

AND CLIMATOTHERAPY



CLIMATES AND HEALTH Guidelines for choosing

By Prof. Umberto Solimene, President of the World Federation of Hydrotheraphy and Climatotherapy(FEMTEC), and Dr. Vincenzo Condemi, Head of the Biometeorology and Medical Bioclimatology Laboratory ,at the Dept.of Medical Biosciences of the State University of Milan.

BIOMETEOROLOGY AND MEDICAL BIOCLIMATOLOGY

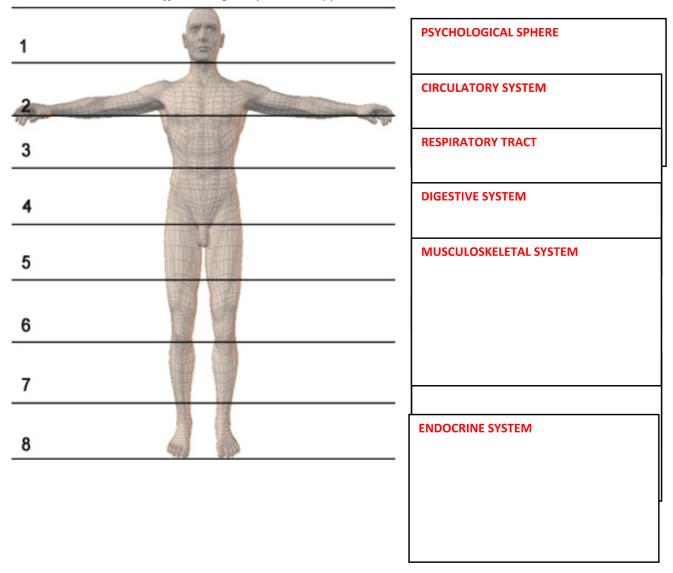
It has been well known since ancient times that some or all weather factors have an impact on human health. Hippocrates from Kos, the father of Medicine, first realized such link, albeit empirically. In the past

few decades biometeorology and medical bioclimatology made important scientific achievements and broadly confirmed such connection.

MAJOR METEOCLIMATIC FACTORS

Air Temperature – Relative Humidity Rates – Atmospheric Pressure – Wind – Clouds and Rainfalls – Solar Rays – Ultra-violet Rays – Ionization – Pollutants – Pollens.

The connections between climate and the human body can result into disorders or diseases at different organ, system, or apparatus levels



CLIMATE IN ITALY

Italy enjoys favourable climatic conditions, which result into a variety of climatic characteristics; moreover, unlike in other Countries, most treatment centres in Italy can be used throughout the year, or during most of it; lastly, the same place often has climates that suit different indications as seasons change. The figure below summarizes climate in Italy based on altitude **CLIMATOTHERAPY**

A) The use of meteorological data and clinical observations allows to recommend climatotherapy as a complementary or fundamental treatment tool, addressing a variety of diseases with an integrated approach. These can therefore benefit from the positive characteristics offered by certain climates (maritime climate, lake climate, mountain climate, equatorial climate, mild climate, etc.). In other cases, also documented by ongoing meteorological and clinical observations, the negative characteristics of climates allow to provide contraindications for multiple diseases. Major climatotherapic indications for theindividual climates are summarized below, with final references to websites for more information on all indications and contraindications.

MAJOR CLIMATOTHERAPIC INDICATIONS AND CONTRAINDICATIONS

MOUNTAIN CLIMATE

Major indications: a) chronic obstructive bronchopneumopathy, also combined with active asthma, except in late spring, to avoid blooming; b) recovery from infectious or debilitating diseases; c) all types of obesity; d) pulmonary TBC with fibrotic outcomes; e) individuals with work, family, or social-life related stress.

Major contraindications: a) moderate to severe hypertension; **b)** left cardiocirculatory failure prone to lung oedema; **c)** lung emphysema; **d)** vasomotor headache, but not tension-type headache.

Where to stay: mountain venues, especially for old people, should be best located in low-mountain climate regions with altitudes between 700 and 1000 m.

MARITIME STIMULATING OR ROCK CLIMATE

Major indications: a) seasonal allergopathies, especially spring-related or of different origin, except with asthma; b) chronic upper airway or middle-ear catarrhal phlogosis; c) chronic obstructive bronchopneumopathy of recent onset and without asthma; d) chronic degenerative arthral or rheumatic diseases with osteoporosis, particularly in old people, but without long-term exposure to wind or sun rays; e) psoriasis and atopic dermatitis.

Major contraindications: a) heart failure, especially on left side; **b)** severe bone or joint diseases with complete functional failure; **c)** tension-type headache; **d)** insomnia or troubles falling asleep.

Where to stay: in Italy, typical examples include the western coast of Sardinia. Similar characteristics are found in several tracts of the Tyrrhenian coast of Calabria, of northern Sicily, of Liguria, and on several islands, such as Pantelleria, the Aeolian Islands, etc. Elderly people should favour June and September, particularly in southern Italy, with lower temperatures compared to July and August.

CALMING, SLOPING BEACH, AND COASTAL CLIMATES

Major indications: a) gynaecological disorders, especially of a fungal origin; **b)** chronic degenerative arthral diseases with osteoporosis; **c)** outcomes of fractures, dislocations, and sprains; **d)** allergopathies, both seasonal and of different origin; **e)**hypothyroidism; **f)** psoriasis and atopical dermatitis.

Major contraindications: a) left heart failure; b) severe psychosomatic disorders.

Where to stay: in Italy, examples include beaches on the upper and mid-Adriatic sea down to Molise, several coastal tracts of the upper and mid-Tyrrhenian sea, of Lucania, of Calabria overlooking the Ionian sea, and beaches in Sicily overlooking the relevant Channel.

HILL CLIMATES

Major indications: a) heart diseases, including heart failure, particularly on the right; b) recovery from infectious or debilitating diseases; c) early aging with widespread arthral and rheumatic diseases; d) mild to moderate kidney diseases; e) anxiety with psychosomatic disorders.

Major contraindications: a) spring chronic and asthmatic bronchopneumopathy due to pollenosis; b) allergopathies with pollenosis, particularly rhinopharyngitis and conjunctivitis, both in spring and early summer.

Where to stay: hills cover more than 40% of the Italian territory. While hills in northern Italy are mostly arranged to the South of the Alps and to the North-North-East on the Apennines, there are isolated hills as well, such as in Monferrato and Colli Euganei. Hills dominate the landscape in central-southern Italy and cover most of the territory spreading from the Apennines to the Tyrrhenian, Adriatic, and Ionian coasts.

GREAT LAKES CLIMATE

Major indications: a) reduced immune efficiency with frequent inflammations; b) all degrees of hypertension; c) heart and vascular diseases, including heart failure; d) chronic obstructive bronchopneumopathy, also with asthma.

Major contraindications: a) acute depression with phobias or frequent panic attacks; b) personality disorders; c) acute left heart failure; d) acute diseases, particularly infectious ones.

Where to stay: the most appropriate lake regions include Lake Garda, Lake Maggiore, Lake Como, Lake Iseo, and Lake Orta in northern Italy, Lake Trasimeno, Lake Bolsena, and Lake Bracciano in central Italy.

WOOD-FOREST CLIMATES

Widespread woods and forests in Italy are found in all climates, with broad woods in lowlands, hills, low and mid-mountain, as well as in adjacent lake and maritime climates and in most cities. Such environments are characterized by an increased relative humidity up to around 20%, high day-time oxygen production, reduction of pollutant species by up to 70/80%, absorption power of several gaseous pollutants.

Major indications: woods are indicated for elderly people with chronic inflammatory productive bronchitis. Forests are recommended in case of non-allergic bronchial asthma and lung emphysema.

Major contraindications: both environments are contraindicated for allergic bronchial asthma.

THE CENTRE FOR RESEARCH ON MEDICAL BIOCLIMATOLOGY

The Centre for Research on Medical Climatology first realized, in the late 1960s, then developed profitable research focused on the links between weather agents, climate, ecology, and human health. The Centre, celebrating the 45th anniversary of its foundation in 2014, is know in reorganization as European Association ,under the management of Prof.Umberto Solimene

MORE DETAILS CAN BE FOUND IN THE FOLLOWING WEBSITES

http://www.biometeolab.unimi.it/index.php/it/climatoterapia