

Course: Metabolic Diagnostics in Clinical Practice and Research

Date: 30th January 2025 (08:30am-12:00pm)

Location: Department of Diabetes, Endocrinology, Nutritional Medicine and Metabolism, University Hospital and University of Bern, Berne Switzerland (Possibility for Online Attendance)

Course content

Energy balance, body composition and functional capacity are key determinants of metabolic health. Their quantification in clinical practice and research requires dedicated instruments, equipment and measurement techniques.

This course offers knowledge transfer in the field of metabolic testing through examination of dietary intake, energy expenditure, and body composition.

Learning content on theoretical, technical and practical aspects provide you with a skillset to understand normal physiology and diagnose, manage and investigate prevalent conditions such as sarcopenia, (visceral) obesity, states of energy excess or deficiency. The one-morning course is divided into three modules, each discussing theoretical concepts, instrumentation and interpretation of findings on the basis of clinical cases.

After completion of the course, participants will be fit to practise metabolic examinations independently.

The hybrid course format allows attendance either in-person (University Hospital Bern, Switzerland) or online via Zoom. However, we strongly encourage participants to join us on-site whenever possible, in order to take full advantage of the hands-on workshop of the course.

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| Target audience: | Healthcare professionals and researchers with interest in the field |
| Pre-requisites: | Basic understanding of physiology |
| Costs: | Students: CHF 100.- Healthcare professionals and academic researchers: CHF 200.- |
| Organizing institutions: | Department of Diabetes, Endocrinology, Nutritional Medicine and Metabolism (UDEM), University of Bern, Switzerland |
| Time and place: | From 8:30am to 12:00pm <ul style="list-style-type: none"> Department of Diabetes, Endocrinology, Nutritional Medicine and Metabolism (UDEM), Inselspital Bern Online attendance possible. Further details follow upon registration. |
| Lecturers: | Prof Lia Bally, PD Dr Albrecht Popp, Dr David Herzig |
| Registration: | Until 31.12.2024 via registration link: https://de.surveymonkey.com/r/YTHM9GN |
| Contact: | research.udem@insel.ch |
| Credits | ECTS will be provided for student of UniBe upon successful completion of additional learning activities (please contact the course organizers for more details) |

Course Modules

Module 1:

We will walk you through various methods of dietary intake quantification. We will also touch upon screening tools for nutritional risk assessments. *Key words: FFQ, 24h-recall, weighted-food records, nutritional biomarkers, nutritional screening tools.*

Module 2:

We will present clinical and research methodology to quantify energy expenditure and perform energy balance examinations. *Key words: (Indirect) calorimetry, DLW method, wearable tracking methods.*

Module 3:

We will provide insights into the methodology of body composition quantification and discuss pro and cons of various approaches. *Key words: Body impedance analysis, DXA, CT/MRI.*