

## KTJ corner

It is an integration of a software procedure and mechanical device oriented to the recovery of the full functionality of the injured knee, respecting the concept that what was traumatized and in process of healing must be safeguarded and protected (protected load).

The system has as its objective the deambulatory recovery in patients with severe cartilage disease and offers:

- a software procedure for programming the training load, so to avoid stress, harmful and debilitating overload phenomena,
- a mechanical protection of the knee, (also to relieve pain),
- a device for deambulation with programmable speed and distance.



KTJ Knee Braces



Tapis roullant

Software for the  
deambulatory work  
planning

Top7 KTJ

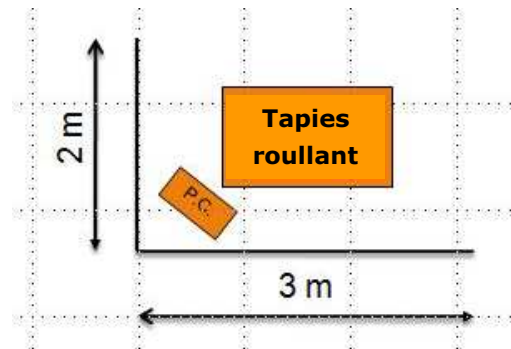
## Small spaces, great advantages

For the full functionality of the KTJ corner system it is very important adjust the monitor of the P.C. near by the tapis roulant, so that the user can easily read the informations that appears on the monitor itself.

KTJ corner can be set in small spaces, obtainable in:

*clinics  
physiotherapy centers  
gyms*

...but can give great work benefits.



## Training Course

A training course to be held at KTJ systems srl in Trieste head office or at the customer, will be offered to the buyer



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”deambulation”

# Corner



Working protocols for  
the recovery of the knee  
”protected load”

www.ktj.it

# "Protected load " in the deambulatory recovery

## Cartilage and adaptation

The cartilage tissue if damaged (due to trauma) or degenerated (due to ganartrosi) , has no possibility to regenerate or to be replaced. But , what has remained intact has ability to adapt if properly stimulated , enhancing its mechanical characteristics to compensate joint function.



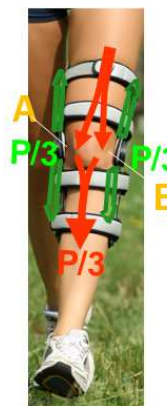
For this to happen, it is essential to submit the cartilage to those solicitations for which has been "designed" , first of all the **compression** that develops during deambulation or running.

From the analysis of the cartilage mechanical properties such as the anisotropy and of the behavior resulting from the load increase and of the number of load /recovery cycles, were derived limits within which we can organize a rational protocol to urge that chain of physiological responses that enable the body to maintain its full functionality (in this case articular) and defined from Selye (1947)

## "general adaptation syndrome".

## KTJ keen brace

In deambulation using KTJ knee brace , that perfectly reproduces physiological motion of the knee , creates the conditions to maintain a correct dynamic in articular , ensuring that the pressure stimulus determined by the weight of the body (P) is vertical ( compared to the concept of anisotropy) and creating an articular discharge that **reduces** or **gets rid of the pain**.



Especially in the elderly , KTJ allows deambulatory recovery encouraging the postural balance and **reducing** , accordingly, **the possibility of a fall**.



Top7. KTJ software allows to manage the alternation of the deambulatory stimulus so that , according to the direction (vertical) and to the intensity of the load ( modulated by the knee brace ), at the compression time ( deambulation speed )and number of load recovery cycles (numbers of steps or distance to go), we can restart in the more correct way, the process of cartilage readjustment.

The software manages with particular care also the progression of the load between the individual sessions subsequent by age and BMI (Body Mass Index).

## "Deambulation" programs

The KTJ corner organisation involves the use of a tapis roullant which ensures accurates deambulation (or running) speed and distance, and of a computer that has a monitor on which , through a specific TOP7.KTJ function, accurate information on the protocol that you must perform are exposed.

This system creates a perfect integration between:

- the mechanical properties of cartilage,
- the quality of training to perform without incurring in local fatigue,
- the physiological concept of fatigue,
- a modulate progression of the load between sessions,
- the use as a mechanical protection of the KTJ knee brace.



## "running" programs

After **the deambulatory recovery programs , protocols for restarting running with a protected load** have been provided , this as the necessary activity for restarting amatorial and/or competitive sport after injuring or disease.

