

Kinesiological Integration of the Senses

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I hear and see.
I taste and smell.
I feel cold warm, rough and smooth.
I feel my body.
I feel tension, release and movement.

My senses give me a picture of my surroundings and of myself. With my senses I am aware of my sadness, my joy, the birds and the green grass around me or a world that is grey in grey.

The senses are part of everything in our life. They start their work a few days after conception and accompany us until we die. The development of the sensory system during pregnancy and the first years of life engrave the human being. With the help of the senses the child learns to learn, learns how to handle itself and its environment.

Without sensations for the senses we can't survive. Our senses need continuous stimulation. They feed the brain, without them the brain collapses. The development of the brain during early childhood proceeds with the help of the senses. They stimulate the cerebration. If we don't use our senses, the sense organs cripple, the brain atrophies and the co-operation in the body is disturbed.

Our surroundings are more and more depleted of stimulations for the senses. Television, computer and plastic toys substitute the experience of running, climbing trees, balancing, playing and fighting with other children - fifty years ago the children knew about a hundred plays, now they know about five.

When we balance our senses, we stimulate our whole brain, experience ourselves and our environment more intense, and influence our perception and learning behavior.

Each sense has its own importance and is dependant in its work on the cooperation with other senses. So first we work with a single sense and the corresponding sense organ. Then we integrate the cooperation of the senses and the way of perception.

Here we will mainly speak about balancing of the single senses as the pre-requisite of learning and perception.

We have a finger mode for the senses: The thumb loosely lies in the palm on the side of the little finger.



Then we have for each sense a finger mode, some tests (we just mention a few as an example) and corrections (examples, too). The test function is a stress test. The corrections stimulate directly the sense similar to the natural stimulation. Other corrections like TFH, Edu-K, Three in One Concepts can be used, too. They are very helpful to the results of the balance. The finger modes for the senses are a further possibility to balance. They are especially useful to bring more awareness of a sense in every day activities.

Before you test and balance, it's important to ask, whether the work is accepted and the body can use the information for it's well-being

Tactile Sense

The sense organ for tactilely is the skin. It informs us about pressure and touch, temperature and pain. The tactile system is the first sensory system that develops in the womb and it is of extreme importance after birth. The bonding between mother and child and the emotional development depends on touching. The tactile sense is the basic requirement for the awareness of our own body and our ego. I have to feel myself, to know my possibilities and my borders.

The ability to integrate sensory information with the skin is necessary for the balance of the nervous system and emotional and social contacts. The ability to contact without words, to set and overcome borders and the possibility of empathy stands form the tactile sense.

Finger-mode: the upper part of thumb and index finger lie together



Corrections:

- Speak out aloud: "I dare to, want, may, can, will touch, be touched and feel."
- The skin is touched by a person, by things, imagine your mother touching you (ask permission)
- With the skin we touch persons, things, imagine your mother touching you (ask permission)
- Stroking and get stroked.
- Rubbing with a towel or a brush.
- Taking a bath, a shower, creaming.
- Having experiences with material like sand, clay, stones, food on my skin and especially in my two hands and my lips.

Kinesthetic Sense

The organ for the proprioception is in our muscles, joints and tendons. It works closely together with the receptors in the skin and gives us the feeling for our body movement and the position of our joints, so that we can move with closed eyes. The proprioception develops by moving and being moved (the importance of being carried as a baby). The child makes the first experiences in the womb. It is easy to move in the amniotic fluid and to feel the movement of the mother (the importance of the movement of the mother during pregnancy).

Our kinesthetic sense gives us a picture of our body that helps us to plan movement, to adapt, to perform and to control movement. With this sense we develop our laterality and experience the space around us, we recognize our position in space.

The proprioception stands for our self-assessment, for our ability to express ourselves, to take our space and let others

their space and is an important element in our centering.

Finger-mode: the upper part of thumb and little finger lie together



In depth tests:

- Speak out aloud: "I dare to, want, may, can, will move, be moved and feel my body."
- Move
- Be moved
- Imitate movement pressure and traction on the joints

Corrections:

- All ways to move the body like dancing, cross crawl, sports, muscle-testing
- Massage
- Strain and release the body.
- Embracing the hard pressure like encircling the body.

Vestibular Sense

The organ for balance is inside the ear near the organ for hearing. It helps us to feel the movement and the position of our head. It works together with the receptors in the neck muscles and the joints of the neck and informs us about the position of the head in connections to the body.

Tactile, proprioception and balance are the basic senses. They are the first ones developed in the womb and hearing and seeing on their experiences. The main stimulation comes from the movement of the mother. The birth is like a shock for these senses, it is like a big step backwards to cope with the air and gravity.

The conquest of gravity is the main task of the baby during its first 18 months of life. Together with the proprioception, the balance organs help us to regulate the tone and the posture. For our eyes it is the physical orientation system.

The balance system is important for my emotional stability, for my "inner" balance. It stands for the ability to balance, look for new possibilities, learn and change.

Finger-mode: three fingernails of index finger, middle finger and ring finger go in the middle of the upper part of the thumb.



In-depth-tests:

- Speak out aloud: "I dare to, want, may, can will balance, play with my balance, hold my balance."
- Swing and be swung
- Turn and be turned
- Jump
- Have someone move your head

Corrections:

- Swinging
- Being rocked in a chair or hammock.
- Jumping on a trampoline
- Moving the head in all directions, active and passive (when the head is moved, it's good to hold the Positive Points)
- Head-stand (yoga) and/or gravity glider (position of the child before birth).

Auditory sense

The organ for hearing is more known. It lies near the organ for balance and is dependent on its function. Hearing belongs like the eyes to the far senses. The development of the ability to hear goes along with speech development. The ears help us to recognize and discriminate sounds, voices and noises, to hear the difference between loud, quiet, deep and clear and to estimate the distance

and direction of sound sources. Another important ability of the hearing sense is to filter out noises of interference.

Hearing stands for the ability to understand, express yourself and for verbal interaction. More than the basic senses the far senses (eyes and ears) stand for the correction to the surroundings and social needs.

Finger-mode: fingernail of middle finger into upper fold of the basic part of the thumb.



In-depth-tests:

- Speak out aloud: "I dare to, want, may, can will hear, being heard and understand."
- Hear and listen to noises and voices.
- Understand voices and noises.
- The voice of the mother (ask permission!) Tomatis thinks that the voice of the mother initiates the development of the nervous system.
- Hear distances and directions.

Correction:

- Listening to music (Mozart).
- Humming and swaying (stimulation of the balance system).
- Singing
- Tuning of the ear.
- Screaming without sound.
- Hear'ye, hear'ye (correction of Frank Mahony TFH-Journal 1990).

Visual Sense

The organ for the visual sense are the eyes. They work together with the proprioception and the sense of balance. The eyes recognize light and dark, colors, movement in the surroundings and because of the binocular vision; spatial depth.

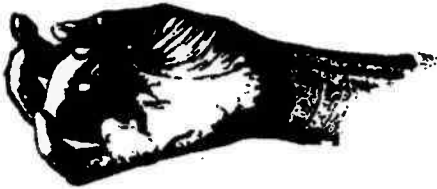
The development of visual perception is not completed before the seventh year of life. The

difference between physiology and perception is very clear: seeing has ~~to~~ to be learned.

There is much research about the abilities of visual perception. It is probably the most popular sense. The eyes help us to recognize where we are in space in reference to objects. The eyes help us recognize objects from all perspectives, to coordinate seeing with the movement of the body and to concentrate on the main visual stimulates.

Seeing helps the ears to contact the environment and to understand. Insight, recognition and the strive for clarity has to do with seeing. What we see and what we don't see has much to do with our development.

Finger mode: fingernail of ring finger on the bony part of the upper part of the thumb.



In-depth-tests:

- Speak out aloud: "I dare to, want, may, can will see, be seen and perceive."
- Following moving objects.
- Following lines in the room.
- Imagine the eyes of the mother/father (ask permission!).
- Adaptive to brightness and darkness.
- Peripheral seeing.
- To see two different pictures in one picture (Vexier picture).

Corrections:

- There are a lot of very good exercises for the eyes from Bates, Goodrich, Dennison, therefore we don't have special corrections.
- Seeing builds on the basic senses, therefore we ask the body to correct the eyes via the basic senses.

Gustatory Sense and Olfactory Sense

Taste and smell belong close together, we know that without smelling, tasting is not very good.

Taste helps us to control food and to start salivation. Smell is very important for our affections and our sexual behavior. This sense is connected with the limbic system and plays a role for our memories. Often we remember things because of smells. These senses stand for the ability to decide what is good for us and what is harmful. Often unconscious, we can "smell" somebody and can get along with them.

Finger mode for smell: finger-nail of the thumb into the soft part of the top of the little finger.



Finger mode for taste: fingernail of the thumb to the soft part of top of the ring finger.



In-depth tests:

- Speak out aloud: "I dare to, want, may, can will smell, be smelled, taste and be tasted."
- Smell friends, enemies and neutral persons.
- Smell your own body odor.
- Smell your mother (ask permission).
- Smell different objects.
- Taste sweet, sour, salty and bitter.
- Taste your skin and mouth.

- Taste your mother (ask permission!).
- Salivation.

Corrections:

- Conscious tasting and smelling with open and closed eyes.
- Breathing through the nose (ionization).
- Stroking of the lips and mouth with the tongue (eights)
- Aroma lamps

How we can work with the senses

In every day life we can be conscious of our senses. We can eat and smell, see and taste. We can go for a walk and listen to the birds, balance over a tree-trunk and see the flowers. We can run, walk, sit, jump and feel our body and be aware of our skin. We can switch on our senses in the morning, welcome them in our life and make a "gymnastic" for the senses

You can make a sense balance. You can use it as a correction within the hand computer. When the finger mode for senses shows up as a correction, you go into the single modes to find the special sense to work with.

Procedure

1. Pace and ask permission to work with senses
2. Finger mode for senses and the special senses
3. Priority
4. In-depth-tests for the priority-sense and you check for this sense:
 - PACE
 - Cross-crawl/homolateral movement

- Compensation
- Burden
- Lived
- Integrated
- Competence
- Cooperation with other senses

5. Acceptance of the correction.
6. Correction.
7. Test of all weak items.
8. Home-play and take in consideration in every-day life.

Much fun with a life with all senses.

Bibliography

1. Ayres, A. J., *Sensory Integration and the Child*, Western Psychological Services, 1984
2. Delacato, Carl H., *The Ultimate Stranger; The Autistic Child*, Doubleday & Co., Inc.
3. Despopoulos, *Color Atlas of Physiologie*, 1983
4. Holle Britta, *Motor Development in Children*, 1981 Munsgard
5. Kukelhaus/Lippe, *Entfaltung der Sinne Fischer alternativ*
6. Montagu, Ashley, *Touching: The Human Significance of the Skin*, Columbia University Press, 1992
7. Schmidt, R.F., *Grundriss der Sinnesphysiologie*, Heidelberger Taschenbucher
8. Tamatis, Alfred A., *La nuit utérine*, Edition Stock, Paris