SAMINA

GÜNTHER W. AMANN-JENNSON
schlafpsychologie.schlafcoaching

Translated from original German
„Gesundheit, Schwerkraft und horizontale Schlafposition"

Prof. Günther W. Amann-Jennson, Ph.D.

GRAVITY Inclined Bed– Innovation for enhanced detoxification and regeneration during sleep

The importance of gravity with respect to our health and wellness and its relationship to sleep, detoxification and regeneration.

Studies and opinions on "inclined sleeping"

Sleep research and sleep medicine long have proven that healthy, restful sleep is one of the key pillars of our health and wellness. **Even leading sleep scientists such as sleep medicine pioneer Prof. Dr. William C. Dement, MD (Stanford University) assume that over 90% of our health depends on our sleep.**

The situation is different when it comes the question whether our sleeping habits and especially the way we sleep affect our health and wellness. Anthropological physicians and, increasingly, other researchers have repeatedly pointed out that our civilized sleeping and bed culture, especially the horizontal sleeping position, may be a major cause of a number of health disorders and diseases. It is also a fact that our living, eating and exercise habits, our sleep and wake rhythms as well as our inner belief patterns have a significant impact on our sleep health; also that daylight, sunlight, and the Earth's magnetic field (Schumann waves), our chronobiology, the sleeping pad, the bedding materials, the indoor environment and interference of various types ranging from noise to electromagnetic pollution influence control, inhibit and disrupt sleep. **Standard science has not or only marginally has been concerned with the question of the prevalent horizontal sleeping position. Space physicians, no the other hand, were.** By means of a horizontal sleeping position during our sleep time, we offset the forces of gravity, which also power our vital functions.

How does sleeping in this position afffect our health and wellness? In this context, it is interesting to observe that, in order to escape predators, baboons and other primates sleep in the branches of trees in every conceivable position, except horizontally. Cattle and sheep sleep with their faces uphill, when they have the opportunity. Birds sleep standing up; king penguins, for example, are able to withstand the harsh conditions of

Antarctica, where they crowd together in an upright position for several months without food and wait for the return of their partners. The eggs that they hatch are kept almost at our body temperature.

This makes apparent that the metabolic rate, which maintains our body temperature and that of any other living creature, is connected to gravity in some way.

Overall, horizontal sleeping is about phenomena we already know something about, namely, the interactions of gravity and physiological processes in our body and especially our brain. The effect of gravity on "brain circulation" is purely mechanical, and is thus related to the position of the head relative to the pumping heart. When we get up, our head is above the heart, blood flows against gravity from the heart up to the brain; this results in a reduction of the effective pressure with which the arterial blood is sent to the brain. In contrast, as we lie in a horizontal position, heart and head now are almost on the same level. This eliminates the effects of gravity on "brain circulation". Blood from the heart is pumped towards the head in disregard of the force of gravity, which results in lower resistance, which in turn increases the intracranial pressure.

It is known that when the brain receives more pressure due to our resting position, there are various pressure receptors especially in the neck area, which contribute to lowering blood pressure and thus help prevent excessive intracranial pressure (cerebral aneurysm).

Therefore, our blood pressure is lower when we are asleep and lie horizontally. However, this mechanism for adjusting the pressure conditions has its limits. It is also known that, while in a vertical body position, gravity pulls down our body fluids, which is why many people have swollen feet and ankles at the end of the day. Once we lie down, the effect of gravity is lost and the fluids leave the legs and rise to the head. Despite our normal defense and pressure regulation mechanisms, our intracranial pressure increases throughout the night and is highest the next morning after hours of lying horizontally. The increased blood pressure entails extra spinal fluid in the brain chambers, increasing pressure from the intracranial fluid. The ventricles swell and the brain cells are enriched with the excess fluid, which in essence causes a kind of cerebral edema. **Also, in addition to the swelling of the brain, there is a sustained pressure to the eyes, ears, face, sinuses and even to the gums - the entire head is overtaxed due to the pressure and the fluid enriched tissue.**

As mentioned above, there is a field of medicine, which explores exactly this effect of gravity on human physiology in extensive studies and trials: space medicine. Astronauts

in space are in a zero-gravity field, and it is known that this is the cause for increased shifting of blood to the head and thus the brain. **This causes increased intracranial pressure (ICP) with accompanying symptoms such as migraine, glaucoma, Meniere's disease and many others. To study the negative effects of weightlessness, space scientists have conducted studies where the participants lie down to sleep flat and thus horizontally!**

However, since medicine has become such a vast area with numerous sub-specialists, there is little exchange of experience between space medicine and other medicine. Otherwise, someone would have long since discovered that the horizontal sleeping position can cause serious problems. Why should this be a problem only for astronauts? Based on long-term studies, some researchers and physicians such as Englishman Andrew Fletcher and American Sydney Ross Singer, Ph.D. meanwhile have come to the conclusion that the horizontal sleeping position is also a possible cause of **migraine**. **It has already been hypothesized that extended horizontal lying and sleeping may result in an increase of intracranial pressure and an accumulation of fluid (edema) in the brain tissue - with resulting hypoxia and hypoglycemia.** Hence, the question was raised whether elevation of the head during sleep can prevent migraine attacks.

A test trial by Sydney Ross Singer, Ph.D. (USA) seems to confirm this idea. 100 migraine patients have been sleeping with their heads elevated (by 10-30 degrees). The 30-degree elevation seems to be ideal, especially since space physicians have discovered that this position is optimal for both the heart and brain function. The result of this experiment was startling, as the majority of migraine sufferers felt relief and improvement within a few nights. Some had absolutely no more complaints; some of them after suffering from migraine for up to 30 years. There were also some very interesting side effects. The trial participants felt more rested and obstinate clogging of the sinuses had dissolved or been reduced. Some allergies subsided or disappeared completely. The physicians were amazed at the results. A number of ailments and diseases that were directly linked to increased intracranial pressure seemed to exist. This is mainly caused by a horizontal sleeping position. The implications go far beyond the prevention and treatment of migraine. As is well known, the brain has a vital impact on all systems of the human body and if now malfunctions occur due to excessive intracranial pressure, this may have complex effects. Clearly, glaucoma is caused by this mechanism. It is already known that the intraocular pressure increases, when the head is hanging down, and that it decreases, when the head is up. In addition, the intraocular pressure is the highest in the early morning.

Perennial experimental measurements by SAMINA sleep research have shown that a full body inclination (5.5 degrees) offers many advantages (orthopedic) and already accomplishes preventive and therapeutic effects on symptoms such as glaucoma, puffiness and sinus congestion, since these symptoms obviously are caused by the increased head and brain pressure resulting from horizontal lying and sleeping. The researchers assume that possibly **Alzheimer's disease** is caused by brain congestion and excessive pressure in the head due to horizontal lying and sleeping. The ventricles of Alzheimer's brains are also expanded, suggesting a correlation of ventricular pressure and generalizing lesions along the ventricles in the areas of brain tissue as result of this chronic pressure condition. Other studies have already shown that Alzheimer disease is linked to increased intracranial pressure, but the cause has not been discovered yet. It is also important to realize that even the blood-brain barrier is not working properly, if too much pressure in the brain is formed. Excessive intracranial pressure may cause "leaks" in the blood-brain barrier especially in the basal membrane, so that heavy metals, such as aluminum and mercury, as well as viruses and bacteria can pass through this barrier. This is again an indication of why Alzheimer's disease has also been implicated in the presence of certain heavy metals in the brain.

It is also known that **attention deficit hyperactivity disorder** causes an overload of the brain's "impulse center" which helps control behavior. The SAMINA experiments have demonstrated very good results with several children suffering from ADHD when elevating their heads during sleep.

Psoriasis seems to be a disease that can be eased with astonishing rapidity with the help of "inclined sleeping", as a vascular surgeon noted.

The inclined sleeping position has even proved its worth with certain **sleep disorders** (restless legs syndrome, sleep apnea, snoring). With episodes of moderate **sleep apnea**, measurements taken by sleep physician Prof. Dr. Karl Hecht (director of sleep medicine at Charité Hospital, Berlin for 30 years) have indicated a 50 percent reduction of symptoms after a few nights already, and up to 90 percent (!) after a few weeks.

More energy and vitality. Almost all tests have also shown that "inclined sleeping" results in more energy and vitality.

Moreover, studies have shown that certain body positions during sleep may also cause respective problems. These include carpal tunnel syndrome. Sleeping on the back prevents compression of the limbs and internal organs. Also interesting is the finding that in patients with asymmetrical symptoms and diseases, the body side that one sleeps on is more affected. This applies particularly to eyes (glaucoma) and ears (otitis). Sleeping

on the side may promote testicular cancer and dysfunction of the sexual organs. In women, horizontal side sleeping is problematic with regard to the breasts. The increased compression leads to circulatory disorders. Horizontal side sleeping also has a negative impact on the digestive organs.

With migraines, Alzheimer's, multiple sclerosis (or MS), stroke, glaucoma, sleep apnea, spinal cord injury, impotence and a number of other health problems, this theory of the correlations of intracranial hypertension due to horizontal sleeping and neutralization of gravity as well as the occurrence of various diseases could be very useful. If you consider the results and evidence, it is actually surprising that sleep research and medicine have not noticed or ignored these critical aspects of horizontal sleep. Thus, some of the worst diseases namely could arise in our beds and during sleep. However, a reorientation of the sleeping position for therapeutic support appears inevitable. Elevated or inclined sleeping has shown fewer side effects even with chemotherapy, for example.

The fact that the **specific weight (density) of urine** changed with different sleeping positions is also an interesting outcome. "Inclined sleeping" generates a higher density of urine. Horizontal sleeping or even with the head downwards produces a urine density similar to water. This means that no salts and minerals are excreted. This in turn means that the salts remain in the bladder due to the changed gravity conditions.

Another interesting point is that the inclination of the body during sleep produces **more body warmth**. This increases evaporation from the respiratory tract and the skin. This in turn leads to a reduction in urine amount and the previously mentioned increase in urine density. Experience has also shown that the often nocturnal urinary urgency, especially in men, decreases significantly in inclined sleeping position.

Toxins and heavy metals are excreted clearly more rapidly and more concentrated in subsequent treatments (massages, discharges) when sleeping in inclined position.

In summary, optimizing the sleeping position by elevation of the head or inclining the entire bed could lead to a medical evolution. This could become one of the most effective **strategies for the natural prevention and supportive treatment of diseases**.

For more information, contact Claus Pummer
Natural by Design, Corp. d/b/a/ SAMINA Sleep
info@saminasleep.com
(626) 768-0311

