

Andreas Michalsen

Healing Through Nutrition –

Eat Better – Fast Easier – Live Longer.

The Latest Findings from Research and Practice

With assistance from Dr. med. Suzann Kirschner-Brouns

Edited by Friedrich-Karl Sandmann

(Original German title: Mit Ernährung heilen

Besser essen – Einfach fasten – Länger leben.

Neuestes Wissen aus Forschung und Praxis.)

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ABOUT THE BOOK

Knowing about nutrition is the key to our health

Andreas Michalsen dedicates his new book to his biggest concern: making us healthier. In his very personal, knowledgeable and convincing style, he guides the reader towards a balanced and improved diet that can prevent illnesses or be directed at healing them. The book contains detailed schedules for regular fasting that are easily implemented into one's daily routine. The author shows that the right diet not only provides the body with stimuli to activate regeneration and self-healing. It's nothing less than the key to a longer life.

What are the essential foodstuffs and their nutrients, and which forms of nutrition – from a Mediterranean diet to a vegetarian or vegan diet – are the healthiest? Which type of fasting – therapeutic fasting, intermediate fasting or intermittent fasting – suits what type of person?

The latest findings from practice and the Charité's own studies are supplemented with further current research findings. Michalsen's new book is enlightening and groundbreaking, easily applied to everybody's life, always following the credo: indulgence instead of abstinence.

PRAISE FOR *HEALING THROUGH THE POWER OF NATURE*

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English edition *The Nature Cure. A Doctor's Guide to the Science of Natural Medicine* to be published by Viking Books in August 2019

»The book *Healing Through the Power of Nature* will give orthodox medical practitioners headaches, because it might motivate many patients to ask for naturopathic treatment.«

—Petra Apfel, *FOCUS ONLINE*

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—Karen Hoffschulte, Carsten Stiftung

»In his book Michalsen delivers sound arguments against the division of medicine and for a modern approach to natural medicine.«

—Ulrike Abel-Wanek, *Pharmazeutische Zeitung* 16/2017

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»Michalsen's work is an important contribution to the establishment of medical naturopathy and its place in medical care as well as therapy.«

—*Naturmed Depesche*

ABOUT THE AUTHORS

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As a publisher, **Friedrich-Karl Sandmann** has been responsible for numerous national and international bestsellers. Since 2016, he has been an editor at Insel Publishing House, where *Healing Through the Power of Nature* by Prof. Dr. Andreas Michalsen was published in 2017, followed by Dr. Hans-Wilhelm Müller-Wohlfahrt's autobiography *Seeing with Your Hands—My Life and My Medicine*.

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by Laura Wagner

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Introduction

I have been Head of the Department of Internal and Complementary Medicine at the Immanuel Hospital and Professor of Clinical Complementary Medicine at the Charité University Medical Centre in Berlin for ten years now—and at this point, nutrition is of greatest importance to me, both at work and for my own family. But it wasn't always like that. Even though I had learned that a healthy diet is part of medicine from my parents and particularly from my father, who was himself a naturopathically oriented physician, I didn't worry about eating fast food, a lot of sweets and about smoking during my time as a medical resident and all those long nights of working shifts in the intensive care unit, in the fire station, or between emergency calls with the ambulance. Vegetables or salads were rarely part of my diet, meals just had to be quick and filling. I got my comeuppance in my early thirties when an occupational medical exam showed that I had elevated blood pressure and significantly elevated levels of blood fat. At the time, my colleague advised me to change my lifestyle. I actually did take that to heart. After all, in my daily work I saw many patients who had suffered from a heart attack or a stroke, both of which were possible consequences of an unhealthy diet or an unhealthy lifestyle. And I saw that what we should actually be researching and imparting on patients was how to use proper nutrition to protect oneself from illnesses early on. I myself adopted a Mediterranean diet, quit smoking—and six months later, my blood pressure, cholesterol values, and triglyceride levels were back to normal.

In the department for internal medicine where I was working at the time, I focused my clinical and scientific research accordingly and developed specific lifestyle programs for patients, enabling them to adopt preventive measures against cardiovascular diseases. Eventually I turned to the field of naturopathy and was surprised to learn the impressive extent of the impact both a change of diet and therapeutic fasting can have on a person's health. Wanting to understand the reasons for their health benefits, I conducted clinical studies to research the effects of fasting and a healthy diet. In 2008, researchers into age and anti-ageing at renowned US-American universities arrived at the conclusion that there is not a single medication and no medical measures that can promise a long and healthy life and that there is only one way: fasting! I got in touch with those scientists and fasting researchers all around the world. I cultivated a fruitful exchange with my colleagues and developed an intensive scientific

preoccupation with the question of how fasting was able to prolong life in such a unique way in laboratory experiments?

When I combined the facts with my experience and my knowledge about healthy nutrition, I realized that fasting and nutrition operate in the same places inside the body, serve the same mechanisms, and fit together like lock and key! Through regular therapeutic fasting, intermittent fasting, and a mainly plant-based diet with few processed foods we can actually prevent most chronic diseases and take purposeful countermeasures. Fasting and eating complement each other perfectly. The impressive findings and the therapeutic successes with thousands of patients in fasting research suggest that the combination of regular fasting and a healthy diet is the best thing we can give to our body.

Therefore, the aim must be return harmony to what, when, and how often we eat and our biological programming, our ancient genes, and our metabolism.

The idea behind this book is give you an understanding of how you can eat better and fast simply and correctly in order to not only improve your quality of life and achieve better health, but possibly even lead a longer life. I would like to draw your attention to a smart and healthy diet, which is crucial for maintaining or restoring your health. I would like to elucidate by taking you on a journey to our origins, our ancient genes that shape us to the present day; I am going to introduce you to the healthiest places on earth inhabited by people who have been following a primal and traditional diet for generations, which enables them to lead a longer, healthy life than people anywhere else; I am going to explain the workings of our metabolism and the location of the immune system as well as the microbiome (the intestinal flora) and am going to demonstrate how important it is for our health and how you can support it with the right diet; I am going to introduce the major nutrient groups and the foods in which they are contained, and am going to explore the many insecurities and misunderstandings that have started to surround them: fats, proteins, and carbohydrates.

In the second part of the book you are going to learn everything that is important for the extensive topic of fasting, the different methods—therapeutic fasting, the fasting mimicking diet, intermittent fasting—and which kind of fasting can help with specific diseases. You are going to learn which type of fasting is best suited for you, how you can correctly manage your days of relief or fasting, and in the practical section of the book you are going to learn how to make a fasting soup. The last chapter contains a summary of my recommendations and the therapies I have developed for the most common diseases that can be influenced by the combination of healthy nutrition and simple fasting in a highly effective manner.

Not only would I like to convince you to engage with your diet and, as a consequence, with your health, I would also like to provide you with the skills to actively manage your health yourself—ultimately, it’s all under your control!

Don’t rely on a medicine that only fights the symptoms and instead deal with the causes yourself. Because: 70 per cent of chronic diseases we suffer from as we get older are partly caused by the wrong diet. The long-term study »Global Burden of Diseases« has shown that the importance of genes and medical care are less important to health than we think, and that nutrition and lifestyle are decisive factors in most chronic diseases. Even Hippocrates, the forefather of medicine, and his school in Ancient Greece centered every therapy around nutrition and *díaita*, healing through lifestyle. Modern medicine, which is costly and focused on drugs, knows about these correlations but attaches no value to them: antihypertensive medications are prescribed for high blood pressure, antidiabetic drugs for diabetes, anti-inflammatory drugs for inflammations, and statins for elevated levels of blood fat. And obesity is more and more often treated with a sleeve gastrectomy.

Counteracting and preventing diseases through nutrition and fasting, on the other hand, doesn’t cost much—and it’s highly effective for your health. Fasting should once more have a permanent place in our lives. After I met fasting researchers and experienced the ethical dimensions of nutrition in India, I decided to adopt a completely vegetarian diet, by the way—for health reasons on one hand, but also because I’m convinced that this is the diet that will ensure our planet’s future.

Nutrition is many things: our physical basis of life, culture, indulgence, but it’s also a matter of habit and in some circumstances it’s an addiction. It can affect so many things in our body and if we know how to use it correctly, it joins the purest forms of medicine and pleasure—and therefore, it’s the best way to lead a long and healthy life.



Andreas Michalsen, MD

Our Evolution, Our Gut, Our Metabolism

Humanity's Success Story and How Our Diet Went Wrong

Re-discovering the natural and healthy rhythm

Up until about 10,000 years ago, our ancestors roamed the landscape as hunters and gatherers without a permanent place of residence. They collected berries, seeds, roots, and mushrooms, hunted rabbits or buffalo. Gathering was more important than hunting, because the fruit, seeds, and insects covered the lion's share of the daily caloric requirement and provided the body with vitamins and minerals. It is assumed that covering the daily food requirement took three to six hours of work. If the area was fertile, people filled their stomachs quicker.

By using fire, man was able to add many parts of plants had been inedible before and thus broadened the diet immensely. Science can't accurately determine the point in time when man learned to light a fire, i.e. to hit two specific stones against each other until there is a spark. But it's likely that even prehistoric humans like *homo erectus* were able to utilize a natural fire caused by lightning about one million years ago. Even back then, people were playing with fire, it seems. By heating plants, in any case, the fibrous components they contained were dissolved and many toxins were destroyed. It seems plausible, therefore, that most foodstuffs were made more digestible by heating them up gently and that this was beneficial to a person's health. And still is today.

Raw Foods

Nutrition experts and naturopaths are having a heated discussion on whether raw foods are healthy, and if so, in what quantity. Fact is that heating as well as chewing and insalivating food relieve the gastro-intestinal tract from a large share of its work. Heating food probably protected people from infections and therefore prevailed throughout evolution. If is doubtful, however, that nowadays we still need to heat up every type of food considering the ideal facilities for storage and cooling that we have. But it's interesting that we need different bacteria in our intestine to digest raw food as opposed to cooked food (see microbiome, p. 31ff.). Where raw foods are concerned, I am of the opinion that everyone should decide for themselves, depending on physical constitution, health, and tolerance. If, for example, the body is weakened due to illness, the digestive tract is usually also affected. In that case, I would advise eating steamed or warmed-up meals rather than raw foods so as to relieve stomach and intestine.

For a long time, it was undisputedly assumed that the consumption of meat was of vital importance for the brain to increase in size and therefore crucial for the next steps of mankind's further development. This was suggested by archeological discoveries in Africa. They showed

that the brain increased in weight just as early man left the African jungle and relocated to steppe-like regions. Where they had mainly been following a plant-based diet before, they now had to change their diet according to their new environment. Now, they also served desert hares or other animals, because the dry regions were lacking fruit-bearing trees and bushes—for a long time, this was the assumption. But then came the realization that this was faulty reasoning: Nowadays, we classify the regions early man migrated to as steppe or even desert. But at the time, they were by no means barren and, in fact, were covered by forest. As a result, the theory of the meat and the brain is no longer all that convincing. We can definitely assume, however, that even though early man was an omnivore, meat was a rarity on the menu.

The diet of that time proved ideal from an evolutionary point of view: It was mainly plant-based and, above all, it was rich in variety. Excavations have shown that the hunters and gatherers of the Stone Age were hardly suffering from malnutrition, were larger in size, and were of better health than their descendants who had become settled. Moreover, *homo sapiens* of the time was highly flexible. If there was a draught in one area, they simply moved on; if one food item became inedible due to a pest infestation, they just ate something else. For this reason, Stone Age man created »the original affluent society,« as they say, because they were doing exceptionally well. Apart from their balanced diet they lived in communities without any major stress factors—insofar as they didn't work to the point of burn-out, at least. In addition, they were in the fresh air all day and got enough exercise.

But this doesn't mean that life wasn't hard enough in many aspects, not to mention the lack of medical care. But once more I would like to draw your attention to the dietary habits of the hunters and gatherers in particular: largely plant-based and diverse. This corresponds to the traditional diets that we can observe in those regions where people reach a particularly old age while remaining healthy (see *Blue Zones*, p. 44ff.) today.

There is another fascinating aspect to this: the natural rhythm food intake followed in the Stone Age. Nature dictated what and when people ate. When you happened upon a bush laden with berries, you filled your belly; when an animal was killed, it was eaten straight away, because there were no freezers yet. Once the area had nothing more to give you moved on, and sometimes you had to manage without food for days. Once the sun went down, there was no more eating anyway, as nighttime meant sleep. After sunrise, there was no breakfast, a muesli, for example, waiting for you. People had to get out of bed first and then procure breakfast. The nearest source of food could be far away at times and hard to reach. Mind you: In summer, nature's pantry was probably better stocked than in barren winter.

Giving your digestive system some rest

Time and again, food intake was interrupted, there were shorter or longer periods of hunger. For tens of thousands of years, people had not much choice in both of these aspects (flexibility and rhythm). That didn't seem to be a problem for our body, either. On the contrary: Today we know that our cells recover and initiate repair mechanisms when our body is denied food for an extended period of time.

But when early men had had enough of their mobility and hunters and gatherers started to dream of becoming farmers, they settled down—with furrow slices, cultivation of the land, farming of livestock, storing facilities for winter, the whole package. That way, they would be able to counter nature's unpredictability and the seasons with a regular rhythm. Questions such as »What are we going to eat?« and »When are we going to eat?« were no longer raised. Even though people were plagued by famine due to crop failures every now and again, and life became more exhausting because they had to toil in the fields and the stables from morning to night, there were now more regular meals than before. Through the systematic cultivation of agricultural crop, however, food diversity was gradually lost. At the same time, people ate more animal protein (meat and dairy products). Not to forget: People became more dependent on their immediate environment.

This process continued until the industrial revolutions once more radically changed our dietary habits in every regard. With the availability of electricity, refrigerators, and fast means of transport, people suddenly had unlimited access to food. Today, most of us have the means to eat and work seven days a week, twenty-four hours a day (24/7, that is) all year round. On first glance this was a victory over the unpredictability of nature; on second glance, however, it posed a big problem for the biology of the human body—a questionable victory, therefore.

Modern progress, especially in the food industry, did not leave a good impression with our genes and cells—if anything, it was a negative one. The ancient program—eating followed by phases of hunger, followed by an intake of food—is still deeply rooted within them. There are a few more recent genetic adaptations and changes in our body, but they are rare. Europeans, for example, have developed the ability to digest cow's milk over the last 10,000 years because of the advent of cattle breeding. The enzyme lactase, which breaks down lactose, enables most of us to drink cow's milk and eat cow's milk cheese without having stomach cramps (also see p. 89f.). When humans first started breeding cattle this could hardly have been the case and would have led to a few sore tummies for most of the settled-down people initially.

Disregarding the needs of our metabolism

Other than that, our digestive system and our metabolism have hardly changed in 100,000 years. It seems that that just wasn't necessary. Over the course of evolution, the human organism has always been smart. It has continually tried to find the royal road to remaining healthy both in periods of hunger and of abundance. As well as it could. That's why our body is still able to optimally deal with the questionable successes in food procurement. Either there is food to eat—or there isn't.

But that's where the problem starts. Our body is completely overwhelmed by the exhaustive changes in the way we live, particularly within the last 200 years. Modern methods of transportation and cooling systems allow for a permanent availability of food from all around the world. At any time of the year. In addition, there are industrially produced foodstuffs with numerous artificial additives that contain too much sugar and way too much salt. Having dishes containing meat every day is another modern achievement our body's ancient metabolic system is unable to handle.

Industrial Foodstuffs

The range of ready-made foods, so-called convenience products, offered by the food industry is growing all the time: frozen foods, canned foods, instant products, products from refrigerated shelves, but also uncooled ready-made dishes, organic convenience products—and the most recent addition: ready-made dishes that are advertised as being vegan. They are meant to save us time and work when we prepare meals. But they also economize on healthy ingredients and instead, many of these products contain numerous harmful additives and flavoring agents, flavor enhancers, and too much fat, sugar, and salt. The infamous »ravioli in a can« was the first convenience product to hit the German market in the 1950s. In 2018, the revenue generated with ready-made foods in Germany amounted to 3.74 billion Euro—the industry is cheering, since, supposedly, there are signs of an upwards trend. This must be stopped! The only healthy meals are those that are freshly prepared and not those that are industrially pre-processed.

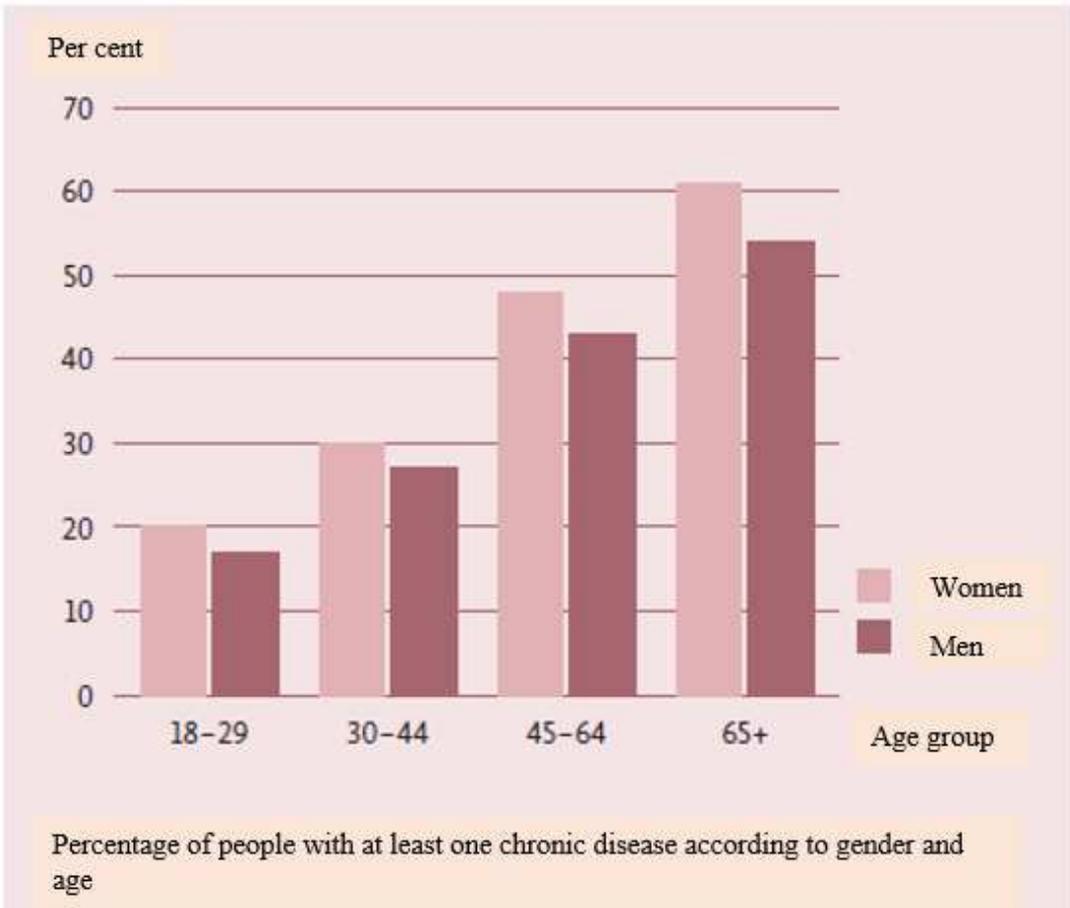
Yet, what is problematic for us humans is not just the excess supply—according to the German Federal Ministry of Food, Agriculture and Consumer Protection, there were roughly 160,000 (!) different foodstuffs on the shelves of the country's supermarkets in 2016—but also the time span during which we eat, or rather don't eat. Of course, it's wonderful that we no longer know famines in this part of the world, but it's dramatic for the body when we immediately appease our desire for food at the slightest sign of appetite. Most of us eat for no reason nowadays, because we can. After all, food is always available in the affluent society in which we live: a little morning snack here, a coffee to go there, a bowl of sweets on the reception desk in the office, a piece of cake in the cafeteria in the afternoon, or a smoothie, because it's supposedly oh so healthy.

The crazy thing is that despite the amount of food available we are not only eating not healthy enough but also not diverse enough. That means: too many carbohydrates, too much animal protein and unhealthy fats, too many additives.

The dramatic increase of chronic diseases

We all see and feel the consequences of this. The cases of obesity and diet-related diseases like hypertension, arthrosis, diabetes, atherosclerosis, renal insufficiency, or back pains have been increasing dramatically for years.

The most common chronic diseases throughout the whole Western world, but increasingly also in Asia and Africa, are: arthrosis, rheumatism, hypertension, diabetes, cardiovascular diseases such as coronary heart disease and stroke, respiratory disorders, and cancer. A study conducted by the Robert Koch Institute has shown that 43 per cent of women and 38 per cent of men in Germany are suffering from at least one chronic disease; with increasing age the frequency of diseases rises. After the age of 65, there is even the possibility of multiple chronic diseases, independent of gender, see the diagram on page 18.



Source: www.rki.de/geda/2014

Diet-related diseases are not a biological fate, however, but only became an epidemic as a result of our changed lifestyle and dietary habits.

Chronic diseases—healing through nutrition

The history of medicine over the last 200 years has undoubtedly shown enormous successes. Through prevention, hygiene, vaccinations, and the effective treatment of infections and injuries we are now able to treat and cure acute and severe diseases. Infant mortality has dropped drastically across the globe, and we're generally living longer and with better medical care. On the other hand, modern medicine is lacking sustainable treatment plans for the epidemic of chronic diseases that are connected to the constant availability of food and the overeating related to that. It seems natural to fight the effects with innovative medications that are being developed in thousands of pharmaceutical laboratories at the moment. But medications are inherently never as perfectly attuned to our body as healthy nutrition and exercise. Physicians and pharmacologists have indeed found ways to stop high cholesterol levels caused by the wrong diet with modern medications. But statins, the group of medications that block cholesterol synthesis, cause the body to search for alternatives to produce cholesterol. Which leads to side effects. Therefore, the benefit does not outweigh these side effects for everyone taking these drugs.

That's not an ideal therapy. A lot can be gained from changing one's diet and exercising regularly, not just for therapeutic reasons in case of hypercholesterolemia but also as a preventive measure (see p. 311ff.).

It would have been healthier for us had we become bad at utilizing food, but evolution let other genes win. It didn't have to compete with refrigerators, its only concern was survival—and in prehistoric times, that meant successful adaptation to an environment that was often unfavorable. There were barren winters or the realization that a date tree only bears fruits every second year—and this required acting smart. And so, the body started to build up fat reserves for bad times as quickly and as effectively as possible. Good utilizers of food, i.e. *homo sapiens* with more meat to their bones that would tide them over times of need, were the winners when it came to procreation. The ability to store sufficient fat reserves was passed on to the following generation accordingly. But since famines have become rare in Western civilization now, our fat reserves don't make a lot of sense; external circumstances hardly require us to use them up. And obesity, along with its sequelae, has long since been on the advance.

If our body was a car, we could simply change the model. Instead of continuing to speed through the landscape in an SUV (and to chase mammoths), we could get into a smaller city

car. But since that is impossible, because evolution has shaped our metabolism hundreds of thousands of years ago, the solution for now lies in changing the fuel. And this does not just pertain to the type, but also the amount of fuel our body requires in the modern age. Less, lighter, and healthier food is the go (and consuming no food at regular intervals), because we're no longer walking around outside for six hours a day. Instead, we're sitting still for eight hours. Changing the fuel, i.e.: our diet, is the only sensible solution.

If we ate healthier (again) and fasted more often (again), chances would be good for us to stay healthy and live a long life.

In Ancient Greece, *díaita* (dietary, but also lifestyle habits) were at the center of every therapy for Hippocrates (460–370 BC), the forefather of medicine. Interestingly, the physician recommended physical exercise and only one large meal within a period of 24 hours for obese patients—which is nothing less than intermittent fasting!

[...]

Fast Easier, Live Longer

Therapeutic Fasting, Fasting Mimicking Diet, Intermittent Fasting

Why fasting is so important for us

70 per cent of all chronic diseases these days are partially caused by a wrong diet. In the Western world, this has nothing to do with malnutrition, let alone undernutrition: it's the excess supply of food that is making us sick. The constant eating.

For millions of years, hunger was a daily companion for our body, surely it was the same for »Lucy,« the skeleton that is roughly 3.2 million years old and was found in Ethiopia in 1974. It must be assumed that our entire system is designed for long periods of non-eating. But modern man practices the opposite. We ingest calories up to ten times a day, because we're not just eating at meal times and keep having snacks throughout the day. But are all those snacks even about pleasure? I have a sneaking suspicion that all they do is increase the profits of the food industry.

Aside from that: Our metabolism is dramatically overwhelmed by the constant intake of food. For decades, there have been discussions about what we eat, yet the questions of when we should ultimately eat and how many times a day have been forgotten in all of that. The

answers to these questions are of utmost importance, for the research of the past two decades shows that all organisms that fast regularly can prolong their lifespan by 20 to 30 per cent. Even though many studies are referring to animals (for now) and final results for humans are pending, the fundamental research is game-changing: Through fasting we can improve all metabolic parameters in our organs and tissues in an impressive way. No drug could achieve this life-prolonging effect!

The benefits of fasting—both therapeutic fasting and intermittent fasting—are obvious: Both are easily implemented, cheap, and very effective in the treatment and prevention of diseases. Moreover, fasting is very agreeable and has a generally positive effect on a person's health and vitality—and, in the long run, even on their weight. And finally, both therapeutic fasting and intermittent fasting miraculously lead to more awareness and pleasure when eating.

Fasting doesn't mean starving

One misconception that people who have never experienced fasting hold and that comes up in critical discussions on the subject is the idea that you should rather enjoy life and food than voluntarily starve yourself and fast. Fasting is by no means adverse to enjoyment, on the contrary. As everywhere in life, diet is also about balance. Both eating *and* fasting contribute to that.

We mustn't confuse fasting with starving oneself. They are somewhat related but ultimately, they are different things. To illustrate this with an example: You could say that there is a similar difference between fasting and starving as there is between liking exercise and taking pleasure in it and running away from a tiger in fear. Fasting is always voluntary, as is also stipulated in its definition by the Medical Association for Therapeutic Fasting and Nutrition. Starving isn't.

Recent studies show that a sensation of hunger isn't felt in the same way by everybody. Usually we eat because it's pleasurable to sit in front of a plate of delicious pasta. Suddenly we realize that we're hungry, maybe it's just an appetite. In American English, this habit is called »mindless eating,« as coined by the US-American researcher of consumer behavior Brian Wansink. In Germany, this psychology of hunger is called »hunger for pleasure« or »hedonistic hunger«.

When do you feel hungry? What does that feel like? Try to observe your feeling of hunger from a bird's eye perspective. In this regard, the effect of fasting can't be appreciated enough: You'll learn to differentiate once more true hunger from appetite and other sensations.

How fasting activates self-healing

Both therapeutic fasting and intermittent fasting are highly effective in prevention and therapy. This means: Fasting can make existing diseases less severe or cure them and it can also prevent many diseases. In therapeutic fasting, this aspiration is already contained within the term itself: fasting can indeed be a therapy. Therapeutic fasting is the type of fasting that has been established the longest. In the past, it was sometimes derided as a »luxury cure« for obese or wealthy people, to »defat« or »purge«, but by now therapeutic fasting has become one of the most important therapies in naturopathy and innovative nutritional medicine. And according to the current state of research it has even more health benefits than intermittent fasting.

A lot of specialized clinics have been successful in using therapeutic fasting mainly to treat rheumatism and chronic pain diseases for years. It's effective in treating diabetes, hypertension, fatty livers, and elevated blood fat levels quickly and distinctly. But it can also significantly alleviate symptoms of food intolerances, irritable bowel syndrome, inflammatory bowel diseases, allergies, and even neurological diseases like multiple sclerosis, and improve the progression of these diseases (see p. 345ff.). At the Immanuel Hospital in Berlin, research is currently conducted on the effects of fasting as a supplementary therapy to chemotherapy in cancer patients.

I'm surprised time and again by how easily patients handle forgoing food considering the status food has in our lives. But on the other hand, everyone probably has had the experience that a heavy meal or overindulgence (keyword: Christmas turkey) results in anything but an energetic and mentally alert state. This state is called food coma or post-meal coma for a reason. And yet, many patients have no trouble with fasting and they often report improved moods or even experience the legendary fasting euphoria. This leads to a very good adherence, meaning a good participation on part of the patients when they fast.

Everyone should try fasting for themselves once. It's worth finding out that you can enjoy life even without regular meals for a certain period of time and that afterwards you'll be eating with much more awareness and therefore much healthier.

How I discovered fasting for myself and for my medical practice

To me, fasting is the most effective therapeutic method in naturopathy, whereby I'm only referring to prolonged therapeutic fasting first and foremost. I'm not alone with this opinion. Physicians using fasting in the past also weren't stingy with superlatives. Gustav Riedlin, a doctor based in Freiburg and a pioneer of therapeutic fasting, called it a »surgery without

knives«. The founder of the most renowned fasting technique in Europe, Otto Buchinger, even called it »the royal road«.

In my youth I experienced my father eating nothing but wheat germs on his weekly fasting days—and he was apparently not missing anything. Fasting was part of his understanding of medicinal naturopathy.

I was taken aback during my medical training. During all that time and the first two years of my residency at the Department of Internal Medicine fasting was never mentioned. That's why I was very surprised when I started my fellowship at the department headed by Malte Bühring, at the time Professor for Naturopathy at the Free University of Berlin, now at the Charité. On the first day of training I noticed that the majority of patients, who were suffering from various chronic diseases such as hypertension, diabetes, rheumatism, or bowel irritations, were prescribed therapeutic fasting for seven to ten days. The most astonishing thing here was that the fasting period seemed to be easily implementable. I didn't see a single patient begging me for normal food or sneaking cake from the hospital cafeteria. It was more like this: After one to two days, when the—admittedly somewhat troubled—initial adjustment was over, fasting seemed to be accompanied by a good mood and an alleviation of symptoms for most patients.

Professor Bühring taught me the wholesome effect of fasting during medical examinations. Us fellows were asked to look at our fasting patients' tongues every day, and it didn't take a lot of expertise to notice some impressive changes. Shockingly thick coating of the tongue, which initially grew heavier, changed colors until a coating-free, beautiful, rosy tongue could usually be observed after a few more days of fasting. The same thing could be observed on the skin and the connective tissue. Usually we saw troubled skin initially, which continuously became cleaner and more delicate after a few days. I could observe the softness of the subcutaneous tissue in the many pain patients in particular. Most people experience back pains that include »tensions« that also affect the connective tissue. I was now able to compare what was happening to the fasting patients day after day: The connective tissue loosened up and became more elastic and that way, many pain syndromes improved through fasting alone. But the most interesting part was the change in people's faces. Professor Bühring called it the »fasting facies«. Indeed: Most patients arrived at admissions with a very tense face—which, considering their symptoms, was understandable. Patients with hypertension or diabetes even presented with puffy faces, fluid retention, dark circles under their eyes, or severe erythema and eczemas. But after only a few days of fasting, these symptoms had disappeared or at least

improved considerably. During our rounds, we quite regularly heard statements like: »My husband says my face looked youthful, relaxed, and joyful again.«

Over the course of my training I also came to know physicians at renowned fasting clinics and the Medical Association for Therapeutic Fasting and Nutrition. I remember my first conference at the Buchinger Wilhelmi Clinic in Überlingen at Lake Constance very well. Fasting doctors were presenting their patients' case histories in quick succession. Physiologists and biochemists explained the mechanisms and doctors from many different countries presented their statistics. I thought to myself, it's crazy that so much medical experience isn't being acknowledged by conventional medicine.

Nutritional medicine in particular was having a tremendously hard time when it came to fasting, which is incomprehensible to me, and talked mainly about risks and yo-yo effects in this context, even though these, unlike the positive effects, had not been scientifically proven. One possible reason for this misjudgment was probably the disappointment that was becoming apparent at the time with any kind of diet when it came to weight loss. Because in the 1970s to 90s there was an endless flood of different and contradictory diets that showed no sustainable successes where weight loss was concerned.

Fasting is the therapeutic supreme discipline

Due to the quick and distinct positive effect on high blood pressure, on blood sugar levels and inflammatory markers as well as the patients' subjective well-being, therapeutic fasting can by all means be regarded as a »new beginning« or »reset«. In addition, there is something called self-efficacy, which is the conviction that one can conquer a difficult situation on one's own. Every person who fasts successfully has proven to themselves how »self-efficient« they are and can rightfully be proud of that. This self-efficacy makes it easier to sustain changes in diet or exercise routine in our challenging daily life in the long run. »There we go!«

About 1,000 of the 1,500 in-patients fast as part of their medical therapy in our Department of Internal and Complementary Medicine at the Immanuel Hospital Berlin every year. In medicine, there is often the possibility of substituting treatment methods or medications with others that are similarly effective. As a doctor, I wouldn't want to miss fasting—it is indeed a therapeutic supreme discipline.

In one of my first studies on fasting I conducted during my time at the Hospitals of Essen-Mitte I compared the dietary and lifestyle habits of roughly 1,800 patients. One group underwent therapeutic fasting for an average of seven days during their in-patient stay, the other received a normal caloric diet. And in fact, there was a clear difference to the patients that had

had normal food even six months after the study: The patients that had fasted ate healthier and exercised more.

A little while ago, a patient described this effect of fasting very succinctly in a letter I received a few weeks after he was discharged: »In May, I spent some time in the Department for Complementary Medicine at the Immanuel Hospital for pain treatment and therapeutic fasting and I consider this experience of therapeutic fasting as a momentous, positive event in my life. Apart from weight loss, improvement of blood values, and pain relief, all my senses became *heightened* and I now perceive the taste of many dishes, the smell and sound of nature as a completely changed positive experience.«

It's astonishing that fasting almost passed into oblivion in the 20th century. The war was followed by a period of excessive eating in Europe and the USA, those were called the »years of plenty«. But it was only in the last 20 years that the daily, longer periods of non-eating were replaced by constant snacking, smoothies, chocolate bars, and pastries. In the 1970s, the typical American was still eating three meals a day without any snacks in between. This was proven by the data of the NHANES (National Health and Nutrition Examination Survey) study. In these parts, we were still told, at least when visiting the grandparents: »Meals are eaten at the table.« Or: »Don't spoil your appetite for supper.« It was completely normal to not eat anything for hours during the day.

This has changed. Today, the typical daily food intake of many people looks something like this: We eat breakfast, often something like toast with marmalade or honey, or croissants, and have sweetened coffee. At 10 or 11 o'clock there is a pre-lunch snack, a little later there is lunch, which isn't necessarily healthy, especially when it's eaten at a cafeteria. Around 3 p.m. we feel a little appetite and usually we quench it with something sweet. Then we have dinner and during the evening spent in front of the TV we like to nibble on chips or chocolate. All in all, we get to about six to seven meals a day, not counting the coffee to go and alcoholic or sweet drinks.

A study conducted by Satchidananda Panda, the renowned researcher of intermittent fasting, at the Salk Institute, USA, proves that nowadays, Americans have seven to nine meals a day on average. Which means that many people eat for 16 to 18 hours and only fast during the night. Panda calls this »erratic eating habits«. Constant eating is indeed a symptom of modernity, because our ancestors surely didn't go to a well-stocked fridge at 7 a.m. and emptied the last bag of chips around 10 p.m. It's not at all surprising that obesity, diabetes, hypertension, and bowel troubles have become such an enormous problem all over the world.

[...]

My Therapy for Hypertension

Around 25 million people in Germany suffer from hypertension. This is such an incredibly high number that one could be tempted to ask: Who *doesn't* have high blood pressure? The reasons for this are known: On the one hand, the medical limits have been lowered gradually in recent years and on the other hand our modern lifestyle facilitates this disease. We sit for too long, move too little, experience too much stress, and above all we eat too much and our diet is too unhealthy. Hypertension is downright inevitable, considering.

On my short trip to the *Blue Zones* I mentioned studies from Uganda and Kenia which suggest, as does current research into Amazonian peoples, that people *don't* suffer from hypertension even in old age if their living conditions are »natural,« if they get enough exercise and follow a traditionally healthy diet, that is.

A large-scale study conducted in France analyzed which risks determine whether a someone will suffer from hypertension. The risk is heightened by 17 to 30 per cent if a person's diet is rich in salt, meat, and animal protein. It is lowered by 15 to 30 per cent if the diet mainly contains fruit, vegetables, vegetable protein, nuts, whole meal products, as well as fibers containing potassium and magnesium.

It is possible to give up medication

There is a great number of good medications that are used successfully in treating hypertension. But for a lot of patients they no longer have an effect, the patients are »resistant to treatment«. Or the side effects are intolerable. Innovative and elaborate methods, on the other hand, interfere with the body. Nerves in the renal arteries that cause a »chronic stress« and thereby lead to high blood pressure can be clipped with the use of a catheter, for example.

I would like to wholeheartedly recommend you exhaust all possibilities of dietary change before submitting to such a procedure.

In general, it's very important to consume a lot of potassium and little sodium, i.e. salt, if you suffer from high blood pressure. Almost all plants are high in potassium. Our ancestors probably ate two or three times as much potassium contained in vegetables, fruit, nuts, and seeds than we do today. Instead, we are world champions when it comes to using salt, the adversary. Nowadays, salt is added to almost any foodstuff. That's anything but healthy.

By the way: it's a myth that bananas contain a lot of potassium. You would have to eat more than ten bananas a day to meet the minimum daily potassium requirement. Leafy greens, sweet potatoes, legumes, and nuts are good sources of potassium.

My Dietary Recommendations for Hypertension

- **Low in salt:** If you suffer from hypertension, try to refrain from using salt for a few months. Observe your blood pressure during that time. The major sources of salt are bread, cheese, sausages, French fries, and industrially processed foods containing meat, poultry, or fish as well as convenience products. One of the products containing the most salt is pizza, and of course chips, crackers & Co. Instead, eat unsalted peanuts.

You can break the habit of eating dishes that are rich in salt. Often, it's just a dulled sense of taste that demands more salt. One of the great effects of therapeutic fasting is that you'll be able to properly taste food afterwards—your sense of taste has been re-adjusted.

Try to not use any salt when cooking, experiment with spices instead. The dishes may taste bland—I would say: different— at first, but after a while you'll be thinking that the chef put too much salt in your dish when you go to a restaurant...

- **No meat:** A vegetarian, ideally: a vegan, diet is the ideal basis for lowering your blood pressure in the long term. A Mediterranean diet also lowers heightened blood pressure, as does the DASH-Diet (see p. 351).
- **Whole meal products:** According to a study, three portions of whole meal bread a day lower the blood pressure just as much as modern blood pressure medication.

What To Do If Your Blood Pressure Stays High

- Don't drink alcohol, it significantly raises your blood pressure.
- Superfoods (Their antihypertensive effect has been proven in many scientific studies.)
- Flaxseed and flaxseed oil (25 to 30 grams a day)
- Walnuts and unsalted pistachios (a handful a day)
- Hibiscus tea or green tea (two to three cups a day)
- Non-alcoholic red wine (occasionally)
- Beetroot juice (0.25 to 0.5 liters a day)
- Vegetables high in nitrate such as spinach, arugula, Swiss chard (one portion a day)
- Olive oil (daily)
- Dark chocolate (10 grams a day)
- Fruits like pomegranate or blueberries (a handful a day), can be frozen
- soy products such as tofu, tempeh, or soy milk (one to two portions a day)

Important: Observe your blood pressure when you change your diet. Blood pressure medication can usually be reduced after a relatively short time. But only change your medication after consulting your doctor, never on your own.

Healing Hypertension with Fasting

To prevent, treat, and cure hypertension I recommend:

Therapeutic fasting

Undergoing therapeutic fasting for at least seven days at a time is generally highly effective in lowering blood pressure. This is due to a combination of intensified secretion of antihypertensive hormones, refraining from salt and fats, as well as changes to the microbiome as a result of giving the bowel some relief.

The maximum antihypertensive effect of a fasting cure is achieved after 14 days. If you are on antihypertensive medication, it is imperative for your doctor to adjust the dosage. Once you have finished fasting, the blood pressure usually increases slightly, but the levels mainly stay lower than before fasting. Therefore, therapeutic fasting is a great opportunity to strive for a sustainably lowered blood pressure supported by intermittent fasting and a healthy diet. The Fasting Mimicking Diet (see p. 208ff.) is also a good way to lower your blood pressure.

Intermittent fasting

For many people intermittent fasting leads to lower blood pressure if it is accompanied by long-term weight loss.

Rice days

With normal caloric intake or rice relief days with a reduced number of calories, partial fasting can achieve a noticeable antihypertensive effect. Relief days are easy to integrate into your daily routine, for example by fitting them in once a week or just before or after the weekend.