



Integrative Medicine and Balneology

The USA Experience

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Balneology.org



BALNEOLOGY
ASSOCIATION
of **NORTH AMERICA**

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BALNEOLOGY
ASSOCIATION
of NORTH AMERICA

- Founded in 2011
- Promotion of the Science and Culture of Balneology
- Education and direct consultation work with mineral spring resorts, land stewards, and policy makers
- Outreach and cultural education across North America

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Traditional Use Project

**Welcome to the Balneology Association
of North America's Traditional Use Project.**

source was used traditionally to treat digestive





to 40° C. (104° F.). They form one of only two groups of thermic springs east of the Mississippi. The analyses below show the mineralization of a few of these thermic springs:

HOT SPRINGS.

Hypothetical combinations.	Parts per 1,000,000			
	Analyst, Chandler & Pellew.		Analyst, Prof. F. Adelmarr.	
	Bathing Spring.	Drinking Spring.	Warm Spring.	Hot Spring.
Potassium chloride (KCl)	5.30	8.56		
Sodium chloride (NaCl)	15.57	18.82	40.09	
Magnesium chloride (MgCl ₂)	3.76	6.33		34.08
Calcium chloride (CaCl ₂)	170.81	152.96	195.42	51.47
Potassium sulphate (K ₂ SO ₄)	6.16	0.04		
Sodium sulphate (Na ₂ SO ₄)	154.50	152.27	72.55	
Magnesium sulphate (MgSO ₄)	22.93	139.10	130.72	128.33
Calcium sulphate (CaSO ₄)	699.46	693.63		300.45
Sodium bicarbonate (NaHCO ₃)			102.00	
Ferrie oxide (Fe ₂ O ₃)			40.03	
Sodium silicate (Na ₂ SiO ₃)	51.16	54.40		
Calcium silicate (CaSiO ₃)	102.32	108.82		
Silica (SiO ₂)			65.36	
Total solids	1231.97	1342.93	647.17	514.33
Temperature, °C.	30	32.8	36.2	40

Bathing Spring, medicinal classification, weak calcic sulphated 2 or (-CaS₂). This is a moderately mineralized, thermic, calcic, sulphated and muriated saline (potassic) water, sulphuretted.

Drinking Spring, medicinal classification, weak calcic sulphated 2 or (-CaS₂). This is a moderately mineralized, thermic, calcic, sulphated and muriated saline (potassic) water, sulphuretted.

Warm Spring, medicinal classification, weak total mineralization 2 or (-T₂). This is a moderately mineralized, thermic, sodic bicarbonated and muriated alkaline-saline water, carbon-dioxated.

Hot Spring, medicinal classification, weak calcic sulphated or (-CaS), thermic. This is a moderately mineralized, thermic, calcic and magnesic sulphated saline water, sulphuretted.

In the past these waters have had quite a reputation in the treatment of diseases of a chronic nature, rheumatism and arthritic joint disturbances, chronic skin diseases and in disorders of the gastrointestinal tract, diseases of the liver and gall ducts. The hot baths administered here afford relief in many cases which have resisted the therapeutic effects of the ordinary galenical medicines. With the delightful mountain scenery, its exhilarating climate, its thermic

Contemporary access to classical information for health seekers and resort guests

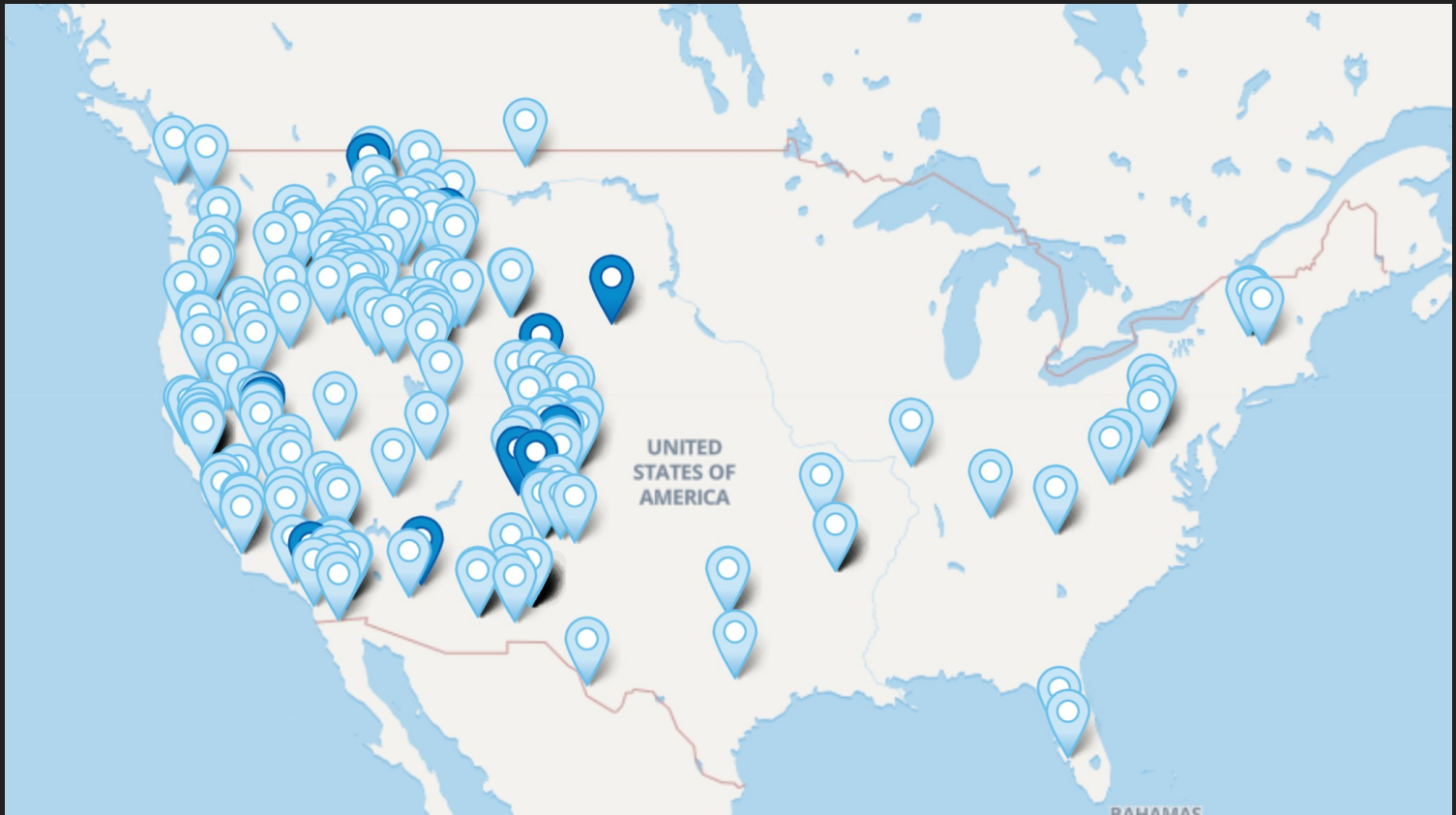
Hot Springs, North Carolina

This spring has a traditional designation as a Calcic Sulphated Spring. The high levels of calcium sulphate, calcium chloride and sodium sulphate provide this designation.

Traditionally these waters have been used for their therapeutic value in chronic rheumatic and arthritic illnesses. Due to the high sulphate concentration the waters were also used to treat chronic skin conditions such as eczema and psoriasis. Drinking the waters from the source was used traditionally to treat digestive disorders and issues of the liver and gallbladder.



2022



HotSpringsofAmerica.com



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HOT SPRINGS
BUSINESS & TRADE ASSOCIATION

*Immersed in the business of
health, healing and wellness.*



Centers for Disease
Control and Prevention

Model Aquatic Health Code

Naturopathic Physician

Primary care doctor with specialty training in the use of integrative therapeutics including:

- Pharmaceuticals
- Nutrition
- Natural Medicines
 - Nutrient Concentrations, Herbal Medicines, and Homeopathics
- Manual Therapy
 - Chiropractic and Osteopathic Manipulation
- Therapeutic Injection
 - Neural Therapy, Prolotherapy, Biopuncture, etc
- Acupuncture
- Physiotherapy
- Hydrotherapy/Balneotherapy
- Lifestyle Education



The Therapeutic Order *of Naturopathic Medicine*

What is the Therapeutic Order?

A set of guidelines to help naturopathic physicians completely resolve the patient's symptoms and address the underlying cause while using the least force necessary.

Aid Damaged Organs

Stimulate Self-Healing

Determinants of Health

HIGH
FORCE
INTERVENTIONS

Suppress Pathology

SYNTHETIC
SYMPTOM RELIEF

Synthetic
Symptom Control

NATURAL SYMPTOM RELIEF

Natural Symptom
Control

ADDRESS PHYSICAL ALIGNMENT

Restore Structural
Integrity to the Body

SUPPORT AND RESTORE WEAKENED SYSTEMS

STIMULATE SELF-HEALING

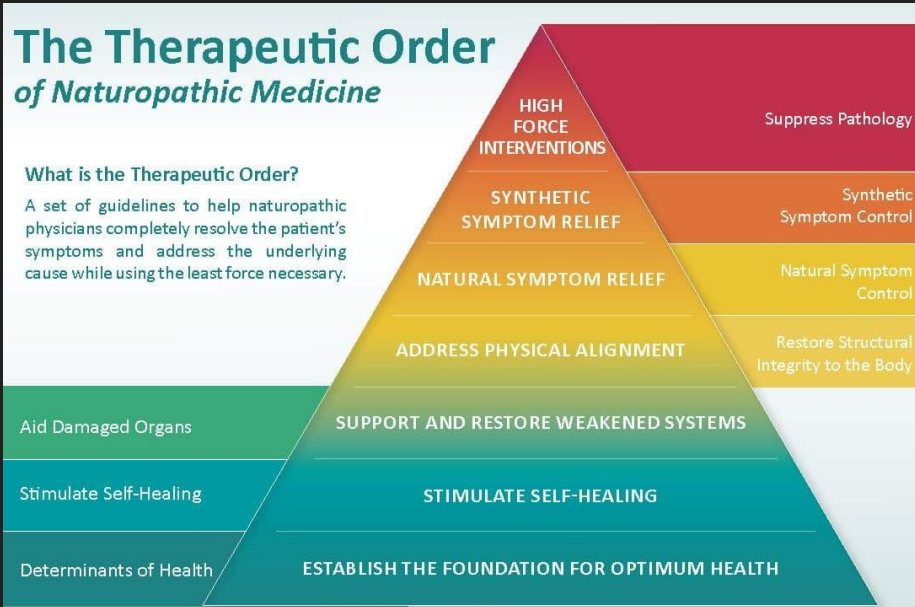
ESTABLISH THE FOUNDATION FOR OPTIMUM HEALTH

The Health Resort as Model for Integrative Health Delivery

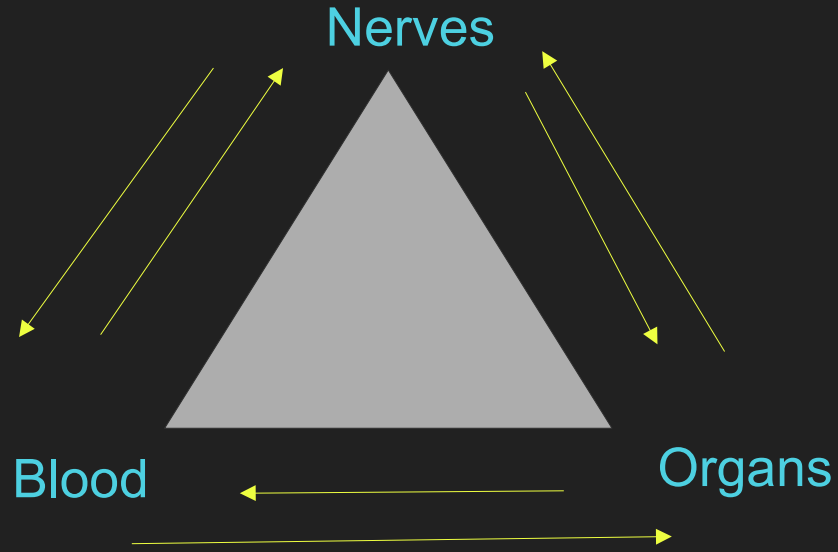
The Therapeutic Order of Naturopathic Medicine

What is the Therapeutic Order?

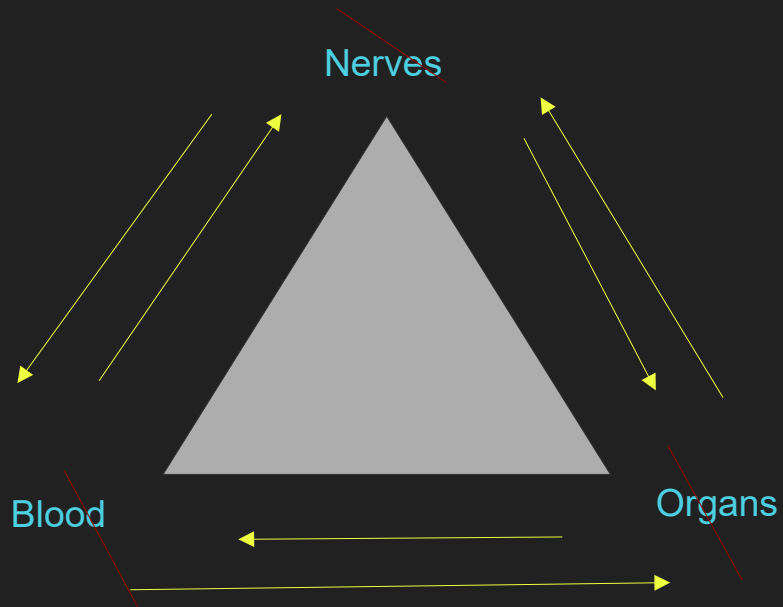
A set of guidelines to help naturopathic physicians completely resolve the patient's symptoms and address the underlying cause while using the least force necessary.



The Triad of Function - A model of Salutogenesis



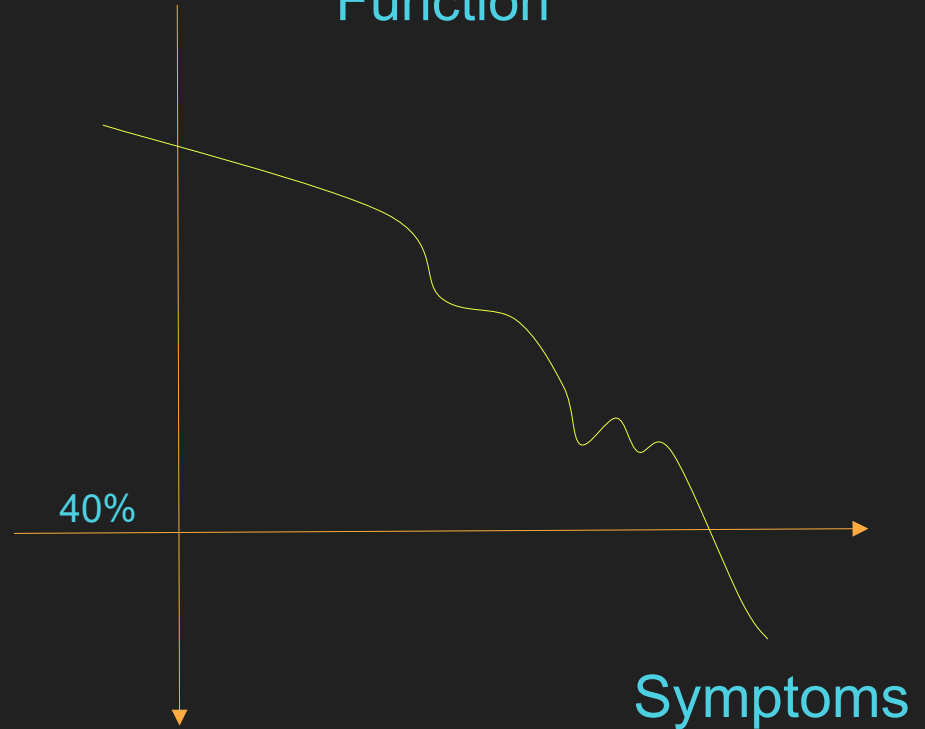
The Triangle of Health



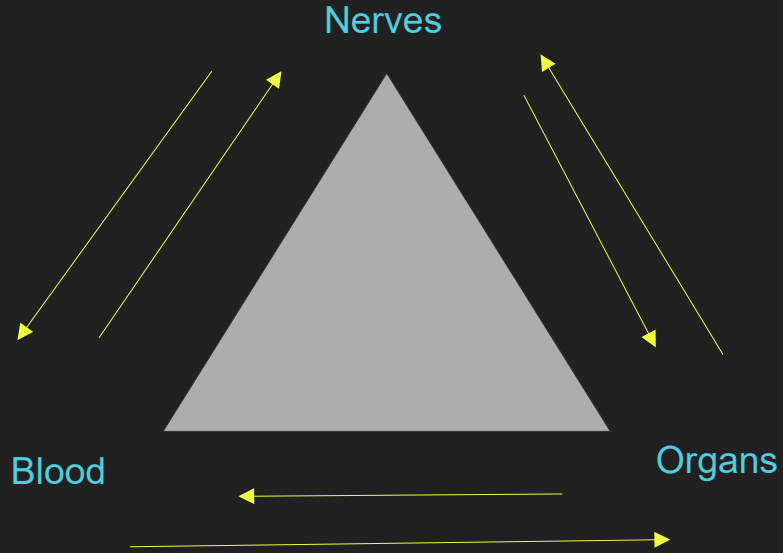
Stress = Dysfunction

- Psychological
- Chemical
- Physical

Function



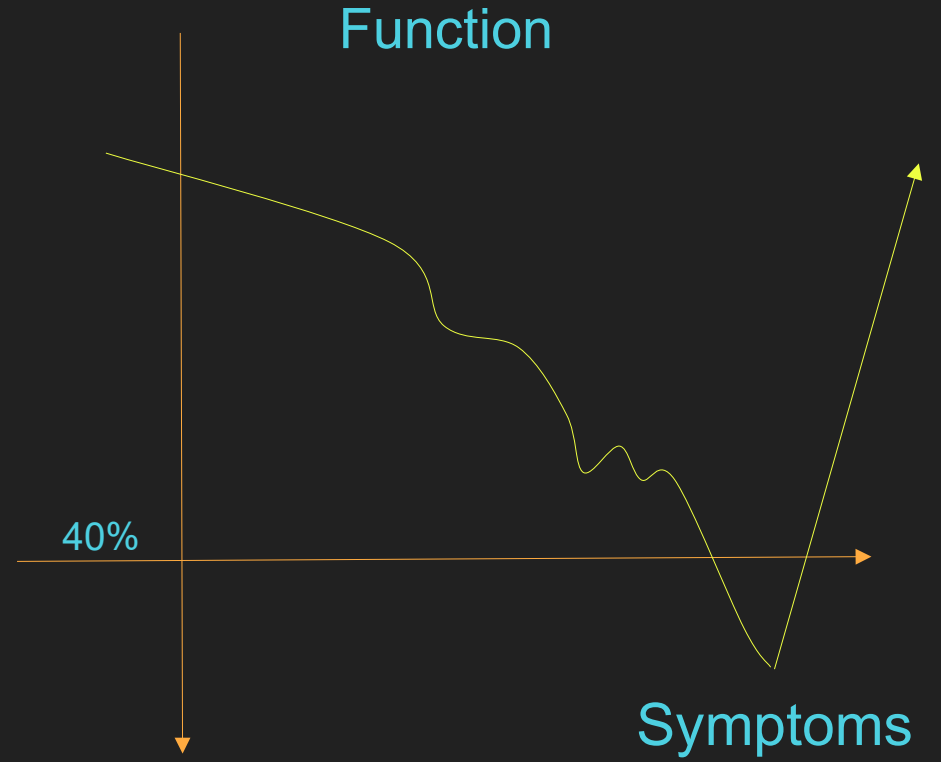
The Triangle of Health



Treatment Program to Address Function

Stress = Dysfunction

- Psychological
- Chemical
- Physical



Naturopathic Integrative Assessments Include:

Detailed Case History

Comprehensive Physical Examination

Osteopathic Assessment

Chinese Pulse/Tongue Analysis

Nutritional Urinalysis

Blood Panel

Advanced Labs

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The totality of the assessment highlights the functional basis for pathology and determines the program needed for intervention and rehabilitation.

More than pathology - a system of health rehabilitation

Typical points of a prescription include:

Diet Program

Herbal Prescription

Nutritional Concentrates/Supplement

Acupuncture

Physiotherapy

Lifestyle Education

Understanding Mechanisms Creates the Basis for Rational Therapeutics

Typical points of a prescription include:

Diet Program - proper nutrition/avoidance of intolerant and inflammatory foods

Herbal Prescription - regulatory function

Nutritional Concentrates/Supplement - biochemical pathway support

Acupuncture - neuroendocrine regulation

Physiotherapy - improve tissue function and lymphatic detoxification

Lifestyle Education - patient empowerment/long term success

Balneology

Balneology is an underutilized therapeutic tool in the United States

Supportive therapies can be implemented to enhance the effect and lasting outcomes from courses of Balneology treatment

- Excellent choice as a rationally applied therapeutic
- Multiple MOA to support multiple approach therapies
- Physiologic basis to treatment
- Need for greater utilization beyond wellness in the USA

Rational Balneology Applications Enhance Comprehensive Programs

Diet Program - improved distribution of nutrients/autonomic control of digestion

Herbal Prescription - improved assimilation, lower dosage, shorter period of action

Nutritional Concentrates/Supplement - same as above

Acupuncture - more effective and longer lasting treatment

Physiotherapy - on alternate days or as an aspect to a cycle of treatment

Lifestyle Education - education through experience

Balneology maintains a unique Source-Site-Specific nature as a therapy.

Health Resorts maintain a unique nature as a site for rehabilitative integrative care. These facts cannot be neglected in the treatment of chronic issues



Beyond Medication

Regulation and Rehabilitation

Current Limitations

for

Balneology in North America

- Lack of Medical Coverage
- Lack of Public Awareness/Culture
- Lack of Properly Trained physicians and health support staff



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- Support research efforts
- Support public policy improvements (MAHC)
- Education initiatives for operators and potential health resort guests
- Education programming for Spa Attendants
- Source-Site-Specific Identity Project
- Partnerships with international interest groups (FEMTEC, ISMH, Etc)

Our goal is to see Balneology elevated in the USA to the position it enjoys in the European and Global healthcare fields and to competently train physicians and healthcare providers on rational balneology applications as part of comprehensive treatment plans



Thank You.
Grazie Mille!



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