

„Relax” – Marta Pyrchala

**An example of a chapter of the book by
Marta Pyrchala: *Relax - Effective and
Tested Mental and Physical
Techniques to Get Rid of Stress***

**Chapter 2 The impact of stress on
health**

Introduction

In this chapter you will learn how stress affects the body, including pregnant women and their babies.

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In addition, you will learn about the psychological effects of stress.

On the end you will get know relaxing visualisation to help you get rid of stress.

The body's response to stress

Stimulated by a stress factor, the cerebral cortex sends relevant information to the hypothalamus. The hypothalamus sends to the anterior lobe of the pituitary gland 'command' to release the hormone ACTH into the blood.

This hormone causes the release of corticosteroids from the adrenal cortex. They regulate the release of glucose into the blood, water-electrolyte balance and metabolism.

In addition, the hypothalamus stimulates the adrenal

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cortex to release adrenaline and noradrenaline. This **raises blood pressure and increases glucose levels in the body.**

ACTH secretion is controlled by both the endocrine and nervous systems.

Stress is intensified when there is no way to remedy it. Rats that did not have the opportunity to escape from electrocution endured stress less well. Consequently, they were more likely to suffer from psychosomatic complaints.

In addition, *Locke et al (1984)* found that **stress decreases K-cell activity**. Chronic stress **reduces the body's production of T-lymphocytes and macrophages, i.e. decreases resistance to disease** (*Ironson, 1997; Irvin, 1990; Irvin 1990 b; 1994; Linn, 1981*).

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Excessively experienced **stress also impairs DNA repair processes** (Kiecolt- Glaser, 1985).

Effects of stress on the body

Stress has a wide-ranging effect on the body. In the case of **the circulatory system**,

for example, stress leads to:

Increase in heart rate,

- Increase in blood pressure,
- Vasodilatation.

Prolonged exposure to the above factors can cause arteriosclerosis, hypertension, ischaemic heart disease and myocardial infarction.

The effects of stress on the digestive system:

- The vagus nerve is stimulated, so that

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gastric peristalsis is reduced and gastric acid secretion is stimulated.

- Stress causes the release of the hormone CRH, which stimulates the secretion of ACTH, which in turn affects the action of glucocorticosteroids. These substances reduce the secretion of prostaglandins, which reduces the amount of protective gastric mucus. These factors increase the possibility of gastric ulcers.
- In the case of the small intestine, its peristalsis is reduced. Fewer digestive enzymes of the intestine are secreted and the food content contains too little water. This can cause constipation.
- Stress also has a negative effect on the large intestine. It increases

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its peristalsis, which is the cause of diarrhoea.

The essence of protection against the negative effects of stress is the ability to cope with it appropriately. Various types of relaxation techniques serve this purpose.

These will be discussed later in this book.

Further consequences of stress

Chronic stress can cause ailments such as:

- Headaches, neck or back pain,
- Trembling limbs,
- Heartbeat,
- Dry throat,
- Sleep problems and insomnia,

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- Peptic ulcer disease of the stomach and duodenum,
- Diarrhoea, constipation,
- Nausea,
- Irritable Bowel Syndrome (IBS) - irritable bowel syndrome,
- Hypertension,
- Susceptibility to infections (colds, flu),
- Skin conditions (boils, ringworm).

Stress catalyses the disease process and accelerates ageing by wearing down the body faster.

In addition, stress affects the hunger and satiety centres in the hypothalamus. This is the cause of irregular eating, overeating and eating in a hurry. Such behaviour results in:

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- Obesity,
- Hypercholesterolaemia,
- Hyperglycaemia,
- Myocardial infarction,
- Stroke.

In addition, the skin under stress becomes grey and less elastic. In addition, they appear:

- Wrinkles,
- Sightedness,
- Eczema,
- Skin eczema.

The body's resistance to infection decreases and the stressed individual's well-being deteriorates.

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Psychological consequences of stress

Stress gives rise to many symptoms from the psyche.

These include, for example:

- Distraction,
- Insomnia,
- A feeling of unease,
- Falling into addictions,
- Breathing difficulties,
- Neurosis,
- Depression,
- Hostile attitude towards people,
- Dissatisfaction with sex,
- Suicidal thoughts,
- Problems in relationships.

Other behavioural and psychological symptoms of stress include:

- Anger,
- Anger,
- Disengagement,
- Nervousness,
- Anxiety,
- Depression,
- A sense of guilt,
- Envy,
- Reduced self-esteem,
- A sense of lack of control,
- Inability to concentrate,
- Intrusive thoughts,
- Increased fantasising,
- Passive or aggressive behaviour,

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- Nervous tics,
- Gnashing of teeth,
- Excessive attraction to alcohol,
- Increased caffeine consumption,
- Nail biting,
- Aversion to sex.

Effects of stress experienced during pregnancy

The results of studies on the effects of stress on pregnancy indicate that in the short term, stress does not affect the development of the baby.

However, sustained and **long periods of severe stress can increase the risk of preterm birth and pregnancy complications.**

In addition, **chronic stress in pregnancy can result in miscarriage**, as adrenaline triggers

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uterine contractions.

Doctors have noticed that newborn babies of mothers who have experienced prolonged stress during pregnancy have a **lower birth weight**. This is because stress hormones constrict the blood vessels that carry nutrients and oxygen through the placenta to the foetus. Therefore, the unborn babies receive less nutrients and oxygen. For this reason, the children of stressed women are already malnourished in the womb. Newborns of stressed mothers may also be **more irritable, tearful and their nervous system is less well developed**. This problem results in delayed development of motor skills in the future.

Many of the negative correlations between stress and health arise as a result of ineffective stress management methods (or

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lack thereof), rather than as a direct result of the stress experienced.

Common reactions to stress, unfortunately even in pregnant women, are smoking, abusing coffee, drinking alcohol, skipping meals or eating a poor diet (eating fast food). Rather than helping, these behaviours escalate psychological tension, yet good health practices are crucial for mother and baby.

Effects of a stressful pregnancy on the child's emotional state

A genetic difference in the children of stressed mothers makes **them more susceptible to stress**. As a result of this problem, these children react much more quickly to a stressful stimulus than their peers. This reaction takes place through their thoughts and endocrine system and therefore affects their emotions

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and body.

In addition, such children **tend to act impulsively and are more prone to emotional problems**. In addition, research has indicated that children whose parents were victims of domestic violence are more likely to develop depression.

Visualising the release of stress

Sit or lie down comfortably and close your eyes. Relax mentally and physically.

Imagine you are in nature. Embrace the place and feel it with all your senses. See a waterfall nearby. Walk up to it. Go under the cascade of water. Allow it to cleanse your insides, removing stress and nervousness. Feel the stress slowly leave your body and

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soul. Stay in this state for as long as you like. Enjoy it.

Then come out from under the waterfall. See a mysterious good woman. She is holding a cup with a special drink in her hands. It is a drink of relaxation and relaxation.

Take this cup from her hands and slowly drink. With each sip, feel the wonderful, relaxing wave of peace fill your mind, body and soul. Stay in this state for as long as you like.

Then slowly return to your usual, but already peaceful, state of mind.

Summary

You already know what the effects of stress on the body and psyche can be.

Scientists have proven that stress has a negative effect not only on mood, but also on the human body. **Stress disrupts the functioning of the entire body and causes faster ageing. In addition, stress increases susceptibility to infections.**

In addition, **long-term stress increases susceptibility to cancer.** Why does this happen? Because stress reduces the production and efficiency of the immune bodies that eliminate cancer cells.

The "father of stress" is the Canadian physiologist, *Hans Selye*. He distinguished between two **types of**

stress:

- **Distress** (bad stress) -
paralysing, bringing suffering
and mental disintegration,
- **Eustress** (good stress) - motivating effort and
achievement in life.

**From the following chapters, you will learn how
to get stress under control and restore your
calm.**