

PHYSIOLOGICAL CHANGES DUE TO STRESS "Fight" or "Flight" Response

Initiated through the Hypothalamus

Pupils dilate
Mouth feels dry

Breathing rate increases

Glucose released by liver = extra energy for muscles

Adrenal glands secrete adrenaline. Hormone levels up.

Perspiration

Heart Rate Up

Blood Pressure Up

Muscles tighten

Gastric acid secretion up

Blood flow to organs

EFFECT OF STRESS

UP
DOWN
UP
UP
DOWN
UP
UP
UP
UP

RESULT: ACTION

Heart rate and blood pressure
Blood flow to organs
Blood flow to muscles
Muscle tone and tension
Respiration and oxygen use
Food and energy reserves
Endocrine activity/Hormone levels
Cortisone output
Gastric acid secretion
Metabolic rate

EFFECT ON RELAXATION

DOWN
UP
DOWN
UP
DOWN
UP
DOWN
DOWN
DOWN
DOWN
DOWN



RESULT: PROPER FUNCTION OF ORGANS

- 1. These are general changes. They can be localised to one system or organ.
- Prolonged stress leads to permanent changes (especially of blood pressure and hormone levels) and may lead to disease.
- 3. Immune mechanisms and antibodies are also affected by stress because of the cortisone output.

Handout 1.3

What is Stress?

Our body's stress response is designed to protect us from danger for example fleeing from an angry dog.

When threatened, our body prepares us for the danger by turning on the "fight or flight" response. This response prepares to body to be able to either face the danger and fight, or to be able to escape the situation and run away.

The first step is for your body to release chemicals (adrenalin and noradrenalin) that make your blood move faster and differently around your body. This process directs blood away from functions not immediately necessary to respond to the threat, and increases blood flow in areas that we need it. This process results in the following outcomes:

- Decreased blood flow to the head, a side effect of which can be blurred vision or dizziness.
- Decreased blood flow from fingers and toes which may cause them to tingle or go numb.
- Reduced functioning of digestive system, possibly causing butterflies or pain, and over the long term causes constipation and diarrhea.
- Increased blood flow to the heart, possibly causing our heart to race.
- Increased blood flow to your arm and leg muscles to enable you to act and move quickly.
- Increased breathing rate to provide your body with more oxygen, important for quick action. This can sometimes cause you to hyperventilate and become dizzy.
- Increased sweat response in order to cool your body down from the increased blood flow

As well as responding to physical threat, our Flight or Fight response system can also be inggered by psychological threat. For example when you have to attend difficult classes, complete exams and assessment tasks, or deliver a class talk. In these cases, the Flight or Fight response is not really needed as there is no need to fight an attacker or to run away. The unfortunate side effects of the Flight or Fight system can reduce the ability to concentrate on assignments, and can make your mind go blank in exams.

The Control of the Control

Common Symptoms of Stress

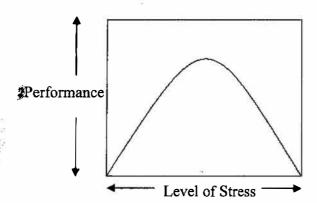
- Racing heart
- Shakiness
- Difficulty breathing (hyperventilating)
- Smothering or choking sensations
- Butterflies or knots in the stomach
- Hot flushes
- Dry mouth
- Sweaty hands and feet and body
- Tightness in jaw
- Headaches, stomach aches
- Lump in the throat or constricted feelings in the chest

Is All Stress Bad?

Wouldn't it be great if you didn't get stressed at all, and could remain calm and confident?

While too much stress worsens our ability to perform, some stress actually helps us to stay motivated and helps us to perform at our optimum level. If you had no stress, you might not care how you did, and your results would suffer!

In fact, some stress increases the alertness of mind, so it is good to be a little stressed in performance situations.



The key is learning to manage the level of stress you experience.

USE HUMOUR IN YOUR LIFE

- · Laugh often, even in stressful situations
- Humour can give you a different perspective on situations

Balance

- Take regular breaks
- Remove yourself from a situation
- Stretch, get a massage, meditate
- Take up a new interest
- Give yourself a challenge (something that interests you to help in preventing stress)
- Do something spontaneous

Healthy Eating

- A well balanced diet is important, particularly in times of stress
- Certain foods/drinks act as stimulants to the body and, therefore can cause more stress (ie. caffeine, alcohol, smoking, sugar, salt)

EXERCISE

- Exercise can help relieve tension
- Go for a walk/jog
- Releases endorphins (mood elevating chemicals in the brain)
- Good outlet for negative emotions, promoting a more positive mood (biochemical changes in the body & brain)

Rest Your Mind

- Dance, listen to music, read, sing, play an instrument, draw, paint
- Meditate
- Relaxation activities
- Put your energy into focussing on something that produces more positive thoughts and feelings within you



Be aware of your thought

- Focus on your strengths
- What is your coping style? What has worked for you before?
- If something is not working, make a change or seek out the positives from the situation
- Look for opportunities in the stressful situation, stress can be a positive thing!
- Notice your thoughts and how you perceive situations
- Think about what you are good at, build on your strengths
- Focus on positive comments from others

Be Assertive

 Assertiveness is: "The direct and honest communication of your opinions, feelings, needs, and rights in a way that does not violate the personal rights of others. It involves standing up for your own rights, while acknowledging the rights of others, and working towards a win-win solution."

(http://www.usq.edu.au/studentservices/counselling/issues/assertive)

- Helps you maintain control of situations
- Respect from others, respect for yourself

Get Organised/Time Management

- Make a list and prioritise tasks
- Learn to say no when it is appropriate
- Be realistic with what you can and can't achieve
- Being organised can prevent you from becoming stressed in the first place
- Try not to make big decisions when you are overtired/anxious/stressed
- Make goals for yourself. Break the goal down into achievable steps

Support

 Develop a support system around you - friends, family, teachers etc

- Talk to others about issues affecting you
- Vent frustrations
- Kingston Youth Services 1300 369 436