

Effects of Physical Exercise on Hyperlipidemia

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Abstract :Except factors with known (genetic predisposition, age, sex, hypertension pressure, smoking, diabetes, dyslipidaemia, disorders of apolipoproteins, high concentrations of fibrinogen, hyperhomocysteinemia, profession, mode of lifestyle, social conditions,...) in the etiology and high prevalence of cardiovascular disease presentation (CD) years important role is given to the psycho stress, especially physical inactivity as one of the factors predispose and risky on the rise in prevalence of CD. In the century that we are living, the manifestations of cardiovascular disease (CD), cerebrovascular (brain dysfunctions) brain stroke and diabetes have a very high prevalence of the consequences of their frequent appearance of acute myocardial infarction anginas pectoris, arterial hypertension due shocked by socio-economic life problems, psychological stress, etc. Therefore, physical activity, sports exercises, sports education should not imagine as a luxury or a privilege but as a necessity and the main postulate of the entire population in education, but also in increasing the number of hours of physical s breeding in all school levels. Physical inactivity in our country is responsible for 7 to 8.5% of the causes of chronic diseases and Cardiovascular. Recent year's atherosclerosis counted as underlying causes and a number of mortality and morbidity in developed countries and developing countries (World Heart Organization, 2003). Coronary diseases are among the most common causes of disability and mortality in modern times, and in the era of the 21st century.

Background and objectives . The purpose of our thesis was to be verified and to document as well the positive effects of exercises and sports in the treatment of dyslipidaemia (**hypercholesterolaemia**, hypertregliceridemi) and prevention of the appearance of cardiovascular diseases (myocardial infarction, ischemic heart disease, brain attack, diabetes, etc.) and chronic diseases. **Materials and methods of work**. In the study (, cross-section ")were the total includes : N^o = 240 examined of whom 120 (54 females and 66 males) were patients with cardiovascular disease (CD) , 85 patients (of whom 35 were girls and 50 were male) 8 months after myocardial infarction and after stenting within 6 days of the week have been physical exercise duration of 30-35 minutes during the day, while 35 patients (19 females and 16 males) who within the week have not had any kind of exercise and physical activity. From 240 examinations, 120 individuals were identical to healthy volunteers and patients (also by gender and average age) who served as the control group. In all patients and the control group (with normal-fed BMIx) defined us and lipid profile (CHT, TG, HDL-ch, LDL-ch, the ratio LDL / HDL, Apolipoproteins-B100 (Apo-B100). and Body Mass Index (BMIx-Boddy Mass Index). **Statistical processing**. Values obtained the Apolipoproteins B-100, and lipids (Kol.Total, TG, HDL-ch, LDL-ch) and control group are presented with mean values and standard X ± SD devijacijon. Association between the tested variables obtained by linear regression analysis (y = A + Bx) where accounts where the correlation coefficient, r "statistical value, p" less than 1%, p < 0.0001. **Conclusion**: In conclusion we can conclude from our work that people who are physically active and involved in different sports minimum of 30 minutes a day within 5-6 days of the week have a lower risk of very appearance cardiovascular and chronic diseases. Therefore in conclusion may propose and suggest that much more to increase awareness, consciousness in the population through media broadcasts, electronic, print, television special programs, panfletave on the role of physical exercise, sports presentation on prevention of cardiovascular disease, therefore appeal to the relevant educational institutions in educational programs to increase the number of hours of physical education in order to increase childhood have the right physiological spine of children and healthy development of physical, psychological and mental health of children and school students elementary.

Key words : Exercise, cardiovascular diseases (CD), dyslipidemia.



1 INTRODUCTION

Therefore early detection etiopatogenesis of all the above factors and their treatment and dietary medications at the initial stages of the disease may significantly affect the prevention and slowing the rapid pace of CD. Manifestations of atherosclerosis (Ath) presented with symptoms of ischemic heart disease, cerebrovascular insult and the manifestation of peri-

pheral vascular disease. Atherosclerotic development processes is silent because its symptoms begin to show up when atheroma has gripped an narrow around 3/4 to interior of the artery (Eur Heart J 1998).

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public health book, but is an obligation, welfare and investment in future generations and the wider population. In prevalence of disease presentation and pace skulare except cardiovascular impact basic perceptions disease, physical inactivity plays an important role, so through lectures, panfletave, informational tools (special TV shows, electronic medias or magazines) should somehow oblige the general population to know and gets familiar with the consequences of physical inactivity and increased educational level on CD risks of physical inactivity and the role of sport and prevent these diseases. To speak to a healthy life and good health means in everyday life also involve physical activity with different exercises (walking, swimming fast, walking speed bike, soccer, basketball, volleyball, tennis, gym, running, sports exercises, yoga ...) regularly, these exercises which are one of the most important preferences for maintaining physical and mental health in answers by nature, as well as significantly reducing the risk of chronic cardiovascular diseases the population. Risk factors and physical inactivity worldwide sedanteriteti counted as factors fourth degree appearance risk for chronic disease and cardiovascular (coronary disease, heart-felt, myocardial infarction, ishemic diseases etc.) atherosclerotic processes, manifested by appearance the early atreosklerosis, stroke, pressure (the pressure) and high blood pressure, obesity, responsible for some cancers such as breast, colmation, type 2 diabetes, mental illness, muscular-skeletal diseases. Persent of parfi-ring of chronic diseases in countries with middle income fluctuates from 6.6 % -7.5 % while at countries with high income pëqindjes rate ranges from 7.7-8.5%. There is gued documenting facts and verified by many experts that every worldwide die annually over a 3.2 million physical inactivity due. According to the report on chronic diseases WHO (2011), Worldwide, 2008, physically

2 Material and Methods of work

In the study cohort, prospective („, cross-section ") is total $N^0 = 240$ of which 120 (54 females and 66 males) were patients with cardiovascular disease (CD). 85 patients (of whom 35 were girls and 50 were male) 8 months after myocardial infarction and after stentingut within 6 days of the week have been physical exercise duration of 30-35 minutes during the day, while 35 pati-ents (19 females and 16 males) who within the week have not had any kind of exercise and physical activity. From 240

inactive over 15 are over 31% of the adult females that are more with 34% versus 28% males. According level of physical inactivity is higher in countries with higher financial income and that over 25% compared to financial income countries where most lower inactivity rate fluctuates by-18.5% of the population. Close to 20-30% of the population who are physically inactive and not sports but are in higher risk of death compared with individuals who are physically active during the day and minimum 30 minutes dealing with dealing with sport, gymnastics Numerous studies have proven multicentric that physical inactivity causes 21-25% of breast cancer and colon, 27% of type 2 diabetes and about 30% of heart disease and ischemic heart. disease. Physical activity, exercise gym or running 150 minutes per week or 30 minutes per day for 30% reduces the risk from ischemic heart disease, diabetes of 27% and 21-25% of breast cancer and colon. Exercise and moderate physical activity, also lower risk for diseases presenting cardiovascular disease, stroke, arterial hyper-tension, depression and maintains body weight under control the adiposity(or being fat). Although other mechanisms Ath Pathophysiology, the details are still unknown but assumed that atherosclerosis appearance of the system and processes atherosclerotic cardiovascular cerebrales arteries and peripheral arteries are favored by two factors riskant group (WHO. Cardiovascular Disease.Prevention and control. 2001/2002. One group of factors riskant factors such as gender, age, diabetes, genetic predisposition, and in the second count of variable factors as: dislipinated, arterial hypertension, smoking, obesity, psycho stress, sedentary lifestyle, profession, physical inactivity, lifestyle, positive history of cardiovascular disease (CD), hyperfibrinogenemia (increased level of fibrinogen in the blood), hyperhomocysteinaemia (abnormally high level of homocysteine in the blood)etc. Apolipoproteins disorders (Vink A, 2002).Term atherosclerosis (Ath) for the first time has use Marchand in 1904. Etiology of presenting atherosclerosis (Ath) conditions of the early (premature Ath) and atherosclerotic processes in the arteries of the heart, the arteries in the brain and peripheral arteries is multifactorial .It is assumed that the quality of the recorded changes in the makeup of the morphology lipiders to increase the impact of their atherogenic with incre-asing of concentrations of the oxidized LDL cholesterol (LDLox) with frequent damage to the cardiovascular system, cerebrovascular system to the consequences of ischemic diseases cardiac, peripheral vascular diseases, brain stroke and cerebrovascular Ath presenting early (premature).

examinationed, 120 individuals were identical to healthy volunteers and patients tranche (also by gender and average age) who served as the control group (Table N^0 . 1). In all patients and the control group (with normal-fed BMIx) we defined the Body Mass Index (BMIx-Boddy Mass Index) and lipid profile (total koletsreol-CHT, triglycerides (TG), density Lipoprotein high (HDL-ch), Lipoprotein low density (LDL-ch), the ratio LDL / HDL and values apolipoprotein-B100 (Apo-B₁₀₀).

Table number 1: reference values and the methods by which the authors are determined concentrations of lipids and ApoB-100 are presented in Table 1.

Parameters examined	Reference values	Authors
LT	4-10g/l	Zollner & Kirsch
TG	0,68-1,70 mmol/l	G. Buccola & H. David
ChT	3,1-5,2 mmol/l	CC. Allain et al
LDL-ch	<3,4mmol/l, increased risc > 4,1 mmol/l	Friedewalde & Fredrickson
HDL-ch	>1,6mmol/l, increased risc <0,9 mmol/l	G. Warnick et al'
Apo ⁻¹⁰⁰	0.5 – 1.60 g/l	Imuno-turbidimetric methods

Table number 2: Presentation of the total number of screening (patients and control group) N^o = 240

The total number of examiners = 240			
Patients tot. N ^o =120		Group controller N ^o =120	
F	M	F	M
54 (45%)	66 (55%)	50 (42 %)	70 (58 %)

Table number 3: Presentation of patients by gender and average age

Sex	Number	The average age ± SD
Male	66 (55 %)	56.40 ± 6.00
Female	54 (45 %)	55.80 ± 6.80

The average age of the patients was masculine = 56.40 ± 6:00, while the feminine gender was 55.80 ± 6.80 = average age difference between males and females according to statistics is josignifikant $p = 0.0005$, which indicates a homogeneous groups (Tablenr 3)

Table number 4: Presentation of patients according to nationality

Sex	Macedonian (45%)		Albanian (55%)	
	Number	%	Number	%
Male	30	25.0	36	30.0
Female	24	20.0	30	25.0

Table number 5: Inclusion of control group by gender and average age

Sex	Number	The average age ± SD
Male	66 (55 %)	57.20 ± 7.00
Female	54 (45 %)	57.40 ± 6.70

Table number 6: Presentation of patients according to Boddy Mass Index (Body Mass Index-BMIx): male =54 and female = 66

BMIx	Female N ^o =54	Male N ^o =66
Poorly fed	4	6
Normalyl fed	24	20

Excessively fed	22	32
Tier II a obesity	4	8

Table number 7: Presentation of earned value total Koleterolit (CHT), TG, HDL-ch, LDL-ch and Apolipoproteins-B₁₀₀ (Apo-B100) examined patients (without exercise and physical ushtirme 30 minutes within 6 days of the week) and the group of healthy control individuals.

fraction of Lipid	Sex	patients without exercise	6 months after treatment physical exercise 30 minutes 6 days a weeks	Group controller N°=120
ChT mmol/l	F	6.20 ± 1.00 ↑	5.00 ± 0.40 ↓	4.60±1.30
	M	6.50 ± 1.20 ↑	5.10 ± 0.60 ↓	
TG mmol/l	F	3.30 ± 0.90 ↑	2.10 ± 0.70 ↓↓	1.30±0.58
	M	3.60 ± 0.80 ↑	2.12 ± 0.60 ↓↓	
HDL-ch (mmol/l)	F	1.10 ± 0.45 ↓	1.34 ± 0.50 ↑↑	1.60±0.70
	M	1.14 ± 0.60 ↓	1.36 ± 0.80 ↑↑	
LDL-ch	F	4.50 ± 0.72 ↑	3.12 ± 0.48 ↓↓	2.84±1.08
	M	4.80 ± 1.09 ↑	3.20 ± 0.74 ↓↓	
LDL/HDL	F	3.04 ± 2.06 ↑	1.85±1.10 ↓	1.70±1.24
	M	3.02 ± 1.48 ↑	1.80±0.89 ↓	
Apo-B₁₀₀ (0.5-1.60 g/L)	F	3.46 ± 0.95 ↑	2.10±0.40 ↓	1.05 ±0.25
	M	3.85 ± 0.90 ↑	2.30±0.25 ↓	

From self table 7 shows that the number of patients with CD but without exercise showed higher values of lipid fractions: CHT, TG, LDL-ch, Apo-B100 and the ratio between LDL / HDL (3:04 ± 2.06/3.46 ± 0.95), while lower values HDL-ch. All patients with SMKV (were drug-free therapy hipolipemike) but with physical exercises every day from 30-35 minutes 6 days per week and showed a very good values of lipid profile by decreasing the CHT, TG, LDL-ch, and report ApoB100 LDL / HDL (2.10 ± 0.40/2.30 ± 25), and increased HDL-ch with p <0.001. In determi-ning the degree of dyslipidaemia values of the ratio between LDL / HDL parameter serve as safe and effective in the role of physical education and sports in the normalization and regulation of dyslipidaemia-hypercholesterolemia.

3Results:

The results obtained from the examination of the lipid profile (Kol.Total, TG, HDL-ch, LDL-ch) and Apolipoprotein B-100, and the results obtained from the control group showed that patients with CD but without exercise were presented with high profile values of all lipid fractions, Apo-B100 and LDL/HDL and lower values for HDL-ch compared with patients within 6 months of their daily regime had developed physical exercises and activities were taken spor-ting over 30 minutes within 6 days of the week to which examined a improvement of lipid profile by decreasing the CHT, TG, LDL-ch, LDL ratio ApoB100 and / HDL ($2.10 \pm 0.40/2.30 \pm 25$) and the

increase HDL-ch $p < 0.001$ compared with the control group.

Background and objectives : The aim of our study was to verify and document the positive effects of exercise and sports in the treatment of dyslipidaemia (hypercholesterolemia, hypertriglyceridemia and prevention of the appearance of atherogenic processes in patients with cardio-vascular disease after myocardial infarction, after Stentingut after-BY passi and prevention of coronary atherosclerosis early (premature) etc.

4 STATISTICAL MATERIAL PROCESSING EXAMINED

Values obtained the Apolipoprotein B-100, and lipids (Kol.Total, TG, HDL-ch, LDL-ch) and control group are presented with mean values and standard $X \pm SD$ deviation. Association between the tested variables obtained by linear regression analysis ($y = A + Bx$) where accounts where the correlation coefficient, r "statistical value, p " less than 1%, $p < 0.0001$. Statistically significant differences between group among that group of patients and control values obtained for

the parameters of lipid and ApoB-100 were analyzed to test the so-called, Anonova Two-Factor "with statistical value," p lesser of 5 % state-bility < 0.0005 . Results obtained are presented in tabular form and are processed in standard statistical software (statistic for Windows, version 6.0 A Stat. soft Tulsa OK USA).

5 DISCUSSION

Recent studies have verified and proven that physical exercise, sports influence for a healthy longer, better and more prolonged. It is verifiable evidence that people (scientist Dr. Jay Smith of the Mayo Clinic in Minnesota state specialist in the field of sport) that deal regularly with sports live from 4-5 years more than people who do not at all or any kind of physical exercise. Scientist Smith says this is because regular exercise significantly help prevent cardiovascular disease, brain seizure and a number of other diseases. Other studies show that exercise is beneficial for the brain and reduce the risk of disease and reduce Alzheimer stress, stersin oksidativ and depressionin. One study which involved more than 10 thousand persons aged 35-55 years for 10-15 years showed that over the years, to people who do physical exercise less than two hours a week, mental ability was lower than those who do physical exercises and sports for a long time and regularly. They also verified that low physical activity positively is impaired memory, reasoning, thinking more limited vocabulary and skills to resolve weakened mathematical tasks. A group of scientists in their studies have verified that physical exercise (walking about 5 miles a week without strain) accompanied by music helps increase energy, and optimizing body. Physical exercise (light exercises to strengthen muscles, brisk walking 30 minutes a day, reducing fats and increasing consumption of fruits and vegetables ration) sport and physical culture play an important role against tumors, as in the initial stage, as the quality of life during treatment protects physical oncology. Activity cancer development, especially in the colon, prostate and breast. Regular physical activity is one of the most effective stress management. Preferably a minimum of once a week to visit centers including relaxation, breathing exercises, exercises for relaxing the muscles, body massage, soothing music, aromatic therapy, yoga and traditional Chinese exercises. The term

implied exercise physical activity that involves deliberate movements and repeated, in order to strengthen and maintain bone strength, muscle strength and flexibility.

• What do we mean by the term physical activity?

Physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure. Parts of physical activity are:

- Moderate physical activity: its forms are some sports such as ping-pong, various games, orchards, housework, walking fast or running slowly, dance, etc.

- Intense physical activity: intensive forms of physical activity are different sports such as volleyball, soccer, basketball, tennis, running, fast walking or climbing in altitude, fast swimming, walking speed bike etc.

• Physical inactivity has been identified as the fourth cause of global mortality risk from cardiovascular disease, physical inactivity causes about 30% have disease heart ischemia, cerebral insult some kind of cancer, about 27% is the cause of diabetes type 2, mental illness, muscular-skeletal disease, arterial hypertension (HTA), adiposity, obesity. It is assumed that physical inactivity causes about 21-25% of breast cancer and colon (colon), etc.. Physical inactivity is in charge for 6% of all deaths in the world, while in the European region is responsible for about 10% of all deaths, or 600,000 deaths a year. Sport helps reduce stress, anxiety (which is one of the causes of insomnia, especially by stimulating the production of endorphins). A large number of studies Prospective UKPDS (United Kingdom Prospective Diabetes Study) have verified that between submission of CD, acute myocardial infarction (AMI) and stroke are extremely close correlation between them and act synergistically (Stratton IM, BMJ.2000). All the above phenomena have led many scientists to be more studies of lipid metabolism disorders and apolipoproteins, with their etiology and treatment and how their treatment. Scientists have verified that the prese-

ntation of atherosclerotic processes and early atherosclerosis (atherosclerosis well-ecox) in addition to the above factors plays an important role in years inactivity or physical. A large number of studies on metabolic disorders lipoprotein and verified have documented that patients with Diabetes Mellitus and Cardiovascular disease there tip.2 extremely high concentrations and increased production of cholesterol extremely small dense (LDL-cho) compared with individuals without diabetes and other diseases. Increased cholesterol concentration of small and dense speeding oxidation process and glycolic trailer and activates the processes and mechanisms of plaque ruptures and atheroma atherosclerosis. Therefore during treatment of dyslipidemia great importance is given to correction and normalisation of values high cholesterol and prevent his own transformation in oxidized cholesterol (LDL-cho or LDL-ch 6). Therefore, the American Association of Cardiologists (American association for Cardiology) in patients after acute myocardial infarction, coronary bypass, stenting, PTCA and recommends prefers absolutely in treating these patients for leveling and normalization of high lipid values and physical activity through exercise, normalization of body weight (property rights regularization obesity-BMIx-Boddy Mass Index), gym, walking, jogging, etc.. (according councils doctor) to be one of a number postulate and preferences. The primary purpose of these recommendations is to reduce LDL-ch values <2.6 mmol / l (The reference values = <3.4 and high risk > 4.5 mmol / l) and increase in HDL-c values > 1.0 mmol / l (value reference = $0.68-1.70$ -mmol / l) values while reducing triglycerides (TG) 2.0 mmol/l- cross reference value = $0.688-1.70$ mmol / l (1). Treatment of dyslipidemia of low-risk individuals can be corrected only with exercise, diet and weight decrease, risk patients with moderate physical exercises can and or drugs for menthol-statin or fibrate (if required) , physical exercise and other methods nopharmacology in preventing the appearance of atherosclerosis early atherosclerotic processes not only serve as a measure of reducing macro-prvenues but the extent of mortality and morbidity from cardiovascular disease (LaRosa JC. 1998 . Ekelund LG, 1998) to populate. A large number of decade prospectively have verified that physical exercise increases the level of lipoproteins cardioprotective HDL₂ (Clarson et al. 1995; Ping Li X. et al.: 2000,73(3)-231-236.Rader DJ.1999). In one year my study a randomized- NCEP -National Cholesterol Education Program showed no significant positive feedback reduce high values of LDL-ch to individuals who in one year have not developed physical exercises but have attempted to reduce the fat with diet alone (Stefanik LM., et al.: 1998). Physical exercise influence in rule-min lipid profile by increasing the level of HDL-ch on account of increased HDL₂ subfractions trailer and reduce the level of masculine tryglcerid. The impact of physical activity dependent is proportional intensity and duration of physical activities. The mechanisms of action of this phenomenon are still unknown but assumed that their action is antilipemik control and assisted by several enzymes with effects on lipids metabolism. Context mechanism by which exercise influence in the regulation of lipid profile and apolipoproteineve is most diverse and is very closely related to the activity of the enzyme Lipoprotein-Lipase (LPL) and transfer proteins (Pronk

NP. 1993; Superko HR. 1995;). Are known facts that have athletes active for 25-30% higher value ch HDL compared with individuals without physical in activity (Kingwell BA., 1998) January verifiable evidence that after the first month after acute myocardial infarction in patients who have the suggestions by doctors for physical exercises (developed daily physical activity, exercise, walking, jogging up to 30 minutes, five days a week) is decrease concentrations of HDL-ch subfraction growing-HDL₂ (Saku K., et al 1999)Physical activity increases the activity of LPL thus directly reduces the level of triglycerides and increases HDL-ch. During lipolizis of VLDL triglycerides by factions shall exempt: cholesterol, phospholipids and apoproteins transferred to cells of HDL-ch nascente which treatman liver which increases the level of HDL in plasma kolesteriolit. Of adipose tissue and muscle ekstenzor athletes athletics, wrestlers and those who have physical exercises overcro-wded as a result of their high matabolizmit is verified extremely high activity of LPL.Efect physical exercise reduce high levels of triglycerides observed not only in excessive spending by VLDL fatty energy needs but also by reducing the excess of VLDL synthesis in the liver (Kwiterovich PO.: 1998; Miettinen T., 1991, Pejović M. 1987). numerous studies have proven that excessive activity and increased physical (the athletes) increases the level of antigen-hr Lecithin-Cholesterol-Acetyl-Transferase (LCAT) which faster transfer fats acids from lecithin to cholesterol di-rection during the formation of HDL-ch. Intense physical work and the use of excessive increases the level apolipoprotein-E (Apo-E) which plays an important role in cholesterol feedback carriage (Gatto AM.: 1998). The level of HDL-ch increase in men and women who have used food to low caloric diet and physical activity have a minimum of 3-4 times a week from 30 minutes (for $p < 0.001$) compared to the control group of individuals (males and females) who were not on the diet hipokaloric and have not had physical activity (21). In the first quarter we have verified the reduction of total cholesterol values (ChT), triglycerides (TG), and LDL-to HDL-ch have increased while of 15-19% and reduction aterogen report: Col / HDL-ch, and after 6 months, physical exercise 30 minutes every day for 6 days a week we decrease the values of total cholesterol, LDL-ch, TG, LDL-ch report directly via / HDL-ch, Kol.Tot / HDL-ch and increased HDL-ch medallim significant for $p < 0.000$. 1.From important risk factors is the reduction of Body Mass Index (Body Mass Index), normalization of arterial pressure, reduced concentrations of fibirno-gen, lipoproteins (s), etc. homocystein. In primary and secondary prevention CD, attack the brain plays a role important increased physical activity. Physical activity with walking speed of 30-60 minutes three to four times a week is the minimum measure of physical aktiviteit cardio-vascular.Activity of disease in preventing physical, more intense exercises concentrations of total cholesterol go down by 6-8% and LDL-ch of 7-14% and increased HDL-ch have 15-19% (Wood AJJ.1996. Schlierf G., 1995 ; Hsieh SD.1998). Recent years in the prevention of and risk CD athreosklerozis early appearance and atherosklrotic processes to coronary arteries, cerebral and peripheral role was given to determini-ng the concentration apolipoproteieneve: Lp (a), Apo-A), Or -B100, Apo-C, Apo-E and their subfrakcion, who last year counted as a factor riscant presentation of coronary artery atheroscle-rotic

processes, cerebral and peripheral severe consequences of myocardial infarction, cerebral stroke and thrombotic of trials Harper CR., 1999, Zeman M., et al.:1995). January verifiable evidence that hypercholesterolemia is one of The primary factors in the appearance of CD. In undim included moon and prefer to suggest that modification of food, the way of life adjustment accord, flavonide feeding, use of fish oil, intensive physical exercise (running, walking speed, tennis, football, volleyball, basket-ball, gyms, etc.) remain as ways and preference on favorite to regulate and normalize the high values of fat (in cases of special

6 CONCLUSION

In conclusion we can conclude from our work that people who are physically active and involved in sports Changing from minimum 30 minutes every day within 5-6 days of the week have a lower risk of very appearance of cardiovascular disease, HTA, ischemic disease heart failure, acute myocardial infarct, strokes, diabetitb tip 2, breast cancer, intestinal cancer, prostate cancer, osteoporosis and depression compared to physical inactive individuals. Survival of individuals involved in physical activity is longer compared with individuals who do not engage in physical activities. Physical activity not only in sports, but physical activity is any bodily movement produced by skeletal muscles that recone energy costs. So we propose and suggest that much more consciousness in the population increase awareness through media broadcasts, electronic, print, television special programs,

combined with hipolipemic-*Statin drugs, Fbrates, Niacin, Holetsipol, Holestiramin*) and prevention of atherosclerosis and cardiovascular disease (CD Phofl M., et al.) Several studies have verified that the males and females have different habits and physical activi-ty that 18% of men commit for at least 30 minutes of physical activity on 5 or more days of the week and 11.9% for females perform at least 30 minutes of physical activity on 5 or more days of the week, so the boys perform more physical activity than girls.

panfletave on the role of exercise, sport appearance in preventing cardiovascular disease, ischemic heart disease, brain stroke cerebral and appeal to the relevant educational institutions continue to return to school to increase the number of hours of physical education in order to increase childhood have the right physiological spine of children and healthy development of physical, psychological and mental health of children and students. Physical activity includes sports, exercises and other activities as claimed are: games, walking, dancing, orchards, yoga, meditation, house-work, sking, swimming, voleboll, football, basketball tour, tennis ect. Intensity forms different physical activity varies by people. So the children and young people, develops tissue skeletal musculic healthy(bones, muscles and joints), developed a cardiovascular system healthy.

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