

# The influence of resistance exercises with nasm standards under the rubber band on changes to the deformity of knee abnormalities teenage footballer Tabriz County

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## ABSTRACT

*One of the most important joints of the body and the lower limb is the knee the knee is a very important role in supporting the body and weight transfer during different activities and plays according to the pressure and tensile forces during the activity, a lot of this will be imported, but the support and joint More consistency through the surrounding muscles and ligament can supply almost any bone in its role of stabilizing agent, this joint is one of the most vulnerable of the joints of the body.*

*Exercise with cache is a kind of resistance training that has been welcomed by athletes and non-athletes due to the high variety of movements and the possibility of its implementation in any place. This simple and light sports car is easy to carry and its movements do not require much space. In addition, the use of cache for beginners is less likely to cause injury than weight training. The present study is a semi-experimental study. The statistical population includes so called adolescents with parental knee anomalies. Of the 100 subjects aged 12 to 16 years old with a false knee anomaly, 14 were targeted. The size of the knee joint was measured and recorded in the femoral condyle area.*

**Keywords :** Varus; parotid ; gnovarom; national perversity; Medicine Academy;

## 1. INTRODUCTION

One of the most important joints of the body and the lower limb is the knee the knee is a very important role in supporting the body and weight transfer during different activities and plays according to the pressure and tensile forces during the activity, a lot of this will be imported, but the support and joint More consistency through the surrounding muscles and ligament can supply almost any bone in its role of stabilizing agent, this joint is one of the most vulnerable of the joints of the body<sup>1</sup>

Injury in football is a famous and unwanted phenomenon is due to frequent explosions and running activities and shear motions, the nature of the sport of football great pressures and forces to the thigh, leg, and foot joints and abdomen. Enter this amount on the effect of repetitive movements and exercises too and match the movements of the body, causing the situation to athletes, particularly in joint disorders of the knee joint.<sup>2</sup>

The foot of the parotid the most common disorder in Afghanistan between football players. According to the

research of football players suffered %73 genu varum . Identify the physical state is helpful in the situation for the footballer's progress and identify the physical conditions are implemented which reduces the false, useful for modification. In order to improve the football at international level and more popularity among teenagers more analysis on this crucial problem.<sup>3</sup>

Research has shown that a large number of students are faced with postural disorders and this figure is increasing dramatically<sup>7</sup>

The results of studies conducted in Iran are very worrying and it seems families are compared to their children's problems are very careless, while little attention to activity among children can cause a lot of postural. Foot deformities in knee Parenthesis knee from too far away, the arcuate and medial Ankles close together and find the shape of the legs Parenthesis. The person with the name Parenthesis for the ducks and the knee on the edge of the

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foot and the calf goes way foreign it turns inside out and have reduced the size and angle.<sup>10</sup>

This disorder may be crossing the line a stretch of the lower extremity is gravity and cause harm to the static and dynamic balance and affect human abilities.<sup>9</sup>

In the Parenthesis function of the muscles around the knee the knee is impaired. Because the muscles of the external side of the knee have been weak and muscles of the inner side of the knee have become short. As a result of their legs and bow to the State as a result of its natural state are out and to keep the balance in the muscles of the wrist involved more standing status.<sup>4</sup>

Since teens are under physical growth more prone to be abnormalities stature , many believe that physiotherapists postural disorders in women after the age of 16 years and after the age of 18 years old men are non-returnable. Wigger et al reported anomalies in parotid lap 16 to 18 years is common.

For the treatment of knee parotid there are several ways, one of which performs corrective exercises. During the recent years of corrective training under Exercises, also known as the common protocol in these exercises of stretching exercises to increase the length of the shortened muscles and exercises to strengthen weak muscles calculator used.<sup>8</sup>

Crash training is a type of resistance training that has been welcomed by athletes and non-athletes due to the high variety of movements and the ability to perform it in any place. This simple and light sports car is easily carried and its movements require a lot of space. . In addition, the use of cache for beginners is less likely to cause injury than weight training<sup>11</sup>

Unfortunately, despite the benefits of resistance training in rehabilitation exercises special few studies in this area have been reported. the aim of the study was to examine the impact of 8 weeks ahead practice Rubber band on the foot of the parotid boys athletes. the use of training exercises in the application cache's possible resistance to employing these exercises in A home for these patients. It has special benefits such as low cost and low safety, and is a very diverse use of the movements. on the other hand Rubber band because the stored energy in the stage went higher-speed as well as cause more force on the stage production is back That the traditional exercises can also be compared to a better performance and a better correction and neuromuscular coordination of causes.<sup>11</sup>

The training program, nasm exercises should be the person, the environment, and the tasks that you must do in the comments. As well as upgrading the performance and reduce the risk of injury, pay attention to any potential imbalances in muscle and the harshness of the move that may be suffered, it's importance. This is through a coherent approach to introducing a program design,. Based on the same logical assumption is that the National Academy of sports medicine (nasm) is a rule of thumb for corrective exercises chain and the importance

of training programs combine it with modern humans, has provided that outlines it<sup>8</sup>

Nasm has been introduced, which includes a four-level harness (to reduce the effects of a trigger points and impress the autonomic nervous system), the increase in length (to enhance the ability of elastic), activation (in order to increase the activity of tissue work), consistency (to enhance the functional capacity of the motor system) Nasm modification techniques. "other anomalies affecting the other better than corrective exercises have therefore, in this study we aim to examine the impact of these types of exercises on the Varus knee.<sup>8</sup>

### 1. the objectives of the monitoring

1. determine the amount of the impact of the corrective exercises and resistance exercises on nasm Rubber band changes parotid knee deformity

### The method of doing research

Experimental study of the statistical community has been that kind of half-it includes footballs kids with deformities of the knee parotid . That of the 100 subjects with age range between 12-16 years that has targeted the knee abnormalities were parotid for 14 people have chosen. The amount of people in the parotid area of Kennedale knee thigh by caliper measurements were recorded. People who have distance between them over the Kennedale 2.5 cm was as parotid in the knee. Then the people for eight weeks, three sessions a week in sessions of corrective exercises. After the exercise subjects in meetings after the test and the desired index was measured again. In order to assess the difference between the groups in advance of the test and post-test t was used. Analysis data were analyzed by spss software version 21.

### Research variables

#### Independent variable

Independent variables include resistance training Protocol has been adopted by nasm drawer

**Dependent variable:** 1-change the distance between the Condyle

The limitations of the research manageable restrictions:

1. the number of subjects 2-the age of the subjects 3 subjects-sex non-controllable limits: 1-lack of similar work in this field 2- physical activity 3-nutrition & life style 4-injury data

In this research the purpose of the athletes were women in one of the city's football teams have had a membership for your company's team in regular exercise and sport competitions at the provincial level. Enter

criteria to people not researching include: having a history of structural abnormalities in the lower extremity surgery of the knee, parotid, heart disease, epilepsy, digestive, renal

#### **Method of correcting Rubber band resistive exercises**

This standard training exercises under the standard protocols of the nasm (National Academy sports medicine America) well done that alongside these exercises of resistive exercises also use cache.

In the year 2010, the National Academy of corrective exercises sports medicine offers us a new protocol that includes stretching, inhibitory techniques, stage 4, activation and cohesion. This Protocol is recommended that instead of being short or stiff muscle stretch, we merely been better initially and then to halt the exercises on muscle stretching exercises to do at your myofascial by triggering individual techniques in order to create an inhibitory response in the muscle spindle and reduce the activity of gamma-circuit Through continuous pressure with a certain amount of intensity and duration of the aforementioned receivers irritates. This concept by means of a controlled experiment was presented by Heyou et al. The report will push through an object with a high pressure for a low (30 seconds) Low pressure (90 seconds) to significantly increase the range of motion.

The very tool to work there in the SMR. Tools depending on the size and Their structure are many different effects. The ones that are made from soft materials, more on the more superficial layers affect fascial. However, tools that are more difficult to increase the pressure on soft tissue structures and access to the deeper layers of fascial. of inhibitory techniques in order to reduce the excessive activity of the Facial nerve tissue and prepare the tissue for other corrective techniques moving. In the next step, length-increasing techniques refer to the elongation of the muscles and connective tissue that are necessarily mechanically shortened to increase the motor or motor joint amplitude. Stretching combined with exercises in the form of activation and cohesion, to form an effective physical and more can improve patients' health will be ready as well as regarding the weakened muscles rather than merely strengthen them better coherence both at the end of the exercises.

#### **-Training Protocol**

Exercises for 8 weeks and 12 weeks of each session and each session is 60 minutes was done 6 sessions Rubber band and 6-session training exercises is nasm.

#### **NASM corrective exercises**

This Protocol includes a four-level test. Traction. Activate coherence. Of the subjects were asked after the warm up in the main program of exercises involving the inhibitory phase. Traction. Activation was coherence.

**Containment techniques:** The term "containment" refers to the reduction of excessive activity of the neuro myofascial tissue. By continuous pressure, an object with a certain intensity, amount, and duration is obtained. For this purpose, the foam is used, which for 30 seconds, a person wearing foam against the target area Moving.

**Increase the length of the technique:** This technique is used to pull muscle and connective tissue that have been mechanically shortened. the duration of the stretch of 10s starts in the week of the untamed to 30 seconds.

**The activation technique:** activation technique to stimulate active or retraining of low myofascial tissue. because of the human motor system anomalies of hyperactive muscles and the muscles active low arises as to why a comprehensive remedial strategy must also consider the low-active muscles. the exercises with 10 - 15 reps and each iteration consists of 1-2 s Outward contraction at the end range of motion preservation and 4 seconds keep Contraction Outward (eccentric).

**The techniques of cohesion:** these techniques in order to muscle and nerve function and coordination of retraining through the functional movements of the progressive coherence technique were used. the last component of corrective movements of the chain is through the use of a coherent dynamic movements. this partnership with target Exercises on stable and muscles The body's motor business.

**exercises rubber band:** this is some sort of resistance training exercises provided by the cache gets created. with these exercises by means of resistive exercises that strengthen the weak, has been Muscle. these exercises 6 days a week before making the exercises nasm. In these exercises to strengthen weak we were Muscle .(the book of corrective movements of three master)

#### **A data analysis method**

Mean, standard deviation and other descriptive indicators of variables were calculated using descriptive statistics. To determine the normal distribution of data, Golomborov Smirnov test was correlated with T for comparison between pre-test and post-test. Data analysis was performed using SPSS software version 21.

Descriptive statistics, profile of the subjects in this section to describe the characteristics of the individual subjects include: height, weight, age has been paid

| variable | lowest | standard deviation | Average | number | most |
|----------|--------|--------------------|---------|--------|------|
| age      | 14     | 0.77               | 16.57   | 14     | 17   |
| Height   | 165.5  | 4.29               | 172     | 14     | 181  |
| weight   | 41.8   | 6.61               | 59.25   | 14     | 74.9 |

### Pre-test description - Post-test

Descriptive statistics pre-test post-test bulging table. based on this average scores so get better matching the prologue.

| Test steps | Average | The standard deviation |
|------------|---------|------------------------|
| Pre-test   | 47.06   | 8.82                   |
| Post-test  | 29.70   | 5.07                   |

**Hypothesis:** Resiliency correction rubber band has a significant effect on the improvement of the distance between the condyles of people with parotid knee anomalies.

According to the results of the matching t-affiliations between the ago and then matching the distance between condyles ( $t = 13.67$   $p = 000$ ) people with parotid knee exercises with drawstring, there is a significant difference were therefore approved research hypothesis.

### Discussion and conclusions

**Hypothesis:** Resiliency correction rubber band has a significant effect on the improvement of the distance between the condyles of people with parotid knee anomalies.

The results of the comparison of data obtained from a test before and after the test after 8 weeks of resistive exercise method that rubber band for 6 days a week and 120 minutes every day on improving the amount of distance between the condyles, people with deformities of the parotid knee showed, the amount of distance between the condyles fully This method is significantly reduced leading to reduce the distance between the reformed condyles people with deformities of the knee parotid.

### Final conclusion

The results of this research that bulging for 8 weeks was doing significant reduction in foot deformity demonstrated parotid achieved results showed bulging resistance with significant corrective exercises in reducing the impact of cache space between condyles.

### Resources

- 1-Levangie P.K., Norkin C.C., (2005). Joint Structure and Function: a comprehensive analysis. Philadelphia: F.A.Davis; 393-425.
- 2- Hadadnezhad M, letafatkar A, (2011). Relation between genu varum knee with performance and power of back limbs in teenager footballers. *Research in power science*, year 7, no. 2, p: 188196.
- 3- Hadadnezhad M, Letafatkar A. (2011). "The relationship between genu varum abnormality and lower extremity's performance and strength in teenage footballers." *Journal of Rehabil Sci*. 7 (2); pp: 188-96.
- 4- Samaei A. Bakhtiary A.H. Elham F. Rezasoltani A., (2012). Effects of genu varum deformity on postural stability. *Int J Sports Med*; 33 (6): 469-473
5. Asadi, K., A. Mirbolook, et al. (2015). "Association of Soccer and Genu Varum in Adolescents." *Trauma Monthly* 20 (2)
6. Namavarian, N., A. Rezasoltani, et al. (2014). "A study on the function of the knee muscles in genu varum and genu eduves." *Modern Rehabilitation* 8 (3): 1-9.
7. Alizadeh Haidari (2003-2008). Corrective Exercises.
8. Kamali.Chasemi. (2015). Effect of traditional correction exercises and nasm on lumbar lordosis correction.
9. Nazari.Bakhshi (2010). Corrective Exercises.
10. sokhangui.(2014). Corrective Exercises.
11. Behnam Moradi.(2016). Rinetrakibi, a comparative study of the main focus on performance and control of the patient's standing with a polycysticheliomatism