

Stig Åvall Severinsen

# breatheology

the art of conscious breathing

BREATHOLOGY ACADEMY

**breathology**

Stig Åvall Severinsen

# **breathology**

**the art of conscious breathing**

Photography by Casper Tybjerg - illustrations by Per Diemer

**BlueConsult**

BREATHOLOGY ACADEMY

**breatheology**

© 2010 Stig Åvall Severinsen

Editors: Mark Colberg Goldsmith  
Constance Kampf  
Brittany Trubridge

Graphical design and layout: Mark Colberg Goldsmith

Cover: Casper Tybjerg

Photo p. 70: Appreciation of the exhibition *Bodies*

Photo p. 99, 126 and 257 Morten Bjørn Larsen

Photo p. 137 Per Hallum

Photo p. 138 Dan Burton

Photo p. 174 Mallar Chakravarty

Set in Calibri

1. edition

Publisher:

BlueConsult

[www.blueconsult.biz](http://www.blueconsult.biz)

[www.breatheology.com](http://www.breatheology.com)

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form by any means, electronic, mechanical, including photocopying and recording, or otherwise, without written permission from the publisher.

# Contents

Preface	13
---------	----

## Part I

<b>Restless breathing</b>	<b>23</b>
A hectic everyday life	25
What is stress?	29
Thought control	36
Diet	43
<b>Exercises</b>	<b>55</b>

<b>Normal breathing</b>	<b>61</b>
Good and bad habits	63
Why do we breathe?	63
Brain control of our breath	71
<b>Exercises</b>	<b>77</b>

## Part II

<b>Trained breathing</b>	<b>85</b>
Become healthy through yoga	87
Holistic outlook	87
The advantages of yoga	90
From body to mind	93
Composure of the senses and mind	97
<b>Exercises</b>	<b>111</b>

<b>Sustained breathing</b>	<b>117</b>
Holding your breath on land and in water	119
The natural pause	119
How do you hold your breath	120
The noble art of breath holding	126
A message from yoga	133
Your inner dolphin	140
<b>Exercises</b>	<b>147</b>
<b>Powerful breathing</b>	<b>157</b>
Optimize your athletic performance	159
The breath of sport	159
The mental breath	166
Plenty of red blood cells	175
The lungs <i>can</i> be expanded permanently	177
<b>Exercises</b>	<b>183</b>
<b>Therapeutic breathing</b>	<b>189</b>
Get well faster	191
A long and healthy life	191
Use your nose!	196
Asthma <i>can</i> be cured by training	205
Lung packing - a simple method to a better life	212
Self-help for diseases in the airways	218
<b>Holistic rehabilitation - a case study</b>	<b>225</b>
<b>Exercises</b>	<b>239</b>
<b>Soothing breathing</b>	<b>245</b>
More pleasure less pain	247
Pain in body and mind	247
Relieve pain mentally	250
Psychosomatic pains	255
Stress release during pregnancy	260
<b>Exercises</b>	<b>271</b>

# Appendix

<b>Lifesaving first aid</b>	<b>275</b>
Cardio Pulmonary Resuscitation (CPR)	277
Good advice on first aid	279
<b>Your personal training program</b>	<b>285</b>
<b>Index</b>	<b>292</b>

To Trine, who has helped me breathe and hold my  
breath over the years  
&  
To Damian, who stopped breathing  
much too early

# Preface

## Unconscious breathing

“Yahweh God shaped man from the soil of the ground and blew the breath of life into his nostrils, and man became a living being”

Genesis 2:7

Your life is lived between two breaths – your first inhalation and your last exhalation.

Each day you breathe between 20,000 and 30,000 times. This amounts to roughly 10 million breaths each year and one billion breaths in a lifetime. You are probably good at breathing, but it is actually very likely that you are not using your lungs to their full capacity. This is a shame because if you do not utilize every breath you are waving goodbye to extra energy in your daily life.

Most people are not very conscious of how they breathe. In particular, poor breathing habits are common in modern times. When was the last time you took a deep and slow breath and thought closely about the intimate relationship between your breath, your body and your mind?

By consciously taking hold of your breathing, you have a unique opportunity to change and strengthen both your body and mind. Our incredible organism is capable of transforming itself to a degree that science has not believed possible. Thus, recent research shows us that the human lung is capable of increasing its size through training, and that positive thoughts can, in fact, affect and rejuvenate your brain. If you learn how to improve your physical and mental capacity, your general health and your chances of living a long life will improve.

It may seem odd that many people are ignorant about such a natural thing as breathing. Both animals and children breathe deeply down into their “stomach” and thereby utilize the lungs optimally. However, for busy people, this is more the exception than the rule. This unfortunate fact is mainly determined by social and cultural trends due to the hustle and bustle of everyday life, which has distanced us from our body. All in all, this leads us to completely forget the calm and deep breathing we were given at birth. Life is rushed and often we forget to listen to our bodies.

Unlike, for instance, heart rhythm or digestion that only a few people can control, anybody can learn to control their breathing. Naturally, this will not reduce the stress or the workload in your life. However, gaining more oxygen in the organism and a more relaxed nervous system can help you become better at managing the pressure and unpredictability of life. All you have to do is remember to consider your breathing.

Indeed, breathing is exactly what this book is about. I hope to initiate you into the enormous potential that mind control and conscious breathing can bring to your life in order to manage stress and increase your daily energy level. When your lungs become stronger, you have a better “filter” in your body, you will be able to absorb more oxygen and gain more energy in every cell, while at the same time your body will be more able to more efficiently eliminate or expel metabolic waste products.

## **Become aware of your breathing**

There are two points at which your body, and often your mind, is under extreme pressure: during “extreme” or ultimate athletic performance and when facing a life-threatening illness. By becoming familiar with the reactions of the body in these extreme situations, you can come to understand how conscious and efficient breathing habits can contribute to more positive energy in your everyday life.

Since my childhood, I have loved water, nature and sports. Today, I have integrated all three of these into freediving at a professional level. Freediving is about holding your breath under water. You can achieve this most easily when you are relaxed and in control, which has always felt natural to me when I dive. I consider freediving an adventurous sport – not an extreme sport – but I readily admit that some people find it extreme. Nonetheless, I have selected safe and efficient breathing techniques influenced by freediving but modified so that anybody can use them. As you learn conscious breathing techniques, you will find the benefits relevant to your daily life.

Since I was a child, I have spontaneously used several of the conscious breathing techniques, and during the last ten years, I have begun to use some techniques with more reflection—both when working towards world records in freediving and in my everyday life. To optimize my performance, I have practiced yoga regularly. The central goal of yoga is to control your breathing to strengthen your body and gain greater peace of mind. The knowledge of different yoga techniques is an essential tool

in gaining optimal efficiency of your breathing.

As opposed to mind control techniques, which so to speak, work from the inside – from mind to body – this book deals primarily with techniques that work from the outside in by focusing on breathing – from body to mind. It is easy to concentrate on breathing and whether you are young or old, sick or healthy, efficient breathing techniques are safe and easily exercised habits that can be used by anyone.

These breathing techniques are not new but rejuvenated wisdom about breathing from ancient practices such as yoga. For example, *pranayama* – a traditional aspect of yoga, is composed of two Sanskrit words. The first, *prana*, meaning life force, and the second, *ayama*, meaning control. If we understand breath in terms of life force, there is a connection between controlling your breath and controlling your life force. This key concept from pranayama is one of the influences on the discussion of body and mind as connected through efficient breathing, which is part of the basis for this book.

I view life from a holistic perspective and believe that body and mind influence each other respectively. In the same way, I believe that people should live in harmony with nature rather than dominating it. I continue to be fascinated by living organisms, and curious to know about their design and function. Studying biology, which in Greek means “the science of life,” was a natural course for me to take – what can be more interesting than life itself? Consequently, I earned a PhD in medicine. My scientific background stems from the natural and health sciences. Therefore, during the book I refer to the benefits of breathing exercises and breath control on body and mind – be it concerned with sports, illnesses or any other cause.



## **Breathe efficiently**

Each chapter in this book will show you how you can breathe more efficiently and the advantages you can gain through conscious changes in your breathing habits. Since each chapter highlights different themes in relation to breathing, these can be read individually, but it may be more rewarding to read the chapters in succession.

- > In chapter one, *Restless breathing*, you will be able to recognize the effects of unconscious and uneasy breathing in everyday life. This chapter focuses on ways in which calm and conscious breathing can prevent and control stress, and how weight can be managed through breathing. In addition, the influence of mind power and your diet on your physical and mental well-being will be examined.
- > Chapter two, *Normal breathing*, describes how breathing works, and how it affects your body. When you more fully understand how your body and your nervous system are organized, you can more easily change any potential bad habits. In this chapter, you will learn how your breathing is regulated, and how you, by way of being conscious about your breath, can activate the soothing part of your nervous system and increase your daily well-being and health.
- > Chapter three, *Trained breathing*, provides an introduction to yoga, giving not only the historical and philosophical background on a holistic basis, but also valuable exercises that you can use to attain a more serene body and mind. Understanding how breathing bridges the gap between your physical and mental self, you can learn to understand the finer nuances of breathing – one of the central elements of yoga.
- > In chapter four, *Sustained breathing*, the many advantages of breath holding will become clear. Even though you may not think about it in your daily life, pauses in your breathing are quite natural and often spontaneous. In pranayama (controlled breathing) breath holding is particularly important. When you realize how the body and mind both change and become stronger, you will also understand how conscious breathing techniques can be applied in self-development and in your daily life.
- > Chapter five, *Powerful breathing*, describes the many advantages that breath holding as well as breathing techniques, can add to sports – both for everyday exercise and elite athletes. Many of these stem from the freediving universe, however, they are excellent for everyday use. In addition, I describe experiments with the heart, brain and lungs, which provide scientific examples for why a greater awareness of breathing is so important. This chapter provides techniques to improve your performance and results in your fitness routine.

- > Chapter six, *Therapeutic breathing*, pinpoints how you can boost your health through conscious and efficient breathing. Should you be ill, this chapter offers valuable advice as to how you can work towards recovery and minimize your disease. Furthermore, efficient breathing is also a potent aid for preventing illnesses.
- > Chapter seven, *Soothing breathing*, describes how you can relieve pain by strengthening the connection between body and mind both through calm and attentive breathing as well as through positive thinking, imagery and meditation. By shifting your focus to your breath, the pain will seem less intense and a more regular heartbeat will soothe and nourish the body.

I believe that everybody ought to have a basic knowledge of life saving first aid. Thus I have added a brief appendix on artificial respiration and heart massage.

Once you have expanded your knowledge of breathing techniques in relation to a particular theme, you can immediately begin with the techniques for efficient breathing. Following each chapter you can find a set of exercises that are easy to perform and at the same time efficient. Do not be fooled by their apparent simplicity. The more you practice, the more you will grow aware of the complexity of each exercise. The breath is very refined and exciting to work with because new layers of your inner self are constantly revealed. Each time you have an “aha” experience during training, you may learn a little more about yourself – and about other people too. This is exactly why it is so fun and fascinating to work with the connection between body and mind.

If you think that it is probably necessary to perform breathing exercises or meditation for months or years before you experience marked results, you are mistaken. From my own experience and from people I have taught, I know that significant changes can happen in a matter of minutes, hours or days. A recent scientific study actually showed that body-mind training combining relaxation, conscious breathing, imagery and mindfulness meditation revealed measurable changes in subjects following 5 days of 20 minute daily training. The participants showed less tension, were in a better mood, had an improved immune response as well as significantly fewer stress-related hormones in their blood. You will find examples of these body-mind exercises in this book and hopefully my concept of breatheology – the learning and teaching about how we breathe – will encourage you to start your own adventurous learning experience. If you want to expand your knowledge or see small video

demonstrations of the exercises presented in this book, you can visit my international community – [www.breatheology.com](http://www.breatheology.com).

I do not promise that you will become happier with conscious and efficient breathing, but I guarantee that you will become more cheerful and have more energy and greater reserves in your everyday life.

Enjoy!

Aarhus, Denmark, August 1. 2010  
Stig Åvall Severinsen

# Part I

## Unconscious breathing

Part I looks at how our breathing can become uneasy or stressed from a hectic everyday life. Furthermore, it examines normal unconscious breathing patterns and pinpoints criteria that you can use to examine your own habits - good as well as bad ones. This is important in order to get a deeper understanding of how your breathing works and affects your body and mind.

This knowledge will give you an understanding from which you can develop more conscious breathing habits, which will be thoroughly examined in part II.



# Restless breathing

# A hectic everyday life

## The daily breath

Your breathing is a perfectly accurate and honest barometer for your emotions. You can feel for yourself how stress affects the ease and pace of your breathing – especially the way you inhale. If you become aware of this strained condition, you can “heal” yourself simply by taking a few conscious breaths - soft, deep and slow. Instantly, you will discover that a deep peace settles in your mind. Conscious breathing is quite elementary and extremely efficient. Taking soft deep breaths should provide you with an immediate sense of how you can manage the restlessness in your body and your galloping thoughts by simply controlling your breath.

“Live your own life, for you will die your own death!”

Roman proverb

The amazing part of becoming aware of your breath is that, in time, the nervous system will become conditioned, which will make your unconscious breathing deeper, calmer and more harmonious. The point of training your breath is to create a stronger and more stable nervous system and thereby an advantageous method of breathing – your own new and natural breath. In this way, your natural unconscious breath will be beneficial in everything you do - since your breath influences your body from even the finest nerve fibers to all your organs, your hormone production, and even your thoughts. In addition, during the night you will be able to harvest the fruits of your new breath in the shape of deeper and more tranquil sleep.

When I take the bus, train, airplane or stand in an elevator, I notice how people breathe because it reveals a lot about their state of mind. It is also interesting to observe how people breathe when they are about to attempt something mentally or physically challenging.

The more you learn about the finer details in breathing, the more you can learn about people by observing them from a short distance. When I train or coach others the first thing I look for is the depth, frequency and variation in their general breathing pattern. Next, I examine deeper

and finer layers of their breathing. For example, facial expressions, body language and muscular tension are important parts of the human puzzle, which come together before my eyes.

Through the years, I have developed an intuitive sense that often targets a person's balance between physical and mental faculties. Particularly, when I ask people to hold their breath or train them in breath holding exercises, I learn a great deal about their mental condition and capacity. In addition, people learn much about themselves. This training is quite simple but also effective and certainly one of the best forms of self-development and self-management, simply because you cannot "cheat" others nor yourself, as it cannot be faked.

Exactly for this reason, breath holding is one of the best methods to learn relaxation and mind control, even though it can be a demanding and challenging process. I will not claim that I can see colors or auras streaming out of people, but I can certainly sense some kind of energy, and I can readily relate to how people are doing and sense their thoughts, because I have been there many times myself.

Body tension can also be revealed through breathing and breath holding, not only where tension is located but also how much tension a person has built up inside. Tension is often located in the shoulders, face and neck. I usually say, "your neck has to be as soft as butter", and it often helps straight away.

Different color nuances and complexities of the skin are also part of my observation because they reveal the blood circulation and oxygen content of the blood. I regularly write down the time I believe a person can hold his or her breath, and most of the time I am not far off. It is an amusing little game (usually for myself), but the fascinating and interesting part of it is to see how far you can move people within a short time. Tiny adjustments or corrections often yield big results, and I let my intuition and pocket philosophy have free scope. No holds are barred, so the challenge is to find the right methods for the person in question. The point is not that everybody has to become world champion freedivers, but it makes me happy when my students become "world champions" in breathing correctly, because I know how much this will be of help to them for the rest of their lives in relation to using both body and mind.

The ability to relax "on command" and overcome or completely avoid stress and the accompanied improved mental control and confidence are gifts that help in all parts of life. I have clearly observed this whenever I have been working with elite athletes, business managers, retired people, children, disabled, or people who are ill.

“Your breathing exercises and meditation opened a new world to me. The act of closing out the world, and being in both myself and my breath is completely unique. Never before have I experienced such calmness and balance. I have used this process daily ever since. Both in sports and my training – where I concentrate on getting oxygen to all the muscle fibers – and also when I am under pressure at work and need to make quick decisions which can have big economic consequences. Instead of breathing with the upper part of my lungs, I lean back and breathe way down to my legs – and then I move on. Breathing is a remarkable tool to keep stress at bay.”

Charlotte Eisenhardt, 35  
Construction manager at NCC Construction Denmark A/S

## Fresh air

Consider how you use or misuse your breath every day. Breathe properly and open the window for a few minutes at your office or in your home, so fresh air can reach your lungs.

New research from Japan and Korea actually shows that fresh air can increase mental effectiveness by 10 – 20%. People simply become better at carrying out practical tasks and their memory improves. Thus, it is worth paying attention to the indoor environment that surrounds you, such as temperature, moisture level, number of green plants, dust etc. Who has not experienced the feeling of being heavy and tired in body and mind after a long day at a stuffy office? It wears down your health and private life as well as the economy of your workplace. As a manager, it may also be comforting to know that by simply adjusting environmental conditions, staff health and productivity can be raised.

A study performed by DTU – the Danish Technical University in Copenhagen, showed that this is also true for Danish elementary school students. On average, students working in poor environmental conditions lose the equivalent of a complete year of education in terms of productivity. Consequently, there is a price for not considering indoor environment, fresh air and proper breathing on both health and learning.

At times, it can be quite appropriate to hold your breath. If behind the exhaust of a bus or truck, it is the most natural thing in the world for me not to breathe. Some may think this is stretching it a bit far, but when you consider the amount of particle pollution we are exposed to every day in cities, it is not totally crazy. In the United States, the organization Clean Air Task Force (CATF) released the “No Escape” report in 2007,



*Fresh air and light increases your daily energy level.*

estimating that diesel fumes kill about 21,000 people each year in the US, and further stating that at least 70,000 Americans each year have their life shortened by diesel exhaust particles. Furthermore, scientists link serious health impacts such as asthma, disruption of normal heart rhythm, heart attacks, strokes and lung cancer with diesel fumes.

Although we might smile when we watch Japanese and Chinese people on television wearing masks in the streets of larger Asian cities, it may not be that silly at all.

### **The revealing breath**

Our breath is so finely tuned, that it can reflect our personal health, and thus reveals which factors in our environment affect us negatively. Any sensible person knows that a large amount of alcohol, greasy foods, inactivity and daily stress do not improve health.

“When the breath is irregular, the mind wavers; when the breath is steady, so is the mind. To attain steadiness, the yogi should restrain his breath.”

HATHA YOGA PRADIPIKA

We have to dig deeper to understand the reason why such an unhealthy and unnatural life style has become the norm. Perhaps, it is the most important question of our time and the greatest mystery. We must understand which imbalances in our body, mind and soul draw us in the wrong direction – and why! Our breathing reflects our life situation, our feelings, and allows us to consciously enter the deepest recesses of our complex mind. As I previously mentioned, your breath is a personal barometer of your condition which reveals whether you are thriving or not, but it demands that you listen.

Inscribed in the old Temple of Apollo are the words “Know Thyself”. Breathing is the best tool to accomplish self understanding because it bridges the gap between your body and your mind.

We can utilize our breath to influence our daily physical and mental health to a greater extent than many think. The obvious next step is taking a closer look at how you can manage stress through breathing.

## What is stress?

About 50 years ago no one “suffered” from stress. This is not because stress did not exist, but because the term had not yet been coined. In order to understand and manage stress, a clear sense of what the term covers is needed. The word stress is often associated with something unpleasant, undesirable and dangerous. It is problematic that the word functions as a black box filled with all kinds of “evil” because there are also plenty of good and positive forms of stress.

“Without stress, there would be no life.”

HANS SELYE

The inner natural balance in humans is termed *homeostasis*. The word originates from Greek (*homeo*: same/similar and *stasis*: stable), and describes an organized physiological equilibrium in an open system, i.e. a body or a cell. Everything that draws the body away from equilibrium is stress. At the same time, processes which restore equilibrium are also stress. One might say that stress is an elastic process which compensates and adjusts, and this regulatory process has recently been named

*“allostasis”*. *Allo* comes from Greek and means “variable”. The range of possible states which surrounds homeostasis is thus caused by allostatic mechanisms. These mechanisms maintain stability through change.

Let us take a typical situation: if you suddenly run a couple of meters, an allostatic response will immediately start. You breathe more quickly and your pulse increases – you are experiencing stress. This kind of stress is both positive and necessary because it compensates for the increase in oxygen consumption and blood supply. As soon as you stop running, your rate of breath, your pulse and your blood pressure drop again. This allostatic response restores equilibrium because a constantly elevated pulse is no longer useful to your body. Thus, through “stress”, equilibrium is maintained.

Two key points can be learned from this example. First, moderate, temporary and effective stress is positive at the right place and time. It gets your system in an alert state and ready to meet new challenges. However, when the stress is prolonged and too extreme, it becomes negative. The body gets worn down and deteriorates - a condition we know as chronic stress. Chronic stress is dangerous, undesirable and probably the kind of stress that you think of, when you hear the word. This condition is also known as allostatic overload – the system has simply been strained beyond capacity like a rubber band that snaps. The allostatic mechanism originally designed to protect you now becomes destructive.

The second important point you can learn from this example of a short run is that you can influence your stress through breathing. This is useful knowledge because your breath is an incredible allostatic tool designed to regulate your stress. Calm and controlled breathing will bring your exhausted body and brain back to the starting point – homeostasis in perfect balance, a glassy lake on a summer’s day.

## **The mechanisms behind stress**

Stress results from circumstances that affect your inner balance. Positive stress is about facing resistance and challenges, thereby creating healthy growth and protecting your system. This is the way you build up a muscle – bit by bit. In the same way you can exercise the brain and keep it tuned. In contrast, negative stress exhausts and destroys, as a result the system simply “goes off the rails”.

But what does stress look like, and what activates it in the body? Stress uses the neuroendocrine system, which implies that it functions

through nerve messages affected by our hormone-producing glands. Stimuli from the outside as well as the inside can initiate stress. The brain and body work together to react to changes – physical, psychological or both.

Psychological stress, like physical stress from an inflicted injury or just a run, can be divided into various temporary states. These states encompass conditions such as mild depression, anxiety, anger and even hostility. Other psychological stress factors such as conditions at work, in the home, your personal financial situation or daily life can be referred to as psychosocial stress and are often chronic in nature.



Whatever the reason for stress, your reaction to it is predominantly governed by two complex hormone systems. These systems secrete *adrenalin* and *cortisol*. Adrenalin works fast and is the “survival hormone” of the body. If, for instance, you are about to fall, drop something or become very scared, you can feel an adrenalin rush in your body. Cortisol, on the other hand, has a delayed secretion after a stressful event. Thus the two hormones are secreted at different moments in relation to the stress level. Both cause wear and tear on the body and mind if they are constantly present in high concentrations in the blood. If the hormone systems are under pressure for an extended period, they can eventually “run wild” - leading to stress, depression, psychosis or other mental disorders in addition to physical illness.

The amount of stress needed to activate these response systems vary from person to person. Animals, as well as humans, that have been raised in an insecure and unpredictable environment elicit a higher stress response to mild stressors than those raised in stable and secure environments. People who suffer from chronic stress have a stronger reaction to mild stress. These individuals will often be more depressed or aggressive, since their *serotonin* levels are low. Serotonin is a hormone which keeps us in a good mood. This is also true of patients suffering from depression, which in many instances can be caused by stress. In some of these cases, antidepressant medicine is prescribed to help raise the serotonin level in these patients.

It is not surprising that so many people suffer from stress in this rapidly changing world. In our rushed modern society, we are extremely rational and analytical on a high intellectual level, but the complexity and unpredictability of life stresses and frustrates us. Mobile phones

go off all day long and increased demands of productivity at work, in the home, on holiday and in sports clubs generally cause stress because our own and others expectations of ourselves can be unrealistic and unreasonably high. When these psychological stress factors are combined with inefficient breathing, unhealthy diet and too little exercise, the result is a vulnerable system in which sometimes “a single straw can break the camel’s back”.

Since your lifestyle or a high workload can be difficult to change, it is beneficial to look for other ways of managing your stress. Luckily stress can be managed in many other ways and breatheology offers a path that I have found effective in my life. The workload in itself does not necessarily lead to stress. However, unpredictable moments that spark the hormone faculties of the brain do. If you adopt a different strategy in your reaction and utilize the creative and intuitive capacities, many problems can be seen as interesting challenges and new solutions suddenly begin to appear. It is a useful and workable way of dealing with your stress, and fortunately you can train techniques that stimulate this shift in response. Recognizing what stress feels like is the first step to shifting your response to stress.

### **What does stress feel like?**

Stress is the body’s way of telling you that it needs a break and it is extremely important to listen!

I have suffered from chronic stress twice in my life. Both episodes were related to unreasonably high personal demands (film production around the world while training for a world record attempt and working with my PhD project). As a result, two of my world record attempts failed (2002 and 2004) – and I usually do not fail to achieve my goals. Since then I have not had stress, and I have won all the World Championship competitions I have aimed for.

My symptoms of chronic stress were unmistakable: wandering eyes, incoherent thoughts, lack of focus, sleeplessness, loss of appetite, fatigue, despondency, a “pounding” heart for long periods of time during the day and night, abdominal pains, indigestion, night sweats etc. When you are stubborn like me and get that far, it is no longer healthy.

Fortunately, I came out ok on the other side of both incidences and know today what I should not expose myself to. I have become better at saying “no”. Apart from the fact that the lesson cost me dearly, there is still a silver lining in that I am now in a position where I can empathize

with others suffering from stress. When I give a lecture in a company and talk about stress management, I am happy to have experienced it in my own body and not just read about it in a book.

## **Control your stress!**

Today stress has developed into a popular phenomenon and approximately one in four employees is expected to suffer from stress. It is hard to believe that it has come this far, and in many instances the stress may even be caused by the fact that these people believe they have stress, which in a manner of speaking is a kind of stress in itself. Stress from believing you are stressed has no real foundation and is really a misbelief about one's own ability and goals that are unrealistically high.

Two key elements in human nature separate us from animals: cognitive abilities (thoughts and conceptions about our existence and self-image) and the ability to consider the future and make plans for it. The second ability makes it possible for us to prepare ourselves for changes in the future, predictable as well as unpredictable. Unfortunately, it also gives us the ability to worry about future events – even events that will never occur. I believe it is a combination of our worries and the unpredictability of life that stresses us the most today rather than a great or unreasonable work load.

The attention which stress has received in the last decade has a both positive and negative value. The fact that stress is taken seriously is positive because it is not a coincidence that a Danish study revealed that headaches, migraines and sleep disorders have doubled within the last 20 years. The negative part is that you can suffer stress simply by thinking about it, whether a “danger” is eminent or not!

Since stress, as well as its underlying factors, are a natural and inevitable part of our lives, it is unavoidable. Our overall quality of life, physical health and even longevity depend on our ability to control stress. More and more courses in stress management are being offered to employees as well as to the unemployed. It has been shown that those who are unemployed are far more stressed than when they were previously assumed, because an identity crisis and a feeling of being inadequate are strong psychological stress factors.

I have not taken a stress management course myself, but I believe that the courses offered are very theoretical. I do not believe this is an effective approach because it is difficult to “think” away thoughts about stress. It is possible to use more thoughts to change your thoughts, but

certainly complicated. I believe that a practical and pragmatic solution rooted in the physical act of conscious breathing will have a much greater effect. People who suffer from stress simply need concrete physical actions to change their mental condition.



I know of no better or more effective tool for change than your breath, combined with relaxation and meditation. As this book will reveal, these are crucial points in relation to mental control because they are easy and tangible methods to stimulate parts of the nervous system which mediate calmness. At the same time, those parts of the nervous system that cause stress are inhibited.

The following is a short list of suggestions for specific exercises, which you can perform to relieve your stress and enhance your well-being:

1. Daily relaxation – rest, meditation, imagery, slow and deep breaths, slow exhalation.
2. Exercise several times per week – walk, run, swim, etc.
3. Listen to music – soothing or joyful music, which bring good vibrations.
4. Laugh – because it stretches your diaphragm and lungs, & relieves tension in the solar plexus – a center of bad tension.
5. Do something you like. Take a walk in the woods, go fishing, enjoy an intimate moment, watch a good movie, visit your friends or write a letter.
6. Think positive – the glass is always half full.
7. Enjoy the fact that you are living, be grateful!

A couple of years ago another method to control stress was created in the US. It is a little device called a “StressEraser”. This device works by simply putting your finger on a pulse sensor. On the attached monitor you can follow how your breathing should work to achieve an optimal state of relaxation in the body and brain. The device not only measures your pulse, but also very fine details in the working heart, called Heart Rate Variability (HRV). HRV reflects the beat-to-beat alterations in heart rate.

The HRV phenomenon was discovered in Russia and is quite new to modern science. However, in yoga, it is quite basic. In particular, the



*Physical activity is excellent against mental stress.*

part of yoga termed pranayama has a focus on controlling the breath. Ideally, you should try to adjust your breathing so that your inhalation as well as your exhalation follow a four heartbeat rhythm. This pace is very relaxing. In one fundamental pranayama exercise, you double the time of your exhalation (8 heart beats). This slower pace for breathing has an enormously calming effect on your nervous system. This exercise also reduces the hyperactive parts of your nervous system that are characteristic of stress. Your tolerance to stress is thereby increased both on a physical and mental level.

“StressEraser” is a good and well thought out product, and offers an excellent example of a useful tool which emerged from the fusion of thousand-year-old Eastern philosophy and modern technology.

I am in no way sceptical towards this device, but as a freediver I am used to a more simple and practical approach and thus tend to avoid complex technical instruments. The link between your breath and your heartbeat is undoubtedly more practical – and it gives you a greater sense of your body.

Another excellent way to manage stress is to hold your breath. Given the correct instruction, the so-called *diving reflex* is stimulated. As a result, the soothing part of the nervous system is also stimulated. It is the body’s “relaxation-switch”. I use breath holding in stress management

for the same reason – both on myself and on participants in my courses.

Recent scientific studies have actually shown that when you are submerged in water and practice breath holding, many “alpha waves” appear in the brain, demonstrating a completely calm and relaxed state of mind – a form of meditation or trance. Alpha waves are also linked to a comfortable and timeless state of mind. This state is called *flow* in sports psychology – which is extremely favorable to achievement – particularly when under stress.

“Because of a lot of pressure at work, I hadn’t slept a whole night for months. After Stig gave a presentation on breathing and stress management and guided all the employees into the water for breath holding at our “kick-off” arrangement in the company, I slept like a baby all night long. The breathing exercises have helped me immensely, and I use them on a daily basis.”

Jakob Christiansen, 33 years  
Sales manager, CityMail Denmark A/S

In summary, breathing and breath holding act as a link between your body condition and state of mind – helping you control stress. As mentioned previously, stress can also be managed by gaining control of your thoughts. In many instances this can be more difficult than breathing exercises, since it is restricted to the brain. Let us take a look at a few simple techniques which can supplement breathing exercises.

## Thought control

In the spring of 2006, I qualified as a freediving instructor at the Apnea Academy under the living legend Umberto Pelizzari. At the course, a sports psychologist said something that really stuck with me: “Your mind is very clever” – the more you think about this utterance, the more sense it makes! Your mind is phenomenally clever, and if you can learn techniques that link your subconscious mind to your consciousness, you can do the most incredible things.

“Imagination is more important than knowledge.”

Albert Einstein

Thought control is very effective because it works from the inside out.

A controlled thought dictates the body's reaction, and thus, is a good starting point. As mentioned earlier, the breath is the perfect tool for controlling your restless mind, but with training you can also use certain thoughts to control other thoughts. In sports psychology, different "thought techniques" are adopted to suppress or replace negative or unwanted thoughts. Below is an example that you can work through to try it out.

Suppose I say the only thing you may not think about now is a polar bear - the only thing in the world that you may not imagine is a big, soft, white polar bear with a wet nose! Easy? Not quite. The simple task that you were given was not to think about a polar bear. But in doing so, the only thing you could think about was the polar bear! You will soon learn how to make the polar bear disappear.

Our thoughts and our mind are an inconceivable jumble of colors and forms. But it is difficult, if not impossible, to have more than one thought at a time. The single thoughts can be so tightly linked that they seem to flow together – this is how our line of thoughts works. If you hold on to one single thought, it is called concentration, and a single thought can only be held for a couple of milliseconds! When you continue focusing on one thought for several seconds, you enter a state of meditation. Practice this before you go to sleep – try stretching your last thought before you drop off to sleep. It is not easy.

But let us return to the polar bear that you were not allowed to think about or imagine. Now think of a long-legged giraffe. A big and beautiful long-legged giraffe on a dry savannah in Africa. Close the book for a moment and imagine this majestic giraffe. Close the book NOW. What happened? Did you see a beautiful giraffe? Yes – well good. Did you also see a polar bear? No, you did not, did you? – Excellent. Your thoughts dissolved the polar bear all by themselves and were replaced by something else. In this way you can easily control your thoughts and use positive thoughts to replace negative ones.

However, a current trend within the third wave of cognitive therapy steers away from the act of trying to control or actively change our thoughts. *Acceptance and Commitment Therapy* (ACT) aims at observing the thoughts without getting entangled in them. Thoughts can be treacherous and misleading and are not necessarily truths. A negative thought is dissolved by simply observing and accepting the thought passively. You might have heard of *mindfulness* which perceives thoughts as leaves floating down a stream. Mindfulness exercises are also a part of ACT.

If I get the feeling that a negative or unwanted thought is entering my

mind during a dive (e.g. a polar bear!), I immediately replace it with a different thought to hold on to – it could be a giraffe, but I use other images. In the same way you can form such “key thoughts” or images that you can utilize, when your mind becomes stressed. When you dissolve the “stress of your mind”, the undesirable effects on your body also disappear. If you link these thoughts to a steady breathing, it will work even better. We will be taking a closer look at this in the chapters on powerful breathing and soothing breathing.

The polar bear/giraffe example may seem banal, but the technique works brilliantly, especially if you practice it. In this kind of thought control you utilize a very strong capacity in your brain, namely imagery.

## Imagery and visualization

When the subconscious mind accepts your conscious images, they become a part of your reality.

“I use my breathing exercises, when I have to “warm up” my lungs. It makes me feel fresh and prepared for the training of the day. I also use them when I prepare mentally (visualizing my race). Before a race, I use them to raise my pulse, or if I need to calm my nerves.”

Jakob Carstensen, 31  
Three-time Olympic games participant and  
World Champion in 400 meters freestyle

When you think in images, you use certain areas in the brain which can create a global view of a situation and consider it in its full. Thinking in images or patterns enables you to understand contexts or situations in a split second. This is why symbols are so powerful. If road signs consisted of long sentences, it would not be easy to move safely through traffic.

In modern times, we predominantly utilize our analytical and logical brain capacities and are not very trained in using the intuitive and spatial parts. Consequently, there often exists a culturally determined imbalance in the brain. Luckily, through visualization you can create greater harmony.



When you think in images, you create a state that inhibits stress and promotes relaxation. This is why you must use your imagination, and this is why I believe in dreamers and visionaries.

“If you can dream it, you can do it”

Walt Disney

It is said that “faith can move mountains” – this proverb wasn’t just made up.

Our thoughts are a result of infinitely fast processes in the world’s most advanced and complex system, namely your brain. It is commonly accepted and recognized that “psychosomatic” sufferings exist; meaning that instability or an overtaxing of the psyche manifests itself as one or more illnesses in the *soma*, the Greek word for “body”. As you have read in this chapter, it is actually this mechanism that lies behind stress. Within a few years the greatest threat to health in modern society is predicted to be stress and the complications it entails. Oddly enough, the opposite reasoning is less accepted. The logical perception that the psychosomatic phenomena can be turned into a positive, relieving, strengthening or even healing direction is less common. Many (because of ignorance or for illogical reasons) associate this notion with healers, superstition, magic, witchcraft, voodoo or something else. This is a shame, but fortunately a change in attitude is occurring these days.

In the field of psychology, a movement called “positive psychology” has emerged. It is concerned with looking ahead and using individuals’ potential and resources from the human psyche. Research shows that the brain cannot distinguish between something which actually happened in the physical world and something that just occurred in your mind. In other words, the brain is able to “cheat” itself, and to a great extent, you can push this illusion in a desirable direction. For example, physically injured athletes use thought exercises to be able to return to their sport just as “sharp” as before. Furthermore, a US study found that children who used thought exercises and visualization became better at shooting baskets than a control group that did not use thought exercises.

A Danish author and storyteller, Johannes Møllehave, writes down five things that have made him happy during the day before he goes to bed. This is an excellent idea for several reasons. First, the last thoughts you have before you sleep largely determine the quality of your sleep. Restlessness and negative thoughts result in poor sleep, while positive thoughts encourage a calm and balanced sleep.

Second, thinking about positive experiences has a beneficial long term effect on the brain, because positive “thought tracks” are laid down in your brain cells. A positive influence of the psyche stimulates the secretion of the “happy hormones”, *dopamine* and serotonin, which strengthen the brain and simply provide us with feelings of well-being and satisfaction. At the same time, the production of the stress hormone cortisol is inhibited, helping the brain to remain sharp and bright. Collectively, the overall stress level decreases, affecting your health in a positive manner. Thus, thought exercises and meditation have been proven to lower blood pressure, pulse, regulate blood sugar (thereby being good news for type 2 diabetics), reduce asthma symptoms, depression and fear, to mention but a few examples. The small positive vibrations you yourself create in your brain can affect your cells and their functions – a transformation at the molecular level, which leads to a true metamorphosis of your body and soul!

“Our life is what our thoughts make it”

Marcus Aurelius

The more you believe in the power of thought, and the more you listen to your breath, the greater changes you can create in your life. This is why prayer works for so many people. In my yoga prayer, I am grateful for the good health of my family, my friends and myself. I am also thankful for life, and to those who suffer or experience hardship in the world, I send out positive and strengthening energy. Naturally, the energy waves I send out into the world will reach out and do good in some way or another. Forgiveness also lies in prayer and by forgiving people, negative thoughts leave your brain – the polar bear disappears!



A thousand years of wisdom and positive vibrations are contained in the word Amen and in the Eastern mantra *Om* (*Aum* - the symbol above). By saying them out loud or just thinking about them, the chemistry of your brain and the great fountain of your hormones will immediately change. Your brain becomes a better place to be, and stress disappears.

With the power of thought, we can accomplish miracles – if we believe in them! Let us join together and make the proverb “you become what you think” just as obvious and natural as “you become what you eat”. It is just a matter of will!

## **(Un)health in modern society**

Even though conditions are favorable for an ideal life in the prosperity of modern society, something must be going wrong because we are living ourselves to death. It is a tragic-comic paradox. The World Health Organization (WHO) of the United Nations estimates that roughly 40% of all the illnesses and “premature” deaths in the Western world today are related to our lifestyle. “Bad habits”, such as a poor diet, smoking, alcohol, and lack of exercise are the primary causes. Worse, the current prognosis is that this figure is expected to increase to 70% in 2020 – a very gloomy perspective. In particular, recent increases in heart and vascular related diseases, certain forms of cancer, type 2 diabetes, dementia, depression and brittleness of the bones will be responsible for this pronounced rise.

The good news is that there is a bright light at the end of the tunnel. A British study has shown that you can add 14 years to your life if you quit smoking, restrict your alcohol consumption, eat healthy, fresh and diverse foods and exercise a little every day. All it takes is a change in lifestyle and commitment combined with the ability to take responsibility for your own life as well as your children’s lives.

Statistics and analyses can mislead, but I believe that in relation to the British study, these estimates seem very reasonable - especially when I look at my beloved grandmothers. They drink alcohol in moderation, eat healthy food, don’t smoke and all-in-all have an iron constitution. My paternal grandmother, Asta, who daily takes her dog for a long walk around the meadows, is 92 and takes care of her garden and farm on her own. My maternal grandmother, Stina, does morning gymnastics (with push-ups) and practices water aerobics, she is 96. I hope and believe that my grandmothers will live to their 100 year birthdays, especially because they are both mentally fresh and function well.

In addition, I believe that their strong health is due to good mental health including their cheerfulness, gratefulness and satisfaction. Recent studies have shown that not only exercise, but also an enriched environment, stimulates the formation of connections between new nerve cells in the brain, which can prevent various degenerative nervous disorders like Alzheimer’s disease and dementia.

## What can we do with stress?

There is no doubt that stress creates costs for individuals as well as industry and health care systems. In some instances, workplaces provide employees with the possibility of exercising and some even offer stress management courses, but do they suffice?

An easy place to start is the body because it is so tangible. Focusing on physical strength and well-being when it comes to nourishing employees, is narrow minded in many ways. Just as it is bad policy in medicine to treat only symptoms rather than focusing on prevention or problem-solving, it is also problematic not to include emotional and psychological aspects of health.

Exercise is undoubtedly healthy and will promote mental as well as physical health, but there are limitations to solely muscular work and fitness training. It can only do so much, whereas with the proper mental tools, you can perform quantum leaps.

For the same reason, teaching efficient breathing and a different mental approach to challenges are two of the basic elements of my company, BlueConsult, and my concept of breatheology. The challenge is now to promote the message and the techniques as fast as possible. In collaboration with Bjarne Brynk Jensen, who works with business development, I am developing and distributing this new approach to health. Bjarne is a company coach, a consultant for the Winter Olympics in Vancouver in 2010 and not only has broad experience with international organizations, but also has personal experience with work related stress and excess weight. We have created a concept where we introduce the point that a physical as well as a mental fitness rating will become a future competitive parameter for employees and business strategy. From this, we will work with self-development directed towards both top managers and employees.

We aim at developing harmonious people who, through an enhanced emotional intelligence, are willing to take responsibility for themselves and their employees by linking professional management guidance and cognitive techniques (from elite sports and positive psychology) with breathing exercises (from yoga and freediving). Since people use only 50-60% of their breathing capacity, a huge unexploited potential lies in breathing and will be given particular focus. If we are able to teach people to utilize just 10-20% more of their lung capacity, the extra energy could lead to a more productive working day, better decision making, greater well-being and naturally, fewer sick days. We believe that the concept has a future, but this holistic approach may be a couple of years

ahead of its time.

In every part of society, a healthy and long-sought change in the attitude towards nutrition and diet is taking place. At work, fruit and organic food items are being offered and a more nutritional diet is now on the agenda. Our diet plays an important role in our well-being, so this change is positive and needed - probably also more than what people believe.

## **Diet**

The food we eat is often regarded as just fuel for the body. Energy is delivered to the engine and the system stays running. But the type of food we eat and its quality also play a crucial role in determining our mental condition. This is the reason why yoga highly recommends unprocessed vegetarian food. The more prana (life force) food contains, the more active you will become on a physical as well as mental level.

Try during the day to become aware of how your body and mind react to what you eat. If you want to learn more on this subject, I suggest you study *ayurveda* – a classic Indian science concerned with health and herbal medicine.

Your breath is also closely tied to your food intake. The decomposition of food and energy uptake already begins in the mouth, and when your breath is calm and deep your digestion is stimulated by the soft massage of your diaphragm. Your visceral organs will secrete the appropriate amounts of digestive fluids and hormones, and more blood will pass around your intestines to absorb the decomposed nutrients. The more you can activate the part of the nervous system that calms and promotes digestion, the better you can utilize the energy in the food you have eaten. Since your breath is closely tied to your mental condition, you will have a greater urge to eat healthy food in active periods with plenty of fresh air. Whereas, in periods in which your breathing is poor, you will tend to eat food with more sugar and fat – or possibly not eat at all.

## **Fattening times**

If we take a quick glance at the “obesity-statistics”, the picture that emerges is terrifying. It is food for thought that we live in a part of the

world where we are dying from overeating, especially when you consider that thousands of people each day on earth die from starvation. It is a tragic and unfair imbalance that needs to be changed.

In the United States, 60% of the population is overweight. As a teenager I lived in Florida and have visited the country on several occasions thereafter. Each time I am surprised to see a noticeable increase in obesity as well as how obese we humans can become. The last “case” I am familiar with was a young man weighing almost 1000 pounds. I encourage you to watch Morgan Spurlock’s movie “Super Size Me” - it is scary!

The problems of overweight people and obesity are much tabooed, and the fact that I use the word “obese” in this book may provoke indignation. However, if you do not speak openly about this problem and do not create practical solutions, you are doing people, especially children, a terrible disservice. It must be in the interest of all, both on a human and an economic level, to create a better and healthier life for individuals that suffer from obesity.

Fortunately, awareness of a proper diet is increasing – not a second too soon. Also, attempts to offer healthy eating options are being made in institutions and schools. Scientific studies using mice as well as children show that a healthy diet sharpens concentration and enhances motivation - thus multiplying learning ability and memory.

Being healthy with regards to food does not have to be difficult. Whether you wish to maintain your weight, lose weight or perhaps gain weight, I present a magical formula here.

## **A health treatment – the magical formula**

Energy is often calculated in calories that are defined as the amount of energy needed to increase the temperature of one gram of water by one degree at an atmospheric pressure of one. The word calorie originates from the Latin *Calor* which means “heat”. Sometimes the unit joule (J), which corresponds to approximately  $\frac{1}{4}$  calorie, is used. The prefix “k”, which reads “kilo” denotes a thousand as in kcal (a thousand calories) and kJ (a thousand Joules). To muddle things further, the designation “cal” is sometimes used instead of kcal. Thus it can be quite a challenge to keep up with your calorie intake if you are forced to perform long calculations constantly. It does not become easier when people often say calories but actually mean kcal!

In reality, it is quite simple:

$$E_{\text{intake}} - E_{\text{consumption}} = 0$$

$E_{\text{intake}}$  is your daily intake of energy.

$E_{\text{consumption}}$  is your daily energy consumption.

The incredible feature of this formula is that you can easily forget about diets, pills and slimming powder from various clinics and magazines – you do not even have to count calories, weigh your food or calculate your daily energy consumption. All you have to do is eat nutritionally sensible food that is healthy and varied. In addition, weigh yourself every day or week. If your weight increases you have three options: a) eat less, b) do more exercise or c) both. Said in another and more direct way: If you eat too much you become too fat; if you eat too little, you become too thin.

It is very important that you listen to your body and know how you feel in your everyday life. Direct your attention to how various foods affect you. You know that French fries soaked in oil or soft drinks with sugar are fattening, but you may not consider the fact that they also can make you lazy, reduce your ability to concentrate, make you moody and altogether give you a heavy and sluggish body.

However, if you eat a lot of vegetables, fiber rich bread, chicken and fish and drink a lot of water, you will quickly experience the difference and feel more balanced. You will have more energy, be more active, feel lighter and your brain will work better.

It is no great surprise that several scientific studies have showed that you become more intelligent, happier and are able to concentrate better when you eat healthy foods and exercise – it is common sense.

## **The acid-base balance in the body**

It is extremely important that your body is in balance. Let me be more specific with what I mean by this. To maintain a healthy lifestyle, it is necessary to achieve stability - also known as homeostasis.

Life depends on maintaining the environment in each living cell within certain parameters. A good example of this is our body temperature and the acidity of our blood, which should be maintained around a pH value of 7.4. Our breathing is crucial to this balance. By varying our breath under different circumstances, the concentration of carbon dioxide

(CO<sub>2</sub>) and thus the amount of hydrogen ions (H<sup>+</sup>), which determines the blood pH, can be regulated. If breathing alone cannot maintain stability, the kidney is able to take up or release H<sup>+</sup> and thereby re-establish the balance.

It is not the blood alone that has to maintain a certain pH balance. It is also crucial for the rest of the body's tissue and bones. This pH or "acid-base" balance is, to a great extent, dictated by the food you consume. Within modern medicine this topic has achieved very little attention, since the emphasis in nutrition is on the energy in protein, fat and carbohydrates (kcal). However, the positive effect of base-forming foods such as vegetables, fruits and nuts is receiving more attention. In contrast, sugar, fat and protein are acid-forming.

Almost 100 years ago a Swedish doctor, Ragnar Berg, was the first to discover the connection between the acid- and base-forming properties in our food and our health. His rule of thumb was that we should eat 7 times more vegetables, potatoes and fruits each day than other types of food. Professor Olav Lindahl continued his work, which successfully applied base-forming foods to relieve pain for patients with arthritis, sciatic nerve pain and back problems.

Briefly, the hypothesis states that acid forming foods, such as sugar and fat, leave behind acidic compounds when they are decomposed in the body. This accumulates over time, leading to a weaker immune response. Thus, diseases can more easily attack the body. In contrast the base forming foods should neutralize the negative side effects of acids, thus providing a strengthening and curative effect. The issue is very controversial, but if you search for information on "alkaline diet/food", you will notice that the issue is a "hot potato."

I have been able to confirm positive changes in my body in periods where I have consumed large amounts of broccoli, grape fruit and nuts (for instance up to my recent world record attempts). I believe that most vegetarians will be able to report a more "light" and supple body. One of the reasons that yoga renounces meat is not only due to the idea of karma, but also that large amounts of meat stiffen the body. Two world record holders in deep diving, William Trubridge from New Zealand and Natalia Avseenko from Russia, are both quite fanatical about alkaline food and believe that the effects include: muscle strength, improved stamina, optimized oxygen consumption, and a delayed formation of lactic acid allowing for a shorter recovery time after hard training.

Try to aim at an optimal balance consisting of 75-80% base-forming foods and 20-25% acid-forming foods. This will also work as a sensational slimming diet that in a healthy and natural way restores the balance



*Citrus fruits, dark vegetables and nuts provide the body with valuable antioxidants, vitamins and minerals.*

in the relation between fat and protein. At the same time, the body is emptied of accumulated fluid that is bound to acid residues in the tissue.

Why not embark on a little “scientific experiment” on your own body? Try living healthy for a week. Cut down on sugar and saturated fatty acids. Apart from the fact that you most certainly will feel more comfortable, you will also come to realize the amounts of unhealthy foods you chow down. One can of soda contains about 10 teaspoons of sugar – try adding up from there. Everything in moderation, so find your own balance – your body’s perfect homeostasis. Below follows some ideas for your new diet.

## Dietary tips

Breathe slowly when you eat. Breathe through your nose, chew slowly and repeatedly on every side to crush the food, absorb as much as possible through the mucous membranes in your mouth, secrete more saliva to enhance digestion and the absorption of nutrients from the intestines into the blood. Eat slowly so you can enjoy and taste the food!

It is a very common mistake to think that in order to lose weight or be in good shape you have to stay away from fat. Your brain and most of the nervous system are made of fat. Furthermore, fat is also a part of the cell membrane, acts to form a number of hormones, is important to the body's metabolism, etc. A good example is the fatty substance called cholesterol, which many believe is evil and only bad for you. In fact, your liver actually produces cholesterol because you need it. The cholesterol content in your blood is determined by what you eat, how much you exercise, your genes, etc. Two types of cholesterol exist – LDL (Low Density Lipoprotein) which we are taught to believe can cause hardening of the arteries, and the positive HDL (High Density Lipoprotein) that is said to have a protective effect on your vascular system. However, I encourage you to read the exciting and ground-breaking book “The Cholesterol Myths” by Uffe Ravnskov, MD, PhD. If you read it, you might be surprised! If you eat “Mediterranean food” and lead an active life, you will be able to affect your cholesterol number positively. Below follows some advice on a better lifestyle:

- > Cut down on coffee, tea, soda, cakes and fat food. Forget about manufactured food products and pre-cooked food items. In doing this you avoid heavy metals, hormone residues, additives, artificial sweetening etc.
- > Eat plenty of fruits and vegetables, particularly dark green ones, because they contain a good deal of nitrate, which aids the energy process of the cells. Garlic is also good for the lungs as well as the rest of your cardiovascular system.
- > Eat legumes, nuts, seeds, red berries, grape fruit and dark grapes. These are all base-forming and full of minerals and vitamins.
- > Remember to eat enough fat, but of the right kind: omega-3 fatty acids, olive oil, avocado, etc.

- > Drink plenty of liquid – when your fluid balance drops by just 2%, your endurance capacity decreases by about 10%. However, do not consume large amounts of water every day, since it washes out salts from your body.
- > Eat a big breakfast, carbohydrates for lunch and a supper rich in proteins. Good protein sources are fish, light meat and tofu. Green lentils, beans and chickpeas are good vegetarian protein sources.
- > Eat a variety of foods and never too much at a time. If you want to exercise wait at least one hour after a big meal to enable the body to digest the food. If you are planning to do strenuous exercise, two or three hours are necessary to allow the blood to absorb nutrients from the gut and to leave the gut again. After you have eaten you can easily go for a quiet swim without drowning or getting into trouble.
- > Dark chocolate (containing as high a percentage of cocoa as possible) has a good antioxidant effect and contains many healthy components. The same holds true for red wine, which contains iron and in moderate amounts also decreases the detrimental effect of LDL-cholesterol and increases the beneficial HDL-cholesterol.
- > Also try “super foods” like the algae *Spirulina* and *Chlorella*, which are said to be the most complete source of nutrients, and make sure you get plenty of minerals like calcium, magnesium and potassium.
- > Eat plenty of vitamins – especially vitamin A, C, E and the trace elements selenium, manganese and zinc, which all have an antioxidant effect.

Antioxidants and free radicals are often spoken about, but you almost never hear about how and why they work. I will briefly explain it here. Free radicals are atoms and molecules that have lost one of their paired electrons in the outer shell. Thus, they are highly reactive and eager to steal an electron from the first atom they encounter. In other words, free radicals change the configuration of other atoms and molecules destroying them in the process. Antioxidants have the ability to neutralize free radicals by donating electrons. In essence, it is wise to eat plenty of antioxidants to avoid aging and natural wear and tear of your cells. This keeps you healthy and resistant to various diseases.

Here are two recipes for raw food shakes – and apart from being base-

forming they are full of antioxidants, good vitamins and minerals:

### **Magic potion 1**

1 avocado

1 cucumber

1 lime or lemon

1-2 handfuls of fresh spinach leaves

½-1 cup of tofu

Soy milk

Liquidize – add ice cubes if desired

### **Magic potion 2**

½ potato

1 beetroot

1 stalk celery

2 carrots

3 pieces of broccoli with stalk

4 radishes

Liquidize – add ice cubes if desired

If you follow the dietary advice above, your body, as well as your breathing, will become more smooth and efficient, and you will achieve considerable surplus energy. By cutting down on acid-forming foods with sugar, fat and protein, you reduce the oxygen consuming elements in your body. These not only contain small amounts of oxygen but also require more oxygen to burn. More oxygen can dissolve in an alkaline environment than an acidic environment. Thus, you gain a number of advantages by changing the chemistry of your body.

By now, you should have acquired a better sense of the importance of your daily food intake for your health and general well being. The old proverb you were taught as a child still applies: “You are what you eat”.

Unfortunately, there are no easy solutions to the huge problems related to poor diet, smoking, alcohol and lack of exercise in society. Natural ways to start making a difference include: developing greater self-insight, focusing more on happiness, nurturing consideration for oneself and others, shifting to a healthier diet and increasing your physical activity. We just have to get going.

If you are willing to think out-of-the-box, a (pro)active approach to breathing could be a good suggestion. Especially in connection with weight loss, the right breathing could be worth its weight in gold. Breathing exercises can be used as a fabulous slimming formula.

## **Sympathetic slimming formula through breathing**

I would like to add a little story about my friend Umesh who is 34 years old and holds a PhD in atomic and molecular physics. Umesh is a dedicated scientist, and the mission of his life seems to be an infinite focus on natural science. He is actually one of the most scientific scientists I

know. The point of mentioning Umesh's educational background is to emphasize that Umesh does not believe in just anything. But, he believes in good breathing and has benefitted from it.

A couple of years ago he had a problem with his weight. Earlier in his life this had never been an issue, but years of sedentary work in the laboratory, combined with an unhealthy diet and varying mealtimes, had left its mark on Umesh. He got sick more often and had a feeling of being out of balance. In addition, the weight condition strained his back and he developed back pain. This made it difficult for him to walk far. He also suffered chronic sinusitis which led to intense migraine attacks with a throbbing pulse in his temples at least once a month. The fact that he was born with the cartilage in his nose blocking the air passage through the right nostril made matters even worse.

While he was living in India, he participated in a course on pranayama (breath control) with exercises aimed at losing weight. There were no physical exercises like yoga positions, running or weight lifting in the course. The duration of the course was seven days and most exercises were performed while sitting. The breathing exercises included steady alternate breathing through the right and left nostril and also more powerful inhalations and exhalations. These were conducted with certain positions of the hands -so called "hand locks". There were largely no restrictions to what the participants were allowed to eat; however, the participants were asked to refrain from drinking coffee, tea, soda, alcohol and very fatty or heavily spiced food. The exercises were performed twice a day and each session lasted about 35-40 minutes.

On the second day, his appetite disappeared and he did not even feel hungry. Umesh continued with the exercises after the course and ate normally. The exercises were to be followed for 40 days in a row. If you forgot a session you should start over again on a new 40-day period.

Umesh lost 12 kg (26 pounds) after 14 days. Since then, more kilos followed and subsequently his weight has been normal and stable. Since the course, he performs 30 minutes of breathing exercises each morning on a daily basis. Apart from the weight loss, his right nostril has opened and he no longer suffers headaches or inflammation of the sinuses.

Just as hibernating bears and other hibernating mammals may lower their resting metabolism and can do without food for an entire winter, the human body may also markedly increase its metabolism – especially when most of our billions of cells acquire optimal conditions and work together in a well-balanced, synchronous system. This is exactly what happens when you adopt the correct breathing and mental exercises because the metabolism of your body, as well as the absorption and uti-

lization of the food we consume is multiplied. This not only occurs when performing the various exercises, but continues for hours because the nervous system and the organs of the body are vitalized and boosted.

By now you have covered quite a few pages and your brain has been working hard, so now it is time for you to activate your body and invite it to join the game. Let us proceed to the practical exercises.



“We learn to do something by doing it.  
There is no other way.”

JOHN HOLT

# Exercises

## Relaxation, concentration and imagery

Fortunately, the art of relaxation is easy to master. The challenge is to remember to do it in a busy and chaotic everyday life. Discovering peaceful moments in which you can take a mental or physical break can change your life immeasurably. If an imbalance exists between your body and your thoughts, neither will function optimally. Combining relaxation, concentration and imagery can help you move towards balance and an optimally functioning body and mind.

One reason anyone can learn to relax and achieve greater focus is that we are all breathing beings. Your breath is always with you, and apart from keeping you alive, it is also the best tool you will ever have to adjust your body and your thoughts. By consciously grasping your physical breath, you can influence your mental processes. When you make your breathing deeper and slower, your thoughts will automatically follow. Therefore, breathe as softly and calmly as possible during these exercises. After a couple of weeks or even a couple of days, you will increase your capacity to relax and concentrate at will, and you can harvest the fruits of your efforts.

An objective of mindfulness and ACT is to get in contact with the present moment, in order to accomplish full awareness to your here-and-now experience and to become open and receptive to what you are doing. With an attentive breathing you will achieve a here-and-now experience because it provides you with a physical anchor point that is connected to your nervous system and mental state.

If you find it challenging to relax and concentrate in the beginning of your training, it is perfectly okay. Often it takes a while for the body and the mind to slow down. Focus on your breathing and let it flow as naturally as possible. Once your body and mind have calmed down it is much easier to concentrate on the specific task at hand.

The amazing part of using this kind of “brain gymnastics” is that the technique is widely applicable and can be used in any possible connection – at work, in the bus, before a meeting or prior to an athletic feat etc. When you master the technique perfectly, a few seconds will be enough for you to relax and concentrate. In other words you will be able

to take a “power rest” that is more effective than any powernap!

### **Are you aware of your senses?**

We perceive the outer world through our five senses. Spend some time reflecting on what type of perceiver you are! Are you the more visually oriented type, who remembers things that you have seen more easily, or are you more of an auditory person who remembers things that you have heard? Think about which favorite relaxing past time activity you indulge in – do you listen to music, do you visit a museum or do you prefer to be physically active? By tuning in on the senses you spontaneously use every day for relaxation, you also create a greater consciousness about the senses that you can activate in your relaxation exercises. The obvious way to become more insightful into your nature is to train and intensify the awareness of all your senses, but begin with the sense that is most natural to you.

### **Create a peaceful environment**

Tranquillity and stillness are extremely important, when you have to “listen” to your body and work with your mind. In time you will learn to relax and concentrate even in a noisy and stressful environment, but start in a peaceful place with the exercises. Make sure that you have plenty of time and create your own “space” where you can work with yourself and your breathing. Take off your watch, turn off your cell phone and prepare yourself for a pleasurable activity. If you are very busy, you can either postpone the exercises or just do one or two of them. Do not hurry through four or five exercises just because you want to get them done. It is anything but productive!

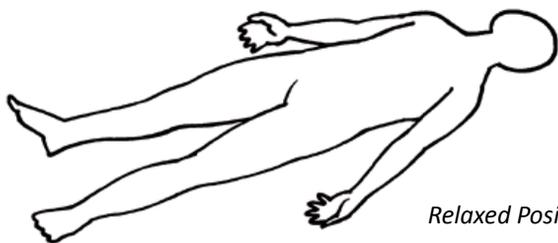
### **The best position in the World**

When you are going to practice relaxation and concentration, lying on your back is perfect. The Earth’s gravity pulls equally on your body which means that the fluids in your body such as blood and lymph do not have to move against or with gravity. This physical balance at once reduces the body’s metabolism because the muscles, and especially the heart,

do not have to work as much and thus peace is mediated to your mind.

Do not lie on something too soft, but use for instance a blanket, a yoga mat or a camping foam mat. The spine has to be relatively straight and follow the floor. If you are very sway-backed, it is helpful to place a little pillow or a rolled up towel under your loin. This may also be necessary with your neck, but remember that it needs to be aligned with your natural posture so that you do not create tension in either your neck or throat. Possibly try pointing your chin slightly down towards your chest. You can also lie on your bed or on the couch – it is up to you to decide whether the surface is hard enough!

When you lie on your back in the *Relaxed Position*, make yourself as slack as possible. Spread your legs a little and let your feet drop to the sides. Likewise position your arms slightly from the body with the palms of your hands turned upwards and fingers slightly bent. Close your eyes, but make sure that you do not fall asleep. However, if you are very tired, go to sleep and postpone the exercises.



When you have finished practicing, you should return slowly to the “real world”. Wiggle your toes and feet a bit, move your fingers and slowly open your eyes, when you are ready to do so. After that carefully roll to your right side and slowly sit up. Rest and smile for a moment before you stand up.

You can easily do the exercises on your own, but it may be beneficial to do them with a partner who can read the exercises aloud (in a calm and pleasant tone) until you are familiar with them.

The exercises below can help you in your work with relaxation, concentration and visualization. As described, exercises may work differently from person to person, so find the exercises that work the best for you.

## **Five exercises for relaxation, greater body awareness and imagery**

### **1) *GRAVITATIONAL FORCE***

Notice how your entire body feels heavy and relaxed. Focus on all the points of contact with the material below you. Your heels, calves, the back of your thighs, buttocks, back, shoulders, forearms, elbows and the back of your head. Notice how your completely relaxed tongue lies in the bottom of your mouth. With a little bit of practice you will be able to sense the skin “sliding to the ground” particularly around your eyes and cheeks. When you become able to release all the tension in your muscles and thoughts and let gravity work on your body, your visceral organs may also feel heavy and relaxed. The word “heavy” does not refer to an unpleasant or a heavy pressure, but to a soft and comfortable pressure or pull.

### **2) *SOUND PICTURE***

Try forming a picture from the sounds that surround you. Listen carefully and you will discover that your ears are capable of hearing sounds that you would not notice in your everyday life. Think about how blind and weak-sighted people have a more finely tuned sense of hearing, making it possible for them to hear when they walk past a tree or an open door. You can also train your ability to hear in this exercise, and you should try to picture as many images as possible. Take your time. If you hear a bird sing then imagine the bird’s colors, its shape, size, where it is sitting and so on. If you hear voices then try to imagine what the people look like, how they are dressed, how many there are etc. The more alive your images become, the more you train your hearing and your ability to visualize. Try to move through the entire sound spectrum and listen to details and words without dwelling on them for too long or relating to their meaning. Listen to the sounds as a “mumble” from which you can create your images.

### **3) *BLUE-RED BODY***

Imagine that your entire body is blue. Completely blue. Now try to imagine that you are changing color. The blue now, gradually and controlled, changes to a deep, clear red color accompanied by a pleasant warm

feeling. Begin with your toes and move slowly up your body – ankles, shin, knees, thighs, hips, loins, stomach, back, chest, shoulders, arms, hands, and finally the neck and head. Be particularly thorough with the lower jaw, tongue, cheeks, eyes, forehead and the top of your head. Feel how the crown relaxes, add a little smile to your lips, and feel how the part of the body you focus on becomes warmer.

#### 4) *ECSTATIC JOY*

Try to remember a very important and emotional event in your life – perhaps a fantastic sports triumph, a final exam or some other great goal that had a special significance to you. It can also be an intense experience like the birth of your first child or a watershed experience in your childhood. It goes without saying that it must be a positive and powerful experience that makes you happy and relaxed. Try to relive the moment as clearly as possible – what was your feeling? Where was your feeling located? Also try to make it clear why this incident made you so happy! The more you practice evoking this feeling, the faster you can do it in situations where it can be of help to you. Thereby you can create your own effective “relaxation remedy”.

#### 5) *PARADISE*

Imagine a beautiful and serene landscape. It might be a magnificent mountain, a forest lake, green, wavy hills or a sunlit ocean. You can also travel back to a place you were fond of in your childhood - for instance the back garden of your parent’s house or at your grandparents or perhaps a pleasant “secret” place. Try to sense all the different smells the place you are imagining had – the long grass with morning dew, the many colorful flowers, the freshness of the clean air in your nostrils, feel the temperature, humidity etc. Likewise imagine all the sounds – trickling water, chirping birds, buzzing insects, wind blowing leaves etc. In time you will be able to train your mind to such an extent that you can enter your own paradise at any time and any place.