



# CTBT

Centre for Transfer of  
Biomedical Technologies

## TECHNOLOGY SUMMARY



### Technology Owner

University Hospital Hradec Králové

### Inventors

Luboš Sobotka  
Jan Hrbáček

### IPR Status

Czech patent granted 308 177

### Stage of Development

CE marked product

### Contact

Lucie Bartošová, Ph.D.  
lucie.bartosova@fnhk.cz  
+420 727 802 314

## Rehabilitation Pad

### Description of the Invention

Rehabilitation pad is a unique device that is intended for use on the patients' bed during their hospital stay for active exercise of the lower limbs, abdominal and back muscles in order to maintain/improve physical condition and prevent complications from long-term hospitalization. It enables independent exercise without constant nursing staff assistance and the need for professional settings. The pad is also intended for home use. It has not been certified as a medical device yet.

### Intended Use

The rehabilitation pad is mainly intended for:

- adults and adolescents from 12 years of age, with a minimum body height of 120cm, who are confined to bed for a longer period of time, and their health condition allows exercising
- seniors, who have been confined to bed for a long period of time and need to strengthen the lower half of the body and rehabilitate walking
- patients after acute illness that are being rehabilitated in home care

Rehabilitation pad enables:

- to exercise the lower limbs as soon as possible after recovering from critical condition
- development of muscle strength of lower limbs, abdominal and back muscles
- independent exercising and improving fitness that leads to earlier recovery

### Advantages and Potential Application

Unique rehabilitation pad enables patients that are confined to bed for a longer period simple exercising and rehabilitation leading to faster recovery, thus shortening the time of being confined to the bed and restoring physical condition leading to a faster return to the original quality of life.

Main advantages:

- minimal supervision of other person needed
- simple exercise of the lower limbs, abdomen and back
- possibility to exercise the limbs alternately or both at the same time
- sliding plates can be locked to ensure safe manipulation with the pad
- the possibility of exercising with bandaged limbs
- the pad can be used on any type of bed
- easy manipulation (light weight)

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Program **Gama**

Centre for Transfer of Biomedical Technologies

Hradec Králové, Czech Republic

e-mail: [ctbt@fnhk.cz](mailto:ctbt@fnhk.cz)

University Hospital Hradec Králové

[eng.fnhk.cz](http://eng.fnhk.cz)

[www.ctbt.cz](http://www.ctbt.cz)