

Human Movement Laboratory



Our mission

The laboratory is a leading research centre in the area of movement and sport activities. It focuses on the objectification and determination of human movement and human motor skills, and diagnostics of sport performance and the training levels of participants, within the area of kinanthropology. The main object of research is the motor manifestation of the human being (external manifestation) and its response inside the human organism (inner causes) within a wide range of sport activities (performance oriented fitness) and aspects of health promotion (health oriented fitness).

The laboratory performs tasks such as evaluation of the training levels of participants and of the consequences of applied movement activities, of body composition, of aerobic and anaerobic presuppositions, and of movement regimes. It also prepares intervention movement programmes.

What we offer

We offer services not only to athletes and coaches, but also to the general public, without regular movement training, who would like to find out and assess their training levels and movement preparedness. This includes specific population groups, such as seniors or selected groups of patients.

Our specialisms include sport training leadership, selection criteria for sport talent identification, evaluation of the state of muscle apparatus and presuppositions of strength, and 2D and 3D analyses of movement activities with assessment of flexibility of selected joints.

- Analysis of body composition
- Evaluation of postural stability
- Evaluation explosive strength
- Evaluation of isokinetic strength
- Evaluation of load for movement activities
- Analysis of walking 3D
- Analysis of movement activities 2D and 3D