

Influence of physical exercise on chronic diseases in children

Msc. Benjamik Naku¹; Doc. Julian Kraja²

1. Physical Education Department, Faculty of Educational Sciences,
University of Shkodra "Luigj Gurakuqi" Albania, E-mail address: bnaku@unishk.edu.al

2. Nursing Department, Faculty of Natural Sciences,
University of Shkodra "Luigj Gurakuqi", Albania. E-mail address: julikraja@yahoo.com

Abstract: The share of children who suffer from prolonged physical or psychological problems to about 10%. There is an understandable tendency by parents, teachers, doctors and trainers all are very careful about children who have chronic illness or a physical handicap. Even if a child has a chronic disease that is not fatal, we always seek to prevent any suffer or pain, especially when it comes to sports and exercise, as it may cause damage. The purpose of this study is to highlight the impact of exercise on chronic diseases in paediatric age. The hypothesis of this study is that exercise positively affects health improvement versus chronic diseases. This study is descriptive. Taken several chronic diseases affecting paediatric ages, there have been problems and are studying the effects of exercise on these disease categories. Also analytical character as they are made, and comparisons between the effects of exercise on these diseases. Although very few studies have been made that affect exercise in chronic diseases, doctors have enough information to take rational decisions regarding the types and levels of activity for the most common diseases. Above all, parents, teachers, and coaches, must have a positive attitude and should consult with experts on health and exercise specialists to determine the possibilities, limits and position and negative effects of physical exercise and sport for children in particular.

Keywords: exercise, chronic diseases, the impact of exercise.

Introduction: There is a tendency to self-care for children with chronic illness where they are discouraged and stop participating in sports activities. This is generally a disadvantage for the child's future physical and psychological level. Through cooperation and consultations child, parents, sports physician, educator, physical therapist, coach and sports administrator, in general must create a safe environment but at the same time challenging the child will be able to grow with body and with confidence and develop a positive attitude to life. The share of children who suffer from physical or psychological extended to about 10%. This sturdily will focus on physical problems, which are more prevalent, Asthma, heart problems, cystic fibrosis, epilepsy, diabetes, and haemophilia arthritis. There is an understandable tendency of parents, teachers, doctors and coaches, all to be very careful that children have a chronic illness or physical retardation. Even if a child has a chronic disease that is not fatal, we always seek to prevent or suffer any pain, especially when it comes to sports and exercise, as can cause damage. However, exercise is an important part and assists in the development and annealing general level, on making good heart and lung, muscle development and strength of their psychological and social development. Activities within a group or team that also help a child develop social skills and organization. Moreover, dealing with a sport that allows a child to develop self-assessment and autonomy. In other words, exercise and sport can help a child with chronic illnesses to grow and become independent within the limits of their illness.

Bronchial Asthma is a chronic disease, the most common age to 19 years old and unknown reasons, asthmas cases are being added every day. It is believed that asthma has genetic backgrounds and in human life something happens and causes it. The most popular reasons for asthma are viral infections, but also as allergies or other incentives through the air intake and some substances can cause it. Asthma is not just a disease but a spectrum of clinical condition with a number of symptoms, signs and results. Most children who suffer from asthma have some symptoms caused by exercise. his means that physical exercise are due to produce bronchospasm. Some asthmatics suffer from asthma only when they do physical exercises, while others have blockage of breathing during living.

Most children and young people who have a chronic cardiac disorder have a structural defect at birth. Others may have received during childhood disorder by different bacteria or viruses, drug abuse, various chemicals and sometimes artery disease. Most children who have chronic disorders of the heart have a small tolerance for exercise and have a poor level of annealing when they are tested. Marfa syndrome is an inherited disorder that affects the bones, joints, eyes, heart and blood vessels. Those who are affected are generally long and as a result it is likely that these individuals to participate in sports where height is an advantage (for example, basketball or volleyball). Since there is a wide variation in the extent of clinical details of Marfa syndromes, some children and teenagers may not exhibit other signs of disturbance except length. Children are especially long; it is recommended that they be visited by a sports physician. Identifying the disorder is very important because these individuals have a greater risk than others (who do not have this disorder) have cardiac problems (including the immediate death). Children who are diagnosed with Marfa syndromes should be encouraged to participate in appropriate leisure activities such as swimming, golf, cycling.

Diabetes mellitus is a disorder characterized by the body's inability to regulate blood glucose level. The hormone insulin may be absent or have a reduced role and use of carbohydrates, fat and protein

from the body is usually turbulent. If hypoglycaemia is not under control, then the body will have serious complications in the future. It is known that physical exercises make the body to be more sensitive compared to injected insulin and the body may allow the use of smaller measure insulin to maintain optimal control of blood glucose. But exercise can cause low blood glucose (hypoglycaemia) or high level (hyperglycemias) and make it difficult to maintain a normal level of glucose in the blood. However, given that multiple doses of insulin are available, insulin pump therapy and self-monitoring of blood glucose levels help children who have diabetes control glucose levels in their blood and thus be able to participate in sports activities at different levels.

A considerable part of the disease symptoms are frustrated node, from which most prevalent among children is youthful rheumatoid arthritis. Children who have this disease may experience fever, joint pains, swelling of the liver or spleen, pleurisy or pericardia and may not be able to do physical exercises because feel sick, especially in the early stages of the disease. Anaemia usually accompanies arthritis rheumatoid.

Purpose: The purpose of this study is to identify the impact of exercise on chronic diseases in paediatric age.

Hypothesis: The hypothesis of this study is to exercise a positive influence on improving health vs. chronic diseases.

Material and methods: This study is descriptive. Received several chronic diseases affecting paediatric ages, problems were identified and studied the effects of exercise on these categories of diseases. Also as analytical character and comparisons are made between the effects of exercise on these diseases.

Results:

Effects of physical exercise to asthmatic.

Some of the benefits of exercise to children who suffer from asthma include: increasing the level of pride in you, improve heart and lung annealing, reducing the impact and frequency of asthma attacks and a reduction in the use of medicines. Children who are asthmatic when start doing exercises for the first time, may have a slight attack of asthma, but if they continue to exercise or physical activity, asthma will be removed and the child will be able to increase the amount of exercise without an asthma attack. This period is known as the “opposition period” and is used by many athletes asthmatic.

Effects of exercise on cardiac problems.

Adequate physical exercise programs have proven they can improve the functioning of the heart muscle and blood supply in most children with heart problems at birth. These improvements, as a result of carefully selected programs for physical training, give children the opportunity to have heart problems as they take part in a number of physical and sports activities before they reach a point where their cardiac problem limits the level of exercise they can do.

Effects of physical exercise to diabetics.

It is plausible that any form of physical activities or sports is suitable for diabetics, provided that the disease is well controlled by the individual. Moreover, physical exercises done regularly help control and prevention of obesity and coronary artery disease, which should be avoided by diabetics.

Effects of physical exercise to arthritis.

In this case, physical exercises have positive and negative impact so it is important to find a balance. Cooperation between sports physician, educator, parent, child and coach is success. The benefits of exercise for children with arthritis include:

- Improvement and maintenance of the flexibility of joints
- Maintenance of muscle strength

- Maintenance of bone density
- Tempering cardiopulmonary
- Respect for self improvement.

Risk factors include;

- worsening of the disease if the exercises are more intense
- Cartilage damage in repeated weight-lifting exercises
- Ligament damage
- Deployment risk to children who suffer from arthritis of the spine.

Conclusions: Although many studies have been done in the field of exercise and chronic disease, doctors have sufficient information to make rational decisions regarding the type and level of activity for the most common diseases. Above all, parents, teachers and coaches must have a positive attitude and should consult with health professionals and exercise specialists to set options, and limits the positive and negative effects of exercise and sport for children in particular. Moreover, sports administrators should give variants and modifications enough for their sport to allow children to have a safe participation. The child should be encouraged to have a positive attitude towards participation in activities. It is the desire of the child to participate in activities that will help achieve a positive experience with exercise and sport.

Recommendations:

Recommendations for children with bronchial asthma.

Appropriate medication should be used to control asthma. Asthma is caused by exercise may require specific medication 30-40 minutes before exercise. Athletes who suffer from this symptom (asthma caused by exercise) do not need medication for at least 3 or 4 hours (after they have consumed medication 30-40 minutes before exercise). Asthmatic should avoid the use of medication during exercise. The climate is great for asthma influential. For example, the time of cold and dry air can trigger attack asthmas. Training in these conditions should be avoided. Air impurity (such as pollen), can cause asthmas crisis. Training during certain periods in spring and summer should be avoided or reduced. Activities within the halls, which are ventilated and air-conditioned, usually pose no problems. But in swimming activities in gyms can cause problems in some children because the chlorine level can be high, and chlorine in swimming pools can be opened with no less problematic because the air contains so much chlorine. Assessment in a warm environment is wet and is suitable for most people with asthma. But the idea that swimming is myth asthma cures. In general, asthmatic can participate in most sports and physical exercise. But sports dealing with high intensity exercises and breathing very fast for a long period of time (such as cycling) or sports that include exercises in cold weather , the air- dry time (as for example sports on snow or ice) can cause asthmatic crisis . Aerobic (endurance sport that helps) will not create problems with the condition that the exercise not continues for very long time. Activities that improve the breathing mode are recommended for asthmatic.

Recommendations for children with cardiac problems.

As seen in adults, physical rehabilitation exercises are important after any surgical procedure. Before a child with heart problems, beginning a physical exercise program, it is necessary to consult the child's usual doctor to obtain advice with respect to the level of physical exertion. Most heart disease that are present from birth, are well studied and information about the level of physical exercises is available. Some of the defects that are present at the birth of a child those tend to improve the growth and development of the child, so it is important that the level of physical exercise increases with improved health status. Some cardiac disorders may limit the child and allow the child to have a very

low level of physical activities, but it is important that the child has physical activity, although low level.

Recommendations for children with diabetes.

Children who suffer from insulin dependent diabetes should pay special attention to the foods that they eat before you start the exercises, and they consume carbohydrates during exercise. It may be necessary for children to reduce the insulin dose before they get exercise because exercise increases insulin action. Glucose levels should be monitored during exercise to determine individual response to exercise. It is important to monitor blood glucose levels carefully after exercise. It may be necessary for a child to consume carbohydrates to respond to the fall of blood glucose levels and avoid the symptom of lack of glucose in the blood. The child must have liquid glucose for emergencies and especially for sports where the resistance is the main part of the sport. If the blood glucose level does not increase the consumption of carbohydrates, then a doctor, paramedical, parent or person trained in giving glucagon to give the child may increase blood glucose. Otherwise, if the blood glucose level rises, the extra insulin will be required.

Recommendations for children with arthritis.

Seeing which joints are involved and seeing how they measure used, it is reasonable to avoid some sports. These include;

- Sports that involve contact with body (wrestling, boxing, karate)
- sports dealing with trampolining (because trampoline deals with multiple movements of the spine)
- Gymnastics, if the child has arthritis in the shoulder or elbow
- Basketball, volleyball, handball (it is related to the use of joints and elbow)
- Easy walking and high-impact aerobics, if the child has problems with knees or ankle joints

Children who have arthritis often exasperating do hydrotherapy as part of their therapy. As a result, the water sports that are popular place and there is little chance that they cause any adverse effect.

Bibliographi:

- Guiding the Young Athlete All you need to know David Jenkins and Peter Reaburn ALLEN & UNWIN
- Blimkie, C.J.R. 1989 'Age- and sex-associated variation in strength during childhood' Perspectives in Exercise Science and Sports Medicine eds C. Gisolfi and D. Lamb, Benchmark Press, Indianapolis, IN.
- Goldberg, B. 1995 Sports and Exercise for Children with Chronic Health Conditions, Human Kinetics, Champaign, IL.
- Lohman, T.G. 1986 'Applicability of body composition techniques and constants for children and youth' Exercise and Sport Sciences Reviews ed. K.B. Pandolf, Macmillan, New York, pp. 325–57.
- Malina, R.M. 1989 'Growth and maturation: normal variation and effect of training' Perspectives in Exercise Science and Sports Medicine eds C. Gisolfi and D. Lamb, Benchmark Press, Indianapolis, IN.
- Pate, R.R. and Shepherd, R.J. 1989 'Characteristics of physical fitness in youth' Perspectives in Exercise Science and Sports
- Goldberg, B. (ed.) 1995 Sports and Exercise for Children with Chronic Health Conditions, Human Kinetics, Champaign, IL.
- Micheli, L.J. (ed.) 1995 Clinics in Sports Medicine: The Young Athlete, W.B. Saunders, Philadelphia, PA