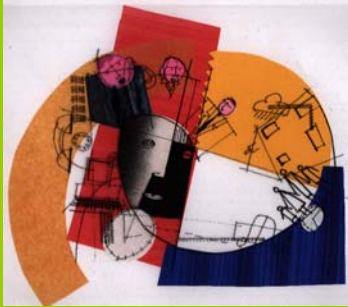


Transcending Stress



By Didi Ananda Krpa
(revised by Dharmadeva)

STRESS

- Dr. Hans Seyle first used the term “stress” (he borrowed it from engineering, where “stress” is used to mean wear and tear of materials subjected to successive pressure):
- *“the response of the body to any demand, when forced to adapt to change”.*

STRESS



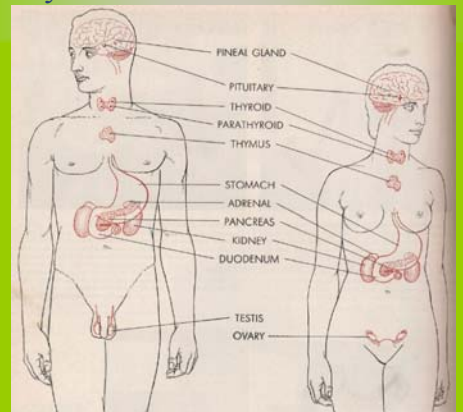
“The body’s response to any demand, when forced to adapt to change.”

Dr. Hans Seyle.

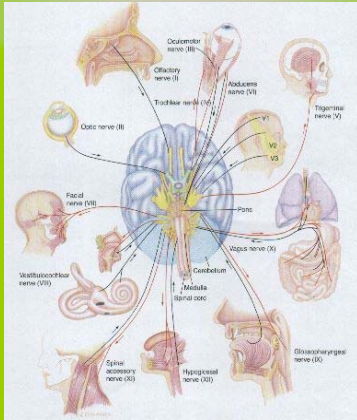
Stress Response

- There are two main pathways for the stress response:
 - through the endocrine system;
 - through the nerves.

Endocrine system



Nervous system



Stress Response - endocrine

- The hypothalamus [#2] activates the pituitary gland to secrete the hormone ACTH (adrenocortico-tropic hormone) [#4], which then stimulates the cortex or outer layer of the adrenal glands [#5] to secrete a hormone of stress - cortisol - which then activates in the body.

The stress response

RESPONSE

- The hypothalamus activates the pituitary gland to produce ACTH which stimulates the adrenal cortex to secrete cortisol
- The hypothalamus activates the adrenal glands to secrete adrenalin.

Stress Response - nerves

- A stressful stimulus – such as overwork, personal conflicts, financial problems, sickness or death in the family – stimulates the hypothalamus in the brain [# 2] to send a message through the nerves of the spinal cord [# 6 & #7] to the adrenal glands [#8], activating them to secrete one of the hormones of stress – adrenaline - which then mobilizes the muscles [#9] to ‘fight or flight’.

The stress response

RESPONSE

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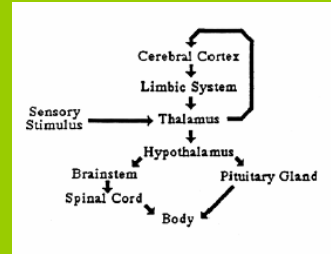
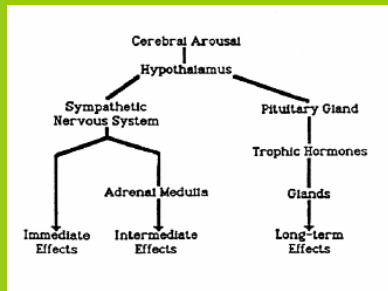
‘Fight or Flight’ Response

- Heart rate, respiratory rate, and metabolic rate increases for more energy.
- Glycogen stored in the liver is converted into glucose in the blood stream.
- Digestion stops, redirecting blood energy to the muscles.
- Muscles contract to protect from injury.
- Extra blood is pumped to the brain.

FIGHT

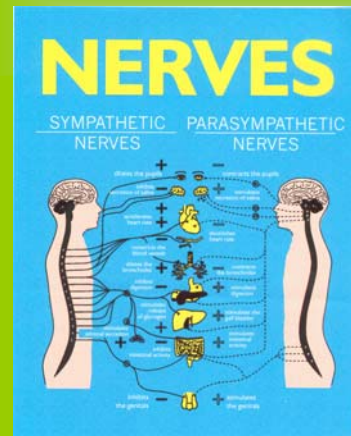
THE “FIGHT OR FLIGHT” RESPONSE

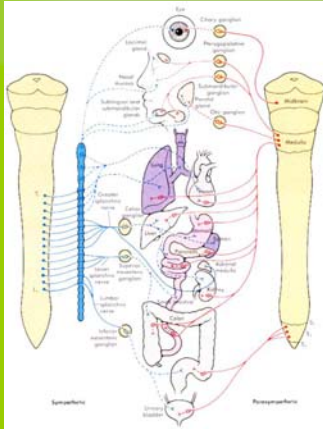
- Heart rate, respiratory rate and metabolic rate increase for more energy
- Digestion stops, redirecting blood and energy to the muscles
- Glycogen stored in the liver is converted into glucose in the bloodstream
- Muscles contract to protect from injury
- Extra blood is pumped to the brain and thinking accelerates



Sympathetic & Parasympathetic Nerves

- Sympathetic system - is designed to help us leap into action in emergency or excitement.
- Parasympathetic system - keeps things slow and steady; it takes care of regular housekeeping functions of daily life, like the peristaltic movements of the intestines for digestion.





TENSIONS

- Recent research has shown that small daily tensions cause more disease than major life crises such as losing one's job, or one's partner.
- A survey of 200 policemen in Florida found that routine paperwork in the office is more stressful than the physical danger of violence in the street!

PETTY DAILY TENSIONS

Cause more disease than major life tragedies

TENSIONS

- Chronically sick relatives
- Disagreeable colleagues at work
- Traffic jams
- Waiting in long lines

HOSTILE - hostility score

- Type A** people - those who have chronically over stimulated glands with increased level of stress hormones in their blood.
- They secrete 40 times more cortisol and 4 times more adrenaline than Type B people.
- Type B** people are relaxed and easy going people.

PEOPLE WITH A HIGH HOSTILITY SCORE...

...when disturbed, have a lower threshold for secreting adrenaline and cortisol and for activating the "fight or flight" response.

(DR. EDWARD SHERZ)

HOSTILE

The 3 C's – stress-resistant personality

- Type C** – they see changes as **challenges** and not as threats.
- As they view every situation, every change not as a threat, they develop positive thinking – **constructive** thinking.
- People with this attribute have a sense of purpose / **commitment** - meaning & direction in their lives.

BECOME A "STRESS RESISTANT PERSONALITY"

THE 3 C's

- Challenge
- Constructive thinking
Optimism
- Commitment
to a higher goal

THE 3 C's

ATTITUDE – Perception of Stress

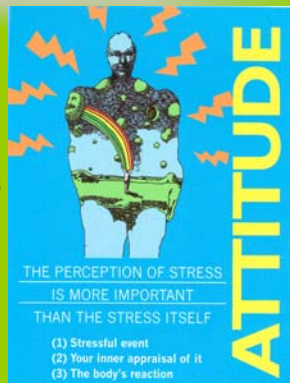
It is a matter of attitude.



In any stress reaction, there are three stages:

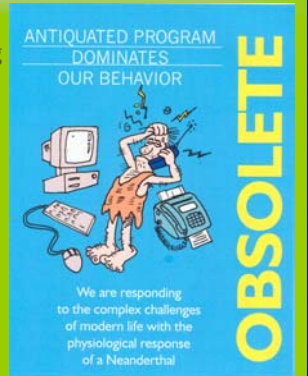
- (1) the stressful event;
- (2) your inner appraisal of it; and
- (3) your body's reaction.

Your response all starts in your mind.



OBSOLETE – Cave Man

- But we are responding to modern-day challenges with the physiological response of a Neanderthal man or woman – and as a result, we are “dropping dead from stress”.



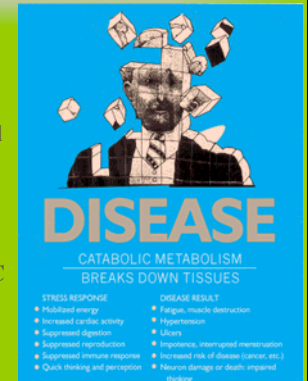
ANABOLIC Metabolism

- 90% of a cell's energy goes into building new proteins and DNA.
- This is called ANABOLIC METABOLISM – it builds and maintains our tissues.



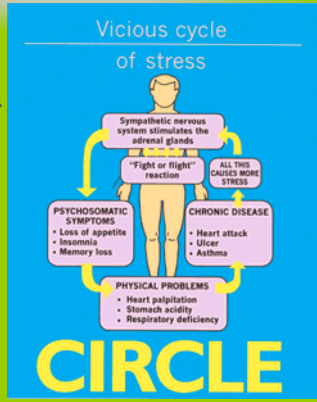
Disease = CATABOLIC

- But, when we are under threat, when we need a massive burst of energy for survival, the adrenal glands secrete cortisol.
- This converts anabolic metabolism to its opposite - CATABOLIC METABOLISM, and it can start to break down our tissues.



Vicious cycle of stress

- The first stage is **PSYCHOSOMATIC**.
- The second stage is **PHYSICAL PROBLEMS**.
- This, in turn, results in **CHRONIC DISEASES**.



Don't go into the vicious cycle

- Make the energy of stress work in your favor by learning a few simple techniques to harmonize your body, mind and spirit.
- To survive - and thrive - under stress, we need to recover in between stresses.

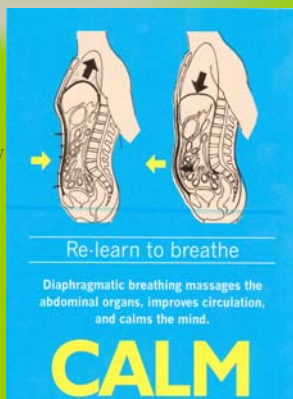
DAILY MAKE STRESS WORK FOR YOU

Daily:

- 1 Practice 3 minutes of diaphragmatic breathing
- 2 Practice 5 minutes of deep relaxation (lying down)
- 3 Walk for 10 minutes, vigorously
- 4 Watch your diet!

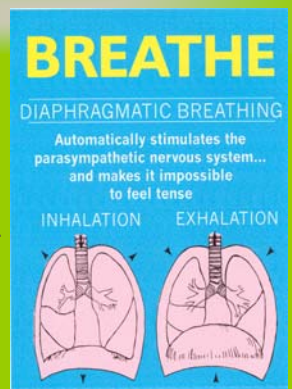
CALM

- Most people in the industrialized west breathe from their thorax (chest), especially Type A people.
- Thoracic breathing is directly related to heart disease.
- You **NEED** to breathe using your diaphragm.



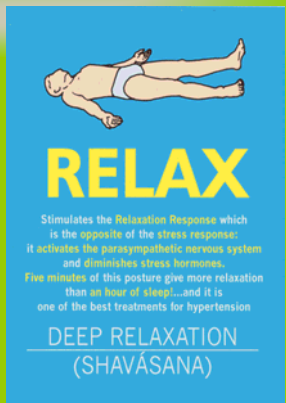
BREATHE

- When the diaphragm expands in abdominal breathing, all the internal organs are massaged and bathed in fresh oxygenated blood - especially the heart.



RELAXATION

- Slows the heart beat and respiratory rate (from 15 down to 10 breaths per minute).
- Lowers the blood pressure.
- Reduces stress hormones in the blood.
- Diminishes muscular tension.



WALK

- Walk in the open air.
- Walk in a solitary place for contemplation.
- After evening meal take a short walk.

“Pure and fresh air has the power to cure disease. It is advisable to breathe in as fully as possible, because when we do so, the air gets an opportunity to be completely absorbed by the lungs. It is better to take a walk in the fresh air than to ride a vehicle. If the body does not work up a sufficient sweat, then you should know that you have not taken the air properly.”

- Shrii Shrii Anandamurti
(Caryacarya Part 3
– Taking the Air)

FOOD

- Wealth is health.
- The food we eat greatly affects the level of stress.
- A diet rich in animal fats increases our cholesterol, which then combines with the excess cholesterol released by the liver due to stress hormones, and forms fatty plaques, resulting in arteriosclerosis, arterial hypertension and heart attack.

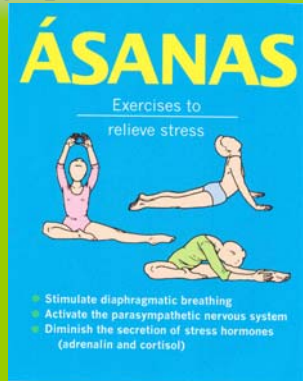


RIGHT FOODS

- Green vegetables and fruits increase the vital fluid of lymph because they involve the process of photosynthesis giving vital energy.
- Chlorophyll in green vegetables is a great catalyst of lymph formation.
- Lymph induces vitality and vigour in the body and produces effulgence to the cells creating an aura and gleam that is seen in sentient people.
- These characteristics describe the Latin word ‘vegetare’ (‘food for gods’) from which the term vegetarian has derived.

ASANAS – yoga postures

- Yoga postures not only stimulate diaphragmatic breathing but also reduce stress hormones in the blood.



What are Asanas?

- The root word 'asana' means a position in which one feels comfortable.
- They are yoga postures if practiced regularly, the body stays healthy and hardy.
- They help in preventing diseases and keep the body flexible.

Asanas

- Asanas are stationary poses in which mind & body are relaxed and composed.
- They are accompanied by gentle movements, deep breathing and pointed concentration.
- They give the same benefits as vigorous exercises, of stimulating circulation, and increasing the supply of oxygen to the cells.

Asanas

- The extra supply of oxygen is used up during vigorous exercises, but not with asanas.
- During the practice of asanas energy is accumulated rather than spent.
- The main difference between asanas and other vigorous exercises is that asanas affect the internal organs and not just the skeletal structure and muscles.

Importance of Asanas

- Balance the endocrine glands which secrete hormones into the blood stream & control the emotions which affect body & mind.
- Improve blood circulation.
- Revitalize the nervous system.
- Relax the tensions in the muscles.
- Correct defective postures.
- Calm the mind.



Asana - yoga mudra



Asana - cobra



Asana – half tortoise



Asana – corpse

