

## ISSUES REGARDING THE IMPORTANCE OF KINETOPROPHYLAXIS IN HERNIATED DISC

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**Keywords:** Physical therapy prophylaxis, herniated disc, sciatica

**Abstract:** Today, the concept of degenerative disc, as an essential factor in generating the lumbago-sciatica syndrome, it is widely accepted. Herniated disc has become one of the most widespread diseases of contemporary society. Much diagnosed and much discussed, it constitutes, by frequency and impaired work capacity, a problem with important economic and social repercussions. The attention of a large number of specialists, through large surface of pathological manifestation of herniated disc, it makes imperative the existence problem of a diagnosis consensus and especially therapeutic.

### **Introduction**

Lumbago, lumbago-sciatica and sciatica are very commonly encountered in everyday medical practice. Often, the clinical lumbar episode "lumbago" it is the first stage of a lumbago-sciatica, as often "sciatica" is the final episode. But sometimes, lumbago can appear at the end of a lumbago-sciatica, and sciatica can be the first manifestation of a suffering that later betrays its lumbar origins.

One of the most used methods to detect these diseases is the McKenzie method. This method is also known as Mechanical Diagnosis and Therapy (MDT), and it was developed by New Zealand physiotherapist Robin McKenzie. MDT does not only means the extension exercises; it is about a comprehensive approach of the spinal column, based on principles and fundamentals, once they are understood and followed, therefore they have a great success.

The algorithm that underlies this process is well defined and leads us to a simple classification of the back pathology, classification that is based on the cause - effect relationship between the behavior history as well as the painful response to movement tests, posts and activities during the evaluation process.

Nowadays, the concept of degenerative disc, as an essential factor in generating the lumbar syndrome, it is widely accepted. Herniated disc has become one of the most widespread diseases of contemporary

society. Much diagnosed and much discussed, it constitutes, by frequency and impaired work capacity, a problem with important economic and social repercussions. The attention of a large number of specialists, through large surface of pathological manifestation of herniated disc, it makes imperative the existence problem of a diagnosis consensus and especially therapeutic. The spinal column is the essential element of support. It has a great degree of mobility. This mobility refers to inter-vertebral joints, having variable amplitude from one region to another region.

The curvatures of the spinal column have emerged as adaptation to upright position. The thoracic curve we find to the new-born, the cervical curvature occurs when child is seated, while the lumbar curve appears when walking. Now there appear the solicitations of flexor and extensor muscles of rachis, to support balance.

Human spinal column is formed by a sequence of 32 to 34 vertebrae of which we have:

- 7 cervical
- 12 thorax
- 5 lumbar
- 4-5 coccygeal

**Material and method:**

I started from the main hypothesis that kinesiology means can be used in recovery of patients with disc protrusion.

As secondary assumptions that were developed over the research, we have added:

- Can be the kinesiology 'means used as preventive methods for spinal column' diseases?
- Will the chosen kinesiology' methods give positive results in order to improve any deficiencies?
- Did the quality of life for my study subject increase?

The aim of this work was to verify the formulated assumptions and on the basis of the obtained results, to contribute to the efficiency of the recovery process.

In order to achieve the intended purpose I had to follow a few objectives which I will briefly describe:

- Consulting the literature in order to determine the level from which I will start and where I will get, taking into account the current development of research in this area

- Determination of assumptions, followed then by the ways in which they will be checked

Although it is not the first step, in my case having a representative case, it was the first thing that pushed me to choose this topic for research.

Activity organization, namely the compliance with the principle of continuity, so that research timing has been a binding target.

The last thing was the choice of recording technique, their interpretation, and then drafting results in order to promote them among the specialists in the field.

**Table no 1. The Dallas Test**

1. Pain and its intensity To what extent do you need treatment against pain to make you feel better?				
Not at all	sometimes			always
2. The movements of everyday life To what extent does the pain disrupt the movements of your daily life (lifting of bed, brushing teeth, dressing, and so on)				
Not at all				I cannot get out of bed
3. The possibility to pick up a few things To what extent does the pain limit when you want to lift a weight?				
Not at all				I cannot pick up anything
4. Walking To what extent does the pain limits the walk perimeter, compared to the one you would go through before the occurrence of back pains?				
I walk as before				Very much
5. Sitting position To what extent does the pain causes you discomfort in the sitting position?				
Not at all				I cannot sit down
6. Sitting position To what extent does the pain causes you discomfort when you stay bent too long?				
Not at all				I cannot stay bent
7. Sleep To what extent does the pain affect your sleep?				

Not at all				I cannot sleep
8. Social activity How much will the pain disrupt your social life? (dancing, games or entertainment, lunch with friends, getting out and so on)?				
Not at all				I have no social life
9. Movement by car To what extent does your pain affects movement by car?				
Not at all				I cannot drive
10. Professional activities To what extent does the pain disrupt your work?				
Not at all				I cannot work anymore

## Results and discussion

### The timing of the recovery program:

Date of entry into treatment: 05.11.2012

Date of removal of the treatment: 20.01.2013

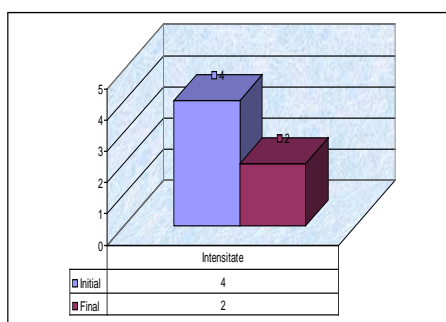
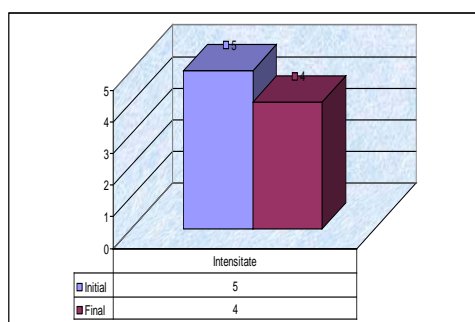
Objective 1:

- Pain reduction
- Lowering the radicular irritation
- Relaxation of lumbar contractures
- Flatten of the lumbar column

Used methods and means:

McKenzie exercises for the extension are used basically to push above the affected discs, reducing pain and preventing its erasers on the lower members.

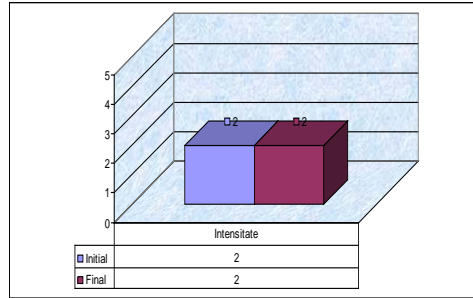
As a result of the initial and final test, it resulted the data in Dalas tables that later were represented and interpreted in the graphic.



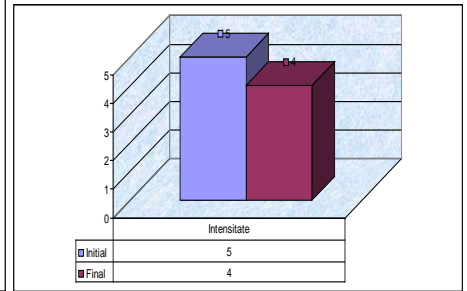
Grafic 1

Grafic 2

The graphic represents the initial and final testing of the subject, in order to determine the intensity of the pain at the lumbar level. At initial testing, the pain was at level 5 and at the final one at 4. The graphic reveals the importance that the pain has, in order to damage the possibility of lifting things. As a result of prophylactic program it was obtained a decrease of 2 degrees.

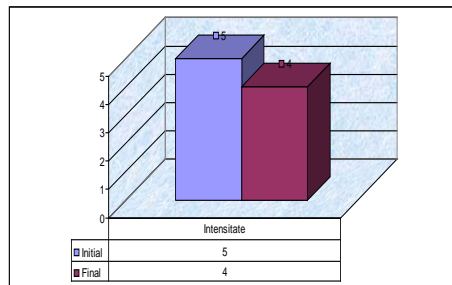


Grafic 3

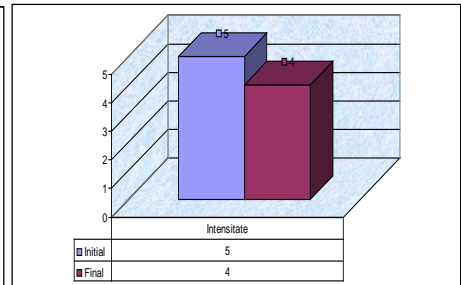


Grafic 4

The intensity of the pain maintains constant while walking. The graphic integrates the intensity of pain in achieving the movements from everyday life. You can notice a decrease of one degree as a result of physical therapy treatments.



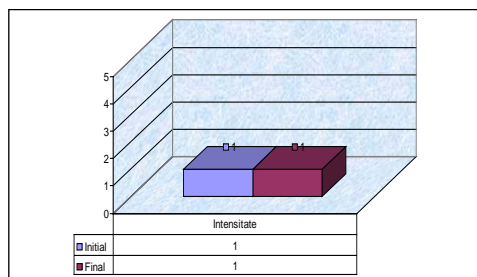
Grafic 5



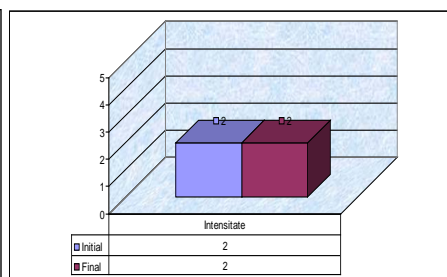
Grafic 6

In the sitting position, in initial testing the pain level reached the maximum odds, and in the final testing it was found a slight improvement of the condition, the pain dropping to level 5 at initial testing, and to level 4 in the finals. The intensity of the pain in sitting position is clearly defined in the chart above, so we initial have level 5,

obtaining in final testing level 4.

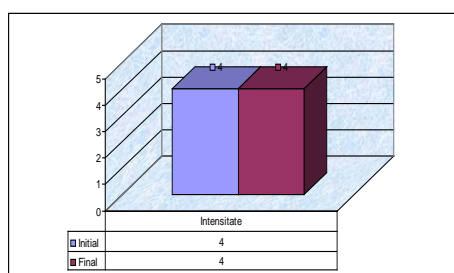


Grafic 7

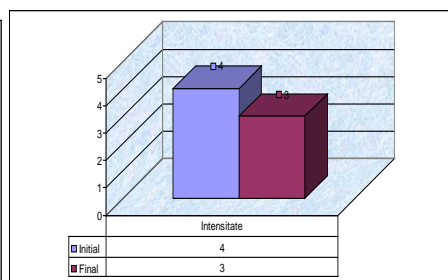


Grafic 8

The above chart is aimed to highlight the intensity of pain during sleep. Notice that the patient does not suffer of visible disorders within the complex action determined by sleep. Social activity within this graphic is not affected by the intensity of the pain developed at lumbar level.



Grafic 9



Grafic 10

Pain intensity during travel by car is at level 4 and there have not been signaled major changes. The pain has decreased from an initial level of 4 to the final one of 3, in the context of professional activities.

Notice that the level of pain intensity decreased by one degree, so, professional activities were also affected, dropping a degree and the work carried out in standing or sitting position won a lower-intensity qualifier. The most pronounced comeback was the possibility of lifting various things, this thing being the most visible, which directly affects the professional work, leading to a notable improvement in the quality of life.

### **Conclusions**

As a result of the obtained results I have reached the following conclusions:

- As a result of the study there were checked the assumptions set at the beginning, to which there were added some new ones to be brought in for analysis within the framework of possible future themes.
- Becoming true, general hypothesis the secondary assumptions were also stated.
- After performing the physical therapy treatment it was an improvement of the symptoms of low lumbar disc protrusion.
- Immediate application of the physical therapy program can prevent the installation of herniated disc.
- After performing the physical therapy program there was a considerable improvement of the quality of life.

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**Titlu:**Aspecte privind importanța kinetoprofilaxia în hernia de disc

**Cuvinte cheie:** kinetoprofilaxia, hernia de disc, sciatica

**Rezumat:**Astăzi, conceptul de discopatie, ca factor esențial în generarea sindromului lombosciatic, este unanim admis. Hernia de disc a devenit una din cele mai răspândite boli ale societății contemporană. Mult diagnosticată și mult discutată, ea constituie, prin frecvență și afectarea capacității de muncă, o problemă cu importante repercusiuni economice

și sociale. Interesarea unui mare număr de specialiști, prin suprafața mare de manifestare patologică a herniei de disc, face imperioasă problema existenței unui consens diagnostic și mai ales terapeutic.

**Titre : Questions concernant l'importance de kinetoprofylaxis dans hernie disque**

**Mots-clés:** la prophylaxie de la thérapie physique, hernie discale, la sciatique

**Résumé:** Aujourd'hui, le concept de discopathie dégénérative, comme un facteur essentiel dans la génération du syndrome de lumbago-sciatique, il est largement admis. Hernie discale est devenue l'une des maladies les plus répandues de la société contemporaine.

Beaucoup diagnostiqué et beaucoup discuté, elle constitue, par la fréquence et la déficience capacité de travail, un problème qui a des répercussions économiques et sociales importantes. L'attention d'un grand nombre de spécialistes, par une grande surface de la manifestation pathologique de hernie discale, il est impératif que le problème de l'existence d'un consensus de diagnostic et surtout thérapeutique.