

Concept "Neurotango®" Down Syndrome

For the "Neurotango®" concept, the following were developed here

- People with intellectual, cognitive, physical impairments (e.g. cerebral movement disorders), people with learning disabilities and people with "Down syndrome" chosen who are physically able to walk and stand.

Age: 10 - 25 years (special school)

25 y. - unlimited (workshop, residential group, home)

Participants: 16 people

Room size: 80 - 100 sqm

Auxiliaries: Therabands, sticks (wood/bamboo), hedgehogs or
Tennis balls, softballs, swimming noodles, pens,
Paper, symbol cards, cloths (various colours)
Skeleton, balance cushion, cherry stone bag

Down's syndrome

In terms of dance and locomotion, when working with participants we should consider what they CAN do and NOT what they CANNOT do. It is likely that during a Neurotango course unexpected surprising skills may emerge. Accordingly, the inventiveness and creativity of the teachers is an advantage in order to spontaneously adapt and, if necessary, change the therapy lesson objectives.

Which physical characteristics, motor skills, impairments and movement patterns as well as syndrome-specific peculiarities are to be considered and emphasised with regard to the structure and implementation of tango therapy lessons (application of the neurotango concept).

Situation description and **objective (in bold)**

- Legs/arms shorter in relation to torso - dressing and undressing, tying shoes strenuous, have to stretch more: **strengthen sense of balance**
- smaller hands, shorter fingers - holding/holding materials, e.g. catching a ball more difficult, possible sensitivity disorders - perception via the skin when touched: **Skin stimulation by tapping, crosswise (over centre line), self-awareness / proprioception/body connection to counteract fear of movement, energy flow, feeling for beat.**
- Muscle tone low, hypotonia, connective tissue (fascia) weak/loose, consequently reduced body tension, erection against gravity and stability in the joints.
- Overflexibility, extensibility in muscles and joints
- Ankles and hips in external rotation, splayed, broad-based standing and walking to maintain balance and for more stability (mild to moderate impairment in adults).
- Feet flat on the floor, reduced rolling due to flat feet:

Giving impulses when leading and following, giving resistance, sensorimotor exercises, recognising straight lines and converting them into movement,

strengthening ankle joints, strengthening body awareness for standing in hip joint width, in leg axis, hip-knee-ankle joints, building up longitudinal arches, plantar fascia and foot reflex zones massage.

- Eye problems (possibly): has effects on fine motor skills. (eye-hand coordination) and on gross motor skills, fear of falling impedes motor activity, delays development of initiative (psychological impairment):

Weight shifting, different step lengths, brake control, fall prevention, spatial perception, dimensions, rules

- Walking and moving faster:

The arms are used with oar-like movements to compensate, both for balance and to keep oneself upright:

Communication with dance partner, walking together, different possibilities of physical contact and embrace in pairs, change of direction when leading and following, building up basic tension, brake control.

- Walking and running as crossed movement/ordered movement/dissociation is possible when the joints gain stability. Down syndrome typical postural and movement patterns are a more static trunk, less rotational movements and consequently compensation with arms and legs, which often gives them a variety of dance movement possibilities. One therefore speaks of a "different" motor development and not of a "delayed" one. (One also speaks of a so-called deviant gait pattern):

Use of over-flexibility + joy of movement through the music, cross-over and diagonal exercises, strengthening of stability in the body axes, contra lateral walking.

- Speech and hearing - Impairments in the mouth area: wide tongue, narrow high pointed palate can make communication difficult. However, more is often understood than it appears (receptive/expressive speech).

Stimulation of the speech centre through movement, learning through observation, on the model, mirroring also with teacher, sign language, gestures, use of aids e.g. for tone regulation (reaches into the mouth)

- Features such as possible heart defects, smaller nasal and ear passages, infections, weakened immune system. Excess weight affects strength and endurance, possibly less energy for physical activities.

Fun factor, enjoyment of the music, breath perception and breath stimulation, by speaking out and listening to what is experienced, it is not only about cognitive understanding, but rather about emotional participation and empathy.

General:

People with Down syndrome are not ill except for some malformations. However, like all people, they can also suffer from diabetes, inflammatory bowel diseases (coeliac disease), flu, depression, obsessive-compulsive behaviour, etc. or develop autistic behaviour.

The most important rule when working with them, in Neurotango®, dance, sport, etc. is:

- **in small steps (and still big steps☺)**
- **teach and proceed, but much variety**
- **and take up their ideas.**

Target examples through the use of Neurotango®

- Participation in all areas of society
- Empowerment:
 - e.g. strengthening personality development as well as skills for equal participation in inclusive groups
- Further development as a lifelong learning process (new development steps by practising on lines)
 - forward, sideways, backwards, diagonally, crosswise)
- Self-confidence
- Self-determination
- Self-confidence
- Stability
- Diversity
- feel happy and satisfied
- Change unfavourable movement patterns into more favourable movement patterns to promote positive further development.
- Partnership



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