

# Homeopathy and Medicine

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## Abstract

Conventional medicine and homeopathy treat diseases differently. In traditional medicine, treatment is based on the use of drugs that act directly on the disease. In homeopathy, treatment is based on the activity of highly diluted homeopathic substances called Simillimum that cause similar symptoms in healthy individuals. This is known as the “pattern of remedy,” i.e., the homeopathic syndrome (HS). With the development of a disease equilibrium in human cells, which takes advantage of the Law of Similars, the patients are treated with Simillimum. The concentration of Simillimum, which is necessary for equilibrium at the cellular level, is extremely low and the treatment has no side effects, since only one disease equilibrium is involved in the treatment. Homeopathy treats the individual holistically, because it takes place in human cells subjected to homeostasis. The probable biomedical activity of Simillimum molecules during the treatment in human cells within the framework of molecular homeopathy is presented.

**Keywords:** Homeopathy, Simillimum, Succussion, Nanotechnology, Placebo effect

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## Introduction

Homeopathy works on the principle of “like cures like”, which is considered as a natural treatment and follows the tradition of natural medicine based on ancient principles. The method of treatment is aligned with the well-known Law of Similars, attributed to the earliest Greek physician Hippocrates, who observed that substances that cause disease-like symptoms in healthy individuals can be used to treat the same symptoms in sick individuals. This method of healing, based on the Law of Similars, has been part of human history since very early times and is part of our evolution and remains in a similar form to this day.

Homeopathy, as a distinct system of medicine was established by Samuel Hahnemann (1755-1843) in the late 18<sup>th</sup> century, when he experimented with various substances and developed the values and practices that define homeopathy today. The systematic development of homeopathy as a special medical system is mainly ascribed to him and his well-known work “Organon of Healing” [1].

The thermodynamic aspect of homeopathy [2-4] has highlighted one of its most important properties, the existence of a compound that causes disease in a healthy person and has the same chemical composition as the compound that causes the disease. Vitoulkas [5] and Bellavite and Signorini [6] predicted the existence of this compound and named it Simillimum.

Simillimum plays an essential role in homeopathy and is crucial for the action of the Law of Similars on which health care with homeopathy rests. It is the basis for the thermodynamic interpretation of homeopathy and participates in the healing process at the cellular level.

Today, we understand homeopathy as a natural phenomenon related to the biochemical equilibrium of the disease in question,

which makes possible the use of elementary thermodynamic principles to explain the essence of homeopathy, the Law of Similars, which is essentially the thermodynamic interpretation of Le Chatelier's principle [2,3].

## Healing with Homeopathy

An important achievement of Hahnemann was the optimization of a homeopathic remedy called succussion, i.e., the sequential milling and dilution of the remedy. This procedure was developed by Hahnemann after reducing the homeopathic aggravation, which is a previous increase in disease symptoms after the addition of the remedy to a sick individual. These were greatly reduced or even disappeared after dilution of the remedy addition when added to the diseased individual and allowed a rapid start of the homeopathic treatment [2]. When eliminating homeopathic aggravation after dilution of the remedy, the remedy in its original form was not optimized (succussioned) and worked according to the basic pharmacological principles i.e., less drug, less medicinal effect.

Hahnemann continued the process of remedy optimization that he had begun by eliminating homeopathic aggravation. He introduced sequential milling and diluting of the remedy suspension according to a certain dilution procedure. This particular method of remedy optimization invented by Hahnemann, which by gradually milling and dilution even up to an empty suspension improves its medical efficiency, raises some key questions about its mode of action [7].

For an arbitrary presentation of the formation of an empty suspension based on serial dilution, we used a 10 nm particle size gold suspension that has a known particle concentration of  $10^{12}$  C/cm<sup>3</sup> [8]. According to the centesimal dilution procedure of an arbitrary suspension with a particle size of 10 nm, for  $n = 7$  (7c) dilution



cycles, the number of dilution volume segments is  $10^{14}$  greater than the concentration of the suspension particles and results in an empty suspension after the last dilution cycle. The same is true for our remedy suspension. The selected remedy particle size of 10 nm for our model remedy suspension is arbitrary and was used to demonstrate the mechanism of the succussion process. So, after  $n = 7$  dilution cycles our suspension is without remedy nanoparticles, is an empty suspension and we can call it homeopathic medical solution.

In practice, this homeopathic (allegedly empty) remedy suspension, the homeopathic medical solution, has improved its therapeutic efficacy, and which has been clinically proven. However, the noticeable medicinal improvement of the supposedly empty succussed suspension, determined on the basis of serial dilution, surprised homeopaths and doctors.

The homeopaths developed the thesis that succussion provides kinetic and or potential energy obtained during strong milling to be stored in the remedy suspension and/or in the homeopathic medical solution, which should be therapeutic, comprising the body's "vital energy" [9], which heals the patient in spite of a supposedly empty medical solution.

To the traditional Chinese and Japanese medicine of Ayurveda, the "vital energy" of the body is a kind of life-force energy that flows through the body and is responsible for the health and vitality of the individual. Various techniques are used to regulate and stimulate this "vital energy", from acupuncture, acupressure, yoga and many others. This concept is not confirmed by scientific evidence and is part of traditional healing systems and philosophies, where homeopathy is also trying to be placed.

Several milling techniques are used in homeopathy, depending on the type of remedy material. The materials used in homeopathy are based on minerals and metals, plant materials and animal products. These materials are mechanically milled using techniques that depend on the material used. Milling equipment such as ball mills, impact mills or spray mills are the most commonly used.

However, it should be noted that after elementary knowledge of nanotechnology, the milling energy provided during succussion cycles changes the constitution of the remedy suspension, i.e., changes the particle size distribution, releases new molecules from the surface of the remedy nanoparticles, including Simillimum molecules. Succussion is therefore a process in which, through a combination of milling and sequential dilution, a suspension of remedy nanoparticles is continuously transformed into a homeopathic medical solution of remedy molecules, with a large proportion of medically active Simillimum molecules [4].

After each milling cycle the constitution of the remedy suspension changes in favour of increasing the part of remedy molecules with a dominant share of Simillimum molecules. The sequential milling/dilution decreases the remedy's nanoparticle size and concentration and increase the ratio of remedy molecules with the predominant amount of medically active Simillimum molecules, versus the rest of the remedy nanoparticles in suspension, which increase the healing ability of the succussed suspension and explains the healing paradox in homeopathy, the increase of healing ability of remedy suspension that occurs with the suspension's succussion (dilution).

Based on the current state of science, there is no reason why the milling energy that is intended to fulfill its purpose, changing the constitution of the remedy suspension, would accumulate in the remedy suspension and/or in the homeopathic medical solution in any form, also as "vital energy", and would stimulate the healing without a well-founded health concept that has no scientific base.

Thus, this problem moved to the field of medicine, where it was presented as a "placebo effect". The placebo effect, or unconscious healing effect, is a phenomenon that occurs when a patient experiences an improvement in their condition or symptoms after receiving an incorrect treatment or a drug that does not actually contain an active ingredient that could affect the disease or symptoms of the disease. This phenomenon shows the strength of the patient's mind and expectations and suggests that psychological factors can have an influence on the physical state of the organism. In principle, however, this treatment is the work of the subconscious, since the patient has not taken any drugs [10].

The difficulty that homeopaths and physicians have had in establishing the medicinal effects of homeopathic suspensions that have reached high succussion cycles, which is said to be empty, has been due to the belief that the constitution of the suspension does not change during vigorous milling, which essentially would lead to a blank medicinal solution. This belief is at odds with the scientific basis of materials science.

In general, as mentioned above, the milling of remedy suspensions reduces the size of the remedy nanoparticles and separates the molecules from the nanoparticle surface, so that the components of the suspension change continuously during milling, during each milling cycle in terms of the number and size distribution of the remedy nanoparticles and the number of remedy molecules with a predominant number of Simillimum molecules released from the remedy nanoparticles. Due to the continuous formation of remedy molecules during milling, the concentration of stabilized remedy molecules with a predominant share of Simillimum molecules partially withstands the sequential dilution until the complete elimination of the remedy nanoparticles participating in the homeopathic healing process.

The succussion might keep the therapeutic efficacy of the homeopathic solution up to the high serial dilution degree due to the permanent formation of the medically efficient Simillimum molecules after each milling cycle up to the elimination of the remedy nanoparticles from the suspension [7].

So, when considering the homeopathy, in fact, most of the activities related to homeopathy should be directed to establishing the identity, the chemical composition of the Simillimum molecules and the possibility of synthesis. What is its composition and their presence in the homeopathic medicine and in sick individuals?

## Simillimum in Medicine

In the case of a known composition of Simillimum, the lactose-stabilized molecules of Simillimum can be prepared using the succussion of a Simillimum suspension and form a homeopathic medical solution. Here, however, the mechanism of healing using Simillimum will be different from that of conventional medicine.

In medicine, drugs made according to the homeopathic pharmacopeia are used homeopathically, isopathically [11], and allopathically as multicomponent preparations [12].

The pharmacokinetics of a drug in specialist medicine, considering the size of the particles and the amount of the active substance, leaves a clear biochemical trace in the body from resorption through pharmacodynamics to breakdown and elimination from the body. Nanoparticles of active substances in potentized homeopathic medicine do not trigger pharmacological but physiological processes in the body [13], which can be explained by quantum physical [14] and thermodynamic laws [2, 3]. At the same time, biochemical research should be directed towards investigating energy dependent changes in the phenotype of fibrocytes under the influence of Simillimum with



the measurement of the activity of AMP protein kinase as the leading indicator of energy changes in the body [15]. In general, the process of homeopathic prescribing takes advantage of the cross adaptation between different types of stressors (post-conditioning heterotypic hormesis) [13].

Only the use of a potentized drug following the Law of Similars is the use of Simillimum. Simillimum is used to treat multisystem HS, which has been described in first-phase clinical trials (“provings” in homeopathic jargon). HS is a totality of symptoms and their modalities on the mental, emotional, and physical levels, specific reactions to the environment and habits of the sick organism. It is formed due to allostatic load/overload [16], i.e., and represents a stable pattern of specific internal dynamics of breaking through the reactive scope (reactive and predictable homeostasis) [17]. The main advantage of Simillimum is the possibility of returning the organism to the reactive scope of psychosomatic processes.

Even though the two homeopathic principles, “like cures like” and biological effects of high dilutions, cannot be considered to be always in conflict with biomedicine, the lack of good randomized clinical trials in the field of homeopathy that presents the success of this method of treatment still exists [18]. Namely, the fact that the Simillimum treats the HS as a whole, i.e., it has the task of generally changing the body’s reactivity to stressors [19], is persistently ignored. The goal of Simillimum treatment is not the disappearance of asthma or migraine symptoms, for example, or diseases from the spectrum of specialist medicine diagnosis. However, it is expected that asthma or migraine symptoms will disappear due to treatment with Simillimum. But, if HS is a defined pattern of breaking through the reactive scope, treating HS aims to return the organism to the reactive scope. Considering the level of deviation from the reactive scope, the treatment of HS has the regularities described in the Theory of Health [20], which must be considered when evaluating the results. The reactive scope of the organism includes the first and possibly the second group of health levels [20]. At the mentioned levels, the organism can still develop regenerative inflammations [21] and transient complaints in response to internal and external stressors. Breaking through the reactive scope has stable patterns in both qualitative and quantitative terms. Qualitatively different patterns of breaking through the reactive scope are HS described in *Materia Medica*. Quantitatively, a greater distance from the reactive range generally reduces the reactivity of the organism, and keynotes of HS are often missing. The quantum entanglement is higher [22], the organism is affected by a decisive hereditary influence and is usually weakened by a few overlapped HS. Unlike solitary HS, for the treatment of overlapped HS, it is necessary to successively prescribe several homeopathic remedies, each of which will be Simillimum at the moment it is indicated.

## Conclusions

We present an overview of the functioning of homeopathy in the light of the thermodynamic view of homeopathy and nanotechnology, where the Simillimum compound plays the major role. These Simillimum molecules, which are released from remedy nanoparticles during the succussion of the remedy suspension, participate in the formation of a new equilibrium in human cells and take advantage of the Law of Similars within the framework of homeostasis, which gives homeopathy a holistic approach to treatment. The biochemical activity of Simillimum molecules during treatment in human cells works within the framework of the main principles of molecular homeopathy.

## Acknowledgements

None.

## Conflict of Interest

None.

## References

1. Gevitz N (2013) Unorthodox Medical Theories. In *Companion Encyclopedia of the History of Medicine*. Routledge, pp 629-659.
2. Drogenik M (2021) Thermodynamic Aspects of Homeopathy. *Alternative Medicine - Update*, pp 131-145.
3. Drogenik M (2022) A new explanation of homeopathy. *Prensa Med Argent* 108: 1-5. <https://doi.org/10.47275/0032-745X-355>
4. Drogenik M (2022) The role of Simillimum in homeopathy. *Prensa Med Argent* 109: 1-2. <https://doi.org/10.47275/0032-745X-385>
5. Vithoulkas G (2014) *The Science of Homeopathy*. International Academy of Classical Homeopathy. New York.
6. Bellavite P, Signorini A (2002) *The Emerging Science of Homeopathy: Complexity, Biodynamics, and Nanopharmacology*. North Atlantic Books, Berkeley, United States.
7. Drogenik M (2023) The role of succussion in homeopathy. *Prensa Med Argent* 110: 1-3. <https://doi.org/10.47275/0032-745X-413>
8. Schavkan A, Gollwitzer C, Garcia-Diez R, Krumrey M, Minelli C, et al. (2019) Number concentration of gold nanoparticles in suspension: SAXS and spICPMS as traceable methods compared to laboratory methods. *Nanomaterials* 9: 1-20. <https://doi.org/10.3390/nano9040502>
9. Patwardhan B, Bodeker G (2008) Ayurvedic genomics: establishing a genetic basis for mind–body typologies. *J Altern Complement Med* 14: 571-576. <https://doi.org/10.1089/acm.2007.0515>
10. Guijarro C (2015) A history of the placebo. *Neurosci Hist* 3: 68-80.
11. Banerjee P, Biswas SJ, Belon P, Khuda-Bukhsh AR (2007) A potentized homeopathic drug, arsenicum album 200, can ameliorate genotoxicity induced by repeated injections of arsenic trioxide in mice. *J Vet Med A Physiol Pathol Clin Med* 54: 370-376. <https://doi.org/10.1111/j.1439-0442.2007.00945.x>
12. van Haselen R, Thinesse-Mallwitz M, Maidannyk V, Buskin SL, Weber S, et al. (2016) The effectiveness and safety of a homeopathic medicinal product in pediatric upper respiratory tract infections with fever: a randomized controlled trial. *Glob Pediatr Health* 3: 1-11. <https://doi.org/10.1177/2333794X16654851>
13. Bell IR, Koithan M, Brooks AJ (2013) Testing the nanoparticle-allostatic cross-adaptation-sensitization model for homeopathic remedy effects. *Homeopathy* 102: 66-81. <https://doi.org/10.1016/j.homp.2012.10.005>
14. Manzalini A, Galeazzi B (2019) Explaining homeopathy with quantum electrodynamics. *Homeopathy* 108: 169-176. <https://doi.org/10.1055/s-0039-1681037>
15. Sharma A, Anand S, Singh N, Nath Dwivedi U, Kakkar P (2023) AMP-activated protein kinase: an energy sensor and survival mechanism in the reinstatement of metabolic homeostasis. *Exp Cell Res* 428: 113614. <https://doi.org/10.1016/j.yexcr.2023.113614>
16. McEwen B, Wingfield J (2003) The concept of allostasis in biology and biomedicine. *Horm Behav* 43: 2-15. [https://doi.org/10.1016/S0018-506X\(02\)00024-7](https://doi.org/10.1016/S0018-506X(02)00024-7)
17. Romero LM, Dickens MJ, Cyr NE (2009) The reactive scope model - a new model integrating homeostasis, allostasis, and stress. *Horm Behav* 55: 375-389. <https://doi.org/10.1016/j.yhbeh.2008.12.009>
18. Merrell WC, Shalts E (2002) Homeopathy. *Med Clin North Am* 86: 47-62. [https://doi.org/10.1016/S0025-7125\(03\)00071-3](https://doi.org/10.1016/S0025-7125(03)00071-3)
19. Oberbaum M, Singer SR, Vithoulkas G (2005) The colour of the homeopathic improvement: the multidimensional nature of the response to homeopathic therapy. *Homeopathy* 94: 196-199. <https://doi.org/10.1016/j.homp.2005.05.004>
20. Vithoulkas G (2017) Levels of Health. IACH, Alonissos. [<https://www.vithoulkas.com/contributions-prof-george-vithoulkas/levels-health/>] [Accessed August 19, 2024]
21. Caballero-Sanchez N, Alonso-Alonso S, Nagy L (2024) Regenerative inflammation: when immune cells help to re-build tissues. *FEBS J* 291: 1597-1614. <https://doi.org/10.1111/febs.16693>
22. Youvan DC (2023) Quantum Entanglement in Cellular Bioenergetics: Unravelling the Quantum Basis of Consciousness.