**Sources: The Science behind 5 Senses**

5 Senses translates the best scientific knowledge available East and West into practice from scholarly articles published in peer-reviewed journals and classic texts.

1. Scientific findings and concepts (titles in bold were the most influential to 5 Senses):

Abrezoi R 2007. **Vaincre par la sophrologie.** Santé pratique. LANORE.

Arai YC, Makino I, Ikemoto T, Saisu H, Terajima Y and K Owari 2020. **Kampo for the treatment of pain in Japan: a review**, Pain and Therapy Volume 9: 161–170.

Arck P, Slominski A, Theoharides T, Peters E and R Paus 2006. **Neuroimmunology of Stress: Skin Takes Center Stage.** Journal of Investigative Dermatology Volume 126, Issue 8, Pages 1697-1704. <https://doi.org/10.1038/sj.jid.5700104>[Get](https://s100.copyright.com/AppDispatchServlet?publisherName=ELS&contentID=S0022202X15330311&orderBeanReset=true)

Arck PC, Rücke M, Rose M, Szekeres-Bartho J, Douglas AJ, Pritsch M, , Blois SM, Pincus MK, Bärenstrauch N, Dudenhausen JW, Nakamura K, Sheps S and BF Klapp 2008. Early risk factors for miscarriage: a prospective cohort study in pregnant women. Reproductive biomedicine online 17 (1), 101-113.

Azeemi S and S Raza 2005. A Critical Analysis of Chromotherapy and Its Scientific Evolution.Evid Based Complement Alternat Med 2(4):481–488. doi: [10.1093/ecam/neh137](https://doi.org/10.1093/ecam/neh137)

Black D and G Slavich 2016. **Mindfulness meditation and the immune system: a systematic review of randomized controlled trials**. Annals of the New York Academy of Sciences. 1373:1:13-24. https://doi.org/10.1111/nyas.12998

Borghare P, Methwani D and AG Pathade 2024. A Comprehensive Review on Harnessing Wearable Technology for Enhanced Depression Treatment Cures. Cureus 16(8) doi: 10.7759/cureus.66173

Chrousos, G. 2009. **Stress and disorders of the stress system**.Nat Rev Endocrinol 2009 Jul;5(7):374-81. doi: 10.1038/nrendo.2009.106.

Critchley H and N Harrison 2013. **Visceral Influences on Brain and Behavior**. Neuron.Volume 77, Issue 4, 624-638. <https://doi.org/10.1016/j.neuron.2013.02.008>

Daëron M 2022. The immune system as a system of relations. Frontiers in Immunology Volume 13 - 2022 | https://doi.org/10.3389/fimmu.2022.984678

Davidson R and B McEwen 2012. **Social influences on neuroplasticity: stress and interventions to promote well-being**. Nat Neurosci 15, 689–695 (2012). <https://doi.org/10.1038/nn.3093>

De Witte M, Pinho A, Stams GJ, Moonen X, Bos A and S van Hooren 2020. **Music therapy for stress reduction: a systematic review and meta-analysis.** Health Psychology Review, 16(1), 134–159. https://doi.org/10.1080/17437199.2020.1846580

Dutheil, F and LM Parreira 2023. ["Sophrology Intervention to Improve WELL-Being in Hospital Staff (SO-WELL): Protocol for a Randomized Controlled Trial Study"](https://pmc.ncbi.nlm.nih.gov/articles/PMC9859524/). International Journal of Environmental Research and Public Health. 20(2):1185. doi: 10.3390/ijerph20021185

Gold PW 2015. **The organization of the stress system and its dysregulation in depressive illness**. Mol Psychiatry 20(1):32-47. doi:10.1038/mp.2014.163

Goldstein DS and IJ Kopin 2007. **Evolution of concepts of stress**. Stress, 10(2), 109–120. <https://doi.org/10.1080/10253890701288935>

González Ramírez ML, García Vázquez JP, Rodríguez MD, Padilla-López LA, Galindo-Aldana GM and D Cuevas-González 2023. Wearables for Stress Management: A Scoping Review. Healthcare (17):2369. doi: 10.3390/healthcare11172369. PMID: 37685403; PMCID: PMC10486660.

Gordon WL, Landman A, Zhang H and DW Bates 2020. Beyond validation: getting health apps into clinical practice. npj Digital Medicine volume 3, Article number: 14.

Herman-Lingen C 2017. The American Psychosomatic Society – integrating mind, brain, body and social context in medicine since 1942. Biopsychosoc Med.11:11. doi: [10.1186/s13030-017-0096-6](https://doi.org/10.1186/s13030-017-0096-6)

Kanter M and A Desrosiers 2019. Personalized Wellness Past and Future: Will the Science and Technology Coevolve? Nutrition Today [54(4):p 174-181, 7/8 2019.](https://journals.lww.com/nutritiontodayonline/toc/2019/07000) DOI: 10.1097/NT.0000000000000354

Kainuma M 2016. Kampo diagnosis based on Sho. In Methods in Pharmacology and Toxicology 9-18. Humana Press. <https://doi.org/10.1007/978-1-4939-4002-8_2>

Kalitzkus V and PF Matthiessen 2009. Narrative-Based Medicine: Potential, Pitfalls, and Practice. Permanente Journal. 2009 Winter;13(1):80–86. doi: [10.7812/tpp/08-043](https://doi.org/10.7812/tpp/08-043)

Lee KS, Jeong HC, Yim JE and MY Jeon 2016. Effects of Music Therapy on the Cardiovascular and Autonomic Nervous System in Stress-Induced University Students: A Randomized Controlled Trial [The Journal of Alternative and Complementary Medicine](https://www.liebertpub.com/journal/jicm) [Vol. 22, No. 1](https://www.liebertpub.com/toc/acm/22/1) [https://doi.org/10.1089/acm.2015.007](https://doi.org/10.1089/acm.2015.0079)

Levi L, Ed. 1971. **Society, Stress and Disease. Volume 1**: The Psychosocial Environment and Psychosomatic Disease. Oxford University Press. Proceedings of an International Interdisciplinary Symposium cohosted by the World Health Organization and the Karolinska Institute, Stockholm. <https://ia801402.us.archive.org/35/items/in.ernet.dli.2015.139068/2015.139068.Society-Stress-And-Disease-Vol-I_text.pdf>

Mackenzie E and B Raskel, Ed. 2006. Complementary and alternative medicine for older adults. Chapter by Ai A: Daoist spirituality and philosophy: implications for aging and longevity. Springer.

McKusker RH and KW Kelley 2013. Immune–neural connections: how the immune system’s response to infectious agents influences behavior. J Exp Biol (2013) 216 (1): 84–98 doi.org/10.1242/jeb.073411

Murakami M and Y Nakai 2017. Current state and future prospects for psychosomatic medicine in Japan. [BioPsychoSocial Medicine](https://bpsmedicine.biomedcentral.com/) 11:1.

Nakamura K, S Sheps and PC Arck 2008. **Stress and reproductive failure: past notions, present insights and future directions**. Journal of assisted reproduction and genetics 25 (2), 47-62.

Palsane M and DJ Lam 1996. Stress and Coping from Traditional Indian and Chinese Perspectives. Psychology and Developing Societies. Volume 8, Issue 1 doi.org/10.1177/097133369600800103

Raglio A, Attardo L, Gontero G, Rollino S, Groppo E and E Granieri 2015. Effects of music and music therapy on mood in neurological patients. World J Psychiatr 2015; 5(1): 68-78 [PMID: 25815256 DOI: 10.5498/wjp.v5.i1.68]

Rattan S and D Demirovic 2009. Hormesis Can and Does Work in Humans. Dose Response 8(1):58–63. doi: [10.2203/dose-response.09-041.Rattan](https://doi.org/10.2203/dose-response.09-041.Rattan)

Shirai T and K Tsushita 2024. Lifestyle Medicine and Japan’s Longevity Miracle. Am J Lifestyle Med 18(4):598–607. doi: [10.1177/15598276241234012](https://doi.org/10.1177/15598276241234012)

Szabo S, Tache Y and A Somogyi 2012. **The legacy of Hans Selye and the origins of stress research:** A retrospective 75 years after his landmark brief “Letter” to the Editor of Nature. Stress 1: 472-478. <https://doi.org/10.3109/10253890.2012.710919>

Szreter S 2003. The population health approach in historical perspective. Am J Public Health. 93(3):421-31. doi: 10.2105/ajph.93.3.421. PMID: 12604486; PMCID: PMC1449802.

Takayama S MD, PhD, Akaishi T MD, PhD, Nozaki R RN, MSN, Suzuki S MD, Arita R MD, Saito N MD, Tanaka J MD, PhD, Numata T MD, PhD, Kikuchi A MD, PhD, Ohsawa M MD, PhD, Abe M MD, PhD, and T Ishii MD, PhD 2020. **Characteristics and course of patients treated with Kampo Medicine** in the Department of General Medicine. Journal of General and Family Medicine Volume 21, Issue 3 pp. 48-55 <https://doi.org/10.1002/jgf2.294>

Thoma MV, La Marca R, Brönnimann R, Finkel L, Ehlert U and UM Nate 2013. **The Effect of Music on the Human Stress Response.** PLOS One 10 year anniversary interdisciplinary research. <https://doi.org/10.1371/journal.pone.0070156>

Tosa H and K Terasawa 1992. Therapy by Japanese Oriental medicine (kampo) in irritable bowel syndrome Nihon Rinsho 50(11):2752-7.

Uchida Y and S Kitayama 2009. Happiness and unhappiness in east and west: Themes and variations. Emotion, 9(4), 441–456. [https://doi.org/10.1037/a0015634](https://psycnet.apa.org/doi/10.1037/a0015634)

Uchida Y and V Norasakkunkit 2023. Asian Versus Western Views. In: Maggino, F. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, doi.org/10.1007/978-3-031-17299-1\_114

Ushiroyama T 2013. **The role of traditional Japanese medicine (Kampo) in the practice of psychosomatic medicine: the usefulness of Kampo in the treatment of the stress-related symptoms of women, especially those with peri-menopausal disorder**. Biopsychosoc Med 7:16. doi: 10.1186/1751-0759-7-16.

Ushiroyama T 2005. Japanese Kampo medicine for women: historical perspectives of Koho-ha school and current concerns in menopausal medicine. Advances in Obstetrics and GynecologyVolume 57 Issue 2 Pages 131-150 https://doi.org/10.11437/sanpunosinpo.57.131

Van den Berg MKN, Karahanoğlu A, Noordzij ML, Maeckelberghe ELM and GDS Ludden 2025. **Why we should stress about stress scores: issues and directions for wearable stress-tracking technology.** Interacting with Computers https://doi.org/10.1093/iwc/iwaf036

Van Rangelrooij K, Solans-Buxeda R, Fernández-García M, Caycedo-Desprez N, Selvam, R and Bulbena, A 2020. **Effectiveness of a 4-week sophrology program for primary care patients with moderate to high anxiety levels: a randomised controlled trial**. Actas Españolas de Psiquiatría. 48 (5): 200–208. [PMID](https://en.wikipedia.org/wiki/PMID_%28identifier%29) [33210278](https://pubmed.ncbi.nlm.nih.gov/33210278).

Van Rangelrooij K, Solans-Buxeda R, Fernández-García M, Caycedo-Desprez N, Selvam, R and Bulbena, A 2020.["Effectiveness of a structured group relaxation-training program based on sophrology's dynamic relaxation techniques for primary care patients with moderate and high anxiety levels"](https://diposit.ub.edu/dspace/bitstream/2445/208503/1/838157.pdf) (PDF). Actas Españolas de Psiquiatría.

Vozeh 2018. Immunity – a Significant Pathogenic Factor as Well as an Integral Part of the Psychoneuroendocrine-Immune Regulations. Physiol. Res. 67: 165-173

Yap SY, Ng FL, Subramaniam M, Lim YM, Foo CN. **Traditional Chinese Medicine Body Constitutions as Predictors for Depression: A Systematic Review and Meta-Analysis**. Behav Sci (Basel). 2022 Oct 30;12(11):423. doi: 10.3390/bs12110423. PMID: 36354400; PMCID: PMC9687208.

Zedler P, Büntzel J, Kuchta K, Yamaoka D, Sato N, Watanabe K, and S Cameron 2024. **Traditional clinical symptoms and signs: Kampo pattern diagnosis in modern gastrointestinal disease**. J Front Pharmacol 15:1426491. doi: [10.3389/fphar.2024.1426491](https://doi.org/10.3389/fphar.2024.1426491)

**\*The 5 Senses interactive survey draws from the Kampo Sho diagnostic questionnaire validated by Zeller, a German gastroenterologist, for use in medical practice and pain management in German and English from Japanese in collaboration with Japanese physicians Yamaoka, Sato and Watanabe.**

Zou H. Zou H, Yan R, Yao Z and Q Lu 2022. Chronotype, circadian rhythm, and psychiatric disorders: recent evidence and potential mechanisms. Front. Neurosci. 16:811771. doi: 10.3389/fnins.2022.811771.

1. Knowledge, principles and empirically-proven techniques from classical texts:

Eikan, Kaibara, 14th century AD. Yojokun: The Way of Nurturing Life. Written by Samurai and Physician Kaibara Eikan, this text contains foundational principles of traditional Japanese healthcare, known as Kampo.

Ishinpō (醫心方), Heart of Medicine, compiled in 984AD, is the oldest medical text in Japan and stored a national treasure. It contains distinct diagnostic techniques that depart from traditional Chinese medicine while remaining rooted to the same foundational principles. One of these techniques is the idea that a person’s constitution, meaning their pattern of health or Shō (証), can be learned from their current physical appearance and narrative about their relationships.

Daozang, compiled over centuries, contains foundational principles of Taoism and the practice of reversing Qi as one of many for circulating and cultivating the energy flow in the body to re-set its balance. A Qi reversal exercise, the Small Heaven Circulation, is found in 5 Senses exercise 1.

Huangdi Neijing, The Yellow Emperor's Classic of Internal Medicine, 2nd century BC, contains the foundational principles of cultivating qi (vital energy) in Traditional Chinese Medicine and Qi Gong exercises. Health and healing are achieved by balancing basic forces inside the human body and with its environment, including relationships, for example by observing and resetting the balance between how energy is directed internally (yin) and externally (yang).

Xi Qi Ming, On Circulating Qi, 4th century AD, contains applications and practices for cultivating balanced circulation of energy, heat/cold, moisture and other material properties in the body.

Charaka Samhita, 4th century BC to 2nd century AD, is the core Ayurveda text on health, factors of disease and prevention and integrating the human mind into concepts of pathology and recovery, and emphasizing that mind-body balance is fundamental to good health. Vedic literature presents exercises and practices for mind-body balance in numerous texts, the classics being Dinachariya, or daily regimen, and Sadvritta, code of good health, and many more on yoga and meditation for promoting mental clarity, stress relief, and emotional balance.

1. Insights on Stress Relief from Physicians in France, Greece, Spain, Switzerland, China

Abrezoi R 2007. **Vaincre par la sophrologie.** Santé pratique. LANORE.

**\*Dr. Ray Abrezoi,** a Swiss physician, is well known for training >40 Olympic athletes with the practices and methods in this book, some of which are incorporated into 5 Senses in the first and second audio exercises.Relatively unknown in North America, but widely applied in Europe for example in the programming of luxury longevity spa Chenot Palace Weggis, sophrology is a European term for empirically-proven techniques and physical exercises derived from Kampo, Traditional Chinese Medicine, Ayurveda and yoga by Physicians Dr. Alonso Cayetano and Ray Abrezoi and presented with a Western sensibility.

Caycedo, A 1964. Sophrology and psychosomatic medicine. Lecture. American Journal of Clinical Hypnosis 7:2:103-106. <https://doi.org/10.1080/00029157.1964.10402403>

Chrousos, George: How to live well and be happy. https://www.endokrinologiki.med.uoa.gr/en/blog/2020/05/13/stress-expert-george-chrousos-on-how-to-live-well-and-be-happy/

Mammas I, Theodoridou M and D Spandidos 2019. The wisdom and eudaimonia of Paediatrics: An interview with Professor George P. Chrousos, Professor of Paediatrics and Endocrinology at the University of Athens, Greece Exp Ther Med 18(4):3217–3220. doi: [10.3892/etm.2019.7945](https://doi.org/10.3892/etm.2019.7945)

Zhao H and Y Luo 2017. Traditional Chinese Medicine and Aging Intervention. Editorial. Aging and disease Vol. 8 Issue 6: 688-690. DOI: 10.14336/AD.2017.1002