The Biomedical Laboratory of the Faculty of Physical Education and Sport, Charles University, is long-term oriented to the investigation of the relationships between health and physical activity and/or sport. The laboratory is focused on the development and verification of biomedical technologies and methods that provide information on reactions and adaptations to physical load. Educational and research activities are oriented mainly on morphological, functional, metabolic and kinesiological determinants of movement and physical activity, and also on the objectification of the response of the organism to movement and physical load. Therefore, the spectrum of methods of both the functional and biochemistry laboratory and of field functional exercise diagnostics had been developed and verified.

In addition, research and consulting in the area of sport and clinical nutrition has been developed. The methods of body composition assessment are studied and verified, similarly to other anthropometric and kinesiological procedures, in order to make diagnoses and to alter positively borderline states of health and disease, related to the physiology and pathophysiology of exercise.

The results of the research are applied both in theoretical and in practical classes for university students, courses for coaches, trainers and sport specialists, and in services and consulting for the general public, including Paralympic sport.

Our mission

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What we offer

Laboratory and field functional exercise diagnostics (aerobic and anaerobic exercise tests), reactivity testing, muscle strength and pulmonary function testing, biochemical analysis, body composition assessment, dietary consulting, and organization of educational courses (Nutritional consulting in practice, Nutrition and nutritional consulting).