

The effect of rubber tape training in accordance with the energy of stress in the development of some biomechanical variables and the physical, motor and skill abilities of young tennis players.

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Abstract

The importance of research came through the creation of tariba treatments for tennis practice included in its training programs it became possible to use training rubber tapes according to the mechanical stress energy that we are dealing with in this research, which can be linked after measurement to performance changes and find appropriate training solutions to improve and raise its level and hence highlights the importance of going into research, and the study aimed to prepare training rubber strips according to the energy of stress sample research, and find out the effect of training rubber strips according to the energy of stress in the development of some variables bio-mechanical for some basic skills of tennis players The researcher used the experimental method to suit the nature of the problem by designing the experimental group, the researcher identified the research community of the registered tennis players in the Central Tennis Federation, while the members of the sample were selected in the intentional way and numbered (4) players, and the procedures of research photography and extraction of variables that included the extraction of some variables biomechanical which are (instant force and angular push, zazzem, dynamic transfer, and flow) and these exercises were applied within the main section of the training unit and took and took these exercises within the main section of the training unit and took up From 45- 50 minutes by 3 units per week for 8 weeks, where the number of training units was 24 units and the duration of the training units is 8 weeks and by two intermediate courses, and 3 training units per micro course, and the researcher concluded that the exercises with rubber strips according to the energy of mechanical stress prepared by the researcher were influential in improving the level of variables The researcher recommends studying the possibility of formulating digital amounts for skill performance stages in order to be able to formulate appropriate training steps, adopt rubber tape training and determine the intensity of training according to the energy of mechanical stress.

Keywords: rubber bands, stress energy, mechanical bio variants

Introduction and the importance of research:

The process of training based on peaceful foundations and keeping pace with the developments of development comes through a relatively constant technical performance through the use of all principles that are intended to serve the skill and then lead the desired goal, although "the process of sports training varies according to the systems and philosophies to which the society belongs, we see that there is a general framework that determines the course of the sports training process by achieving increased player efficiency and preparations to reach the highest levels in sports activity. The goal of the training is to develop the level of the player and improve his technical performance and my plans as well as to develop different physical aspects and in a way that ensures that the level of the player does not fluctuate during matches, and tennis is one of the games that are directly affected by physical numbers as the basis in the development of the skill side, which inevitably has to do with the application of the different conditions associated with performance, whether these conditions are mechanical or mechanical. Here will overlap several factors in the construction of the level of good performance of tennis players, including the technical characteristics and tactical characteristics as well as the mechanical characteristics of the movement are carried out on a clear principle which is the movement subject to mechanical variables and if the performance is done according to these variables, the performance appears well. In dealing with the human body is through analysis and adoption of mechanical theories in training and its applications in a field and practical way, which in a course leads to the improvement of technology and achievement, hence the importance of identifying factors that help to perform the movement and reach the desired goal with less effort and in a mechanical way commensurate with the nature of that performance, and this aspect leads us "to the necessity of the coach and the player in terms of movement and its relationship to mechanical laws and the extent of its impact" (Jawad) : 15:2002). The method of training with rubber bands is one of the training methods through which the development of strength is carried out using exercises that are performed against the resistance ropes and rubber bands, if the use of these resistances in the performance of exercises can add from (10-90 kg) for each of the flexible resistance units, the amount of resistance depends on the quality and degree of resistance or elongation in the bands and rubber ropes and on the ground, when estimating the two most important points of this estimate are the beginning of the movement center of the exercise and the end point (the most important points of movement) Abu Jamil 230:2015) And during training with rubber bands, the more resistance continues to increase during the range of movement during the positive part of the movement, and this means that the athlete should exert greater strength with his direction of performance as the rubber bands work as a result of the change in length and try to return to normal, the more the degree of change in the rubber band, the more stress energy that the body acquires, for example, when we bring a rubber band and make it stretch, the more severe the body will be. The energy of stress when changing produces the energy of stress by stretching the rubber band (McInnes 134:2014), as the straps increase the speed during the negative part of the

movement or repetition, which means that the athlete should exert more power to stop the weight during the end of the movement.

The researcher believes that to find training treatments for tennis practitioners within their training programs it is possible to use training with rubber tapes according to the mechanical stress energy that we are dealing with in this research, which can be linked after measurement to changes to performance and find appropriate training solutions to improve and raise its level and hence highlights the importance of going into research.

The study aims to prepare training in rubber strips according to the stress energy of the research sample, and to know the effect of training with rubber strips according to the energy of stress in the development of some biomechanical variables for some basic skills of young ground tennis players.

The researcher assumed that training in rubber strips according to the energy of stress has a real effect in the development of some biomechanical variables for some of the basic skills of the players ground for young people in pre- and post-tests and in favor of post-tests.

- Research methodology and field procedures

- Research method: - The researcher used the experimental method to suit the nature of the problem by designing the same experimental group.

- Research sample: - The researcher identified the research community with young tennis players of the Central Tennis Federation / Baghdad, but the members of the sample were selected in the deliberate way and they are four players committed to attending the daily training units that are held on the playgrounds of the specialized school in the stadium of the people, where the sample constituted 33% of the research community.

- Devices and tools used to search:

Video camera type (sony) Japanese origin frequency (25 a.m. / tha) number 2 video camera type (sony) high-speed frequency (1200) y / tha, number 2, tripod of camera number 3 electronic calculator (laptop) type) Dell 1, a stopwatch, a German-type balls-thrower, the most important computer software used to process skin ova, testing tools were tennis balls + rackets (4 Tube) + (4 rackets) type (Wilson).

- tests used for research.

- Physical tests

- explosive force tests

- ❖ The first test: - Throwing the medical ball zena (3kg) with the arms over the head.
 - The goal of the test:- measuring the explosive strength of the muscles of the arms.
 - The unit of the test measurement:- (meter, centimeter).
 - Tools:- Medical ball weighing (3 kg) number (4), flat even enough for throwing distance, meter measurement, pieces of colored chalk.
 - Scoring method:- Three attempts are given so that he scored the best successful attempt of the three attempts.

- Performance specifications:- Determines the line to stand the laboratory and stands behind him and takes the position of stop open to the medical ball with both hands so that the ball is above the head and the field of throwing in front of him, the laboratory stands with the movement of throwing after trying to extend the arms in front of and then throw the ball forward as strongly as possible without crossing the line of throwing with the assurance that the feet remain adjacent to the ground.

Fist strength test

The purpose of the test: measuring the strength of the fist muscles.

Tools: A hand dynamometer with a scale listed.

Description of the performance: The laboratory holds the dynamometer with the fist of his hand and presses the fist on the dynamometer to try to produce as much power as possible.

Grade calculation: Each laboratory is given two consecutive tries and the best is counted.

Slanted front altochsuppter test to bend and extend the arms (shenor)^(c)

For the purpose of the test: to measure the strength of the speed of the muscles of the arms.

Tools needed: flat area (space), hour of any rhyme, whistle to give start signal.

Performance specifications: The laboratory takes the position of the front oblique support on the ground, so that the body is in a straight position where there is no curvature for the slot or for the top, and after giving the starting signal the circumciser bends the arms to touch the chest of the ground, then return with full duration and the laboratory continues to repeat this performance to the maximum number of times for (10) that.

Terms:

1. A. Take the lab the correct position (for the front call).
2. The laboratory should touch the ground every time it bends the arms and then extends them completely.
3. Speed in performance.
4. The last one sits and does not stop during the performance when giving the start signal until the end signal is given.
5. Each lab has only one try.
6. The number recorded by each laboratory is announced on the next laboratory to ensure the competitive ness factor.

Registration: Calculates several one supfall for each time the lab bends the arms and extends them in the correct way, and calculates and records the number of performances of bending the arms and extending them for (10) that.

- Skill tests

- a compatibility test: - Hit the ball repeatedly on the wall.

The purpose of the test is to measure the compatibility between the arm and the eye.

Tools: tennis racket, tennis ball, educational tennis wall, duct tape, stopwatch.

Description of the performance: After drawing a line along the wall and on the height (3 a in front) representing the network from the center of this line n draw an equilateral educator and a part of the e.e. (5 feet). The laboratory performs any type of tennis strokes from behind

this line and within the designated area of the square. The test lasts for a minute and the number of healthy balls is counted inside the box during this time.

Test the accuracy of the straight front blow. First:

The purpose of the test/measurement accuracy of the long straight front blow.

The tools used / ball thrower, 20 tennis balls, a square tennis racket (275) centimeters drawn on the base line and side line.

When given the starting signal, the device releases 20 consecutive tennis balls in achronological time that allows the laboratory to prepare to hit the ball by 2 minutes. The laboratory strikes the balls towards the square drawn on the base line as in Figure 4.

Registration / Laboratory records the number of balls that have been hit by the square drawn

Test conditions/ all strikes are performed in the front of the bat

Second: test the accuracy of the straight back stroke. :-

The purpose of the test/ measurement accuracy of the long straight blow :-

The tools used / ball thrower, 20 tennis balls, tennis racket, square length (275) drawn on the base line and side line.

Description of the test / the laboratory stands behind the starting line. The laboratory damages the balls towards the square on the base line. As in Figure 5.

Registration / Record for the laboratory the number of balls that hit the box.

Test conditions/ all strikes lead to the back-to-back bat.

Test (motor speed of the arm):

After taking advantage of the law calculating the speed of punches and taking the opinion of the expert gentlemen, the test was drafted as follows.

The purpose of the test is to measure the kinetic velocity of the strike arm.

Tools: tennis court, tennis rackets and a ball-driving device.

Description of performance: After installing the ball-thrower device in one side of the field near the base line, the laboratory has to stand on the other side to respond to the ejected balls quickly allow the player to maintain the correct technique during hitting the ball to the opponent's yard as a time was specified (30th) during which the device (20 balls) is thrown.

Registration: The number of balls that the player correctly returns to the opponent's court and each hit is recorded (20 balls) for the front ground strike and (20 balls) for the back stroke.

Grade calculation: The number of successful strikes is calculated within the specified time.

Biomechanical variables: - -

The roles are analyzed through the Kanova program for the pre-hit and rear-end performance program and the extraction of the following variables.

1- Angular propulsion = change in angular rotational movements (Abdul Basir: 2007: 39)

2- Angular momentum = floating of the palaces * angular velocity. (Hussam al-Din: 1998: 259)

3- Inertial torque = $k \cdot n^2$

- $K = (\text{arm mass} + \text{bat mass})$

- $N = (\text{arm length} + \text{bat length})$

- Angular momentum $1 = k \cdot n^2 \cdot x$
- Zazi Momentum $2 = K \cdot N^2 \cdot G^2$
- Angular velocity = $7/n$
- 4- instantaneous force = $\frac{\text{arm mass} = \text{bat mass} \cdot \text{ocean speed}}{\text{Instant payment time}}$

5. Motor transport

6- Flow

Motor transport in the sign of the shower

- Motor transport = trunk momentum + arm momentum (Mohammed Jassim al-Saadi, 2012, p. 251)
- Angular momentum of the stem = $k \text{ stem} \cdot \text{stem} \cdot x$ g for trunk
- Angular momentum of the arm = $k \text{ arm} \cdot n \text{ arm} \cdot X$ G arm (Thaer Ghanem Hamdoun and others: 2011, p. 13)

The flow in the sign of the difference of the zakat

- Aerodynamics = $\text{Trunk Momentum}_2 - \text{Momentum Trunk}_1$ (Explicit Credit: 2010, p. 162)
- Exploratory Experiments:

The researcher conducted her first imaging experiment on 15/8/2019 to determine the distances and heights at which the cameras for photography should be placed to extract variables to search and determine the scale of the drawing. The possibility of photographing the basic skills on a sample outside the research community represented by the players of the Faculty of Physical Education and Sports Sciences University Diyala to determine the dynamic path of the player and then agree to put a camera two frequency (1000) images / seconds vertically on the base line and the end of the side line of the stadium and a distance (3.40) and a focal height of (1.20 m) from the level of the ground and vertically on the side flat of the body of the players.

- The researcher conducted a second exploratory experiment specific to the training curriculum in (16/9/2019) and the purpose of this experiment was how to train with rubber scent and determine the exact repetitions of the performance of the curriculum exercises as well as determine the required intensity with knowledge of the time taken for exercises and the time of work to rest taking into account the abilities of the players and their physical abilities and skills.

Pre- Tests:

After conducting exploratory experiments and verifying the validity of the tests and devices used and after

Preparing the research sample, the researcher conducted pre- imaging of the research sample, which is the first part of the tests, as it was filmed on Wednesday, 19 September 2020 for basic skills (front and rear) to determine the indicators and time measurements in question. The first exploratory experiment was placed cameras with a frequency (1000 y/th) vertically on the path of the player's movement to hit and to tammyin the state of motion photography from both sides

and the cameras were placed parallel to the side lines of the stadium and perpendicular to the base line

The main experience

After conducting the process of analysis of the variables under study was prepared to build a balanced training curriculum and direct supervision by researchers on the training of the research sample in overcoming the obstacles encountered by the researcher, and after studying the training curriculum with specialists in this game was confirmed the stage of preparation of special competitions, these exercises were applied within the main section of the training unit and lasted from 45- 50 minutes by 3 alone per week for (8) weeks, as the number of training units (24) training units in the role The smallest one.

- The training curriculum, prepared on 21/9/2019 and completed on 16/1/2019 and the amount of resistance of the tape and rubber rope was determined by its own instructions or by determining the elongation rate installed in table (2), for example if the amount of resistance installed on the rope or rubber band (10 kg) is added to the amount of resistance to the weights.
- As for the energy of stress: - the resistance of the tape or rubber cord is determined by measuring the amount of energy of the technical stress by law:
- Stress energy = $0.5 \times \text{hardness coefficient or strength constant}(k) \times (\text{change in length or change of body shape before change})^2$

The constant injury or force required to be confirmed is then determined as follows: - (Raymond A. Sirway, Wye and others: 250:2008)

Constant $q_a(k) = \text{mass} \times \text{ground acceleration} / \text{change in length}$

- The second method of extracting a constant force hit a mass in the ground acceleration directly example / as we see through the appendix (2) that the amount of resistance tape blue is (2.1 kg) by (100%) i.e. after the rubber band is exposed to the weight of 2.1 kg) it will not The length of the original (0.25 cm) length is 0.50 cm , i.e. the amount of elongation (0.25) after exposure to weight, the constant strength and stress energy is extracted according to the above-mentioned laws: -
- Constant Force $(k) = 2.1 \times 9.8 / 0.25 = 82.32 \text{ Nm}$
- Stress energy = $0.5 \times 82.32 \times (0.25)^2 = 2.6 \text{ joules}$

The pressure energy is increased by rope or rubber band by increasing the strength constant as each of the rubber bands has a certain amount of strength constant and is gradually increased, as the strength constant was increased by switching ropes and rubber bands each week and reducing them with the ripples of the training load and considering the constant strength of the mechanical stress energy of the 1-hippie tape represents (100%).

post- tests:

The aftertests were conducted on Monday, 18/11/2019 and the research took into account that all tests were under the same conditions as pre- tests as possible and within the time limit of the trial.

- Statistical Means: The researcher used the statistical bag(spss) to process the results

Presenting, analysing and discussing the results -

Presentation, analysis and discussion of the results of the pre- and post- physical tests of the experimental group -

Table (1) -

Computational media values and standard deviations of the research sample for the physical test group -

Tests	Unit of measurement	Q.F.	P.P.	E	T	Df	Sin ratio	The significance
The explosive force of the arm	M	-.4.20	0.83	.288	-10.02	3	.0.00	Spiritual
A strength of speed	M	-6.50	.577	.866	22.51	3	.0.00	Spiritual
The power of	Come back	-23.25	6.13	3.06	-7.58	3	.005	Spiritual
T	Physical tests		Arithmet ic medium	N	Standard deviation	Standard error		
	The explosive force of	Pre- testing	5.07	4	0.54	.0.27		

Values of the computational and numeracy differences, the calculated(t)value and the semantic values of the research sample in the pre-andpost-testtestsofthe physical test group.

1	the arm	After testing	9.27	4	0.60	0.30
2	The power of speed	Pre- testing	5.75	4	1.25	.629
		After testing	12.25	4	.95	.478
3	The power of the fist.	Pre- testing	29.50	4	9.25	4.62
		After testing	52.75	4	9.032	4.51

Presentation, analysis and discussion of the results of the test pre- and dimension tests of the experimental group

Computational media values and standard deviations of the research sample for the skill test group

Skill tests		Arithmetic medium	N	Standard deviation	Standard error
Front arm Motor velocity	Pre- testing	6.50	4	.577	.288
	Test Dimension J	15.75	4	.957	.478
Front arm Accuracy of blows	Pre- testing	7.25	4	1.25	.629
	After testing	14.25	4	1.70	.853
Back arm Motor velocity	Pre- testing	8.25	4	.957	.478
	After testing	16.00	4	.816	.408
Back arm Accuracy of blows	Pre- testing	6.50	4	1.914	.957
	After testing	10.75	4	.957	.478
Motor compatibility	Pre- testing	17.50	4	1.29	.645
	After testing	27.75	4	3.77	1.88

Tests	Unit of measurement	Q.F.	P.P.	E	T	Df	Sin ratio	The significance
Front arm		-9.250	1.258	.629	-14.7	3	.001	Spiritual

Motor velocity								
The front arm. Accuracy of blows		7.000	.816	.408	-17.1	3	.000	Spiritual
Back arm Motor velocity		-7.750	.957	.478	-16.1	3	.001	Spiritual
Back arm Accuracy of blows		-4.250	1.25	.629	-6.7	3	.007	It's not moral.
Motor compatibility		10.250	2.62	1.314	-7.7	3	.004	Spiritual

Values of computational and numeracy differences, calculated(t)valuescoring and semantic values for the research sample in the pre- and post- tests of the skill test group

T	Physical tests	Arithmetic medium	N	Standard deviation	Standard error
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Values of the differences of the computational circles, standard deviations, calculated(t) value and semantic values of the research sample in the pre- and post- test For the skill test kit.

Power index The front shot.	Angular push	Pre-testing	315.	4	26.51	13.2
		After testing	366.	4	11.94	5.97
	Instant power	Pre-testing	.362	4	.025	.012
		After testing	.732	4	.017	.008
Power index Back stroke	Angular push	Pre-testing	.947	4	.030	.015
		After testing	1.23	4	.018	.009
	Instant power	Pre-testing	.94	4	.030	.015
		After testing	1.23	4	.018	.009
Flow indicator The front shot.	Wound 1	Pre-testing	135.1	4	.440	.220
		After testing	87.2	4	.390	.195
	Moment um2	Pre-testing	131.4	4	.149	.074
		After testing	86.4	4	.216	.108
	Streamlining	Pre-testing	6.19	4	.125	.062
		After testing	2.13	4	.017	.008
Flow indicator Back stroke	Wound 1	Pre-testing	135.1	4	.440	.220
		After testing	87.2	4	.390	.195
	Moment um2	Pre-testing	50.5	4	.277	.138
		After testing	86.7	4	.238	.119
	Streamli	Pre-	8.71	4	.223	.111

	ning	testing				
		After testing	1.84	4	.048	.024
Motor transport indicator The front shot.	Moment um trunk	Pre- testing	131.9	4	.608	.304
		After testing	132.5	4	.991	.495
	Arm momentu m	Pre- testing	10.7	4	.221	.110
		After testing	10.8	4	.139	.069
	Motor transport	Pre- testing	142.7	4	.088	.044
		After testing	142.8	4	.058	.029
Motor transport indicator Back stroke	Moment um trunk	Pre- testing	7.81	4	.104	.052
		After testing	12.3	4	.159	.079
	Arm momentu m	Pre- testing	7.81	4	.104	.052
		After testing	12.3	4	.159	.079
	Motor transport	Pre- testing	121.8	4	.412	.206
		After testing	157.8	4	.7016	.350

The values of the computational circles and the standard deviations of the research sample for the group of variables

are biomechanical.

Indicators	Variables	Unit of measurement	Q.F.	P.P.	E	T	Df	Sin ratio	The significant
			50.94	31.36127	15.68063				
Power index	Angular push		50.94	31.36127	15.68063	-3.24	3	.048	Spiritua

The front shot.	Instant power		-.370	.03559	.01780	-20.79	3	.000	Spiritu
Power index	Angular push		-46.62	.64075	.32038	145.53	3	.000	Spiritu
Back stroke	Instant power		-.282	.03775	.01887	-14.96	3	.001	Spiritu
Flow indicator	Wound 1		47.91	.82312	.41156	116.41	3	.000	Spiritu
The front shot.	Wound 2		44.97	.31300	.15650	287.38	3	.000	Spiritu
	Streamlining		4.057	.14245	.07122	56.96	3	.000	Spiritu
Flow indicator	Wound 1		-8.492	.64386	.32193	-26.38	3	.000	Spiritu
Back stroke	Wound 2		-36.26	.33040	.16520	219.51	3	.000	Spiritu
	Streamlining		6.87	.20823	.10411	66.05	3	.000	Spiritu
Motor transport indicator	Momentum trunk		-.587	.57714	.28857	-2.03	3	.135	It's not moral.
The front shot.	Arm momentum		-.100	.11165	.05583	-1.79	3	.171	It's not moral.
	Motor transport		-.090	.08524	.04262	-2.11	3	.125	It's not moral.
Motor transport indicator	Momentum trunk		-.385	1.24744	.62372	-.617	3	.581	It's not moral.
Back stroke	Arm momentum		-4.517	.16978	.08489	-53.21	3	.000	Spiritu
	Motor transport		36.00	.52485	.26242	137.1	3	.000	Spiritu

Discussion of the results of the pre- and remote variables of the research sample:-

The researcher attributed these differences to any training method adopted by the research sample, which used one of the auxiliary means (rubber bands) which led to the development of biotic variables, as the researcher believes that the evolution of angular propulsion values is due to the grades of this variable with the variable momentum values of the striking arm, which represents the ability of muscles to overcome the determination of the Its own insufficiency. The development of muscle strength according to special exercises that depend on the use of resistances, which is indicated by the mechanism (Frank Abdul Karim: 432:2010)

By noting the results, the researcher noted that there are moral differences in the results of the pre- and post- tests through the image analysis as it sees the evolution in the values of velocity. As for the motor transport indicator, the differences were indicated by a moral significance and the researcher attributes the reason for this to the type of exercises applied by the members of the

sample with the presence of rubber rope ropes that helped to apply the skills according to mechanical variables of the type of skilled to ensure the transfer of force batches in a consistent sequence to reduce the ratios of effort exerted and shock at work and spend the time of the force at the time of the work and spend the time of the time all the sports movements have sections that make them relate to each other sequentially and harmoniously, for example the force moves between the weight of the ground to the top. It produces a force that helps the movement to appear in its integrated form, the sports movements need the contribution of several factors come to the athlete's body to appear with an integrated kick, they depend on the bone and muscular system as well as the mechanical bio-adjustment and functional adjustment and others work in an integrated way to serve the motor duty, each section of the movement is due and its functions that are connected and affect at the same time the other section that follows and may have this effect to the body or positive and that results from the nature of the movement from one section to another through the parts of the body and down to the Achieving full movement.

Due to the correlation of the variables of biomechanical movement of the strike arm that operates sequentially, including the angular amplization and radius as well as the angle of the shoulder, all of which contribute to the transmission of movement to the upper end, which must be consistently depended on the improvement of any variable in the indication of the following variable, the increase at the ocean speed is the result of the correlation of the expulsion link with the radius and the angular velocity: the oceanic speed is directly proportional to the radius of the angular speed as well as the angular velocity as well as the angular velocity as well as the speed of the angle of the radius, which must be consistently depended on the improvement of any variable in the form of the following variable, the increase at the ocean speed is the result of the correlation of the expulsion link with the radius and the angular velocity: the oceanic speed is directly proportional to the radius of the angular speed as well as the radius of the angular speed and the speed of the angle, as it is proportional to the angular velocity and the speed of the radius of the radius. 11) The researcher confirmed mona during the exercises of the rubber rope to use force within the correct dynamic path and to achieve a high final speed in the stage of multiplication and reverse with the time to travel this distance, which is related to the length of the strike, which has a positive effect on the speed of the strike, where by increasing the length of the strike can increase the speed on the condition that does not result in a drop in the rate of strike when comparing the results between the tests pre- and dimension test motor speed of the arm we note that there are moral differences in the test of the test of the front ground and in favor of the test dimension indicating The development of the motor speed of the arm, which the researcher attributes to the use of training application exercises during 6 training modules, using few resistances and high speed for a number of repetitions within the motor paths of skill according to the principle of training the maximum speed under the conditions of reducing external resistance: as in the construction directed to the ability of speed the player needs above all special exercises in which the character of endurance is consistent as the variety of duties set and must learn the athlete to adjust the course of special effectiveness movements with the increase The flexible rubber bands are one of the methods used in force training sought by the

resistance with change of angle and motor range, and the training using the bands and rubber ropes is characterized by being more efficient in activating motor units, which have the ability to produce a muscular force that achieves a physiological response comparable to training on fixed devices as it is considered to be safer and cheaper and can be used in different ways (dale) : 64: 2015) The researcher believes that the use of the method of reindeer resistance will result in an increase in the speed and ability of the muscles of the body and this type of training increases the size of the muscle in a short time and that tape and rubber ropes can produce a distinctive for its unique physical characteristic known as (Variable rubber voltage) or mechanical stress energy means that when you increase its stretching condition we get more resistance, these special make the tape affectand fit the rubber property of the muscle with the rubber property of the tape, which makes both work by great harmony for this reason the muscles become very fast and respond very quickly.

In the light of the results obtained by the researcher concluded and through the analysis of the results of the research and discussion concluded the researcher concluded that the exercises in rubber tapes according to the energy of mechanical stress prepared by the researcher had an effect in improving the level of biomechanical for the front and rear ground strike through the results obtained The exercises that were used within the training applications showed effectiveness in the abilities of young tennis players using multiple methods that positively influenced the development of biomic variables and recommends the researcher in light of the possibility of dynamic analysis of the possibility of formulating digital amounts for the stages of skill performance available the possibility of formulating appropriate training steps.

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