

FACTS about risk group and solution, positive effects by Balneology:

OVERWEIGHT people are at higher risk of dying from coronavirus

Those with underlying health conditions are also more vulnerable to Covid-19. Studies have shown overweight people to be at higher risk of needing hospital treatment for flu - a similar viral infection. One study that looked at the 2009 H1N1 flu pandemic, found that obese people were twice as likely to be hospitalized compared to the rest of the population.

Traditional medical spa programs in Europa focus on management of chronic diseases and early spa rehabilitation after serious health disorders. The Slovak Spas Association have prepared 10-days stationary health prevention programs. The success of any program against obesity is strongly related to motivation and education, which is time-consuming for expert consultations. A professional team of experts working in the medical spas (physician, nutritional therapist, physiotherapist, fitness trainer, psychologist) prepared very detailed programs focused on the diagnosis of overweight and obesity and accompanying diseases, followed by the development of individual physical activity and nutrition program, joint educational theoretical and practical activities in the group and what is important also explanation danger of „miraculous diets“ and quack products that attack people every day in internet. A list of measured parameters has been drawn up to provide evidence of effectiveness of this program same for all spa facilities involved to this activity.

After the first two years of existence of this program in Slovakia's medical spas, the largest Slovakian health insurance company decided to support its insured people who have completed this health programs by covering 30% of the cost from July 2018.

In the Serbian **health climate resort** of Zlatibor Mountains, the "Čigota" hospital has many years of experience in the treatment of obesity in adults and children and has successfully treated for 25 years against accompanied diseases which are a consequence of multiple disorders and bad habits which are mostly consequence of urbanization."Čigota" Programme achieves its goal: decreasing dangerous influence of obesity to health. Many physical activity programs are organized in nature at an altitude of 1000 m. Under the supervision of medical staff and experts in the field of physical activity with a restrictive low calorie diet and balanced daily intake of all the necessary nutrients for the effect has a weight reduction, metabolic disorders, reduction of blood pressure and biochemical parameters. Reduction of cholesterol and blood sugar leads to better immunity and strengthens people with respiratory, cardiovascular and obesity problems. Therefore the body is ready to encounter viruses. The health program includes well balanced dietetic plan, physical activity through team building and a positive atmosphere, and information about the importance of healthy eating and relaxation.

Other experiences and studies with medical spa treatment shows good results: *One-year effectiveness of a 3-week balneotherapy program for the treatment of overweight or obesity* (<http://www.espalibrary.eu/search/143/>) study's conclusion: Balneotherapy (BT) is an efficient lifestyle modification program, which provides significant weight loss and long-term maintenance with only 3 weeks of intervention. BT appears to be an effective and safe program that can be used by primary care physicians as a first-line treatment option for overweight and obese patients.

Obesity is a major risk factor for arterial hypertension, coronary artery disease, dyslipidemias, and type 2 diabetes. Spa therapy has long been used for treating obesity and its comorbidities. The primary of the study aim was to assess the clinical efficacy of a **3-week program of diet combined with spa therapy in obese patients with and without type 2 diabetes**. The secondary aim was to examine whether this combined program influences the response of serum levels of leptin, adiponectin, visfatin, and high-sensitivity C-reactive protein.

Pilot study: Clinical and biochemical effects of a 3-week program of diet combined with spa therapy in obese and diabetic patients showed that a 3-week program of spa therapy in obese patients induced significant decrease of body weight, body mass index, triglycerides, total cholesterol, low-density lipoprotein (LDL) cholesterol, glycemia, and serum levels of leptin and high-sensitivity C-reactive protein. So, a cycle of **mud-bath therapy** associated with a controlled diet may be a promising treatment for obesity and type 2 diabetes decreasing body weight and many risk factors for atherosclerosis and metabolic syndrome. Summary: <http://www.espalibrary.eu/search/126/>