Where are we from?

For us 'the modern' man who races through life 1000 years seems like a very long time, but for the development of our body and mind it is yesterday. Changes and adjustments are going very slowly and that is a good thing. I would not like to get up in the morning and discover that I got suction cups on my fingers. As a result, there are still many mechanisms in our body that have their origins thousands of years ago and that still apply.

Wisdom teeth, like excessive body hair or membranes between the toes, are all rudimentary (useless) remains of evolution. The fight and flight mechanism of our body still works according to ancient rules and we sometimes have problems with that now.

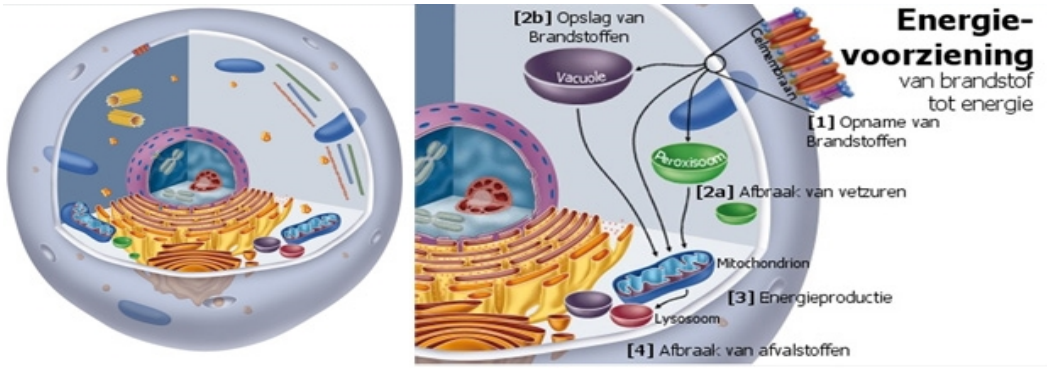
We all know that our bodies consist of cells, fifty trillion cells. Cells that work together and thus shape our bodies, but why do they actually do that? For that we have to go back 3 billion years to 'LUCA' our common ancestor. All life on earth originated from LUCA. That is why everything that lives has the same main purpose, survival and reproduction. First LUCA tried this alone, maximum result for itself. However, the living environment was so hostile that cooperation proved necessary. Once the step to successful collaboration was made, there was no turning back and this resulted in increasingly complex organisms. Until finally everything that lives now and us humans.

This development is clearly reflected in our current brain. We have the brain stem (reptile brain), small brain (emotional) and big brain (rational). If the situation becomes threatening, we will respond with our reptile brain. This still has as a result that our body is getting ready to flee or fight within seconds.

Our body responds to what we experience as a threat and cannot distinguish between a life threat such as it used to exist and a tax assessment or dismissal. It is our rational brain that suppresses emotions and inhibits our physical response. However, this has consequences. The energy that has built up at lightning speed finds no way out and causes tensions in our body. Tensions that, when that happens too often, have consequences for our health and well-being.

How smart are our cells

Back to our cells. We consist of 60% water, women slightly less 55% due to the difference in muscle mass. Most of it is in our cells, lung cells are 90% wettest and teeth and bones are 10 to 20% driest.
The cells need food and oxygen to survive and do their job.
They receive that through the body fluid in which they float.
Through the same body fluid, they also receive chemical messages about what is expected of them.
These messages come from nerve and endocrine cells.
Which in turn are driven by our brains.



Our cells are therefore complete factories that are able to receive orders and, on the basis of that, to manufacture and deliver products. Quite smart, because they listen to the assignments of our brains and adapt. This of course does not mean that they can change type, a tissue cell remains a tissue cell and does not suddenly become a muscle cell. A bicycle factory cannot change into a car factory, after all.

Mapping our body

There are more than 100 different types of cells, but we can divide them into 7 main groups. Cells of the same kind together form the tissue that makes up our organs. The organs together have a specific task form organ systems. And these organ systems work together into an organism, the human being. In order not to fall into an abstract treatment of the different organ systems we will explain the functioning of our body on the basis of the Netherlands. The Netherlands is a complex society of individuals who have organized themselves into a multitude of functions / systems. These can be small units such as a family / household, somewhat larger a company and even larger a city or province. All these units have certain functions in this society to guarantee and protect the survival of the Netherlands, and therefore of itself.

Above you see the Netherlands with the most important organ systems. You can see the territory of the Netherlands as the tissue (which makes up all organs) with underneath the layers of the earth (bones and muscles) that provide structure and firmness. The border as the skin that covers everything.

The red lines are the highways (large blood vessels), these highways branch out to smaller and smaller roads up to the street where you live. This is exactly how our blood vessels from large to capillaries work towards the cells.

The green lines are the nerve bundles and just like with the blood vessels you have large nerve bundles that branch into smaller cells up to the cells.

The parts viewed separately

Our Heart

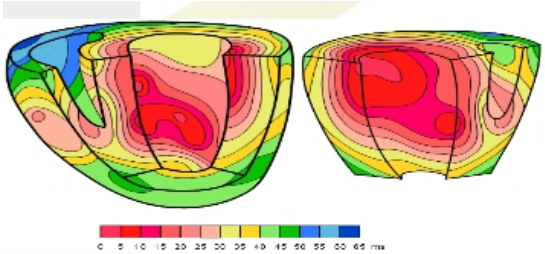
As we all know, our hearts pump blood around our body. You have approximately 5.6 liters of blood in your body. The amount also depends on your weight, the more tissue the more blood is needed. For women this is 10 to 20% less than for men of the same weight. About 8000 liters of blood are pumped around every day. The heart beats about 100,000 times a day, that's 40 million times a year! Our heart is so powerful that when you connect it to a garden hose it could spray up to 2 meters high.

Our heart is pretty busy and vital because if it stops ... Reason enough to keep an eye on it. This is done by the nerve cells in our heart. Our heart has its own brain! More information goes from the heart to our brains than the other way around. Our heart thinks along with us ...

If we move more but also if we experience emotions or are very busy in our head, the heart ensures that enough blood is pumped around so that the enough nutrients and oxygen are available for the active organ systems.

But the heart rhythm is also important because this reflects our emotions. A slow heartbeat gives peace and a fast one causes unrest. But with this simple representation we do the heart too short, it is as if we only name the colors black and white and omit all other colors. Those 'other' colors come about because of the variation in time between the different heartbeats, which is not the same!

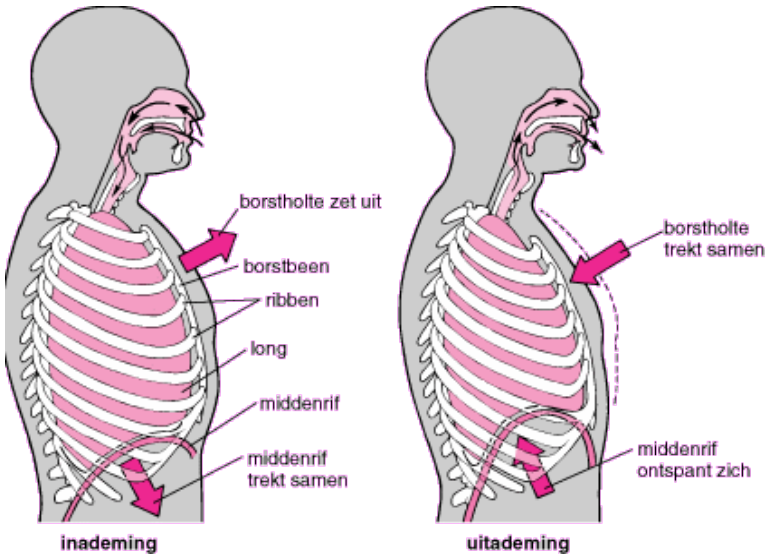
Listen to your heart with a stethoscope.



The lungs

The air we breathe contains 20% oxygen and 80% nitrogen. The lungs extract the oxygen from the air and link it to the red blood cells in our blood.
With each exhalation we blow carbon dioxide out again. This is because our cells use the oxygen in the burning of nutrients into building materials and energy. We usually breathe through our noses and that is a good thing because it warns us about unhealthy air, filters bacteria and also heats the air.

We breathe on average 25,000 times a day. We breathe in at rest between 12 and 16 times per minute and each time a quantity of +/- 0.7 liter. The amount we breathe in depends to a large extent on our height, the longer we are the larger our lungs. Women have smaller lungs than men.

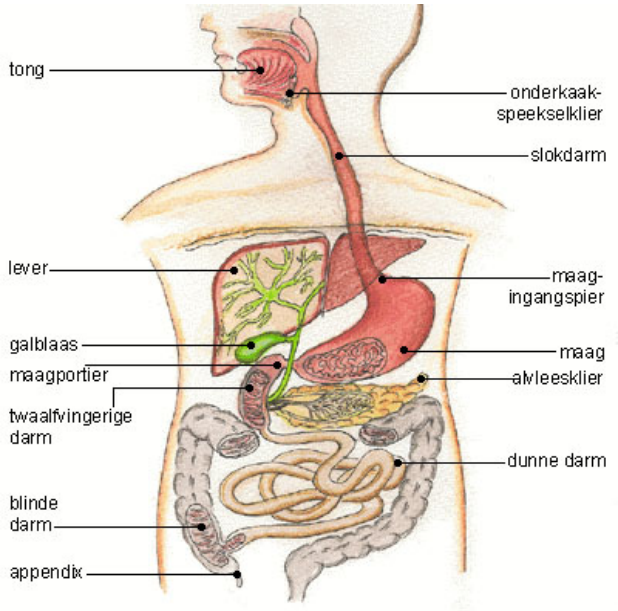


By default, about 1 liter of air remains in our lungs, this becomes more as we get older. When we breathe extra deep, we can breathe in another 3 liters and squeeze out an extra 1 liter when we exhale. Our total lung capacity then comes to around 5.7 liters. But we rarely use it.
More important is the amount that you can exhale in one go after inhalation.

Poor posture impedes proper breathing tense abdominal muscles oppressive diaphragm shoulders lowered, tightening abdominal and chest cavities As a result, the breathing shifts upwards, so that the relaxing and healthy nature of good inhalation and exhalation is lost. Inhalation is recharging and energizing and increases tension factor. Exhalation is liberating and releases energy and reduces stress factor. Based on a good condition and normal circumstances, a person can live for a maximum of 4 to 5 days without water and 6 weeks without food. But after 3 minutes without breathing, brain cells already die, after 5 to 6 minutes it is the end of exercise. This can be considerably extended when you put someone in ice, especially the head, neck and chest. Then the metabolism decreases and the cells can live longer without oxygen.

Digestive organs

Our digestive system includes a big range of organs, we limit ourselves to the three main organs that are responsible for converting nutrient energy and building materials. The stomach, small intestine and the liver.



The Stomach
is actually a bag, 60 centimeters long, made of strong muscles and filled with an extremely aggressive stomach juice. This consists mainly of hydrochloric acid and digestive enzymes. Here the food is cracked and made accessible to the enzymes. Also intruders such as bacteria made harmless.

A hot meal spends an average of 3 hours in the stomach, if a lot of fat takes longer, and is transported in small quantities to the small intestine. The signal from me is full, stomach stretches, depends on a number of factors.

- Solid food faster than liquids
- Energy content the higher, fatty food, chocolate, the faster full
- Tasty food and eating without attention suppress the signal full
- If the food is limited we also eat more

When we eat much or very fat over a longer period of time the nerves that are connected to the fysical strech of the stomach will get damaged causing the signal to go full or not much later. This damage is not being repaired!

Thin Bowel
Is a long tube made of muscles with a pleated mucous membrane and surrounded by brain cells. The muscles take care of the transport of the nutrient mass and the mucous membrane removes all useful substances and passes them on to the blood. The total length is approximately 5 meters, of which the first 2 meters processes 80%.

Our intestines are inhabited by bacteria, our intestinal flora, which are responsible for breaking down / converting the nutrient mass into useful substances (fats, carbohydrates (sugars), proteins, vitamins and minerals) for our body. The intestinal flora is different for every person. How much else depends on what you eat. So with a Bushman in Australia this is completely different than with us Dutch. That is why, in the first instance, we also get sick from what the Bushman can eat without any problems. After a period of habituation / adjustment, we too can live well from that food.

Our small intestine is also part of our immune system, when the small intestine does not function properly, we get sick faster. The brain cells therefore inform our brains about the condition and needs of the small intestine so that an optimal collaboration can take place.

The Liver
Is a large and important organ. The liver is located in the upper right corner of the abdominal cavity, next to the stomach. Nutrients that are released during digestion are transported with blood to the liver. The liver is our small "chemical plant". Nutrients are processed here and converted into building materials or into energy. The liver also has a detoxifying effect. Harmful substances that enter our body are made harmless by the liver and removed with urine or faeces. In addition, the liver produces bile fluid (bile), which is necessary for proper digestion of fats. The liver is a special organ; it has a large recovery capacity and a large spare capacity. For example, if part of the liver is removed, the remaining part can grow back and grow into a fully-fledged liver.
Five steps for a healthy digestive system (all with moderation and attention)

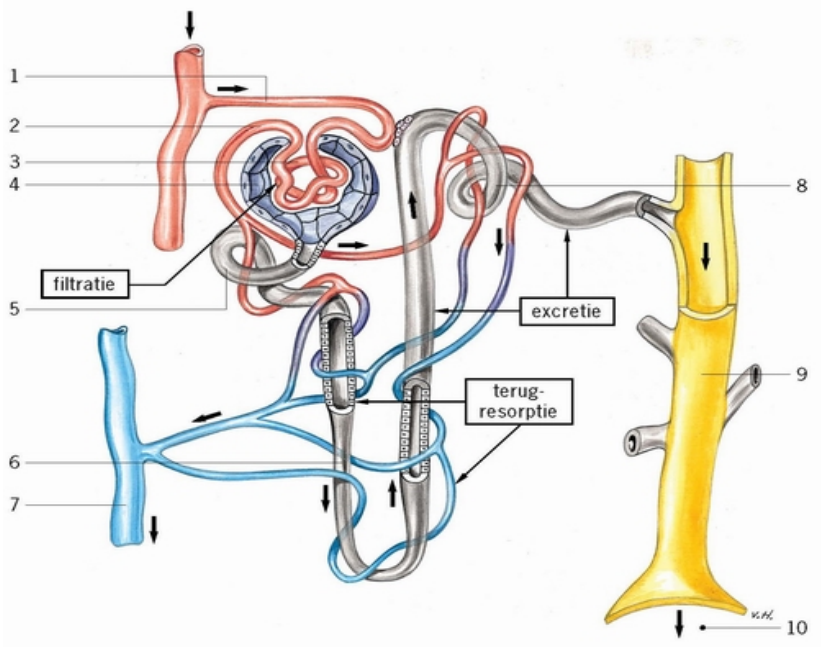
- Fats (20% saturated and 80% unsaturated) and Salt
- Minimal possible chemical additives (80% not needed in supermarkets)
- Chew food well and take the time for a meal
- Drink lukewarm water, so eat one-sided regularly the same food at a time
- Match your diet to your lifestyle. Construction worker eats differently than bus driver
- Eat products from your own climate that provide the right energy
- Occasionally enjoying unhealthy food is good.

The digestive system of a mouse is 99% similar to that of humans. Why don't those mice get sick more often because they don't eat according to the five-slice?

The kidneys
purify our blood, they regulate the moisture-salt balance of our body, support blood pressure regulation and activate vitamin D for bone metabolism. Together with the bone marrow, the kidneys produce red blood cells that are required for the transport of oxygen in our blood. 60 liters of blood flow through our kidneys every hour. We can't live without kidneys.

When we drink a lot, the kidney ensures that it is drained too much. Nowadays drinking a lot of water is important. Certainly drinking water is good, but when we drink too much, minerals and other substances that we need are also washed away. When your urine is pale yellow and odorless, you drink enough. If your urine is dark yellow or smells, you will not drink enough. Easy to check.

Reproductive organ
Everything that lives wants to reproduce, this is a built-in mechanism to guarantee the survival of the species. Since our parents have come to reproduction and their parents for that



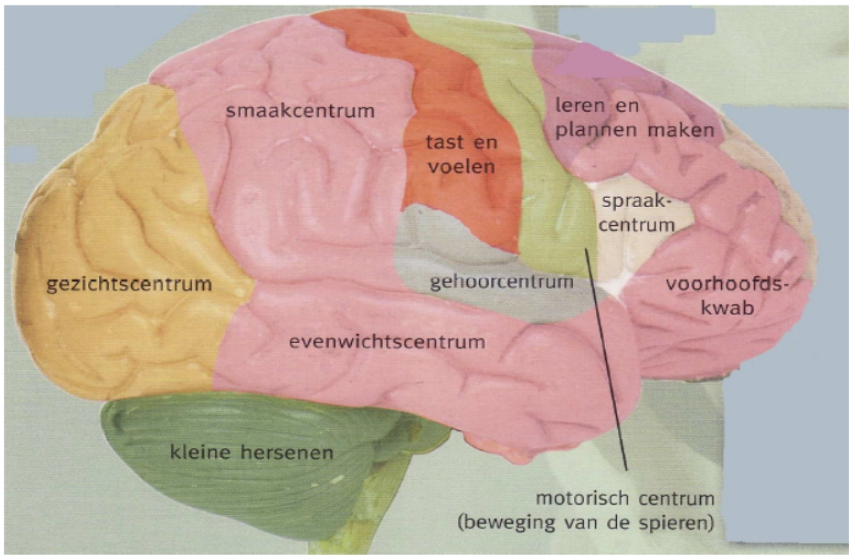
they apparently have qualities that have made that possible. Thanks to their DNA, we have a great potential of innate characteristics and skills that help us survive. Whether and which skills are developed depends on the environment in which we grow up, the opportunities that life presents us and that we use.

The human mortuary race has relatively much sex, much more than necessary to guarantee the survival of our breed. This is probably because raising children is a demanding business where the woman wants to be assured of the undivided dedication of the man with whom she had the child. Sex, in the past much more than now, was a way to more or less enforce this. If the man provided a lot of food and safety, it was rewarded.

This basic principle still works. Outside of our DNA there are of course more factors that influence our health.

Brain and nervous system

The brain controls our body through the nervous system. We can divide this management into a random (conscious) and involuntary (unconscious).



We can consciously control random things such as walking, jumping, talking, eating, etc.
The involuntary controls all body processes that take place continuously based on necessities of life and experiences. Both are connected to each other via the brain and influence each other mutually.

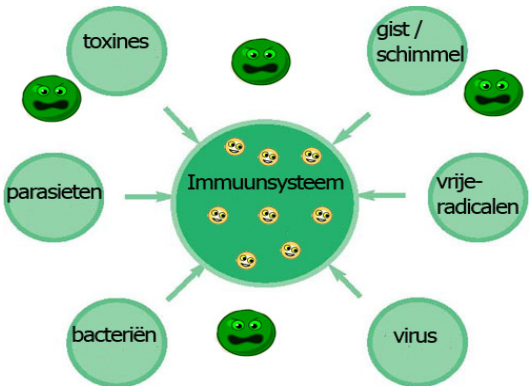
We can divide the involuntary nervous system again into the sympathetic (action) and parasympathetic (resting) part. There must be a healthy balance between the two, after action (physically but also mentally) we must rest / recover. Unfortunately this does not happen, or not enough, in our current society, which creates an imbalance that can have far-reaching consequences for our body.

Based on our senses and thoughts, patterns arise in the brain that lead to certain actions. As these patterns occur more often, they are optimized and recorded so that they can be executed quickly and efficiently. The result is that we do not have to focus our conscious attention, or much less.
This is not limited to the brain, but also the nerve pathways to the relevant body parts recognize these fixed patterns and perform them directly without or with minimal feedback as to whether everything is going well. The brain makes no distinction here between good and bad patterns (habits).

We are the only animal species, as far as we know, aware of ourselves and make conscious choices. At least we think so. But behind our consciousness lies a much larger subconscious mind in which everything we have experienced is neatly stored. Based on all that information (worldview), the subconscious mind considers what the best reaction / choice is needed to cope with the situation. Sometimes this is a single choice but often there are more. These 'pre-cooked' choices are then passed on to our consciousness and then allowed to make a choice.
All other options have been filtered out by our subconscious mind if not applicable.

Immune system

Our body is always fighting with invaders (bacteria, viruses) to prevent disease. This works 95% of the time, so in the other cases we get sick. To be able to do this effectively, our body has a complete pharmacy of antibodies that can be used for this purpose. We received a lot of the antibodies from our parents. Others build up when we have had the disease, to a greater or lesser extent. This means that our immune system learns through experience. You gain experience by 'practicing' and trying out solutions.



Medical health care has made enormous progress over the last 50 years. This combined with no time to be sick and a high level of hygiene ensures that we hardly give our immune system the chance to gain experience. That may not sound like a problem, but it is because more and more bacteria are becoming resistant to antibiotics. And since our immune system has not been able to practice finding a solution, we are left empty-handed and we become seriously ill or die if healthcare fails.

In addition, many drugs have all kinds of side effects that, in time, can cause other problems. This is because every person is unique and they still want to solve the disease for everyone with the same medicine. Addiction also plays a major role, the body shows symptoms of the disease to get the medicine again.

Our body is extremely resilient if we offer it the chance. The immune system and self-healing may now be on the back burner, but with a little help and confidence that will be all right again.

Everything costs energy, from running to thinking and worrying. Energy is just like money, you can only spend it once. Spend it wisely!

Blood vessels and blood

All the aforementioned organ systems and functions can do their job because the blood provides them with the necessary oxygen and nutrients. The red lines on the map of the Netherlands represent the main arteries. These branch out further and further into the capillaries that eventually bring the oxygen and nutrients to the cells.

We distinguish the large and small blood circulation. The large blood circulation regulates the transport of oxygen / carbon dioxide, hormones and nutrients to the organs. The small circulatory system the exchange of oxygen and carbon dioxide.

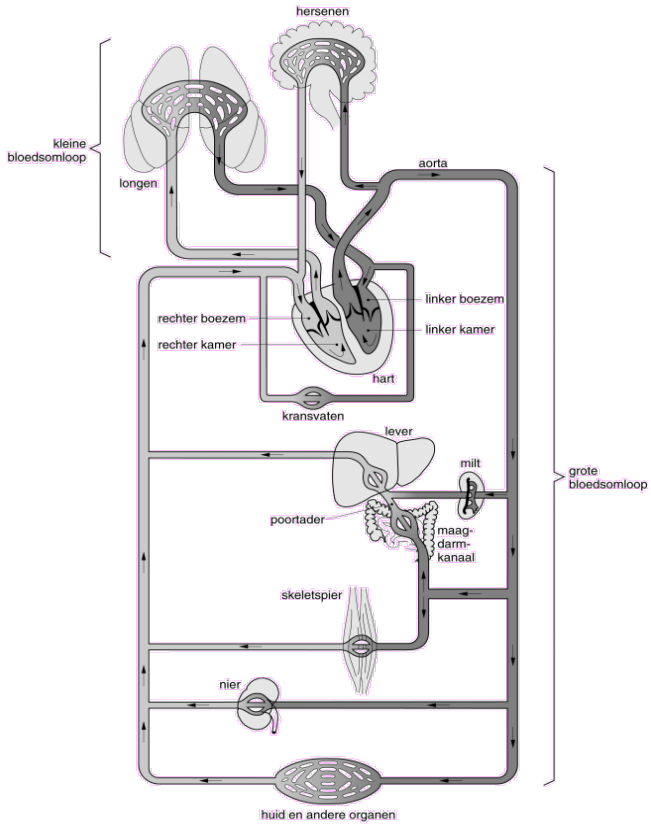
The blood goes from our heart to the arteries, small battle address to the capillaries. The arteries are sturdy tubes suitable for rapid blood transport. The small arteries regulate by contracting or relaxing they reduce / increase the flow to our organs. The blood flows more slowly as it enters smaller vessels. In the capillaries, it is slow to allow the exchange of substances with the cells. Together with our muscles, the blood vessels support the flow of blood into the vessels, the muscle pump.

We can distinguish four groups.

1. Red blood cells Take care of the transport of oxygen (in) and carbon dioxide (out)
2. White blood cells Protect our bodies against infections, bacteria and foreign substances.
3. Platelets Repairing blood vessel system by closing holes
4. Blood plasma Consists of water, proteins, mineral salts, enzymes and hormones. It makes transportation of all nutrients and wastes possible

In addition to transport, the blood provides for communication between all organs by means of hormones. It controls your body temperature by transferring the heat from the center of your body to your skin so that it can disappear through the skin. We have an average of 5 liters of blood in our veins.

Our blood pressure is measured by baroreceptors that are spread throughout our body, but especially around the heart. They measure the systolic (upper pressure) and diastolic (negative pressure) indicated by 120/80. Through the subtle contraction or relaxation of blood vessels in organs, there is constant communication with the heart to determine / maintain correct blood pressure.
This is so complex that medical-scientific often cannot state the reason why someone has 'too' high blood pressure.



Meridians

This is a part that Western medical science does not (yet) recognize. Acupuncture is however accepted in some hospitals because it has proven its usefulness. It is a system of energy pathways, shown here in green, that supports the functioning of our body at the cellular level.

The life energy flows through the meridians, which together with the DNA is responsible for the development, growth and programming of our cells. This life energy comprises all development (evolution) from the past and has a strong interaction with our environment. DNA changes are driven by this life energy.

How does it all work together

We will clarify the functioning of our body on the basis of society in the Netherlands. The family with its housekeeping is the cornerstone of our society and can easily be compared with a body cell.

The border of the Netherlands corresponds to the house of our body. We guard our borders with Customs, Army and Police. All Dutch people have a passport which shows that they are one of us. Cells do that on the basis of DNA and have this carried out by the immune system and defense mechanism. People who don't have a passport have to get out again. In this way we ensure that what we have built up in the Netherlands benefits the Netherlands and ourselves. In this way we ensure a certain level of prosperity, in our body this is called Homeostasis.

That is not a simple task and every Dutch person contributes by fulfilling a specific function / job. Since this involves millions of people, this requires coordination and communication. Our government (Brain) has its seat in The Hague, which outlines the main lines that are then implemented by the Provinces (Nerve tissue) and Municipality (Nerve / Organs). In The Hague, a number of options are selected from a whole range of options (subconscious) and presented to the Provinces and Municipality (Consciousness), who in turn explain this to their residents (cells). This is usually about the usual communication channels. But it often happens that situations / threats occur, caused by external factors outside the national border or by residents themselves, who do not walk through the usual roads (emotions). Then the Netherlands starts a small or large-scale stress response, crisis teams, the police and in the extreme case the army (immune system / self-healing capacity) are encouraged to take action. These teams mobilize many people and resources (adrenaline) to master the situation. Such actions sometimes leave a lasting impression in the affected area, causing that part to react somewhat cramped (Tension in tissue).

The deployment of these teams and resources entails additional costs. If this happens too often or even becomes structural, this will be at the expense of the local budget and resources. This reduces local enforcement and coordination, resulting in more crime, traffic problems, social problems, etc. (Chronic diseases)

In this way all kinds of complaints arise of which we ourselves often do not know where it comes from and our body looks a lot like the Netherlands. But even if we look at the Dutch people themselves, we can discover many similarities with body cells.

Household	Body Cell
– house with family members	– cell wall with active cell nucleus
– oxygen, food and waste	– oxygen, food and waste
– knowledge, skills and work	– specialization in function or tissue
– Intelligent, makes decisions	– Intelligent, makes decisions
– reproduction	– Cell division
– part larger whole	– part larger whole
– protect and survive	– protect and survive

But the way we live and behave is very similar.

We do our shopping at the store and have to leave the house.
Our body's cell is much better at it because it is offered at the front door (cell membrane) and the cell extracts from it what it needs to be able to perform its task. When there is a shortage of products that we need, we will start stocking them up. This makes it fuller in our house and also show frugal behavior to do as long as possible with it. When this happens with more and more products, we also start to function worse. When the products become available again in the supermarket we will immediately buy them again, but will remain economical until we are sure that the shortages are over. It works just like that with body cells.

The discharge of our waste materials goes completely the same, we put it outside the door / cell membrane and it is removed. If this does not happen properly, hygiene problems and illnesses arise. This is also the case with our body cells.

When the population of the Netherlands increases, so more cells, it becomes busier in the Netherlands (tissue) and on the roads (blood vessels). The result is that cities (Organs) become larger / busier and traffic (Transport) on the roads increases. This increases the chance of mutual irritations (pain complaints) and the roads (blood vessels) close and the supply and removal of nutrients and waste is not done properly or insufficiently. There are also more accidents (defects / mutation cells).

When it gets colder we switch on the heater (cells are going to produce more energy) to get a pleasant temperature (20 - 23 degrees), because then we function best. Body cells function best around 37 degrees. Because cells produce energy, our body is heated, if it gets too hot, we sweat to cool down more. Everything costs energy so it is best to have a stable constant temperature.

The Government in charge of the Netherlands. This entails both rights and obligations. The Netherlands is an independent country with a Government that listens to the wishes and complaints of the population and is responsible for defending the country against intruders. With our brains and self-conscious we are also responsible for our body. We are meant to listen to what the body tells us. Pain complaints and irritations do not arise to bully you, but tell you that something is wrong. It is up to you to listen and take timely action.
A population that feels heard supports its Government in prosperity and adversity.

Every body is unique

No person / body is the same, even just after our birth. An exception to this are identical twins, which are identical immediately after birth. The DNA of our parents is responsible for this. The fact that all our children do not resemble each other 100% is due to the Dominance of Genes, which depends on the chance. That is why certain characteristics are given to one child and not to another. This only needs to be very little. In humans and monkeys, 95% of the DNA matches and the differences are clearly visible.

For a long time, science had thought that the DNA was a given and would not change during our lifetime. However, this is now not true. Depending on the circumstances in which we grow up, small changes occur in the DNA. Research with identical twins has shown this.

So everything that we experience in our lives not only forms our mental worldview but also influences our physical body. Depending on the duration and / or impact of course. Small bumps have no consequences, but traumatic experiences can. But not only traumatic experiences but all long-lasting experiences can result in this. Repetition and felt necessity are crucial here. The more often and more intensively we perform / experience an activity or thought process, the greater the chance that our bodies will adapt to support that process as well as possible.

You get what you expect. With negative things we believe that right away but with positive things it works just like that. In this way we can actually prevent or cure all diseases whose cause does not come from outside. But we have forgotten this because society does not give us time to heal ourselves and medical science has a pill or salve for many things. A pity, because side effects, dependence, addiction and lifestyle diseases are lurking.