands behavior adjustment.**
  Herbert Benson, M.D. 1975
  The Relaxation Response
- **There is no definition of stress that everyone agrees on, what is stressful for one person may be pleasurable or have little effect on others, and we all react to stress differently.**

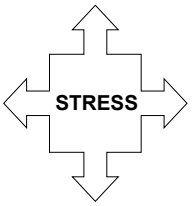
The American Institute of Stress

Yerkes-Dobson Law



The Four Kinds of Stress

Hans Selye, M.D.



Autonomic Nervous System

Sympathetic Nervous System (SNS)	*Parasympathetic Nervous System (PNS)*
⇩	⇩
Increases:	**Increases:**
Blood pressure	Digestion
Fuel availability	Fuel shortage
Activity	Rest and recovery
Blood clotting	Resistance to infection
Adrenal hormones	Endorphins

Autonomic Nervous System

Sympathetic Nervous System (SNS)	*Parasympathetic Nervous System (PNS)*

General Adaptation Syndrome

Three Phases:

Alarm

↓

_____

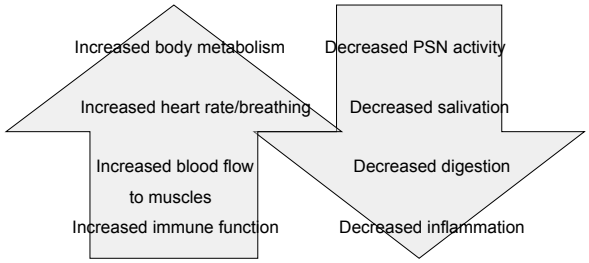
↓

_____

General Adaptation Syndrome

Alarm Phase: "Fight, Flight, or Freeze"

SNS – HPA Axis



Homeostasis

The ability or tendency of an organism or cell to maintain internal equilibrium by adjusting its physiological processes.

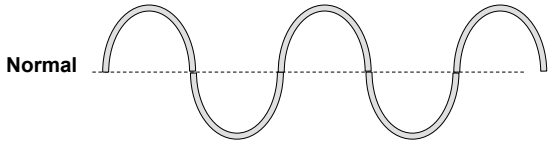
Allostasis

The ongoing adaptive efforts of the body to maintain stability (homeostasis) in response to stress.

General Adaptation Syndrome

HOMEOSTASIS

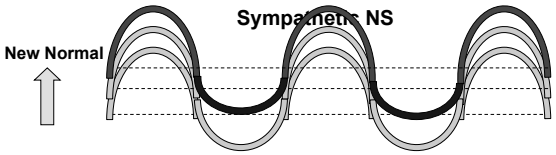
Sympathetic NS



Parasympathetic NS

General Adaptation Syndrome

ALLOSTASIS



Allostasis is a new, stable baseline generated by high levels of stress

Parasympathetic NS

General Adaptation Syndrome

ALLOSTATIC LOAD

- The physiological costs of chronic exposure to the stress response.
- Used to explain how frequent activation of the body's stress response can in fact damage the body in the long run.
- When the new state is chronic and pervasive the new stable base-line is difficult to withdraw from.

McEwen, B.S.Stress, adaptation, and disease: Allostasis and allostatic load. *Annals NY Acad. Sci. 840:33-44* (1998).

General Adaptation Syndrome
Exhaustion Phase

High and sustained stress can:

- impair the immune system
- increase weight gain
- decrease bone and muscle mass
- damage and kill neurons
- lead to premature aging
- increase blood pressure
- decrease motivation
- foster depression

Chronic, high release of adreno-cortisols can lead to poor food selection and poor health

Insulin release ↓ ↓

Lactic acid buildup ↓ ↓

General Adaptation Syndrome

High, sustained stress in students fosters:

- impaired cognition
- impaired creativity
- increased pressure on attention
- diminished social skills
- discipline problems
- motivation problems

Male and Female Stress Response

Males:

“ _____ “

Females:

“ _____ “

Male & Female Stress Response

Testosterone *vs.* *Oxytocin*

Male & Female Stress Response

WOMEN	***MEN***
Estrogen increases the effectiveness of oxytocin.	***Testosterone decreases stress levels.***
Testosterone reduces the calming effects of oxytocin.	***Oxytocin can reduce testosterone, resulting in increased stress levels.***

Male & Female Stress Response

THE BOTTOM LINE:

Oxytocin _____ stress levels in women.

Too much testosterone _____ stress levels in women.

Testosterone _____ stress levels in men.

Too much oxytocin _____ stress levels in men.

Mainly PNS arousal

Use Breath
Use Trigger Release
Use Imagery
Use the Relaxation Response
Use Progressive Relaxation
Use Movement

Five Suggestions For Balanced Well-Being