

HYPOKINETIC DISEASES AND MOVEMENT EDUCATION AT EARLY AGES

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Definition of Movement Education:

Movement education is the active phase of bodywork, and application of coordinated and rhythmical body movements. It can best be demonstrated through the use of a circular continuum in which movement fundamentals are the core of which movement education is constituted, and in which movement exploration is the method of application which employs problem solving for its fulfillment. The students get to learn to move with greater freedom.

What is Movement Education with reference to medical field?

Movement education refers to a number of alternative healing techniques, such as Alexander Technique, Aston-Patterning, Feldenkrais Method, and Heller work. What all these techniques have in common is the use of physical movement, deep massage, and other methods. The techniques involved in movement education are to help release stress from the body and increase your normal range of movement. Increasing ones' normal range of movement allows a person to experience more of a healthy, energetic, and creative balance in their body.

Movement education is used as a therapy for muscle problems all over the body, and including certain types of pain, like bursitis, tendonitis, and carpal tunnel syndrome or other types of repetitive strain injury. How movement education works is a specialist in the field observes your movement patterns, how you sit, stand, and walk. Then the specialist will teach you specific exercises and skills that will make you more aware of habitual physical patterns that result in tension and constriction in your body. These skills will also give you more flexibility and balance. You will be able to move much more freely in a number of comfortable ways. A complete movement education program requires a series of sessions over a number of weeks, maybe months. Any habit usually takes awhile to overcome.

Each technique involved in movement education has a different set of philosophies. The Feldenkrais and Alexander methods are not therapy but consist of a learning process that will enhance feelings of happiness. The Aston-Patterning method focuses on specific physical health problems, such as chronic pain and healing injuries. The most important thing when getting involved with movement education is to seek a specialist who will suggest the best technique for you.

Movement education is safe as long as you listen to your body and don't overextend your muscles. If a particular movement causes pain, then refrain from doing it. If you have recently suffered a major injury or illness, always consult your physician before engaging in any strenuous activities. Also, allow your body time to heal. And if you are pregnant or have certain health issues, such as high blood pressure or diabetes, always consult your physician.

I. BODY AWARENESS: What the body can do?

A. Axial Movements (Controlling One's Movement) (Non-Locomotor): These actions can be done with isolated parts of the body or with the whole body. The actions of twisting, stretching and curling involve the body in a variety of specific shapes, which can be maintained whether the body is still or moving. (1) Bend and stretch: Body parts moving close to or far from

one another. (2) Twist and turn: Turning involves rotation of the whole body, while twisting is defined as a rotation of one body part against another. (3) Push and pull: Forceful movement where an object is moved away from or closer to the body. (4) Swing and Sway: A Swing is a circular movement around a stationary center with the axis above body part. A Sway is a circular movement around a stationary center with the axis below the body part.

B. Transferring body weight: (1) Transfer of weight can take place from one body part to another. It can take place in a variety of step-like actions or when one body surface receives weight from an adjacent part as in rolling. (2): Locomotor skills: walk, run, hop, skip, gallop, slide, leap, jump; (3) Start and Stop; (4) Dodge; (5) Landing

C. Balancing: Balance skills vary in difficulty according to the number of body parts and the size of the parts that are used in a particular movement. The position of the center of gravity also makes a balance skill more or less difficult. Balanced is enhanced by lowering the center of gravity.

D. Flight: The body can defy gravity in a number of ways. It can jump or leap off the floor. The body can thrust into the air from the feet with the weight received by the hands (as in vaulting). When the body is in the air, it can change shape by changing the positions of the limbs and by turning along several axes. Landing from flight requires "force absorption" skill.

E. Manipulative Skills: Vertical throw Underhand throw; Overhand throw Catch; Strike

II. SPACE: Where the body moves?

A. Personal or Limited Space: The space the body occupies from a fixed position.

B. General Space: The floor area that is available to the children.

C. Directions: Forward; Backward; Sideways; Up and down

D. Levels: High - space above the shoulders; Medium - space between the knees and shoulders; Low - space below the knees;

E. Pathways: On the floor and in the air: Curved; Straight; Combinations of the two.

III. QUALITIES OF MOVEMENT - How the body moves?

This category gives expression to movement: (a) *Time* or speed of movement - quick or slow; (b) *Effort* or force of movement - strong or light; (c) *Flow* - "free flow" or "bound flow"

IV. RELATIONSHIPS - the relationships which are found in games, gymnastics and dance are continually changing: (a) *With apparatus*; (b) *matching movements*; (c) *contrasting movements*; (d) *simultaneous movements*

The five body actions listed below have direct relevance to the teaching of games, gymnastics, or dance, although the emphasis and intention of the actions will be different: (1) jumping and landing; (2) traveling or locomotion; (3) twist & turn; (4) stretch & bend; (5) balancing

In gymnastics we are concerned with the manipulation of the body in a variety of settings; on the floor and with small and large apparatus. The following categories are added:

(1) hanging; (2) climbing; (3) pushing and pulling; (4) swinging

In dance, in addition to the first four categories, add the following: (1) gesture; (2) rise and sink.

In the games lesson, manipulation of objects is often used. We may emphasize the following: (1) rolling; (2) catching; (3) throwing; (4) bouncing; (5) kicking; (6) hitting; (7) dodging

Methods of Teaching Used In Movement Education:

Direct Method: Teacher centered. The teacher structures the lesson, chooses the activities and prescribes what and how each child shall perform. This method has many shortcomings with respect to developing initiative and self-direction, however: (1) It allows the teacher to introduce specific skills or rules to all the children at the same time; (2) It is recommended to use when teaching safety concepts; (3) It is relatively easy to observe the class for assessment.

Limitation Method: Teacher designs the lesson; however problems are given to the student that may have several correct responses. For example: "Find a way to balance on three body parts". The following advantages seem to support the use of this method in movement education: (1) It allows for some direction to be given by the teacher, yet the inventiveness of the child is not stifled; (2) It provides for differences in physical ability; (3) In spite of individual differences, the general response will fall within certain limits for evaluative purposes.

Indirect Method: The child has the opportunity to choose the activity or movement to be practiced. The indirect method: (1) recognizes individual differences in abilities & interests; (2) encourages initiative and self-direction; (3) gives the teacher the opportunity to learn about his/her students.

Teaching by Themes:

A movement theme may be defined as a concept or an idea which becomes the main focus of the lesson or a series of lessons. Having selected the concept to be stressed, the teacher may add interest and variety by introducing one or two sub-themes. These themes will be devised from the concepts within the movement analysis. To illustrate, the main theme could be flight with an emphasis on jumping and landing. A sub-theme could be shape (the body can assume a variety of shapes when it is in flight). As part of the theme, the five basic jumps, hops and leaps should be explored. Flight can also take place to the hands.

Movement Education Example Themes:

(1) Traveling in a variety of ways emphasizing the use of general space, different body parts and change of direction; (2) Traveling in a variety of ways emphasizing change in speed; (3) Traveling in a variety of ways emphasizing the use of the feet; (4) Traveling on different body parts with emphasis on quick, light movements; (5) Traveling with emphasis on contrasting speed; (6) Traveling with emphasis on changing levels of body parts; (7) Traveling with emphasis on changing levels; high to low; (8) Changing relationships with others emphasizing leading with different body parts and traveling in different pathways; (9) Running and dodging with emphasis on change in speed, pathway and direction; (10) Traveling and balancing with emphasis on stretched and curled positions; (11) Jumping and landing; (12) Combining movements of jumping, landing and rolling; (13) Twisting and turning; (14) Manipulating a ball with different body parts; (15) Manipulating a ball with the hands; (16) Manipulating a ball with the hands emphasizing change in speed and catching; (17) Striking a ball with different body parts; (18) Striking a ball with the hand or forearm; (19) Adjusting the body position to strike and catch a ball (20) Controlling a ball with the feet; (21) Furthering manipulative skills of throwing and catching; (22) On and off balance as applied to catching; (23) Body shape; (24) Movement emphasizing strong and light qualities; (25) Movement emphasizing slow and quick qualities; (26) Controlling the body when landing from a height; (27) Creating and accompanying own movement sequences. Creating and accompanying movement sequences in partners and small groups; (28) Examining relationship of body parts - near and far.

Hypo-kinetic diseases:

Hypo-kinetic diseases are conditions that occur from a sedentary lifestyle. Examples could include obesity and complications arising from sedentary behaviour. Hypo-kinetic conditions could include:

- Cardiovascular disease
- Some forms of cancer
- Back problems
- Obesity
- Type 2 diabetes
- Osteoporosis
- Mental health
- High Blood pressure
- Heart disease

A sedentary lifestyle is a type of lifestyle with no or irregular physical activity. A person who lives a sedentary lifestyle may colloquially be known as a couch potato. It is commonly found in both the developed and developing world. Sedentary activities include sitting, reading, watching television, playing video games, and computer use for much of the day with little or no vigorous physical exercise. A sedentary lifestyle can contribute too many preventable causes of death. Screen time is the amount of time a person spends watching a screen such as a television, computer monitor, or mobile device. Excessive screen time is linked to negative health consequences.

Health effects

A lack of physical activity is one of the leading causes of preventable death worldwide. Sitting still may cause premature death. The risk is higher among those that sit still more than 5 hours per day. It is shown to be a risk factor on its own independent of hard exercise and BMI. The more still, the higher risk of chronic diseases. People that sit still more than 4 hours per day have a 40 percent higher risk than those that sit fewer than 4 hours per day. However those that exercise at least 4 hours per week are as healthy as those that sit fewer than 4 hours per day. A sedentary lifestyle and lack of physical activity can contribute to or be a risk factor for:

- Anxiety
- Cardiovascular disease
- Mortality in elderly men by 30% and double the risk in elderly women
- Deep vein thrombosis
- Depression
- Diabetes
- Colon cancer
- High blood pressure
- Obesity
- Osteoporosis
- Lipid disorders
- Kidney stones

Implementing wellness programs is becoming another popular trend among organizations. Wellness programs can be unique to each organization and can focus on a variety of objectives. For example, some organizations try to get their employees moving through exercise classes at

lunch, or walking challenges among co-workers. Other organizations offer a number of different screenings for employees, such as cholesterol or blood pressure screenings.

It is essential that wellness programs have specific goals that provide a specific direction for the program. Goals can include tracking the number of participants who improved their fitness level, or the number of participants screened.

Incentives for increased activity may include doing activities that the person enjoys, such as walking with a friend or playing in a sports league. The condition, which predates the term, is characterized by sitting or remaining inactive for most of the day with little or no exercise.

Lack of exercise causes muscle atrophy, i.e. shrinking and weakening of the muscles and accordingly increases susceptibility to physical injury. Additionally, physical fitness is correlated with immune system function; a reduction in physical fitness is generally accompanied by a weakening of the immune system. A review in *Nature Reviews Cardiology* suggests that since illness or injury are associated with prolonged periods of enforced rest, such sedentariness has physiologically become linked to life-preserving metabolic and stress related responses such as inflammation that aid recovery during illness and injury but which due to being nonadaptive during health now lead to chronic diseases.

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Jump up^ "Physical inactivity a leading cause of disease and disability, warns WHO". [World Health Organization](#). Retrieved January 23, 2010.