

## Microsatellite markers of endurance training on blood Obesity students of Islamic Azad University of Dezfoul

<sup>1</sup>Saeid Tanoorsaz, <sup>2</sup>Lora Chapari

<sup>1</sup>Dept of Physical Education, Dezfoul Branch, Islamic Azad University, Dezfoul, Iran

<sup>2</sup>Dept of Physical Education, Dezfoul Branch, Islamic Azad University, Dezfoul, Iran

**Abstract:** Endurance performance study on body fat, BMI, HDL, LDL and VLDL Dezfoul Azad University students in 1389, has been studied. Methods of field research in the pre-test and post-test was conducted Vbsvrt sample The study included 40 men students boys 20 to 28 years, of which the two experimental groups (n = 20) and control group (n = 20) were divided randomly from among the 9000 women students were selected training protocol 8 weeks of endurance training week 3 each session lasted 90 minutes (with a maximum pressure of 40 to 70%) was performed. upon reviewing the data showed no significant difference in mean weight loss, BMI, LDL and VLDL were observed between control and experimental groups. The significant difference between control and experimental groups were observed in the HDL.

**Key words:** obesity, HDL, LDL, VLDL, BMI

### INTRODUCTION

There are many factors that affect human health, heredity, environment, health and lifestyle factors that are important to the lifestyle of voluntary actions, habits and patterns of a person's everyday life. Food intake in human liver total lipids into three categories 1, 2 and 3 carbohydrates - proteins that are divided into excessive consumption of carbohydrates to fat. Fats are found in both the human body floating in the blood lipids are suspended 1 2 - subcutaneous fat around the organs most are found under the skin. Overweight and obesity in cholesterol, triglycerides and lipoproteins in the blood serum as well as micron effective, research has shown that this increase is associated with the incidence of cardiovascular diseases. Cardiovascular disease (CVD), especially coronary intensive artery disease is the most common cause of mortality and pathogenicity.

Three times more likely to die from CVD than those of sedentary activity is reported. In this study, the following objectives will be accomplished. (Table 1)

1. Comparison of passive and active student body fat percentage.
2. Comparison of active and passive triglyceride students.
3. Comparison of blood VLDL active and inactive students.
4. Comparison of LDL in the blood of active and inactive students.
5. Comparison of serum HDL levels in active and inactive students.
6. Comparison of serum TC level in active and inactive students.

**Table 1:** shows the lipid and protein components of lipoproteins involved in lipoprotein structure

Cholesterol Astryfyt Free cholesterol	% Free cholesterol	% Astryfyt	% triglyceride	% Fsfvlypd	% Protein	% Lipids	Lipoproteins
1.1	7	8	78	7	2	98	Shylv microns
1.3	14	18	49	19	10	90	VLDL-C
2.1	23	48	9	21	24	76	LDL-C
3.5	11	38	7	44	53	47	HDL-C
8	1	8	8	83	63	38	VHDL-C <sup>2</sup>

### MATERIALS AND METHODS

This study seeks to compare and explore the relationships between the factors and circumstances that Yanvy protocol behavior is practiced. Looking at the effects of endurance training on blood levels of obesity and male students is Shylv microns. Therefore, in terms of classification methods, this research is in the field of research. Reform of this study is outlined as follows. Enable students to apply to students who already have at least 3 years of sports and regular exercise 3 times a week and each session is 1 hour.

1. Disabled students: The students will describe the history of any sport in recent years has not.
2. Subcutaneous fat: the amount of fat stored under the skin called.
3. TG: a type of blood fat that your body is the most important energy sources.

**Corresponding Author:** Saeid Tanoorsaz, Dept of Physical Education, Dezfoul Branch, Islamic Azad University, Dezfoul, Iran  
Tel: +989188711021; E-mail: tanoorsaz@gmail.com

4. VLDL: A lipoprotein is the major carrier of triglycerides in the blood. LDL: Blood of lipoproteins that transport cholesterol is.

5. HDL: LDL cholesterol from the membrane of a vessel and transported to the liver.

But in terms of density or pressure can be divided into four categories which include light to heavy:

1. Shylvmykrvn that their density is %96.

2. VLDL or very low density lipoproteine that their density is equal to 006/1.

3. LDL lipoprotein, low density, the density equal to 1/026.

4. HDL or high-density lipoprotein density equal to 1/21 .

sample of the research students of Islamic Azad University, Dezfoul, 20 to 28 years, over 9,000 people who are constituted.

In this study, physical activity and exercise independent variable and TC, TG, HDL, LDL and VLDL levels in the fasting state variables are dependent.

Nyazayn information through questionnaires and measured variables of height, weight, body fat percentage and measurement of blood lipids (cholesterol, triglycerides, HDL, LDL and VLDL) has been performed.

After collecting data and getting data using SPSS statistical software, the data was analyzed. Using descriptive statistics, mean, mode, median and standard deviation were variable.

### Result:

**Table 2:** details the characteristics of age, weight, height and BMI (Body Mass Index) Statistical

Mean (BMI)	Mean height	Mean weight	Mean age	Indices
				Group
21.19	175.09	76.26	27.25	Enable students
26.22	178.45	81.32	28.32	Disabled students

**Table 3:** Comparison of mean body fat percentage of active and inactive students Statistical

p	t	df	sd	Mean %fat	Indices
					Group
.00	-5.023	97	2.93	9.16	Enable students
			5	12.35	Disabled students

Group mean body fat percentage standard deviation sd df degrees of freedom, p values were calculated by t

Hypothesis 2 between triglyceride (TG) levels, there is a significant difference between active and inactive students.

**Table 4:** Comparison of serum TG active and inactive students statistical

P	t	df	sd	Mean TG	Indices
					Group
.029	2.292	98	35.72	107.32	Enable students
			107.36	147.30	Disabled students

Glsrydkhvn more degrees of freedom df sd mean standard deviation calculated t value P

Hypothesis 3 VLDL levels between active and inactive students, there are significant differences.

**Table 5:** Comparison of mean serum VLDL active and inactive students statistical

p	t	df	sd	Mean VLDL	Indices
					Group
.432	5.052	96	8.49	25.52	Enable students
			17.14	27.63	Disabled students

The standard deviation of the mean blood VLDL degrees of freedom df sd P values were calculated by t

Hypothesis 4 between blood LDL levels, there is a significant difference between active and inactive students.

**Table 6:** Comparison of mean serum LDL active and inactive students statistical

P	t	Df	sd	Mean LDL	Indices
					Group
.165	1.401	97	13.27	98.28	Enable students
			34.13	105.36	Disabled students

The standard deviation of the mean blood LDL degrees of freedom df sd P values were calculated by t

Hypothesis 5 HDL levels between active and inactive students, there are significant differences.

**Table 7:** Comparison of mean serum HDL passive and active students statistical

P	t	Df	sd	Mean HDL	Indices
					Group
.135	1.520	97	13.32	46.28	Enable students
			12.11	47.27	Disabled students

The standard deviation of the mean serum HDL degrees of freedom df sd P values were calculated by t Hypothesis 6 between levels of total cholesterol (TC) levels, there is a significant difference between active and inactive students.

**Table 8:** Comparison of passive and active student cholesterol statistical

P	t	df	sd	Mean TC	Indices Group
.012	2.725	97	35.36	146.39	Enable students
			35.31	163.33	Disabled students

### Discussion:

The information contained in Table 44 and Figure 74 it can be seen that the t test for independent groups at a significant level ( $\alpha=0.05$ ) was conducted to compare the two groups. According to the p value is greater than 0.05 has been calculated ( $p=0.423$ ) is the result of the null hypothesis based on the difference between active and inactive students in the two groups of blood VLDL, is confirmed.

The information contained in Table 54 and Figure 84 it can be seen that the t-test at a significant level ( $\alpha=0.05$ ) was conducted to compare the two groups.

The information contained in Table 64 and Figure 94 it can be seen that the t-test at a significant level ( $\alpha=0.05$ ) was conducted to compare the two groups. The p value was calculated ( $p=0.132$ ) with 95% confidence we can conclude that the null hypothesis that there is no significant difference in serum HDL levels in both active and non-active students, which is acceptable.

There is a significant difference between the active and cholesterol disabled students were significantly less active students. The null hypothesis regarding no difference between active and passive cholesterol Students will be dismissed.

### REFERENCES

- Alizadeh, H., 2011. breeding and movement therapy, Publishing Jihad university Guilan University.
- Clement, Carmined, 2005. Anatomy a vegiomal atlas of human body.
- Dekhujzen and et al, 2007. Athleted and doping effects of drugs on the respiratory sestem , thorax.
- Farahani, A., 2006. corrective movements Tehran, Payam Noor University.
- Gonathan, F and et al., 2009. a classification system for the assessment of lumbar pain in athletes Journal of athletic training.
- Gray, H., 2007. Ostology in anatomy of the human body.
- Guardian Hsnkhany, E., 2008. Principles of spinal deformities, publisher of Medical Sciences Mashhad Health.
- Kapanchy, 2010. MIS Biology joints move trunk, translation Sobhani, Ali Prev, Publishing World Art, Tehran.
- Kashef, 2011. Mir Muhammad, corrective movements and physical therapy, Urmia University, Second Printing.
- Katherine, Harman, 2011. PT, phd, chery 1, Hubley, Kozey, phd, Heather Butler, msc (Kin), phd (cadidatr)
- Kendal and Partners, 2009. Study and Evaluation of muscle function, Pvstchr Vdrd, translation Sarmadi, AR, Publishing Sarmadi.
- Kendel, H.O., F.P. Kendal, 2010. posture and pain Roberte, Krieger, publisco, New york.
- Putz, R and R. Pabst, 2009. Atlas of human anatomy sobotta , volume 2 thorax , abdomen , pelvis , lower limb.
- Qrakhany, R., 2006. breeding and movement therapy, Publishing Jihad University Guilan University.
- Scientists, Hassan, 2008. breeding and movement therapy, Publishing Jihad University Guilan University.