

RIEN

# NEWSLETTER

## THE BEGINNING

The beginning of RiEN

## **RECIPE**

**Berry Citrus Smoothie** 

## **REFLEX STUDY**

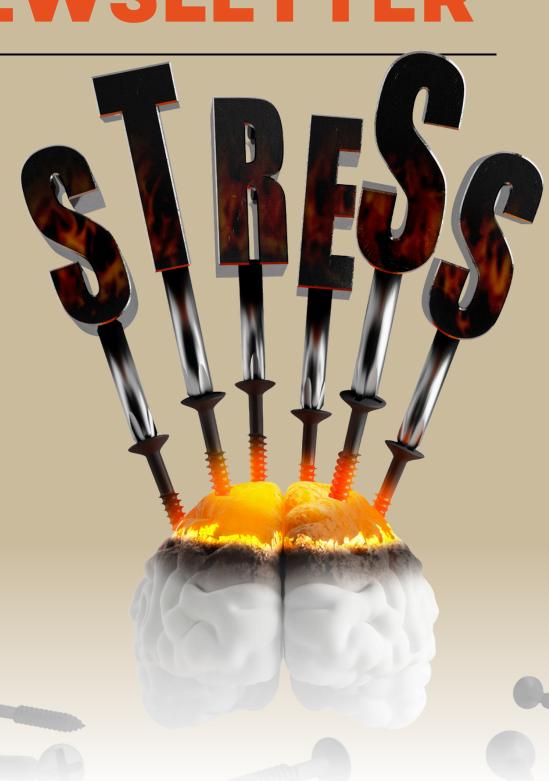
Mastering stress

## **ETHICS**

By Jean-Pierre

## **BOOST**

Relieving Discomfort and **Boosting Energy** 



# **BOARD INTRO**

## Summervibes

In summer, everything comes alive. Nature grows and blossoms. Where in winter the roots deepened quietly beneath the surface. What has ripened underground during the darker months now bursts forth with energy and upward growth – reaching toward the light, reaching toward the universe. In our 24/7 society, people take less and less time for rest in winter. They keep going, even when everything within them calls for stillness. As a result, they often lack the foundation needed to fully enjoy the energy of summer. Less rest means less grounding – and with that, less room to truly thrive.

That's why this newsletter offers nourishment for both body and soul. A boost of energy in the form of a delicious smoothie. A beautiful and insightful article by Karine on reflexology and stress – even if you already know a lot, it invites you to reconnect with the deep power of our work. Jean-Pierre shares his reflection on who we are as reflexologists, something we'll further explore with the ethics committee. And before you dive into these summer vibes and inspiring pieces, Anneke takes you to the beach – back to where it all began.

Lastly, to keep this initiative growing – now a vibrant network of reflexologists – **we need your support**. Have a look at the call for help to see how you can contribute.

Thank you, and enjoy everything this summer has to offer.



# THE BEGINNING

A Nostalgic Memory from Virginia Beach..

I wanted to share a delightful memory that recently resurfaced while I was going through some old photos. This particular image was taken at Virginia Beach during an ICR conference that we all attended.

In the photo, you can see Bill Flocco, Mo Usher and Rena Stravelaki with a Greek colleague. I'm also there, alongside an American attendee and Mr. Chang from China. It's a snapshot of a wonderful time when we were discussing the importance of holding a conference in England, which eventually took place in Glasgow.

Mo and I took the initiative to organize this conference on our own resources and within a month, we had gathered 324 delegates! We always scheduled it during university holiday periods, which allowed us to secure affordable accommodation and use lecture halls that would otherwise be empty.

Looking back, it was a remarkable experience filled with collaboration and friendship. I thought you all might enjoy this little trip down memory lane!

Warm regards, Anneke



# RECIPE

## Ingredients:

- 1 cup berries (strawberries, blueberries, raspberries)
- 1 banana
- 1 cup spinach (optional for added nutrients)
- 1 cup coconut water
- Juice of 1 orange
- Ice cubes (optional)

## BERRY CITRUS SMOOTHIE

#### Instructions:

- 1. In a blender, combine the mixed berries, banana, spinach (if using), coconut water, orange juice (and honey or maple syrup if you want)
- 2. Blend until smooth. If you prefer a colder smoothie, add ice cubes and blend again until desired consistency is reached.
- 3. Pour into glasses and enjoy immediately for a refreshing energy boost.

Why drinking this? Berries are a fantastic choice for your health! They are loaded with antioxidants that help fight oxidative stress and reduce inflammation in your body. When you combine berries with orange juice, you get a powerful dose of vitamin C, which boosts your immune system and keeps your skin looking vibrant.

Bananas also play a key role in this mix. They provide natural sugars and potassium, which help maintain your energy levels and support your muscles during physical activities.

Don't forget about coconut water! It's a great source of hydration and electrolytes, making it perfect for replenishing the fluids you lose while enjoying summer fun. Together, these ingredients create a refreshing and nutritious option that keeps you energized and healthy.





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Karine de Laat (1968) completed her masterstudy sociology Wageningen University in the Netherlands. She worked as senior communications consultant for the Dutch government for several years, when she decided to switch careers and become a full-time reflexologist. Her mission is to access and share information from reflexology research to the public. She publishes for the Dutch Organisation of Reflexologists (VNRT) and Magazine for Naturopathic and Integrative Healthcare (VNIG).



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# Mastering stress with reflexology

The effect reflexology of on biomarkers of chronic stress Reflexology is known for its relaxing effect on body and mind. After having reflexology people generally report feeling a deep relaxation, a better sense of well-being and higher quality of life. Reflexology has also been shown to reduce symptoms of [1]. Even though combination of light touch and firm pressure with specific techniques creates demonstrable physiological changes in the body, scientists have no agreement on the underlying mechanisms.

In this article, we summarize studies on the effect of reflexology on biomarkers of stress, such as blood pressure, cortisol levels and inflammation levels.

We also study the effect of a biomarker on relaxation: oxytocin. Stress and anxiety are expressed by all sets of emotions but remarkably show the same biomarkers. like elevated heartrate bloodpressure. It is autonomous nervous system that is responsible for the emotional and physiological response [2]. For that reason, when we write about stress in this article, we also mean anxiety.

## Stress levels in modern times

Our stress system is not well equipped for long term stress. Our stress system was laid out in early evolution, protecting against acute threats from the outside world. The stress system prepares the body to fight or flee. This fight-flight response was first described by researcher Hans Selve in 1950 [3]. Immediately after the danger had passed, the body should go back resting mode. Modern into lifestyle goes with work pressure, information overload and bad news.

Together with stressful life-events it may prevent the stress system to go back into the relax-safety-mode. And exactly that mechanism threatens health.

Chronic stress is defined as stress that persists for more than three hours a day for an extended Under normal period. circumstances, the body returns to the resting state after the stress stimulus is gone. Persistent stress stimuli can lead to burnout. A characteristic feature of burnout is the feeling of exhaustion. accompanied by a sudden reduction in cognitive functioning and emotional instability. Burnout is a major reason for sick leave. A Dutch guideline defines burnout when symptoms exist for more than six months, and fatigue is the main complaint. The physical and biochemical response to chronic stress causes verifiable damage of regulatory systems and a different architecture of the brain.

## **Biochemical changes**

Blood tests show that there are several biochemical changes, in multiple regulatory systems.

We can infer from higher cortisol levels in the blood that there is an imbalance in the endocrine system. Increased inflammation and increased inflammatory cytokines in the blood tell us that the immunological system is out of balance. Difficulties in emotion regulation and sleep problems are symptoms of disbalances in the hormonal system [4]. Research outcomes show evidence that therapy reflexology has beneficial effect on several biomarkers, such as:

- 1. Cortisol levels
- 2. Heart rhythm, blood volume and blood pressure
- 3. Inflammation levels and the immune system
- 4. Oxytocin and the nervous system

## Higher cortisol levels

The best-known biomarker for persistent stress is a high cortisol level.

Cortisol puts the body in a state of alertness: all energy goes to survival, ready to fight or flee. Under the influence of the hormone adrenaline, the heart rate increases, blood pressure rises and blood volume increases. With persistent stress stimuli, the hormone cortisol takes over the function of adrenaline. A process in which the adrenal and pituitary gland are involved.

In patients recovered from cancer, researchers found a significant decrease in salivary cortisol due to reflexology, indicating that the stress level diminished [5]. All survivors received 10 minutes reflexology per foot or a Swedish massage of the lower leg (control group). The reflexology carried out according to a protocol with the walking thumb technique on the sole of the foot and toes. The changes in cortisol level were determined by measuring salivary cortisol at different times of the day.

also

reported by participants in a previous study in 2007 [6]. According to the questionnaires the participants experienced less anxiety, although the researchers found no significant changes between groups in salivary cortisol. It is not clear why significant changes are measured in one study and not in the other. Perhaps the degree of health may play a Survivors role. of cancer experience more stress than the healthy individuals of the 2007 study. In 2020 an Indian study confirmed the positive effects on salivary cortisol due to

The relaxing effect was

## Heartrate, Blood volume, Blood pressure

reflexology [6a].

The effect of stress on heartrate, blood volume and blood pressure is evident. A meta-analysis of 2014 demonstrates that reflexology decreases systolic and diastolic pressure as well as heartrate [7].

Researchers from the Khon Kaen University in Thailand found a significant effect on heartrate but not blood pressure [7a]. A systematic review conducted in 2023 to investigate if reflexology is an effective intervention for hypertension, could not find a significant lowering effect on systolic blood pressure.

One of the studies compared the effect of reflexology to just holding the feet [8]. This study was conducted with 26 healthy volunteers. Interestingly, holding the feet alone influenced stress perception. but blood not pressure. Reflexology influenced both stress perception and lowered blood pressure.

diastolic blood Decrease in and pulse rate by pressure reflexology was also found in 70 patients undergoing coronary angiography [9]. A similar effect has been found on reflexology before heart surgery and in cancer patients before chemotherapy [10].

Multiple studies, including highquality research, show a beneficial effect on blood pressure and heart rhythm.

Evaluation and meta-analysis exerted positive effects of foot reflexology on bodily vital signs included thirteen studies (819 patients) such as systolic and diastolic blood pressure, heart rate, respiratory rate, and pulse oxygen saturation [11].

## Inflammation levels and the immune system

Chronic stress causes increased inflammation. Inflammation-promoting cytokines, such as IL-6) increase under stress conditions while anti-inflammatory cytokines decrease (like IL-10). This effect has been demonstrated in patients with chronic fatigue syndrome and ME in 2015 [11].

High cortisol levels cause the immune system to become less active. Important barriers to harmful invaders, such as mucous membranes of the lungs and digestive system, as well as the blood-brain barrier lose their integrity.

But also, pro-inflammatory cytokines cause damage to the mucus membranes causing larger proteins to invade the blood system and overload the immune system.

Reflexology has a positive effect on biomarkers of the immune system. One study included 46 middle-aged women who were trained in self-massage of the feet [12].

Another study (with control group) includes 30 elderly people between the ages of 60 and 70 with rheumatoid arthritis [13]. Daily massage of the feet for a period of six weeks showed a significant difference in perceived stress, higher values of Natural Killer cells and IgG in the blood. Higher values of NK cells and IgG refer to a more active immune system. Elderly people with rheumatoid arthritis, showed a significant decrease in proinflammatory IL-6 by reflexology.

However, serum cortisol decrease in this study was not significant.

## Oxytocin and the nervous system

The 'happy hormone' oxytocin is produced in the hypothalamus and stored in the pituitary gland. The more oxytocin stored in the brain, the better we are able connect with others. The production of oxytocin is stimulated by touch, kindness and embraces. Oxytocin several physiological functions: it causes dilation of blood vessels and protects us from atherosclerosis [14]. Moreover. the entire cardiovascular system relaxes by feelings of happiness. Cell cultures containing oxytocin seem to have 25-50% less oxidative stress. Research has shown a link between oxytocin and inflammation. High oxytocin levels appear to lower levels of ILand TNF-alpha (proinflammatory cytokines).

Oxytocin activates the Nervus vagus, the tenth cranial nerve, which is responsible for digestion. Under the influence of oxytocin, the peristalsis of the stomach increases. The smooth muscles of the stomach, knead and mix the food with stomach acid and

digestive enzymes. With insufficient or uncoordinated contractions, less pre-digestion Similarly. occurs. oxytocin stimulates peristalsis of the colon. Children with stomach upset have demonstrably lower oxytocin levels. Low oxytocin levels have been found in patients with irritable bowel syndrome [14].

In 2018, infrared spectroscopy (fNIRS) recordings of the brain were made during a ten-minute gentle foot massage [15]. This study compared machine-based reflexology to reflexology with personal touch. The group that underwent human reflexology had more oxytocin in their blood plasma [16]. Moreover, researchers found that personal touch activates areas in the orbitofrontal cortex more intensely, whereas body sensation is processed in the somatosensory cortex.

The orbitofrontal cortex is involved in processing emotional stimuli.

From the orbitofrontal cortex there are many connections to the limbic system, like the fear center (amygdala) and the memory center (hippocampus). Effects reflexology in the brain were previously demonstrated by a Canadian research group. With fMRI scans, they observed activity in the cingulate gyrus, an area involved in the processing of pain, and part of the limbic system [17]. Stress has enormous impact on the connections in the limbic it system, causes neuronal decrease. As a result. prolonged stress, we experience emotions, swerving difficulty concentrating and difficulty planning. Neuronal decrease may cause the hippocampus to shrink, causing memory-problems [18].

Reflexology with light touch increases oxytocin levels in the blood. Cardiovascular relaxation and digestive system relaxation follows. Oxytocin can even reduce inflammation. The 'happy hormone' makes us feel social, relaxed, more confident and less anxious.

In addition, reflexology activates the orbitofrontal cortex in the brain, which we use to regulate emotions. Is it possible that the increased quality of life can be attributed to this effect?

It is unclear to what extent technique effects massage oxytocin levels. Studies refer to light or gentle massage. And of course, it is possible that gentle massage produces a different biochemical effect than. example, the walking thumb technique. Unfortunately. reflexology studies were found that provides more insight into this.

## Conclusion

Chronic stress is a major disruptor of health. It triggers a series of biochemical reactions in the body that can lead to burnout and chronic diseases in the long run. In total, we studied 11 studies from 2006-2018. We did not have the full text of all studies; sometimes we only had an abstract. The studies discussed in this article are all randomized with a control group.

These studies show that reflexology has an immediate positive effect on regulatory systems that become unbalanced under the influence of stress. The measured reduction in blood pressure, cortisol, oxytocin and inflammation levels have beneficial effect on health. And there is evidence that reflexology has a positive effect on brain areas connected with symptoms of burnout.

Reflexology is, according to the best available evidence, a stress reducing therapy. It helps patients to rehabilitate, strengthen resilience, and it is effective in times of disease or other stressful life-events.

This article was written for the Dutch Association of Reflexology Therapists (VNRT) in 2019 and updated for RiEN in August 2024. RiEN strives for recognition of reflexology as a complementary, patient-centered and cost-reducing therapy by European national healthcare systems.

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# ETHICS

Today, more than ever, the question of the professional training of reflexologists needs to be clarified, as we see a multitude of training proposals that are either too short or poorly designed to properly prepare individuals for responsible practice in reflexology. We observe, without necessarily participating, debates among experts composed exclusively of medical professionals and political figures who question our skills and the impact of our disciplines on health and who seem inclined to regulate our profession according to their own rules.

We are reflexologists and we are responsible, autonomous professionals. We cannot consider reflexology to be a simple technique where it is sufficient to master the gestures and the map of reflex zones to make it a profession. We cannot imagine that a reflexology session could be viewed as a medical procedure, the effects of which would only be quantifiable through clinical studies.

We affirm that to be a professional reflexologist, one must master all of the educational content that serious training currently offers, with a minimum required face-to-face training in their centers. It is essential to continually work on our own understanding of humans at psychological, philosophical, emotional, and spiritual levels, while respecting ethics, professional conduct and the diversity and freedom of thought of each individual.

We are reflexologists and we position ourselves as supportive figures in the field of prevention and public health. We are careful not to replace health professionals. We give our best every day without ever claiming to be more than we are. We are responsible and autonomous reflexologists, learning from humans through contact with humans while maintaining a love for humanity. It is from this essential source that we have become professionally engaged in reflexology.



# BOOST

## Reflexology for Summer Wellness: Relieving Discomfort and Boosting Energy

As summer approaches, the rising temperatures and longer days can create unique challenges for both practitioners and clients. Reflexology, with its ability to promote relaxation and improve circulation, can be a valuable tool for addressing heat-related discomfort and enhancing energy levels during this vibrant season.

## **Relieving Heat-Related Discomfort**

Summer often brings about discomforts such as swollen feet, fatigue and headaches. By utilizing targeted reflexology techniques, you can help your clients find relief from these common issues.

- 1. Swollen Feet and Legs: The heat can lead to edema, particularly in the lower extremities. Focusing on the reflex points for the kidneys and adrenal glands can assist in reducing fluid retention. Techniques such as gentle pressure and kneading can encourage lymphatic drainage and alleviate swelling.
- 2. Fatigue and Low Energy: High temperatures and humidity can sap energy levels. By stimulating the reflex points associated with the solar plexus and adrenal glands, reflexologists can invigorate clients, helping them to combat fatigue and feel more energized for summer activities.
- 3. **Headaches**: Heat can trigger tension headaches or migraines. Applying reflexology techniques to the head and neck reflex points can help release tension and promote relaxation, potentially reducing the frequency and intensity of headaches.
- 4. **Digestive Issues:** Summer barbecues and travel can disrupt normal eating patterns, leading to digestive discomfort. Reflexology focused on the stomach and intestinal reflex points can support digestive health, promoting better digestion and alleviating discomfort.

## **Boosting Energy for Summer Activities**

With the abundance of outdoor activities available during the summer, maintaining high energy levels is essential. Reflexology can be integral to enhancing stamina and vitality.

- **Pre-Activity Preparation:** Before engaging in summer sports or outdoor adventures, your can provide sessions that focus on the reflex points connected to the muscles and joints. This can enhance flexibility and reduce the risk of injury, preparing your clients for physical activity.
- Post-Activity Recovery: After a day of summer fun, reflexology can aid in recovery. By working on muscle and nervous system reflex points, you can help alleviate soreness and promote relaxation, allowing your clients to recover quickly for their next adventure.

## **Incorporating Reflexology into Summer Practices**

Incorporating seasonal elements into treatments can enhance the overall client experience. Consider the following tips:

- **Hydration Focus:** Encourage clients to stay hydrated and incorporate hydration tips into your sessions. Discussing the benefits of coconut water or refreshing herbal teas can complement your reflexology practice.
- **Seasonal Recipes:** Sharing healthy, refreshing summer recipes featuring seasonal fruits and vegetables can provide clients with additional tools for maintaining energy and hydration.
- **Self-Reflexology Techniques:** Educating clients on simple self-reflexology techniques they can use at home can empower them to manage discomfort and maintain energy levels between sessions.

## **Conclusion**

As summer unfolds, reflexology can play a crucial role in helping clients navigate the challenges of heat and fatigue while boosting energy levels for seasonal activities. By focusing on relieving discomfort and enhancing vitality, you can support your clients in enjoying a vibrant and invigorating summer. Embrace the power of reflexology to foster wellness during this lively season!

# CALL FOR...

As we prepare for our upcoming newsletters, we invite you to contribute your articles and recipes that align with our themes. Your insights and creativity can help enrich our community's knowledge and wellness practices.

Your articles can inspire and empower our community as we navigate these seasonal changes together. Please mail your contributions to secretary.rien@gmail.com to ensure they are included in the respective newsletters.

## September: "Autumn Transition" (sent in before august 1th)

Articles: Preparing for Seasonal Changes with Reflexology: Insights on how reflexology can help ease the transition into autumn, focusing on immune support.

Harvest Recipes: Articles featuring recipes that utilize autumn's bounty, such as pumpkin, squash, and apples, emphasizing health benefits.

## December: "Winter Reflection" (sent in before November 1th)

Articles on how reflexology can assist with common winter ailments like colds and flu and promote overall wellness during the colder months.

Festive Healthy Recipes: Provide recipes for healthy holiday treats and meals that focus on nutrition without sacrificing flavor.

## March: "Spring Renewal" (sent in before February 1st)

Articles: Explore how reflexology can support emotional and physical renewal during spring, helping to alleviate seasonal allergies and boost overall vitality.

Revitalizing Spring Recipes: Share recipes featuring fresh greens, herbs, and other seasonal ingredients, focusing on detoxification and rejuvenation to celebrate the arrival of spring.



Supporting each other is the best way to keep the world of reflexology vibrant and full of options.

Thank you for being a part of our RiEN family!

