



PÉCSI TUDOMÁNYEGYETEM
ÁLTALÁNOS ORVOSTUDOMÁNYI KAR

The principles of functional training

Petra Mayer

Physiotherapist
University of Pécs, Faculty of Medicine
Sport Medicine Department

13/02/2025 Pécs



slido

Please download and install the Slido app on all computers you use



**Write a functional movement
from your daily life!**

① Start presenting to display the poll results on this slide.



Activities of Daily Living

- Unique for everyone
- What is the most effective functional training for an individual largely depends on ADL

What is functional training?

„Integrated multi-planer movements that involve joint acceleration, stabilization, and deceleration, with the intent of improving movement ability, core strength, and neuromuscular efficiency.“



The principles of functional training

- We are not training muscles, we are **training movements**
- Each movement involves **more joints**
- Each movement takes place **in at least two planes**
- Every movement engages the **sensorimotor system**
- Movements are often initiated from neutral body or joint positions
- When we exercise, we **first stabilize** before starting to move
- The **quality of the movement** determines the performance and the number of repetitions
- All movements have to be performed in a way and at a pace that the athlete can **control**



The progression of functional training

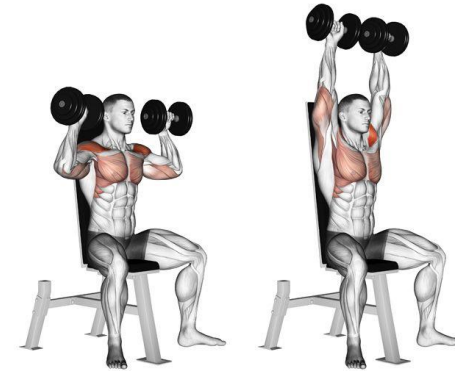
- 1. Supported to unsupported or destabilized
- 2. Bilateral to unilateral
- 3. Fixed lever to free moving lever



The advantages of functional training over traditional weight training

Traditional training:

- focuses on one muscle
- performed in a seated or supported position
- isolated and less functional movement patterns
- less impact on the circulatory system
- on machines, the joint ligaments need less stabilization due to the guided movement



The advantages of functional training over traditional weight training

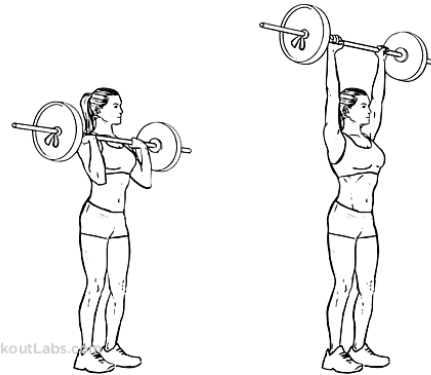


Functional training:

- stimulates several muscles at once
- the core muscles are stabilized and thus developed at the same time
- practical, functional movement patterns
- heavy load on the circulatory system
- joint ligaments are also actively involved in stabilization

<https://www.youtube.com/watch?v=-yfqnebBbW0>





- 1-Deadlift
- 2-Bend-over row
- 3-Overhead press
- 4- Chest press
- 5-Biceps curl

WorkoutLabs.com





PÉCSI TUDOMÁNYEGYETEM
ÁLTALÁNOS ORVOSTUDOMÁNYI KAR

**Thank you for your
attention!**