

THERAPEUTIC MINERAL WATER

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According to H.G. 1154/2004, mineral water are derived from a natural source – spring or borehole and meet at least one of these conditions:

- mineral salt content of over 1 g/l;
- the presence of a minerals with a known pharmacological action;
- dissolved gas content with biological effects at concentrations of 1000 mg/l CO₂, 1 mg/l H₂S;
- temperatures above 20°C, independent of mineral content – thermal waters;
- the existence of a scientifically recognized therapeutic action, a situation that gives these therapeutic mineral waters status of medicine, any modification by addition or removal of substances in addition to CO₂ is prohibited.

Lista cu principalele tipuri și surse de ape minerale ce pot veni oricând în ajutorul sănătății noastre, precum și afecțiunile pe care le pot trata:

List of the main types and sources of mineral water that can come anytime to aid our health and the diseases that they can treat:

Chlorosodic or salty water. Very numerous, and used in internal cure: if they have the concentration to 15g per liter in digestive diseases (gastric hypoacid, etc), in chronic bronchitis, chronic rhinitis; for external cure when the concentration exceeds 15g per thousand (can reach up to 250g), are indicated in rheumatic diseases. Stations where there are: Sovata, Amara, Ocna Sibiului, Techirghiol, Slănic Prahova, Govora, Bazna and Olanesti (and iodine) etc.

Sulphate waters (1 g per thousand sulphates). They are sodium sulphate or glauberiene water, magnesium or bitter, calcium or gypsum and vitriol (with Fe and Al); and used only for internal cure in digestive disease (intestinal, hepato-biliary). Are drunk in the morning an empty stomach in chronic constipation, colestasia, obesity, etc. can be found at Slănic, Băilești etc.

Ferruginous waters (10 g iron per thousand). Are always carbonated, but can be salty, alkaline, calcium, etc. iron has an important role for the body. Ferruginous waters are used for internal cure, only from the spring, during the meals, otherwise the iron in contact with air becomes inactive. Only bivalent iron is active, being absorbed in the presence of HCl and C vitamin. Ferruginous waters are indicated for iron deficiency anemia, gastric achylia, operated stomach, etc can be found at Vatra Dornei, Tușnad, Buziaș, Covasna etc.

Iodine water (1 mg iodine per thousand). Iodine, whose metabolism is controlled by the

thyroid gland has been used for a long time to treat chronic rheumatism, atherosclerosis, hypertension, etc. these waters are used for internal and external cure. rheumatismului cronic, aterosclerozei, hipertensiunii arteriale etc. The resort are situated near the salt mines: Govora, Olanesti (iodine, salty and sulphate waters), Bazna (salty and iodine), etc.

Sulphurous waters (1 mg SH₂ per thousand). Sulphide is an element with many roles for the body. He enters in the amino acids composition, indispensable to the body (cysteine, arginine, etc. hence the importance of sulfur water in chronic mucosal lesions (bronchitis, rhinitis). Sulfur is a part of connective tissue constitution. Because the rheumatic is considered a collagen disease, sulphurous waters are the major indications. Sulfur participates to insulin constitution and hence the indication of sulphurous water in diabetes. Finally, sulfur has a desensitizer and antiallergic role, with indications in asthma and some dermatoses.

Oligometalic waters (1 g per thousand) are poorly mineralized and can be hot or cold. They contain Na, I, S, Ra (Geoagiu, Felix, with 40-45 degrees temperature) and are used in musculoskeletal disease. The cold waters are used for internal cure (bottled for commercial use). For example: Olănești, Călimanești, used in digestive and urinary diseases.

Carbonated waters (1 g CO₂ per thousand) are indicated for internal (digestive, chronic, with hyposecretion diseases) and external cure (cardiovascular diseases, hypertension, arthritis, Raynaud's disease, acrocyanosis, postflebitic sequelae, venous insufficiency).

Alkaline waters (1 g bicarbonate per thousand) doesn't exist in pure form in our country, are met as combinations (tero-alkaline waters with Mg, Ca), alkaline, sodium-chlorine, carbonated, sulphurous, sulphat, ferruginous waters. They are used in internal cure, especially for digestive and hepato-biliary diseases. The external cures are used for inhalations and sprays (in respiratory diseases). The alkaline waters can be found at Sângeorz, Hebe, Slănic Moldova, Malnaș, Bodoc. In Karlovy-Vary (Czech Republic) can be found alkaline sulphurous waters.

Tero and tero-alkaline waters (1 g per thousand) contain bicarbonate linked to Ca or Mg and have as main indications digestive diseases (gastritis, colitis, ulcer, chronic enterocolitis, rachitis, allergies, etc.). Such waters are found at Borsec, Covasna. At Sângeorz, Slănic find tero-alkaline and sodium-chlorine waters. Ca²⁺ is the main element of these waters.

Radioactive waters contain radioactive elements that emit radiations a (alfa), b (beta), g (gamma): (radium, uranium, thorium). The most important is radium which emits radon radiation. To be radioactive, water must have at least 80 u/l.