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## **History of the Baths and Thermal Medicine**

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## Abstract

Hot Springs and Thermal Medicine are an important cultural background all around the world. The authors briefly describe the history of the spa from its origins to today.

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## Introduction

Thermal Medicine is a discipline which studies and teaches the characteristics of thermal treatments, their biological and pharmacological actions, and therapeutic effects.

The beneficial effects of thermal cures are well-known since the ancient time, when men discovered the importance of water as an essential element for human life, and built the first civilities near to seas and rivers [1]. Indians and Greeks thought that the water was on the basis of the world (Archè) and of the human being. Also in the Genesis of Bible, water has been described as the origin of cosmos.

It was not long before men were discovering the beneficial properties of water, like its healing and disease-protecting effects. Due to its importance, water was seen as magic and considered a gift of the divinity. Egyptians and Israelites used to plunge themselves in the sacral water of Niles and Jordan, Hindus in the Ganges river for healing their soul and body.

In Egyptian times the water has also been used for hygienic and cosmetology purposes. It seems that Egyptian women used to practice water vapours to be more beautiful, and the legendary Cleopatra used to make wraps with mud from the Dead Sea, to maintain her legendary beauty. Nevertheless, it was by the Greeks that thermalism was born [2].

Due to the supernatural power attributed to the warm waters and their vapours, it's not surprising how the first Thermal arose near the temples and natural hot springs. Ancient Greeks well-knew the beneficial properties of sulphurous springs, especially for healing skin diseases and for relieving muscular and joint pain. In the Homeric poems and Hesiod, many references are made to the use of restorative baths. Also, some of Greece's famous philosophers, such as Hippocrates and Plato, wrote of the benefits of hydrotherapy. Hippocrates dedicated a large section to thermal water in his work "De is, a guiz at loci", in which he described the chemical and organoleptic water features, and the effects of hot and cold baths on the human body. The philosopher proposed the hypothesis that all the human diseases started in an imbalance of the bodily fluids. To restore the balance, changes of habits and environment were advised, included bathing, perspiration, walking, and massages. For this reason, baths were often associated to a gymnasium. A body massage with oil and unquents was introduced after the bath, to restore the skin properties and to relax the patient.

Over time, new baths, both public and private ones, were built inside of various cities.

Even the Etruscans have given great importance to the use of water, not only for its cleanliness and cosmetic properties but also for the healing one. That is why they built spring terms near their town.

If thermalism was born in the ancient Greek, was only by the Roman time that it experienced its gold age [3]. Taking the lead from the Greeks, Romans considered bathing as a regular regimen for health.

With Romans thermal baths became a social experience for everyone. In a first time, numerous baths (Balnea), both private and public, had been constructed in Rome and conquered lands all over Europe. Balnea were also built in private houses, often with special areas dedicated to the sauna or the massage. The advent of the aqueducts, led to the building of magnificent edifices (Thermae) with a capacity for hundreds or thousands of people. From being a good regimen for human health, thermalism became an important experience for socialising, relaxation and working. The new thermal centres (or SPA, "Sanus per Aquam"), in addition to balnea, consisted of gardens, shops and libraries. The Roman Thermae also had a medicinal emphasis, and they were largely used as recuperation centres for the wounded military soldiers. Roman legionaries, fatigued by wars, used to relax and to treat their sore wounds and tired muscles through natural spring water. Many physicians, such as Galen and Celso, studied the water compositions, its effects and clinical indications. Some of the Thermae were addressed for their therapeutical properties. Hydrology became a real science: thermal treatments were prescribed with specific indications to follow and underwent to a medical surveillance [4].

Unfortunately, in the middle age, the

progressive decline of the Roman Empire, the barbarian invasions and the spread of Christianity, lead to the thermal crisis. Thermae became progressively desert. Baths were accepted only as a cleaning or a therapeutic tool [4]. On the other hand, at the same time, physicians continued to study the different types of water, underlining their specific clinical indications (e.g. sulphurous water was recommended for skin diseases. while the salsobromoiodic one was recommended for female sterility).

In the Renaissance era, spas and hydrology were revalued [5]. New scientific studies have been conducted and, due to the introduction of printing, they began to spread on a large scale. Spa treatments became more targeted and specific for the treatment of various medical conditions.

Laicality of medical thermalism reinforced more and more during the illuminism and consolidated in the XVIII and XIX centuries. At this age, the scientific progress made the medical hydrology an experimental science and not more an empirical one. The biochemical studies on mineral waters underlined their properties and clinical indications. Doctors were convinced that for each disease there was an appropriate medicinal spring. By this point of view, Vincent Priessnitz [6] and Sebastian Kneipp may be considered as the two fathers of the modern balneotherapy (medicinal use of thermal water) and hydrotherapy (immersion of the body in thermal water for therapeutic purposes).

Combined treatments, such as herbal baths, mud packs, active physical exercises, massages, and diets, were developed too. Often large and beautiful gardens were built near the new spas, underling the importance of the combination ecology-hydrology [7]

Finally, in this period, important scientific institutions and famous academy schools were founded to study thermalism in many European countries.

 Table 1: Main dermatological diseases which may be treated with thermal medicine

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eborrheic dermatitis	
ollagen vascular disorders	

The next Belle Epoque saw the emergence of "Elitist Thermalism". Throughout Europe and the Americas, the Spas were on the rise. Grand hotels, casinos, bar and restaurants arose, near the spa resorts. The new thermal centres were integral parts of gentility life, a meeting centre for the elite and a place of creativity for painters and composers.

After two World Wars, the popularity of the thermal baths decreased again. The destruction of the baths reduced to ruins, the socio-economic crisis, the

progress of chemistry and pharmacology radically changed the way of taking baths.

Thermalism became a social form of hydrotherapy, open to a larger public, and thermal cures were included in the therapeutic program of the national health system (Table 1).

With the beginning of the twenty-first century, water has regained its importance due to the therapeutic experience of the physicians, and to the new studies of hydrology, pharmacology and biochemistry [8, 9]. In particular, due to the contribution of Chinese, American and Spanish studies [10], thermal cure have now assumed a preventive, therapeutic and rehabilitative value in many diseases including collagen vascular disease [11].

Maybe the most important innovation in thermalism is that the classical concept of cure is now joined to the concept of wellness, with an extraordinary flourish of parallel and complementary activities. New spas tourism is developing [12, 13].

Nowadays, health and wellness tourism is a rapidly growing sector of the tourism industry, and it has increased its activity worldwide. The tourism is directed not only to a physical and psychological improvement but also because it is a cultural and relaxing experience.

## References

1. Cancellieri M. L'acqua come segno di vita: modi e tecniche di utilizzo nel mondo romano alla luce della documentaz'one archeologica. Med Secoli. 1995;7:451-460. PMid:11623481

2. Melillo L. Thermalism in ancient world. Med Secoli. 1995;7:461-483. PMid:11623482 3. Cilliers L, Retief FP. Medical practice in Graeco-roman antiquity. Curationis. 2006;29:34-40.

https://doi.org/10.4102/curationis.v29i2.1071 PMid:16910132

4. Masetti A. "Salus per Aquam": terme e termalismo nella storia. G Med Mil. 2011;161:11-16.

5. Palmer R. "In this our lightye and learned tyme": Italian baths in the era of the Renaissance. Med Hist Suppl. 1990;10:14-22. https://doi.org/10.1017/S0025727300070964

6. Skopec M. Vincent Priessnitz and the Vienna Medical School. Wien Klin Wochenschr. 1991;103:506-508. PMid:1949807

7. Grossi F. Parks and hydro-mineral springs in the classical world and in the contemporary era. Place in therapeutics. Clin Ter. 1997;148:549-565. PMid:9494258

8. Suárez M, González P, Domínguez R et Al. Identification of organic compounds in San Diego de los Ba-os Peloid (Pinar del Río, Cuba). J Altern Complement Med. 2011;17:155-165. https://doi.org/10.1089/acm.2009.0587 PMid:21309710

9. Borroni G, Brazzelli V, Fornara L et al. Clinical, pathological and immunohistochemical effects of arsenical-ferruginous spa waters on mild-to-moderate psoriatic lesions: a randomized placebo-controlled study. Int J Immunopathol Pharmacol. 2013;26:495-501. https://doi.org/10.1177/039463201302600223 PMid:23755765

10. International Society of Hydrothermal Techniques Newsletter March 2016.

11. Wollina U, Uhlemann C. Die klassischen Kollagenosen"-Pathogenese und Therapieansätze. Physikalische Medizin, Rehabilitationsmedizin, Kurortmedizin. 1994;4(01):22-6. https://doi.org/10.1055/s-2008-1061998

12. Wollina U, Uhlemann C. The classic "collagen diseases" - pathogenetic and therapeutic methods of approach. Phys Med Rehab Kuror. 1994;4:22-26. <u>https://doi.org/10.1055/s-2008-1061998</u>

13. Costa C, Quintela J, Mendes J. Health and Wellness Tourism: A Strategic Plan for Tourism and Thermalism Valorization of São Pedro do Sul. In: M. Peris-Ortiz, J. Álvarez-García Eds). Health and Wellness Tourism. Springer International Publishing Switzerland, 2015:21-30. <u>https://doi.org/10.1007/978-3-319-11490-</u> <u>3 2</u>

14. Li Castri A. Thermal Baths and Wellness in Italy. Press Therm Climat. 2009;146:265-272.