vol. 03/2024



## RIEN NEWSLETTEP

### **WISHES**

the board wishes you the best holiday season

### RECIPE

Helga loves to share with you a nice and warm drink for the season

### INVITATION

Online members meeting 10th february 2025

### **INVITATION**

AGM - The Netherlands 9th of may 2025

### **INVITATION**

Conference - The netherlands 10 - 11 may 2025

### **REFLEX STUDY**

The effect of reflexology on biomarkers of chronic stress

# **BOARD INTRO**

### Dear members,

Initially we wanted to keep this new letter short due to a busy December month, but ultimately we hope to offer you interesting topics.

Karine compiled a number of studies that focus on the effect of treating stress with reflexology into an article. Feel free to use these to help you explain the benefits of reflexology.

To keep you warm, Helga shared a delicious recipe with us.

Than please note the date February 10, we would like to organize another online members meeting. If there are any matters you would like to discuss, please let us know.

Have you registered for the AGM and conference in May yet? We would like to share some additional information, the conference offers many opportunities to get in touch with each other and to boost our network and your own network.

On behalf of the board, it remains for me to wish everyone a very happy Christmas and a wonderful dive into the new year. We hope that 2025 will bring joy and happiness. That said, I hope you



# WISHES



# RECIPE

not chocolate on a cold day

Ingredients:

- 200ml. water, milk or plant-based milk
- 2 teaspoons of cocoa (8g)
- 3/4 teaspoon (2g) agar agar or any other thickening agent
- 2 teaspoons (5.5g) brown cane sugar
- A pinch of chilli powder, a pinch of salt
- According to your taste: 1 pinch of vanilla powder, cinnamon, and/or cardamom
- Whipped cream, about 30 ml for a cup of hot chocolate

For 2 cups or a big one double the ingredients



# RECIPE

#### How to do it:

Whip the cream until it is stiff before preparing the hot chocolate and add a teaspoon of cocoa powder to the cream. I like to also add a bit of cinemon.



Take about 4 tablespoons of the 200 ml of water or milk into a glass with a lid or a shaker, add cocoa, agar-agar or any other starch, brown cane sugar and spices and shake well. Add the rest of the liquid to a saucepan and heat it. Before it gets hot, add the contents of the shaker and stir with a whisk until it boils. Let it boil briefly, continue stirring and pour the hot chocolate into a pre-warmed cup, add whipped cream on top and bon appetit

Depending on your taste, you can use more or less sugar. If you let the chocolate get cold, you can eat it as a dessert 😊



# RECIPE



#### Additional words to the hot chocolate recipe:

The mere mention of the term hot chocolate conjures up happy childhood memories for most of us. It reminds us of walking in the snow and entering a warm cabin to warm up with a hot chocolate and whipped cream.

After watching the film 'Chocolat' in the 90s, I experimented with this divine powder to make a slightly thick, a bit spicy and tangy hot chocolate. Since I like to add a lot of whipped cream, I tried to avoid using milk to make it a little easier for my stomach to process. Meanwhile I enjoy the dark, slightly bitter, spicy and somewhat viscous treat, which I fold into the whipped cream, which also has cocoa added, caressing my palate and warming my chest and my heart, sip by sip.

🍬 🛨 🥗

I keep the amount of added sugar as low as possible. The natural cane sugar enhances the flavour of the chocolate and also provides a few minerals.

My recipe is just a suggestion. Try out for yourself how you like your hot chocolate and what it does for you.

What's more, cocoa beans are full of vitamins and minerals that are good for our body, including vitamin c, magnesium, calcium and antioxidants. The tryptophan contained in cocoa stimulates serotonin production. Even in that small amounts, it can be enough to give us a good feeling and strength to face the challenges of the day after enjoying a hot chocolate with lots of pure, high-quality cocoa powder, or to enjoy with our clients before or after a reflexology treatment.

<image>

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# **MEET-UP**

RIEN

RIEN OLLEAGU





MONDAY 10TH OF **FEBRUARI 2025** 

**PLATFORM: MICROSOFT** TEAMS

INVITATION SENT TO OUR ASSOCIATIONS AND SCHOOLS VIA MAIL! PLEASE CONFIRM YOUR ATTENDENCE.





FRIDAY 9TH OF MAY 2025

THE EVOLUON **EINDHOVEN** @ THE NETHERLANDS



Each year, RiEN hosts an Annual General Meeting (AGM) open to up to two representatives from each member association and school.

The AGM is a vital opportunity for members to come together to discuss RiEN's budget, receive updates from members on developments in their countries and review the progress of our working groups. We will also set key working points to guide our strategies and priorities for the future.

For those planning to attend, please follow the link below to register. The registration page is password-protected to ensure secure access for our members.

Do not hesitate to contact us if you can not find your password.

We are currently still in negotiation with some hotels in Eindhoven for a good price to book a room for the night. We will keep you informed as soon as we have the most favorable price for you.







Location: Evoluon - Next Nature Museum Noord Brabantlaan 1A 5652 LA Eindhoven The Netherlands (Europe)

## More info: <u>https://reflexology-europe.org/agm/</u>



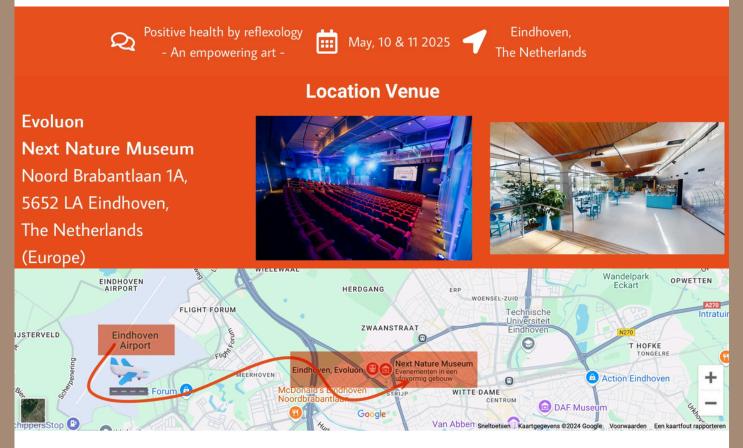
## **Register for the AGM**

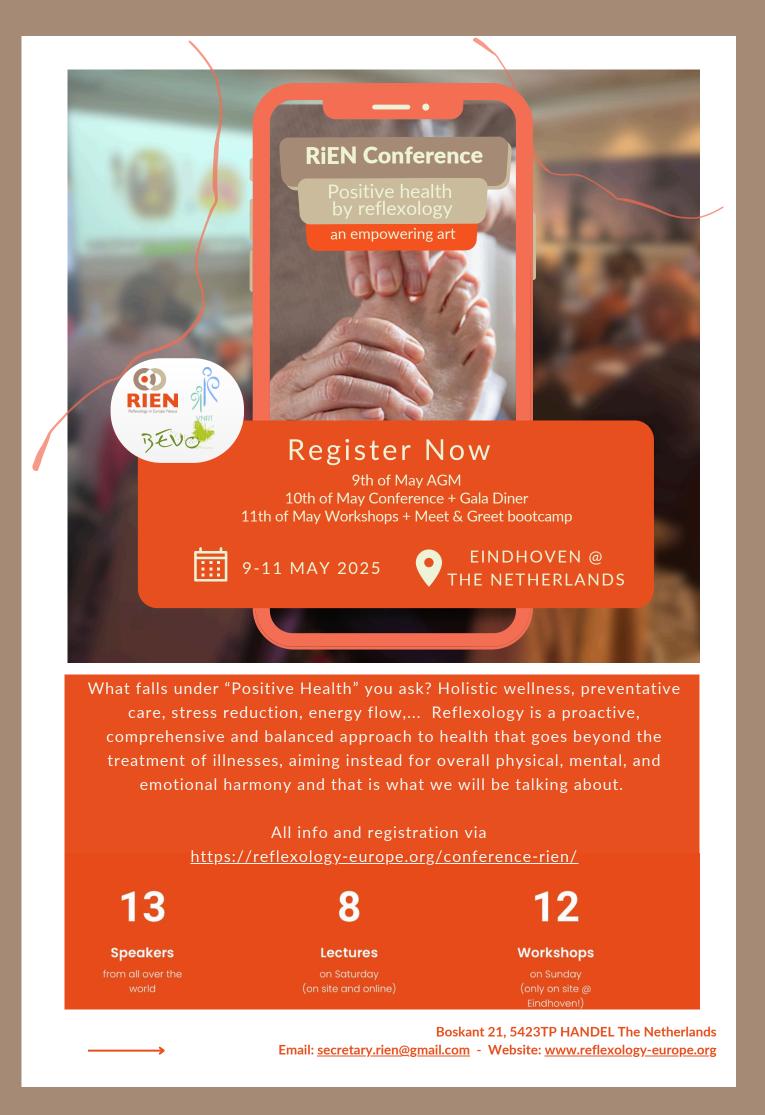


# CONFERENCE



## CONFERENCE 2025





## Program

### Saturday May, 10th

\*The conference will be held in English as will be all the communication. Translation this day will be provided in French and Dutch via the Zoom link.\*

- 09:00 10:00: Registration with welcome coffee
- 10:00 10:30: Start of congress welcome by RiEN/BeVo/VNRT
- 10:30 11:00: Lecture 1: Nicole Van Beek \*Reflexology & Aromatherapy\*
- 11:00 11:30: Lecture 2: Brigitte Koch \*Vagus Nerve\*
- 11:30 12:00: Break
- 12:00 12:30: Lecture 3: Susie Morrissey \*Integration of Holistic Healthcare with Pharmacy Practices\*
- 12:30 13:00: Lecture 4: Orlando Volpe \*Effects on the Hormonal and Neurotransmitter System Caused by Reflexology Treatments: A Biochemical Explanation\*
- •

• 13:00 - 14:30: Lunch break

- 14:30 15:00: Lecture 5: Stefanie Sabounchian \*Overcoming Addiction: A Wellness Approach with Integrated Foot, Hand, and Ear Reflexology\*
- 15:00 15:30: Lecture 6: Inge Cox \*Trauma Reflexology & Massage on the Feet\*
- 15:30 16:00: Break
- 16:00 16:30: Lecture 7: Kevin & Barbara Kunz Dr. Posse -\*Research\*
- 16:30 17:00: Lecture 8: Paul Harvey \*Condition Specific PNF Stretch: A Reflexology Protocol Addressing Gait and Movement Challenges in MS, Parkinson's Disease, and Stroke Survivors\*

\*\* Under subject of change

## Program

### Sunday May, 11th

### \*No translation will be provided this day. All workshops will be in English\*

We are pleased to offer several workshops held across six rooms. Each speaker will present their workshop twice to give you more possibility to attent. We will do our best to accommodate everyone's TOP 4 workshop, though we cannot guarantee availability. FIRST COMES IN = FIRST SERVED. So do not hesitate and subscribe asap.

- 10:00 11:15: Workshop 1
- 11:45 13:00: Workshop 2
- 14:30 15:45: Workshop 3
- 16:15 17:30: Workshop 4

### FOOTBOOTCAMP IS OPEN TO EVERYBODY FROM 10H00 – 17H30. IN THIS AREA WE CAN MEET AND EXCHANGE TREATMENT WITH OTHER COLLEAGUES DURING FREE MOMENTS.

- Brigitte Koch Vagus Nerve
- Franziska Windeisen Feet as a Mirror of our Souls
- Guy Boitout Holistic Approach to whiplash injury in Reflexology
- Inge Cox Trauma Reflexology & Massage on the Feet
- Nicole Van Beek Reflexology & Aromatherapy
- Orlando Volpe Effects on the Hormonal and Neurotransmitter System Caused by Reflexology Treatments: A Biochemical Explanation
- Paul Harvey Condition Specific PNF Stretch: A Reflexology Protocol Addressing Gait and Movement Challenges in MS, Parkinson's Disease, and Stroke Survival
- Sabine Van Laarhoven Reflexology Techniques to Induce Labor and Turn a Breech Presentation
- Sonia Fischmann Prevention and Management of Stress Through Combined Plantar, Palmar, Facial, and Ear Reflexology
- Stefanie Sabounchian Overcoming Addiction: A Wellness Approach with Integrated Foot, Hand, and Ear Reflexology
- Susie Morrissey Integration of Holistic Healthcare with Pharmacy Practices
- Vera Krijn A 360° Approach to Wellness and Health: The Role and Place of Reflexology

## **Brigitte Koch**

Brigitte Koch began her career in education in 1984 in the Netherlands, teaching German and serving as a student counselor. Her journey into reflexology began in 2001, sparking a passion that has defined her professional life ever since. She became a certified reflexologist and later an instructor at a reflexology training institute. Brigitte developed the first course on "Reflexology & Stress" in 2010 and has since created training programs covering a range of subjects, including detoxification, sleep issues, high sensitivity, dementia, chakra work, grounding, and respiratory health.

### Lecture and Workshop: The Vagus Nerve and Positive Health

In her upcoming presentation, Brigitte will delve into the essential role of the vagus nerve in promoting positive health. She will cover the anatomy and functions of the vagus nerve, its influence on the body, and the effects of various factors on its performance. Participants will learn how respiration impacts vagus nerve activity and explore practical techniques to stimulate the nerve, fostering calmness, tranquility, and improved stress coping mechanisms. Her workshop will include easy-toimplement breathing and foot reflexology exercises designed to support vagus nerve activation, providing tools that clients can remember and use independently.



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## Franziska Windeisen

Franziska Windeiser has dedicated her career to exploring the connection between reflexology and self-awareness, with a special focus on how the feet reveal aspects of a person's character and inner world. Her work emphasizes understanding reflexology as a tool for selfreflection and emotional insight, helping individuals discover their unique gifts and qualities.

#### Workshop: Feet as a Mirror of Our Souls

Franziska's workshop invites participants to delve into the fascinating idea of feet as a reflection of our inner selves. She will guide attendees in interpreting the messages conveyed through the feet, showing how they reveal each person's innate strengths, such as intellectual, emotional, or action-oriented traits. Participants will learn to recognize whether these qualities are being fully expressed or if certain patterns have been suppressed. This workshop promises to provide valuable insights into personal growth and self-understanding through reflexology, helping individuals connect with their core qualities and potential.

## **Guy Boitout**

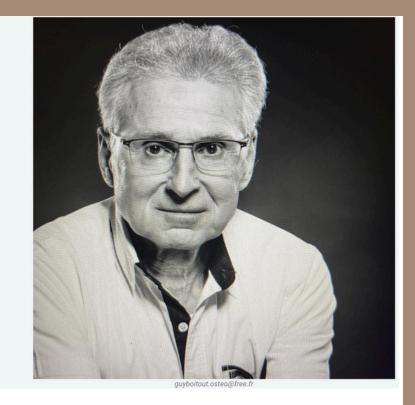
Guy Boitout is a distinguished osteopath and reflexologist from France, known for his expertise in the field of reflexotherapy. He holds a diploma in physiotherapy and has extensive training in reflexology, having studied under Martine Faure Alderson and later serving as her assistant. In 1994, he received his osteopathy diploma from ESO in England and CIDO in France. Guy is the creator of Occipito-Podale Reflexotherapy and has been teaching this method since 1998. He also founded the French Association of Reflexology and has authored two influential books on reflexotherapy, delving into its applications for the nervous and meningeal systems.

### Workshop: Holistic Approach to Whiplash Injury in Reflexology

Guy's workshop presents a holistic approach to treating whiplash injuries through reflexology. He will examine the concept of health, contrasting the World Health Organization's definition with a holistic perspective. Participants will explore reflexology's role in promoting physical and mental well-being and discuss the delicate balance between health and disease, including factors that disrupt this equilibrium. Guy emphasizes the importance of self-healing, explaining that while caregivers facilitate care, true healing is initiated by the patient. Through his Occipito-Podale Reflexotherapy, Guy aims to show how reflexology can support the body's natural healing processes by addressing both physical and psychological aspects, providing participants with techniques to enhance internal healing.



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## **Inge** Cox

Inge Cox is a highly skilled holistic coach and therapist with over 25 years of experience in trauma processing and color integration. Her background in naturopathy and medical science has led her to specialize in acupuncture, acupressure, color puncture, trauma recovery, various therapeutic massage techniques, and personal coaching. Inge's practice goes beyond traditional approaches, incorporating innovative methods that utilize color and light frequencies to promote physical, emotional, and energetic balance. She is also a passionate educator, offering live and online workshops in Belgium and the Netherlands, where she shares her insights on the healing potential of color integration and light therapy, particularly in trauma processing.

#### Lecture and Workshop: Trauma Reflexology & Massage on the Feet

In her session, Inge will introduce participants to "Trauma Reflexology & Massage on the Feet," an integrative approach combining colors, scents, crystals, and geometric shapes to achieve a deep therapeutic effect. She will explain how these elements can be used to alleviate physical discomfort while fostering emotional and mental healing. Through demonstrations and practical examples, Inge will inspire attendees to explore these methods' transformative effects and equip them with skills to enhance their own practice. This unique session promises a comprehensive look at how reflexology and foot massage can serve as powerful tools for holistic trauma recovery.

## Kevin and Barbara Kunz

Kevin and Barbara Kunz are renowned experts in the field of reflexology, widely recognized for their pioneering research and educational contributions to the practice. With decades of experience, the Kunzes have dedicated their careers to advancing reflexology through a scientific lens, producing numerous publications, studies, and resources that have shaped how reflexology is understood and practiced globally. They continue to be active researchers, educators, and authors, sharing their insights with reflexologists worldwide.

#### Online Lecture: Reflexology Research with Dr. Posse

In this engaging online lecture, Kevin and Barbara Kunz will present their latest research conducted alongside Dr. Posse, offering a closer look at reflexology from a scientific perspective. Participants will gain valuable insights into the methodology, findings, and implications of their study, which aims to deepen the understanding of reflexology's effects and benefits. Through their detailed exploration, the Kunzes will provide reflexologists with practical knowledge to enhance their approach and foster greater awareness of reflexology's impact on health. This session is a unique opportunity to learn directly from two of the field's leading researchers, making it a must-attend for anyone passionate about reflexology.









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## **Nicole Van Beek**

Nicole Van Beek is a dedicated reflexologist and holistic health practitioner with nearly two decades of experience. Since 2006, she has run her practice, IDUNA – Gezond Genieten, located in Lokeren, Belgium, where she focuses on a comprehensive approach to health. Her work is anchored in three pillars: coaching, massage, and reflexology, each enhanced by aromatherapy and Bach remedies. Nicole's goal is to promote both physical and mental wellbeing through natural and effective practices, helping clients achieve balance across physical, emotional, and energetic dimensions.

#### Lecture and Workshop: Reflexology & Aromatherapy

In her lecture and workshop, Nicole Van Beek will explore the powerful combination of reflexology and aromatherapy to foster a deeper level of relaxation and healing. Through practical demonstrations, she will reveal how essential oils can complement reflexology techniques to reduce stress and optimize energy flow in the body. Nicole will also discuss her unique four-dimensional approach to achieving balance across body, mind, emotions, and energy, showing participants how these techniques can lead to profound, positive changes in overall well-being. This session promises to inspire reflexologists to expand their practice by incorporating aromatherapy for enhanced client care.

## Orlando Volpe

Orlando Volpe is a reflexologist and wellness practitioner with a specialized focus on the biochemical effects of reflexology on the nervous and hormonal systems. Since 2014, he has dedicated his research to exploring how reflexology influences mental health conditions such as depression, ADHD, anxiety, bipolar disorder, and chronic stress. Orlando brings a unique perspective that bridges holistic health with measurable scientific principles, aiming to explain reflexology's impact on body chemistry in a way that resonates with both practitioners and the scientific community.

Lecture and Workshop: Effects on the Hormonal and Neurotransmitter System Caused by Reflexology Treatments: A Biochemical Explanation

In this lecture, Orlando Volpe will provide an in-depth look at how reflexology can influence key biochemical processes within the body. By focusing on specific components such as the prefrontal cortex, limbic system, cortisol, serotonin, dopamine, and thyroid hormones, he will demonstrate how reflexology stimulates changes in neurotransmitters and other biochemical factors. Orlando will discuss reflexology's role in improving blood circulation, cellular respiration, immune response, and mitochondrial function, offering a deeper understanding of the mechanisms behind reflexology's therapeutic effects on both mental and physical health.

With clear, accessible explanations, Orlando will guide participants through the biochemical foundations of reflexology, enhancing practitioners' ability to communicate reflexology's benefits to clients and medical professionals alike. A practical workshop will be available for hands-on learning, allowing attendees to



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Paul Harvey is an experienced, nationally certified Clinical Reflexologist, Paul is a member of ICR, ARCB and the Reflexology Association of California and currently serves on the board of directors for the World Reflexology Foundation

## Sabine Van Laarhoven

Sabine Van Laarhoven is a skilled reflexologist and health practitioner based in Belgium. She runs the Azura Health Practice, where she specializes in helping women with fertility concerns, pregnant women, and young children. Sabine combines reflexology, massage, and health advice to support her clients' well-being. Through her educational center, Happy Hands Academy, she teaches reflexologists and other therapists about the health benefits of reflexology and specific techniques to improve wellness for her target audience. Sabine has seen remarkable results with reflexology, particularly in supporting women who wish to conceive, pregnant women seeking natural childbirth, and those with breech presentations.

### Workshop: Reflexology Techniques to Induce Labor and Turn a Breech Presentation

Sabine Van Laarhoven will offer a practical workshop on using reflexology to induce labor and turn a breech presentation. In her work with pregnant women, Sabine has achieved impressive outcomes, especially for clients who have experienced difficulty turning breech babies or have desired natural childbirth without medical interventions. In this workshop, she will share her experience and techniques for encouraging labor onset and helping to turn a breech presentation through targeted reflexology methods.

This session will focus on specific reflexology techniques that can help to stimulate uterine contractions, promote relaxation, and create favorable conditions for labor. Additionally, Sabine will share strategies to address breech presentations and help reposition the baby safely, using reflexology as a natural approach to these common pregnancy challenges. Participants will leave with practical tools and techniques to apply in their own practices to assist pregnant women in achieving more comfortable, natural pregnancies and births.

Sabine's workshop will be a valuable addition to the "Positive Health by Reflexology" conference, as it emphasizes how reflexology can play a vital role in supporting both physical and emotional aspects of pregnancy.

## **Paul Harvey**

He has maintained a thriving Reflexology practice for more than 40 years, working for over 20 of those years as the Reflexologist for a team of five Medical Doctors at the world famous Whitaker Wellness Medical Clinic in Southern California. With this extensive experience as a Clinical Reflexologist, Paul created & teaches a series of "Condition Specific Technique" workshops, integrating Foot, Hand & Ear Reflexology, in combination with a Proprioceptive Neuromuscular Facilitation (PNF) stretching protocol. Paul was most recently published in Prevention Magazine and a featured speaker at the 2021 ICR Conference and the 2024 Reflexology Association of America Conference.

#### Lecture and Workshop: Condition Specific PNF Stretch – A Reflexology Protocol Addressing Gait and Movement Challenges in MS, Parkinson's Disease, and Stroke Survival

In this presentation, Paul Harvey will provide reflexologists with practical tools to improve the quality of life for individuals facing gait and movement challenges due to conditions such as Multiple Sclerosis (MS), Parkinson's Disease, and stroke. Drawing on decades of experience and extensive case studies, Paul will introduce a modified Proprioceptive Neuromuscular Facilitation (PNF) stretch technique, designed specifically for inclusion in reflexology sessions. This protocol has been developed over 25 years of clinical practice, particularly focusing on medical conditions that affect movement and mobility.

Paul will demonstrate how to incorporate this PNF stretch within a reflexology treatment, highlighting the benefits for clients with neurological conditions. The presentation will include live demonstrations and interactive breakout sessions, giving participants hands-on experience with the technique. Paul's session will equip reflexologists with confidence in addressing complex mobility challenges, ensuring that reflexology can be a key component in improving clients' functional outcomes.

This workshop will be an excellent opportunity for practitioners to expand their skills in reflexology and its integration with therapeutic stretching techniques, offering a comprehensive approach to supporting clients with neurological conditions.



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## Sonia Fischmann

Sonia Fischmann is an experienced reflexologist known for her innovative approach to stress prevention and management. Over the years, Sonia has developed a unique method that integrates plantar, palmar, facial, and ear reflexology techniques, using a combination of manual, thermal, and instrumental techniques to stimulate reflex points and zones. This multi-faceted approach aims to address stress from various angles, providing a holistic way to improve well-being and promote relaxation.

#### Workshop: Prevention and Management of Stress Through Combined Plantar, Palmar, Facial, and Ear Reflexology

In this workshop, Sonia Fischmann will teach participants how to use combined reflexology techniques to prevent and manage stress. Her approach incorporates reflexology applied to the feet (plantar), hands (palmar), face, and ears, allowing practitioners to address stress-related issues from multiple touchpoints on the body. By using manual manipulation, thermal applications, and instrumental methods, Sonia will demonstrate how to stimulate reflex points and zones that promote relaxation and help to restore balance.

The workshop will focus on how these reflexology techniques can be used to calm the nervous system, improve circulation, and alleviate physical symptoms of stress. Sonia's method aims to offer both immediate relief and long-term benefits for stress management. Participants will gain practical skills to incorporate these combined reflexology techniques into their own practice, providing clients with a more comprehensive and effective approach to stress prevention and management.

This workshop will be a valuable addition to the "Positive Health by Reflexology" conference, offering participants new tools to support clients in managing modern-day stress in a natural and holistic way.

## Stefanie Sabounchian

Stefanie is a National Certified Reflexology Educator with NCRE, teaching the Flocco Method – Integrated Foot Hand Ear Reflexology and Advanced Ear Reflexology throughout the US as well as internationally in both English and German language since 2008. She has been a certified Reflexologist & Auriculotherapist with a private practice in Southern California for over 20 years.

Stefanie was originally trained in Foot Reflexology in 1996 in Germany, where she was born and raised. After coming to the United States in 2000, she became certified in Integrated Foot Hand Ear Reflexology at the American Academy of Reflexology (AAR) in Los Angeles and with the American Reflexology Certification Board (ARCB) in 2003. She was certified by the Auriculotherapy Certification Institute (AIC) with Terry Oleson in 2013.

Stefanie is past president of the Reflexology Association of California and past vice president of the Reflexology Association of America. She is current vice president of the World Reflexology Foundation. She also is a published author of the book Reflexology for Beginners.

#### Lecture and Workshop: Overcoming Addiction – A Wellness Approach with Integrated Foot, Hand, and Ear Reflexology

In this lecture, Stefanie Sabounchian will explore a holistic approach to supporting clients who want to overcome addiction, including smoking, nervous drinking, and sugar or food-related behaviors. With the increasing prevalence of smoking, alcohol use, and food addiction in Europe, this lecture will introduce how Integrated Foot, Hand, and Ear Reflexology can help in addressing these challenges. Stefanie will discuss how Reflexology can reduce stress, support detoxification, and assist clients in improving their overall well-being, while focusing on specific ear protocols for nicotine dependency, nervous drinking, and weight control. A live demonstration of these reflexology protocols will be shown, offering participants practical insight into how they can help clients on their journey to overcoming addiction.

During the hands-on workshop participants will learn the specific Ear Reflexology protocols for addiction. The workshop will allow participants to practice these protocols, gaining a deeper understanding of how to apply them effectively in their own reflexology practices.

Stefanie will guide attendees through each step, demonstrating the techniques used to support clients dealing with nicotine dependency, nervous drinking, and weight control, helping them integrate these methods into their holistic practice.



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## **Susie Morrissey**

Susie Morrissey has a multifaceted background in pharmacy, holistic therapy, coaching, and corporate environments. She is currently a researcher at the University of Limerick, contributing to studies on psychotropic medication in the School of Medicine and infection prevention and control in the School of Nursing. With her expertise spanning both traditional pharmaceutical practices and holistic healthcare, Susie is dedicated to exploring how these fields can be integrated for better patient outcomes. Her focus is on understanding the emotional connections associated with physical health, particularly through reflexology, and how these emotional factors interact with prescribed medications.

#### Lecture and Workshop: Integration of Holistic Healthcare with Pharmacy Practices

In this lecture and workshop, Susie Morrissey will present an in-depth study on integrating holistic healthcare practices with pharmaceutical treatments, with a particular emphasis on foot reflexology. The lecture will explore the emotional associations linked to foot reflexes and how these emotions can be influenced by prescribed medications. Susie will discuss how emotional imbalances affect the physical body and how this interplay can impact both personal and professional relationships.

Participants will gain insights into how emotional health influences physical well-being and how reflexology can be used to address these emotional connections, especially in the context of pharmaceuticals. The workshop will provide a hands-on experience, where attendees can practice reflexology techniques designed to support emotional well-being, particularly for clients undergoing pharmaceutical treatments.

By combining the principles of reflexology with an understanding of pharmaceutical care, this session will offer participants a holistic approach to supporting their clients' emotional and physical health.

Vera Krijn

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Vera Krijn is a certified reflexologist with 30 years of experience in private practice in New York City. She specializes in sub-fertility, perinatal, and hormonal issues, and has worked in collaboration with the Fertility Clinic at New York University Hospital as the director of the fertility program at the Olive Leaf Wholeness Center. Vera currently practices alongside a high-risk obstetric practice and is deeply involved in the childbirth community. Her expertise has led her to teach workshops in both the USA and Europe, with her next sold-out workshop scheduled for May 17-18 in The Hague, The Netherlands.

Vera has served as president of the New York State Reflexology Association twice and has contributed lectures at both national and international conferences She has written for various publications and led a "safebirth" campaign in Burundi with the non-profit organization Village Health Work. In 2002, Vera was honored with the "Eunice Ingham Award" by the Reflexology Association of America for her contributions to the field, and her work was featured in a 30-minute program on NHK Japanese Television.

#### Workshop: A 360° Approach to Wellness and Health: The Role and Place of Reflexology

In this workshop, Vera Krijn will explore the evolving role of reflexology in the context of wellness and health. The session will cover the broad spectrum of wellness, from its roots in ancient traditions to its modern-day application in self-care. Vera will delve into the new science of fetal origins, explaining how the first nine months in the womb shape a child's health for the rest of their life, and discuss the potential of reflexology to support this process.



The workshop will also focus on the importance of social and emotional health for children, especially in diverse family structures. Vera will provide insights on how reflexology can be integrated into family care and support overall well-being. Additionally, the role of reflexology in enhancing our biological age and promoting health will be explored, giving participants practical tools to incorporate these concepts into their own practices.

This hands-on workshop will offer participants the opportunity to learn and apply techniques that promote wellness and support the body's natural healing processes.



### Author Karine de Laat

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 reflexology information from research to the public. She publishes for the Dutch Organisation of Reflexologists (VNRT) and Magazine for Naturopathic and Integrative Healthcare (VNIG).



www.therapie-renkum.nl

Mastering stress with reflexology

The effect of reflexology on biomarkers of chronic stress

Reflexology is known for its relaxing effect on body and mind. People who undergo reflexology 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 stress [1]. Even though the combination of light touch and firm pressure with specific techniques creates demonstrable physiological changes in the body, scientists have no on the underlying agreement mechanisms.

article, we summarize In this studies effect on the of reflexology on biomarkers of stress, such as blood pressure, cortisol levels and inflammation levels. We also study the effect of а biomarker on relaxation: oxytocin.

Stress and anxiety are cause for a number of emotions but all show to have the same biomarkers. The autonomous nervous system is responsible for the emotional and physiological response of a briefly elevated heartrate blood pressure [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 fightflight response was first described by researcher Hans Selye in 1950 [3]. Immediately after the danger had passed, the body should go back into resting mode.

Research on stress dates to the second World War. Meanwhile. society and our lifestyle has changed a lot with continued industrialization and technologization. Modern lifestyle goes with work pressure. information overload and bad news. Together with stressful lifeevents it may prevent the stress system to go back into the relaxsafety-mode. And exactly that mechanism is what threatens health.

Chronic stress is defined as stress that persists for more than three hours a day for an extended period. Under normal 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, bv accompanied а 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 reflexology 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 increased and inflammatorv cvtokines 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 reflexology therapy has а 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 was 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.

The relaxing effect was 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 role. Survivors 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 reflexology [6a].

## Heartrate, Blood volume, Blood pressure

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 pressure did not show any changes unlike reflexology.

Decrease diastolic blood in pressure and pulse rate by 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 high-quality 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. Inflammationpromoting 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. proinflammatory 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 svstem. 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 has 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 IL-6 and 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 With enzymes. uncoordinated insufficient or contractions, less pre-digestion occurs. Similarly. oxvtocin stimulates peristalsis of the colon. Children with stomach upset have demonstrably lower blood 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 [16]. Moreover. the plasma researchers found that personal touch activates areas in the orbitofrontal cortex more intensely, whereas body sensation is processed in the somatosensory cortex.

orbitofrontal The 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 of reflexology in the brain were previously demonstrated bv 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 system, it causes neuronal decrease. As a result. with prolonged stress, we experience swerving emotions. difficulty concentrating and difficultv 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 massage technique effects oxytocin levels. Studies refer to light or gentle massage. And of course, it is possible that gentle massage produces a different biochemical effect than, for example, the walking thumb technique. Unfortunately, no 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.

studies These show that reflexology has immediate an 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 а beneficial effect on health. Evidence for the lowering effect heart rhythm and blood on pressure is strongest.

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, patientcentered and cost-reducing therapy by European national healthcare systems.

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