

**POSTURAL CORRECTION EXPERIMENT IN A GROUP OF  
ASYMPTOMATIC PEOPLE AGED BETWEEN 20 AND 60 YEARS OLD  
WITH THE PURPOSE OF VERIFYING THE FUNCTIONING OF THE  
SPINUP/P ACCORDING TO THE BIOMECHANIC ANTHROPOMETRIC  
ERGONOMIC METHOD <sup>6</sup>**

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**Tiziano Pacini, PhD**

Sofia, Bulgaria, ul. D. Vatax, 30 -1510

Cell. +359878474304, +393355262723

E-mail: [tizianopacini@gmail.com](mailto:tizianopacini@gmail.com)

**Elisabetta De Juliis via Mulinaccio**

11 - 50032 Borgo San Lorenzo,

Italia Cell. +393356477583

E-mail: [elisadejuliis@gmail.com](mailto:elisadejuliis@gmail.com)

**Guglielmo Casali**

via 4 Novembre, 19 – 25016 Ghedi,

Italia Cell. +393407132987,

E-mail: [gg.casali@gmail.com](mailto:gg.casali@gmail.com)

**Abstract:** *A 48 years old man who started the treatment with the Biomechanic Anthropometric Ergonomic method 18 months ago, referred pains diffused to the back and neck. The pain caused him panic attacks. The pains have attenuated but not subsided yet, the structural change is very important and it's detectable on the neck radiography.*

**Keywords:** *Posture, Biomechanic Anthropometric Ergonomic Method, Back and Neck Pain, Postural Correctors*

## **INTRODUCTION**

The experiment consists in the verification of the effect, on the Welfare and on the Beauty of the body of a group of people that for a period of time between 30 and 60 days have worn particular standard ergonomic footwear called spinUP/P.

The experiment was made on men and women aged between 20 and 60 years old that worked and lead a normal life.

Some are sedentary and others occasionally practice sports.

The subjects were photographed and baropodometric data were detected following the Biomechanic Anthropometric Ergonomic Method (B.A.E.).

They didn't receive prescription for times or specific ways in the use of ergonomic footwear.

Each of them has used them whenever they could during working hours or in their daily life without any clarification.

The footwear called spinUP/P are built following the Biomechanic Anthropometric Ergonomic Method of Tiziano Pacini. They are podalic interfaces studied to improve the management of the gravitational field.

The construction features allow a variability of altitude in the support of the feet and their postural correction satisfy an average of postural alteration that are detected in the majority of the occidental population.

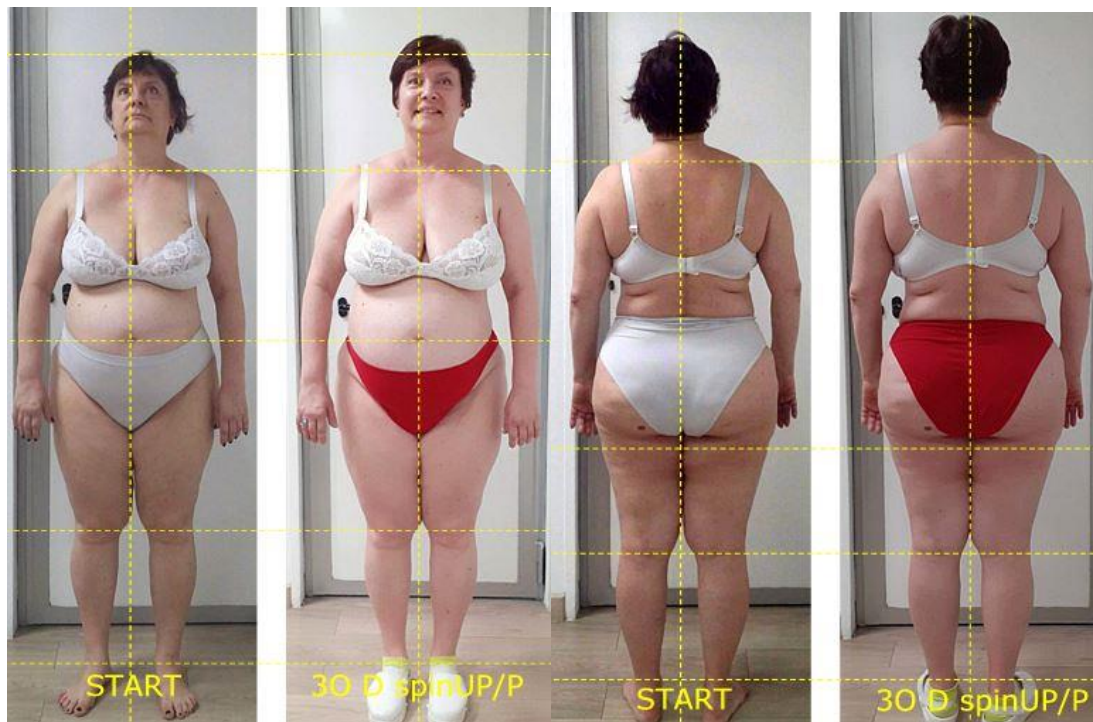
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<sup>6</sup> The research paper was presented on November 13, 2020 at the Health Promotion Section of the 2020 Online Scientific Conference co-organized by University of Ruse and Union of Scientists - Ruse. Its title in Bulgarian is: „ПОСТУРАЛЕН КОРЕКЦИОНЕН ЕКСПЕРИМЕНТ ПРИ ГРУПА АСИМПТОМАТИЧНИ ХОРА НА ВЪЗРАСТ МЕЖДУ 20 И 60 ГОДИНИ С ЦЕЛ ПРОВЕРКА НА ФУНКЦИОНИРАНЕТО НА SPINUP/P ПО БИОМЕХАНИЧНИЯ АНТРОПОМЕТРИЧЕН МЕТОД“.

Some people released statements in relation to their perception about the use of the footwear.

At the end of the experiment they were evaluated again the baropodometric values and took new photos that were compared to the initial ones to verify whether there were improvements in the symmetry of the body, so in the beauty and lastly was verified if the welfare was improved in their opinion.

Fig.1, Fig.2, Fig.3 e Fig.4.



*Fig. 1*

*Fig. 2*



*Fig. 3*

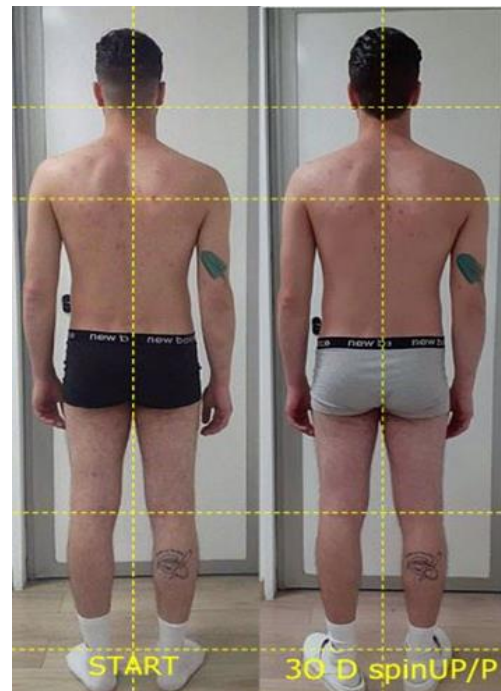


*Fig. 4*

The person in the next pictures reports to have used the shoes for a short while. In Fig. 5, Fig. 6 e Fig. 7 we observe minimal variations of the body conformation.



*Fig. 5*



*Fig. 6*



*Fig. 7*

The person released this statement:

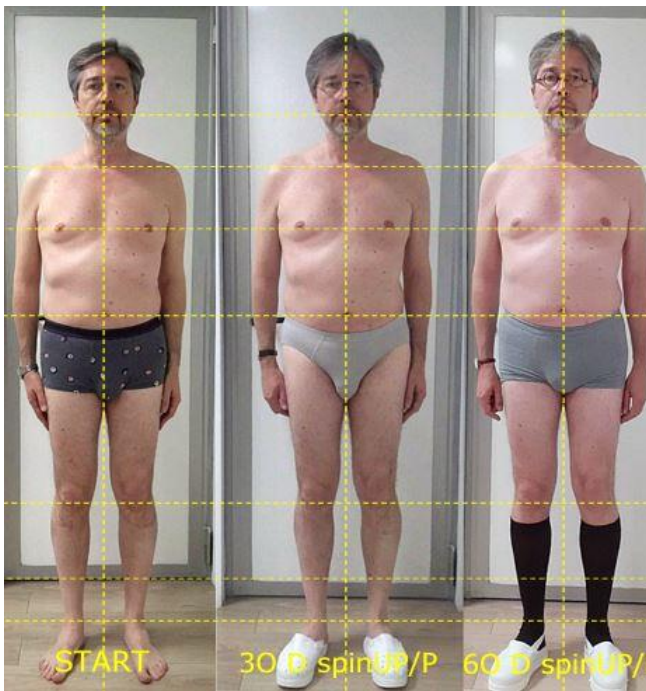
During the use that has been very limited around the house during the free hours, I still noticed a remarkable change in the posture both standing still and moving and in the walk itself.

The pace results straighter and the shoes comfortable.

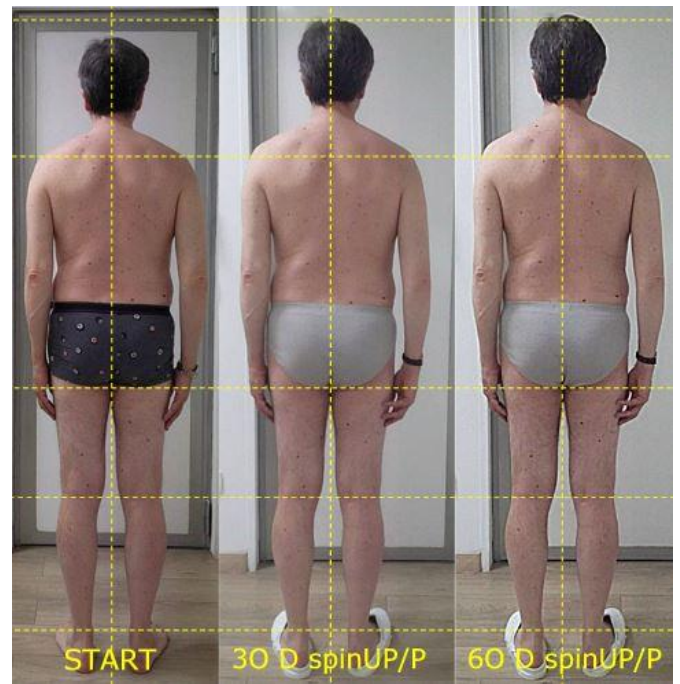
S. D'A. 31 07 2020

The person in the following picture was monitored at 30 and 60 days and we can notice evident structural differences, Fig. 8 Fig. 9 e Fig. 10.





*Fig. 8*



*Fig. 9*



*Fig. 10*

As it is evident the subject is more erect, the head better aligned, the lumbar hyperlordosis was reduced and the gluteal muscles are more toned.

The person released the following statement:  
I started using the spinUP/P only in the evening upon returning from work, so for a very limited time. I have used them during the holidays. I noticed that in the morning upon awakening i don't have any pain around the lumbar area and the same pain together with the one at the knees has disappeared at the end of the working day.

M. G. 31 07 2020

The following person during works hours is always standing. Fig.11, Fig.12 e Fig.13



*Fig. 11*



*Fig. 12*



*Fig. 13*

The person released the following statement:

I started using the spinUP/P only in the evening after work, so only for a short while. Rarely I used them during the day.

I started using the shoes as I was feeling unbalanced and often found myself walking on my toes.

The first days I felt back pain in the lumbar area that after completely disappeared.

I'm feeling better and I'm in general less tired.

C. G. 31 07 2020

The following person spends many hours standing. Fig.14, Fig.15 e Fig.16





**Fig. 14**



**Fig. 15**

As we can observe the subject is more erect and the gluteal muscles are toned.



**Fig. 16**

The person released the following statement:

Initially the spinUP/P were tiring mostly going up and down the stairs, then I started feeling welfare.

Over time I felt a sensation of change in the posture then confirmed during the checking.

The breathing improved.

A striking example and very clear: I was feeling the same as to put the teeth braces.

The welfare sensation is higher.

E. L. 31 07 2020

The following person use the spinUP/P during working hours that keeps her constantly standing. Fig.17, Fig.18, Fig.19 e Fig.20



*Fig. 17*



*Fig. 18*

As it is evident the subject is more erect, the head better aligned, the lumbar hyperlordosis was reduced and the gluteal muscles are more toned.



*Fig.19*



*Fig. 20*

The person released the following statement: It's almost a month that I'm using the spinUP/P. Before wearing these shoes, I had swollen legs fatigued and I reached the evening at the end of work with difficulty, now everything is gone. I used to go twice a week to a physiotherapist and now I manage to go just once a week as the cervical is much less painful. Months ago I twisted my ankle and I always had it swollen, afterwards with the use of spinUP/P it doesn't get swollen anymore.

M. M. 31 07 2020.

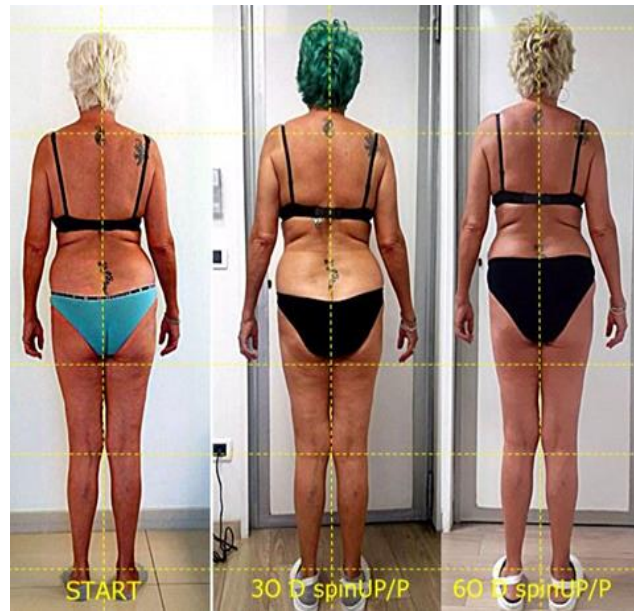


As we can observe, an intense use of the shoes allowed to acquire great results. The person is very much more erect. We can observe a use of the gravity with less energetic expenditure, that allows a greater development of the musculoskeletal apparatus.

The subject represented in Fig,21,22 e 23 does a work that force her to be always standing. Her work makes her uncomfortable as her ankle is blocked caused by previous orthopaedic problems.



**Fig. 21**



**Fig. 22**



**Fig. 23**

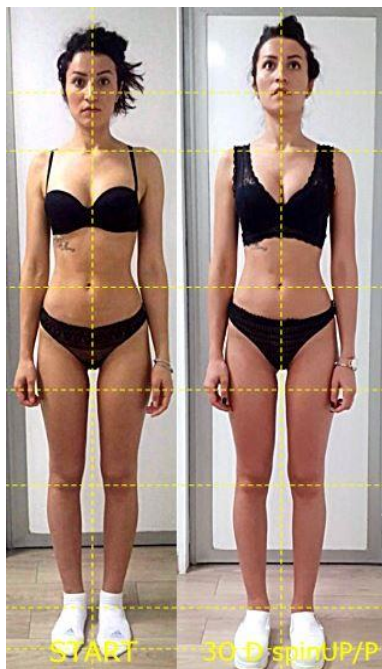
The person released the following statement: I started using the spinUP/P about two months ago and for over a month i started noticing improvements. At the start I had difficulties due to a problem that I have at the right ankle but then it stopped and now I manage to wear them for six and seven hours a day with benefit at the back and at the cervical.

A. O. 31 07 2020

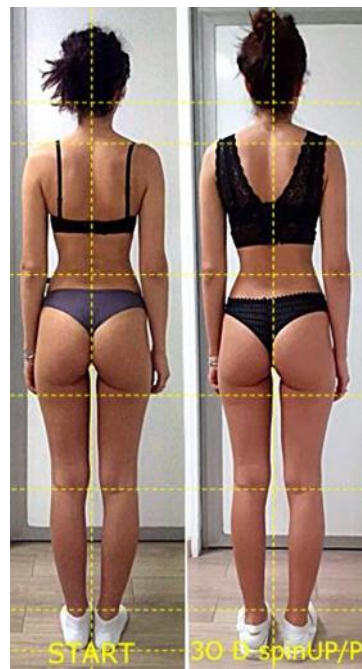
As we observe, an intense use of the shoes allowed us to obtain great results. The person is very much more erect, the neck is in a better position together with the shoulders. The result is an improved welfare and harmony.



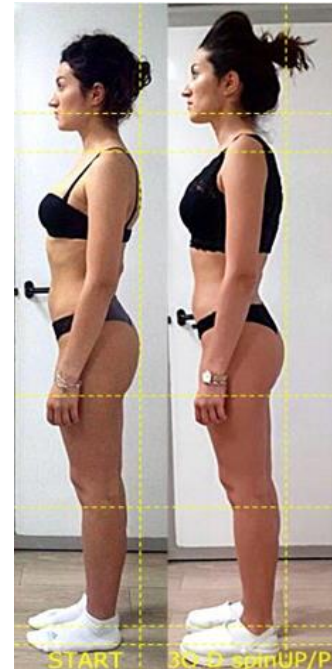
The three following people are women aged between 20 and 40 years old, in great fitness and however shows both at the photographical and baropodometrical control of the anomalies that can be observed in the images. Fig.24, Fig.25, Fig.26, Fig.27, then Fig.28, Fig.29, Fig.30, Fig.31 e Fig.32, Fig.33, Fig.34, Fig.35.



*Fig. 24*



*Fig. 25*



*Fig. 26*

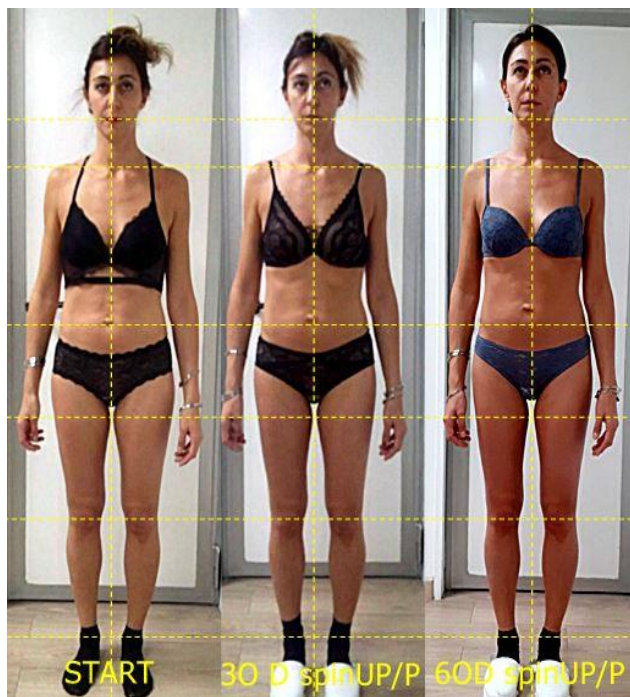


*Fig. 27*

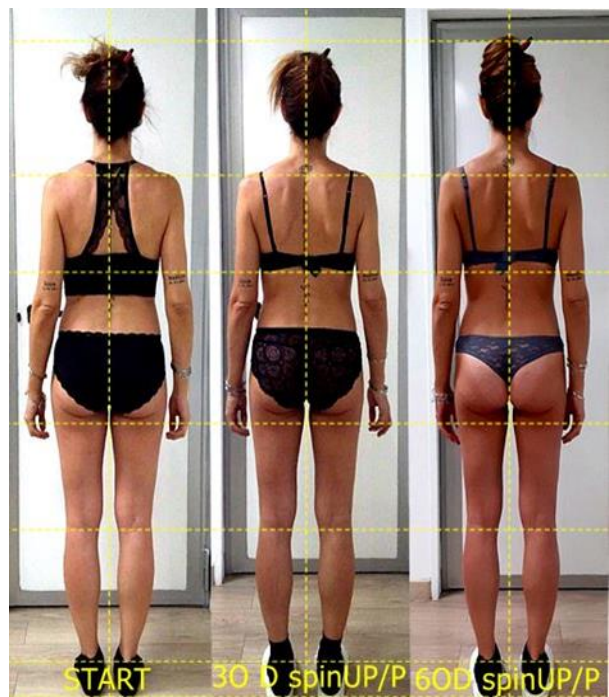
The person released the following statement: I used the spinUP/P both at home and at work on average from eight to twelve hours a day. I feel improvements in the posture, I'm very happy to have been able to participate to this experiment and to be feeling the benefits. I'll continue to use the spinUP/P to improve the posture.

D. P. 31 07 2020

As we can observe in Fig.27 the gluteus maximus muscle is more tonic giving a better body appearance.



**Fig. 28**



**Fig. 29**



**Fig. 30**



**Fig.31**

The person released the following statement: The first fifteen days showed many anomalies, dizziness, neck pains, tingling in the back and in the hip. After a month a sensation of pressure in the neck during sleep that immediately stopped. Now I wear spinUP/P during the intense working days so even for eight or nine hours a day and I found them comfortable.

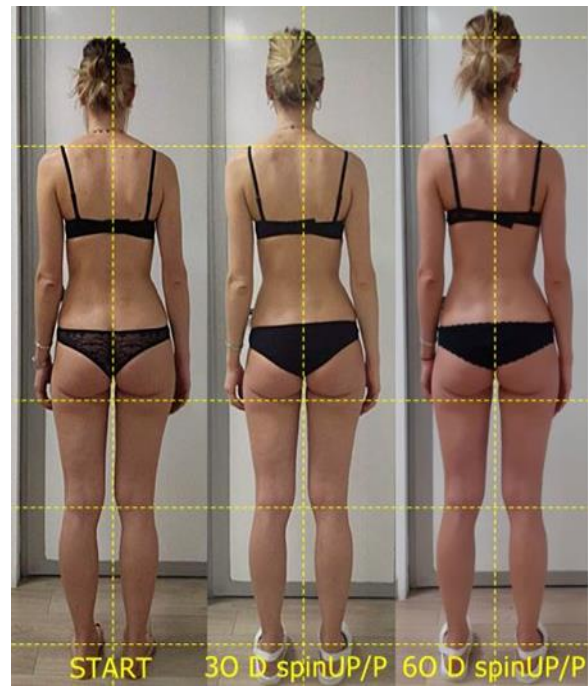
R. S. 31 07 2020

As we can observe in Fig.31 the gluteus maximus muscle is more tonic together with the abdominal part, Fig.30, giving a better body appearance.

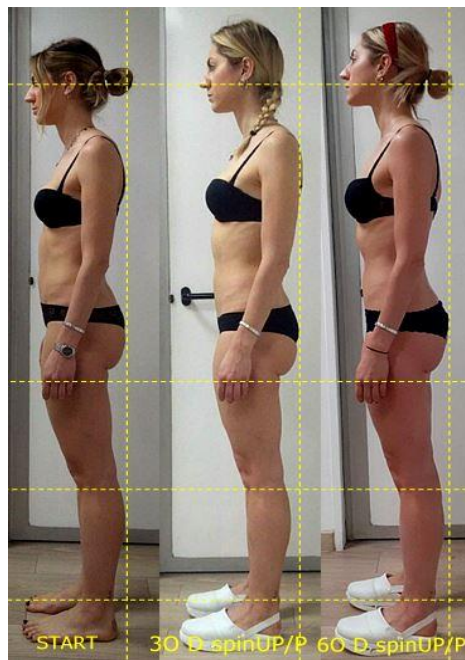




*Fig. 32*



*Fig. 33*



*Fig. 34*

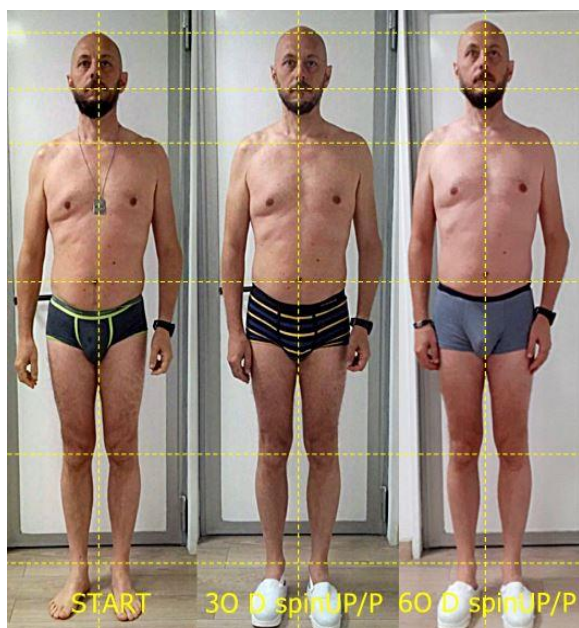


*Fig. 35*

As we can observe in Fig.32 e Fig.33 there's a straightening of the all body that after 60 days is very much more symmetrical and well extended. We then observe in Fig.34 that the rectus abdominis muscle works very well maintaining the belly flat and the gluteus maximus muscle Fig.34 e Fig.35, is more tonic giving a better body appearance.

The following images highlight who the shoes, object of the experiment, are more useful even where there are complex orthopaedical problems and present for a long time. In this case we have a shoulder that has an irreversible alteration, Fig.36, Fig.37 and Fig.38

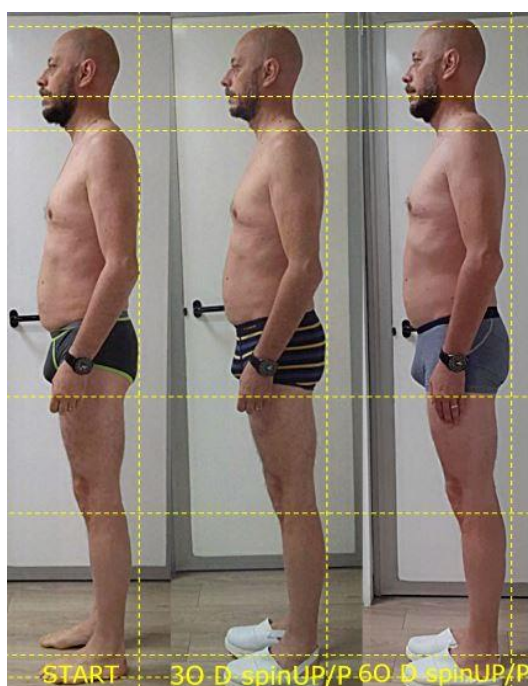




*Fig. 36*



*Fig. 37*



*Fig. 38*

The person released the following statement:  
For many years persisted a wrong posture due also to the subluxation of the right ankle that made me assume distorted attitudes. I had often pain and muscular fatigue of the torso. The surprising thing of the spinUP/P is that from the very first fit I perceived an enjoyable sensation of re-equilibrium and of welfare. After less than a week I already had a correct posture and I felt more active. It's sufficient a constant usage, even if modest and the results are evident.

A. Z. 31 07 2020

Also in this case the person is shown more erect and more symmetrical.

In Table A, below, are shown the baropodometrical values in stationary of the people object of the experiment, for one of them the images are not shown.

#### **Materials and Methods:**

Baropodometer Footchecker Loran Eng., 2012

Biomechanic Anthropometric Ergonomic Method B.A.E.

Tab. 1

PEOPLE	START		After spinUP	
1	Left 59 %	Right 41%	Left 60 %	Right 40%
2	Left 68 %	Right 32%	Left 53 %	Right 47%
3	Left 56 %	Right 44%	Left 48,5 %	Right 51,5%
4	Left 51,4 %	Right 48,5%	Left 54,5%	Right 45,5%
5	Left 59 %	Right 41%	Left 45,5 %	Right 54,5%
6	Left 49,5 %	Right 50,5%	Left 58,5%	Right 41,5%
7	Left 65,5 %	Right 34,5%	Left 47,8 %	Right 52,2%
8	Left 48,2%	Right 51,8%	Left 53,9 %	Right 46,1%
9	Left 72,5 %	Right 27,5%	Left 56,8 %	Right 43,2%
10	Left 51,9 %	Right 48,1%	Left 38,8 %	Right 61,2%
11	Left 53,8 %	Right 46,2%	Left 51,9 %	Right 48,1%
12	Left 62,3 %	Right 37,7%	Left 44,4 %	Right 55,6%

Tab. 2

Normal values equal to 50% both on the right and on the left		
Load percentages	Prima	Dopo l'uso di spinUP
Left hemisome	58,1%	51,1%
Right hemisome	41,9%	48,9%

## CONCLUSION

After about a month for some, two months for others, of Ergonomic Postural treatment implemented by means of standard shoes called spinUP/P, we evaluated the results following the parameters of the Biomechanic Anthropometric Ergonomic Method.

The situation is:

1. The baropodometrical values are significantly improved in stationary.
2. The people refers unanimously an improvement of their welfare after having wore daily the shoes.
3. It proves an improvement in the beauty of the bodies with photographical data detected before and after the use of the shoes. All of them resulted with greater symmetry of the two parts of the body, they have the glutei more tonic and higher, reducing rotational behaviours of the body.

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