

## PREVENTION AND CORRECTION OF POSTURE BY MEANS SPECIFIC TO SPORT GAMES

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**ABSTRACT.** Unfortunately there is a growing incidence of incorrect posture. Wrong posture's prevention and primary prevention is achieved by maintaining a correct attitude of the body by self-control, both in daily, school and professional activities. Correction of the wrong postures is complex and depends on the scope form, its severity, age, sex, temperament, level of training, etc. associated diseases. Kinetic programs that we used consisted of corrective exercises, analytical exercises and general physical conditioning that provides the formation of an accurate sense of attire. From the wide range of possibilities offered by the movement as remedy of deficiencies in posture we synthesized different working techniques, individualizing programs based on their effectiveness in kinetics. Kinetic programs used were individualized in terms of the systematical resources used and of the method of implementation of specific motor acts.

**Keywords:** posture, deficiency, kinetic means, sport games.

**REZUMAT. Prevenirea și corectarea deficiențelor de postură prin mijloace specifice jocurilor sportive.** Din nefericire există o incidență tot mai ridicată a posturii incorecte. Prevenirea apariției deposturărilor reprezintă profilaxia primară și se realizează prin menținerea unei atitudini corecte a corpului prin autocontrol, atât în activitățile cotidiene cât și în cele școlare, profesionale. Corecția posturii este complexă și depinde de întinderea, greutatea lor, dar și de vârstă, sex, temperament, grad de antrenament, boli asociate etc. Programele kinetice pe care le-am folosit au cuprins exerciții fizice corective, exerciții analitice și cele pentru condiționare fizică generală care asigură formarea simțului ținutei corecte. Programele kinetice folosite au fost individualizate sub raportul sistemului de mijloace utilizat și al modalităților de execuție a actelor motrice specifice. Din gama largă a posibilităților pe care le oferă mișcarea ca remediu al deficiențelor de postură am sintetizat diferite tehnici de lucru, individualizând programele kinetice în funcție de eficacitățile lor.

**Cuvinte cheie:** postură, deficiență, mijloace, jocuri sportive.

### Introduction

Unfortunately there is a growing incidence of incorrect posture. There are also people for whom body posture is just an aesthetic attribute its primary cause being the lack of information. It is shown that incorrect postural attitudes that

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persist over the years can create a high degree of discomfort, pain, disability that can often also lead to pathological forms hardly recoverable only by means of chiropractic.

In the dictionary, posture is defined as: Posts (<fr. Positions) – Stabilisation of various skeletal components, one from another, in a certain bodily attitude, conducive to the development of an action. There are two large postural systems: anti-gravity position that ensures the body maintenance or restore the balance in a fundamental orientation in relation to weight (physical vertical). It allows bipedal position and is a basic reference for space orientation and reperajul vertical, directional position that modifies anti-gravity postural architectures, organized themselves in relation to environmental stimuli (Larousse, 2006). Body posture is influenced by three factors: heredity, medical conditions and habit. The general appearance of the body (or, rather, its physical configuration) is - Sbenche T. (1987) - the result of three factors: a) body attitude, which is determined by the ratio of the parties comprising musculoskeletal, being objective Eva main take, b) the increase of the body as a result of accumulation of quantities, in terms of height, weight and size, depending on age and sex, c) global development with age. The application of this therapeutic procedure should consider the following recommendations: the application of the posture should be based on consent and full cooperation of the patient; he must be informed that this posture is not always comfortable, but must be accepted for their benefits; correct posture is sometimes and analgesic role, in which case the patient must understand and cooperate for serial application of this therapeutic procedure, the duration of the mantaining of the posture is variable, depending on the nature, severity and stage of the disease. Posture (free, free-aided or fixed) addresses only to the soft tissues.

Posture is a function of the body based on the synergistic and coordinated locomotor elements and the central and peripheral nervous system by which we maintain: body stability, balance and constant relationship between body segments and between body and the environment (Cordun, 1999).

The human feature is an orthostatic, anti-gravity position, its maintenance through neuromioartokinetic interventions leads to a correct posture or attitude called normal orthostatic position alignment.

Human beings can adopt different positions: standing, sitting, lying and their derivates. Wrong posture's prevention and primary prevention is achieved by maintaining a correct attitude of the body by self-control, both in daily, school and professional activities.

### ***Classification of posture deficiencies***

Posture deficiencies are classified according to the following criteria:

a) Depending on the severity, functional and structural forms are described.

Functional deficiencies - also called deviations, represent positions or attitudes of impaired support and movement of the body.

Functional deficiencies have the following characteristics:

- Do not show anatomical structural changes behavior;
- Are flexible, reducible, therefore correct or hypercorrect from taking positions or performance test movements called functional tests;
- Most often these can only be corrected by kinetic means.

Structural deficiencies - also called true pathological or deformations have the following characteristics:

- Structural changes occur in anatomical parts;
- Are fixed, irreducible, do not correct in certain positions or performance test movements called functional tests;
- Most of the times, can be corrected by complex orthopedic-surgical treatment medical, physical therapy being a complementary approach.

b) Depending on the scope they are global (total) and partial (segmental, regional or local) affecting the entire body or certain segments, regions or areas of the body.

**The prophylactic treatment** consists of preventing physical deficiencies, their aggravation or sequelae installation.

Wrong posture's prevention and primary prevention is achieved by maintaining a correct attitude of the body by self-control body by self-control, both in daily, school and professional activities.

Secondary prevention is established when the primary stage was exceeded, so physical deficiencies appeared. By applying early treatment one can prevent the aggravation of their complications.

Tertiary prevention aims to prevent installation of sequels, somatosensory lesions that could cause irreversible functional motor and/or mentally disability.

Maintaining a correct posture and body alignment is critical.

### ***Correct posture and body alignment***

Sbenghe (1987) considers that this objective is based on the following facts: a) many postural defects in childhood and adolescence to adulthood strengthens become starting points for further degradation of the musculoskeletal system, b) many musculoskeletal disorders, as of other devices, determine wrong postures and misalignments of the body, which, if it takes longer, remain functional or even organic, c) the recovery of functional impairment can not be conceived only in restoring the body's physiological relations because the kinematic chains of the body are based primarily on normal relations between the segments. Wrong posture and uscular imbalances and misalignment always attract the joint structures, lower yield and early appearance of fatigue.

Muscle imbalance is installed on several mechanisms: a) substitution, a functional replacement, b) "disposal", a "functional weakness", c) the compensation (particularly substitution), d) through incoordination, an impaired motor control in the normal motion or kinetic chain. Correct posture and body alignment uses the techniques: 1) the correct posture or hypercorrection, maintained by various

fastenings, 2) passive motion, active assisted and active, 3) isometric contractions, 4) various proprioceptive facilitation techniques. Prophylaxis of the wrong posture starts in school, continuing after adolescence. The typical period for installing and setting a bad posture is that of the body's growth and development. There are times when even at an adult age these wrong postures can occur as the result of professional activities held in poor conditions. To this can be added the gradually decrease of muscle strength due to lack of exercise. Main wrong postures and misalignments are found in the cervical spine, shoulders, back and lumbar spine and pelvis, the deficit alignment of legs being on second place (Albu Albu, Petcu, 2001).

Correction of the wrong postures is complex and depends on the scope (global or segmental), form (attitudinal or structural), its severity, age, sex, temperament, level of training, etc. associated diseases.

Deviations of the spine or spinal axis are diseases caused by various epathogenic factors.

The lateral deviation can be of any type, due to a vicious posture required by certain occupational conditions. This temporal lateral deviation, prolonged, is notspinal scoliosis, but an abnormal attitude proper for its establishment.

When a child voluntarily spends much time indoors gets a wrong posture, this cannot be called scoliosis, but temporal deviation. In this condition there is no deformation of the chest or spine load.

### ***Personal experience***

Kinetic programs that we used consisted of corrective exercises, analytical exercises and general physical conditioning that provides the formation of an accurate sense of attire (especially a sense of the correct position of the pelvis), tone and strength corresponding to the muscle groups needed to maintain a correct posture and a balanced position of the pelvis, giving the body all the necessary vigor and eliminating all feeling of weakness.

In what is called the mobilization of the spine this worked the muscle that preceded it, so that it can make a skeleton be corrected or flexible as much as possible.

From the wide range of possibilities offered by the movement as remedy of deficiencies in posture we synthesized different working techniques, individualizing programs based on their effectiveness in kinetics, without excluding, however, simultaneous use of their therapeutic methods.

Kinetic programs used were individualized in terms of the systematical resources used and of the method of implementation of specific motor acts.

We present some exercises in sports games used in medical gymnastics lessons to students of the University of Bucharest, for a correct alignment of the body:

#### *a) Means of basketball*

- Individually with a ball: arms are outstretched to the side - send the ball from one hand to the other over the head, never losing sight of the ball;
- In pairs with a ball: transmission of the ball with your back to the partner's, arms outstretched, the ball moving from right to left and vice versa;

- With your back to the partners's in pairs, 2-3 m distance, throwing the ball over the head with two hands to the partner who catches, passes it and after turnins back; In a row, at an arm's length apart, movement of the ball with two hands above the head; The same exercise but the ball is moved by side with twisting of the trunk to the right or left;
- From sitting behind the basket with a ball, throwing the ball with two hands above the head with trunk extension;
- Walk on the tip of the toes with two hands held up;
- Walk accustoml basketball held to the back of the neck and raising at every two steps a bent knee;
- Walk with two balls held to each side of the hip, four steps on the tip of the toes, four steps on the heels;
- Walk on the trunk tilted slightly forward on the tip of the toess - hands supporting the basketball on the head.

*b) Means of volleyball*

- Staying away, arms diagonally up supporting the volleyball before lifting the knee in the chest;
- Sitting with the volleyball ball on head, which is supported from the side with both hands, having the knee bending and extent;
- Sitting, with a ball, control passing runs;
- In pairs, sitting passes runs up to partner;
- Sitting with a ball control passing runs;
- Individual passes control runs away on peaks;
- Same with walking heels;
- In pairs, near the wall, one is located facing the wall, and the other behind. One who is throwing the ball against the wall to his colleague, who runs a pass over the head to the wall;
- Three with a ball, place in line, the middle running the ball pass over his head offered to partner and catches it at the back and forward first;
- Same, but the middle one 180° turns and runs after birds pass over the heads of ball thrown from both performers;
- The same exercise, but with the difference that the middle will be back near the net, running pass over his head to peer over the net;
- Three with a ball, contractors are willing delta areas 3, 4, 5. Most of the Z3 Z5 throws the ball and running it with both hands graze 10-15 up at Z4.

Individual, make a throw, followed by attack hit over the net;

- Perform attack hit the ball thrown by the teacher;
- Perform 6-8 attack hits, the ball thrown, consecutive;
- In pairs, runs up service from a distance of 5-6 m;

- Same, but at 9 m distance;
- Perform consecutive service out of bounds.

### **Conclusions**

Kinetic treatment can give surprising results if applied methodically and persistently, administered and dosed with skill, but can be harmful when mistakes occur at the level of indications, extent and application.

Kinetic programs used were varied and diverse, being organized and conducted in accordance with the needs of the individual and were directed toward: 1) development, 2) prevention, 3) to compensate, 4) to correct.

Evaluation results should be made at regular intervals, following the physical therapist performance against the objectives set.

### **Suggestions**

The organization of prevention and correction of deficiencies in posture should be on the priority list of a responsible person.

Position detecting deficiencies in school-age children is a problem that requires systematic activity both in the physical education teachers, doctors and even parents.

## **REFERENCES**

- Cordun M. (1999). *Kinetologie medicală*. București: Ed. AXA.
- Dumitru D. (1984). *Reducerea funcțională în afecțiunile coloanei vertebrale*. București: Ed Sport-Turism.
- Fozza C.A. (2000). *Îndrumar pentru corectarea deficiențelor fizice*. București: Ed. Fundația România de Mâine.
- Ganciu M. (2009). *Îndrumar metodic de kinetoterapie cu mijloace asociate din educație fizică*. București: Ed. Universității din București.
- Kiss I. (2007). *Fizio-kinetoterapia și recompensarea medicală*. București: Ed. Medicală.
- Robănescu N. (2001). *Reeducare neuromotorie*. București: Ed. Medicală.
- Sbenghe T. (2005). *Kinesiologie în știința mișcării*. București: Ed. Medicală.
- Sidenco E.L. (2005). *Coloana vertebrală și membrul inferior*. București: Ed. Fundația România de Mâine.