

#### **Special sort of moving:**

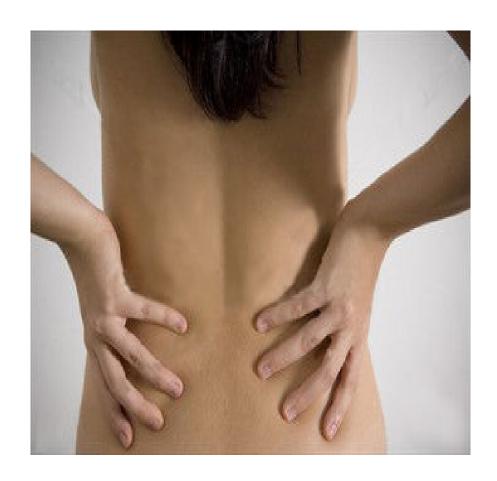
# Effects of Steady Motion Fitness as a posture training method A pilot study on young karatekas

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Inactive, sedentary lifestyle, lack of movement and physical training results in different illnesses, involving the musculoskeletal system.

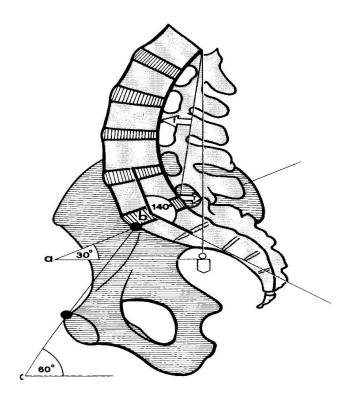
Prominent among them is backache.





# Bones of lumbosacral part

- Pelvis
- Sacrum
- Lumbar vertebras



Resource: Perjés, 2009

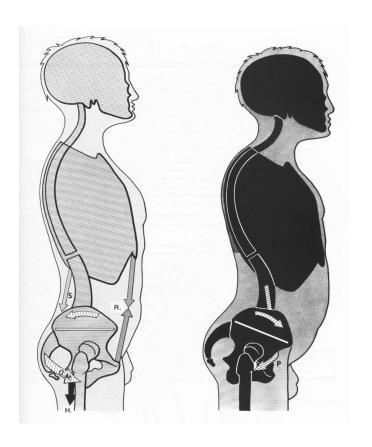


#### Correct posture of pelvis influences

- · Form of spine
- Position of thorax
- · Form of shoulder belt
- · Position and articulations of thighs and legs
- Position and articulations of feet



Tilt of pelvis in the sagittal line.



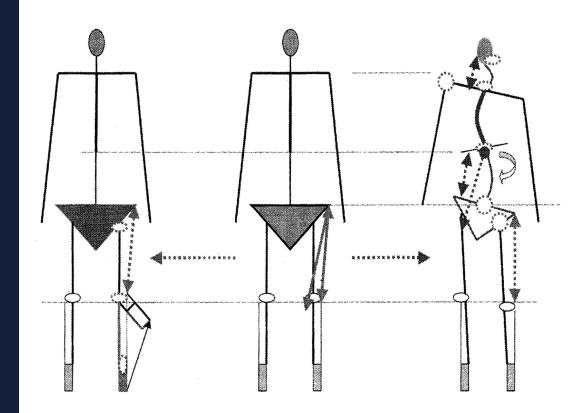
Resource: Kapandji, 2007



### Tilt of pelvis in the frontal line

Example:

Abbriviation of musculus tensor fasciae latae



(Resource: Lángfy,2003)

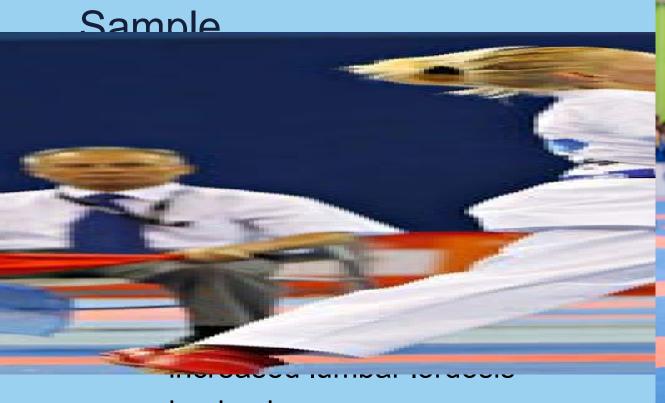


#### Aim of the research:

Finding out the convenient speed of strengthening exercises for posture correction, which

- result in functional increasing of muscle strength
- · can be put into one's practises and habitual movements





backpain





#### Methods:

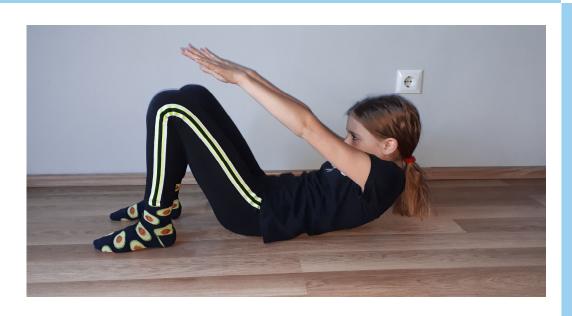
#### Groups:

- · Controll Group (takes parts in measures)
- · <u>Classic Group</u> (Movement's beginning position is relaxed on the floor, their movements time period is 1 sec up and 1 sec down)
- Classic Contracted Group (Movement's beginning and ending positions are both strengthened, time period is 1 sec up and 1 sec down)
- Steady Motion Fitness (Movement's beginning and ending positions are both strengthened, time period is 3 sec up and 3 sec down)



#### Status measuring

1. 3 controlling exercises of National Center for Spinal Disorders









### Status measuring

2. Tree-standing





### Status measuring I.

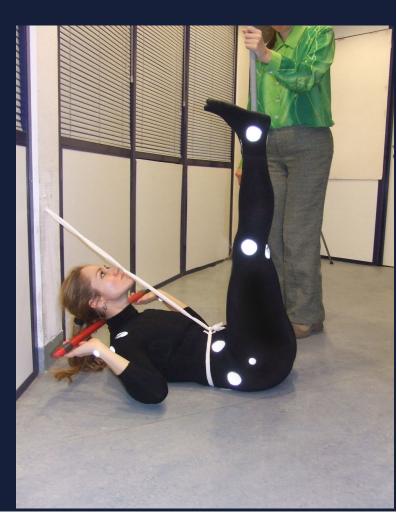
3.Roundhouse kick





#### Strengthening abdominal exercises







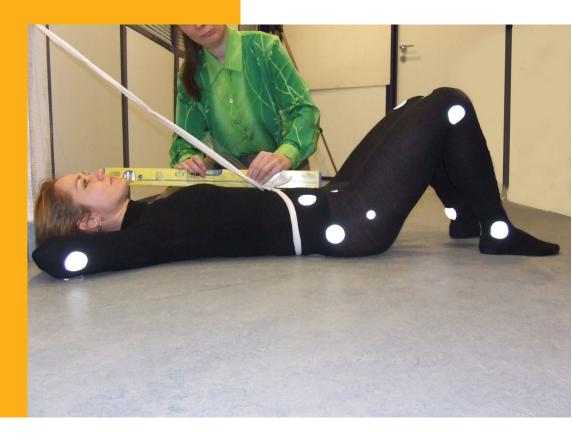
#### Defining the starting and the ending position:

A rope as a belt is

fixed above the umbilicus,

free end of it fixed on the wall in 40 degree to the horizontal,

stabilized with a stick.





#### Strengthening hip extensor exercises





#### Defining the starting and the ending position:

A rope is fixed to the edge of the stool,

other end of it fixed on the floor in 50 degree to the horizontal, stabilized with a stick.

Above the thigh a horizontal stick is on the wall, of which position was defined when the linea between the knee and hip points was horizontal.





#### Stregthening program

- · Aim: developing the strength-stamina
- · Twice a week throughout twenty weeks
- Starting repetition number: one's first maximum repetition in his /her group
- · Weekly changed the repetition number, and the state of (lower)limbs (bent/stretched knees, elevation of single/both limbs)
- In every two weeks order of the strengthening exercises of musclegroups was changed



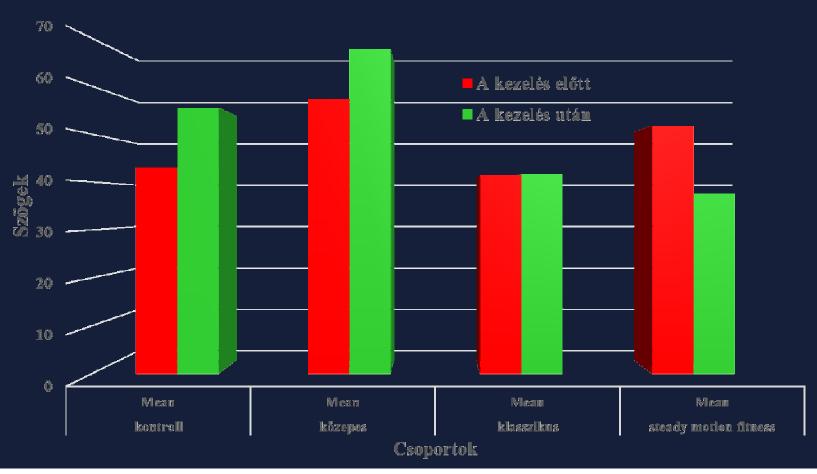
#### Results

#### 3 controlling exercises of National Center for Spinal Disorders

	Arm and leg holding	Abdominal holding	Standing by the wall
Controll	-22	19	-14
Classic	-2	110	6
Classic Contracted	8	111	-2,5
Steady Motion Fitness	17	210	35

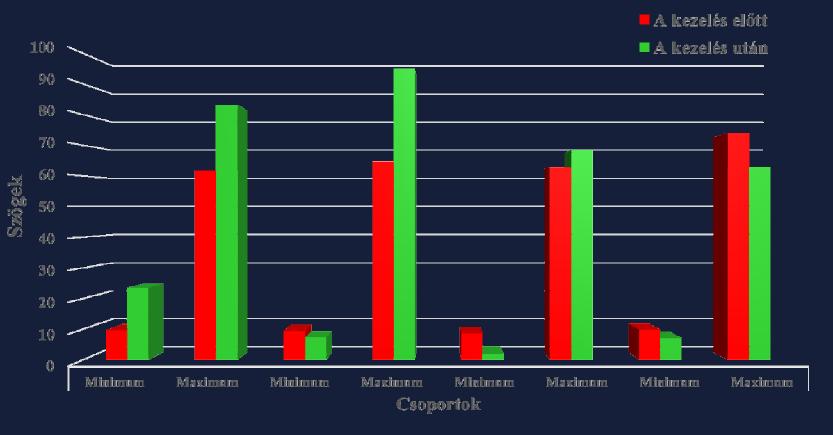


#### A jobb térd szöge xyz





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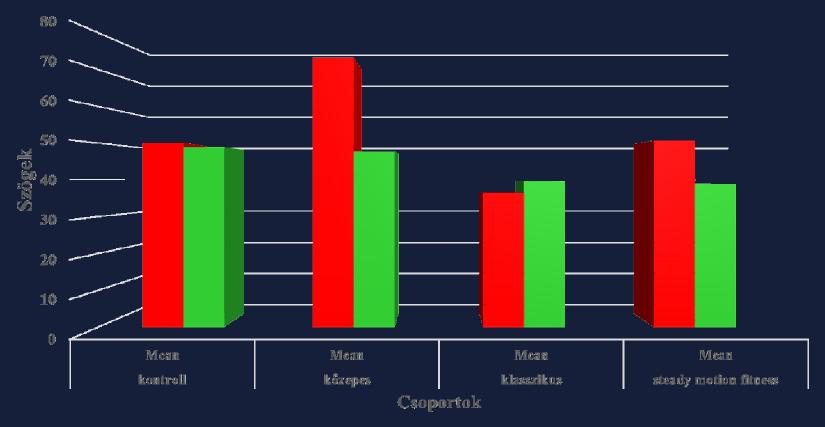




#### A bal térd szöge xyz





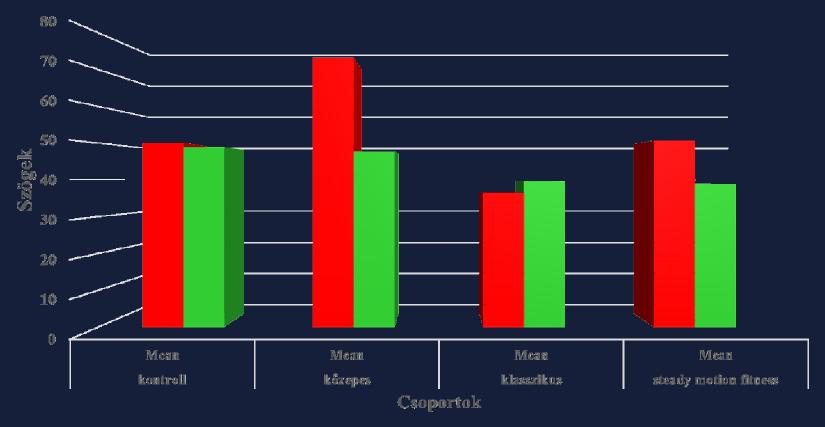




#### A bal térd szöge xyz





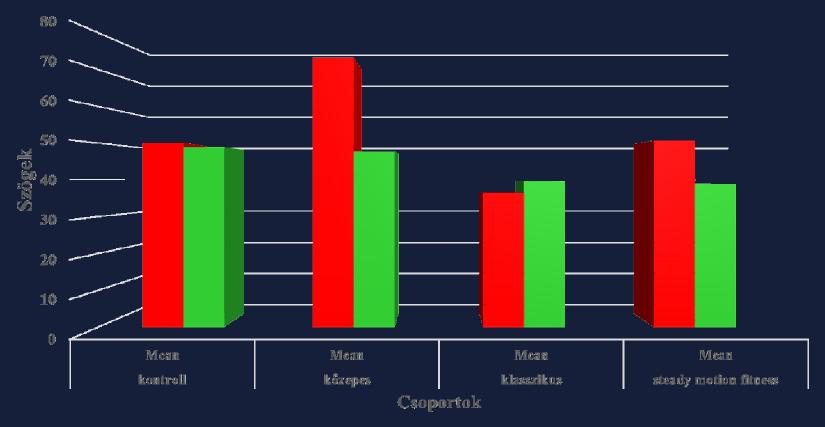




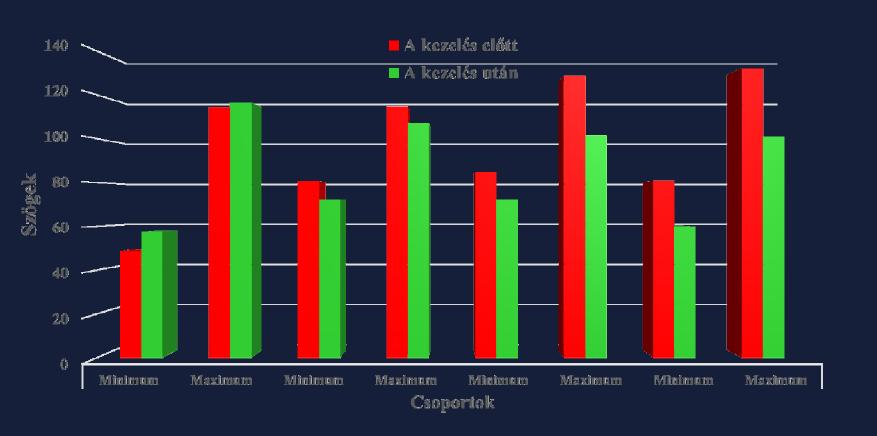
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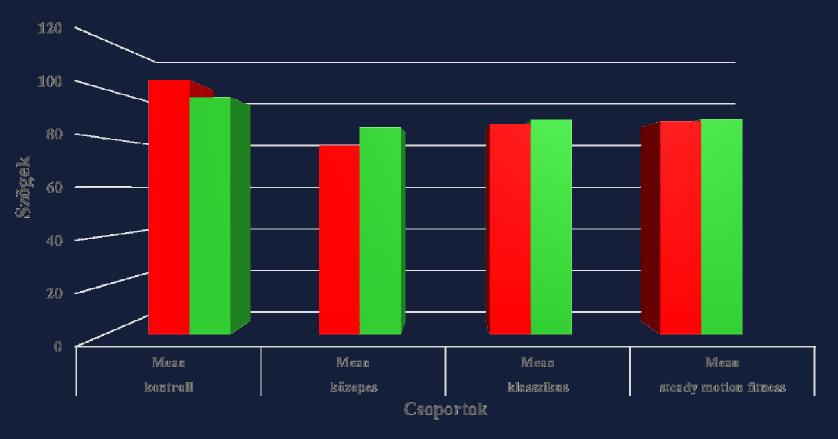






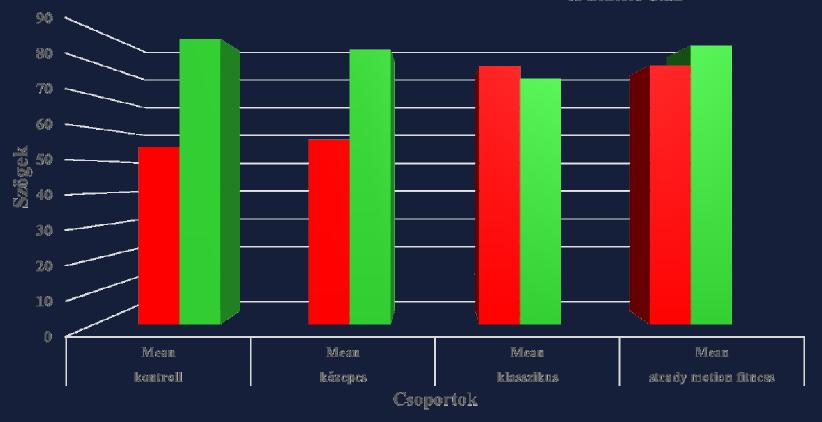






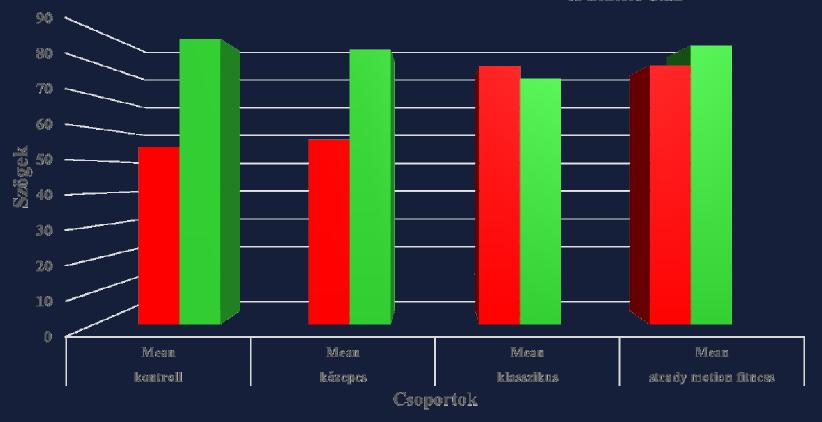






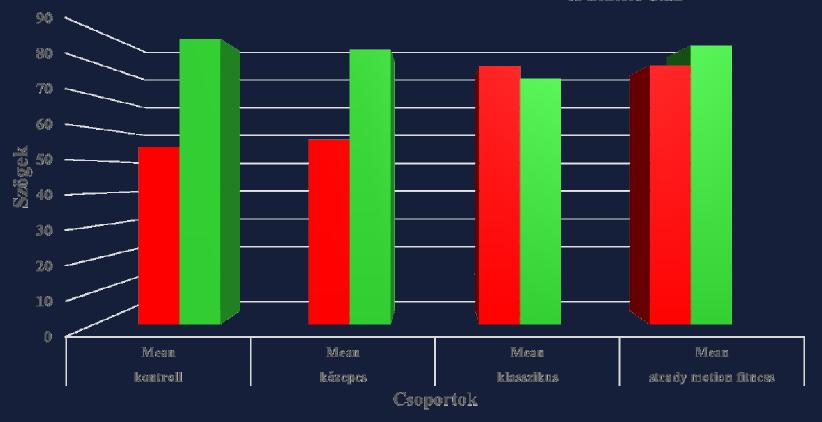






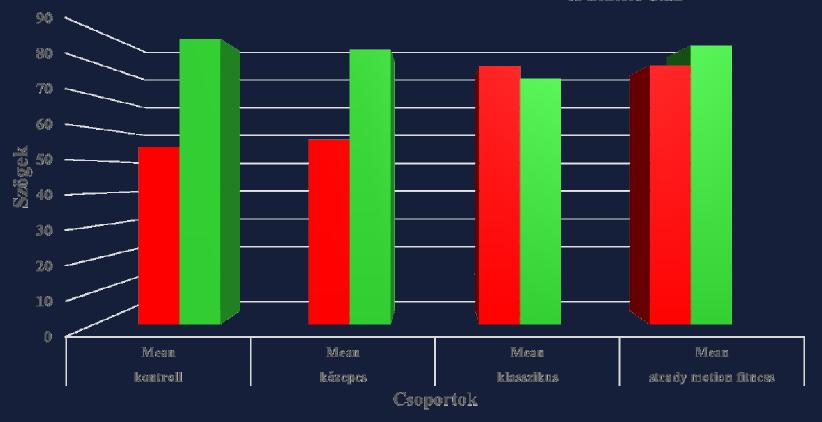






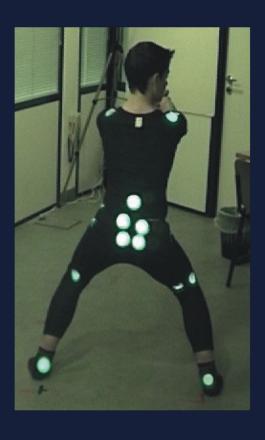








· Before the program



· After the program





## Thank you for your attention!





