

## VOJTA APPROACH

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Physiotherapy based on neurophysiology was developed by VOJTA during 1954 to 1969 and has since then been constantly, improved. A large number of disorders relating to the central and peripheral nervous system as well as to structural disorders of the muscles and joints can now be effectively treated by this method.

Vojta-therapy (VT) is a useful technique to treat the disorders in the central nervous and musculoskeletal system, and is very effective for small babies of less than 6 months. The patients suffering from such diseases are unable to make some specific movements in their different body-parts, in the normal manner. VT is based on the principle of Reflex Locomotion (RL), that is, the patient's central nervous system can be activated by giving the correct simulation, assuming that it is still partially intact. RL is a combination of Reflex Creeping in prone lying position and Reflex Rolling from supine and side lying positions, which enable the elementary patterns of movement in patient. The various lying positions of a patient during the therapy are shown in Figure 1.

**Figure 1. Example of child's lying positions during the therapy process. Reflex creeping (a) prone lying position, and Reflex rolling (b) supine lying position and (c) side lying position. Photo courtesy: Red Cross Children Hospital, Siegen, Germany.**



According to Prof. Dr. Václav Vojta (a child neurologist from Czech Republic, who introduced this treatment), one can observe motor reactions occurring throughout the patient's body when a specific stimulation is given to him/her, while lying in one of the above mentioned positions.

Therefore, the therapists exploit a combination of 10 different zones on a patient's body by putting light pressure on this area and resistance to the current movement (e.g., the tendency to rotate the head during reflex creeping) to cause the patient's body to perform certain reflexive movement patterns. The repetition of this stimulation many times ultimately make available the previously blocked connections between the patient's spinal cord and brain, and the patient is able to perform similar movements without any external stimulation.

### **Concept of the Method**

The therapeutic method developed by VOJTA was first applied to adolescents with fixed cerebral palsy; only later it was introduced in the treatment of infants with coordination disorders. Basically, the principles of the locomotion complex developed by VOJTA are not only a treatment for motor development but also have an effect on the whole body, including the vegetative and sensory-nervous system. Therefore, one can see during therapy changes in blood pressure, breathing and peripheral blood circulation, besides the effects on motor functions.

Motor-kinesiological content (locomotion content) of reflex creeping and reflex turning-developed by VOJTA - consists, like any other form of locomotion, of three inseparable components:

- (i) The automatic control of body posture (postural stability/reactibility),
- (ii) The uprighting of the body,
- (iii) Aimed movements, in its widest sense.

Citation of MAGNUS : Every accurate movement starts from a definite posture and ends in a posture. More than this, reflex posture accompanies every movement "like a shadow". ~ By analysing these three main components

VT has been effectively used to treat various diseases like Moderate severe/severe central coordination disorders (CCD) (1. and 2. with a possible threat of CP), Mild asymmetric central coordination disorders, Muscular and neurogenic torticollis, Peripheral paresis, Spina bifida, Congenital myopathies, Congenital malformations (e.g. Osseous scoliosis, arthrogryposis), peripheral paralysis of the arms/legs, hip joint dysplasia, problems in breathing, swallowing and chewing functions.

VT can be applied to the patients of any age group but it is extremely effective for young babies of less than 6 months because most of the developmental changes take place in the early stage

of a child's life. For a treatment to be successful; the therapy session of 5-20 minutes should be performed several times in a day or week and this process can last for several weeks or months. Therefore, the therapists explain the goal and objective of the therapy and recommend an in-home continuation of the therapy as well. The therapy program is then determined in regular intervals in accordance with a child's improvement. During the therapy, children may start cry, causing the parents to be discomfort about their child's well-being. Resultantly, they stop the treatment in claiming that it is not beneficial. At this age, however, crying is an appropriate means of expression for the young patients, which after a short familiarization period, becomes less and less intense. The aim of home-based therapy evaluation is to provide an accurate in-home therapy alternative to in-hospital therapy. However, VOJTA's therapy also has limits in its indications and its efficacy. These depend on the extent and degree of the basic affliction and the resultant functional disorders, e.g. the combination of infantile cerebral palsy with epilepsy, mental retardation or disorders of sense organs. The therapy process at home is not only helpful for the quick recovery of a patient but also quite useful for those who do not have access to a local hospital offering said treatment. Moreover, the frequent visits to the therapist's clinic add an economic burden as well.