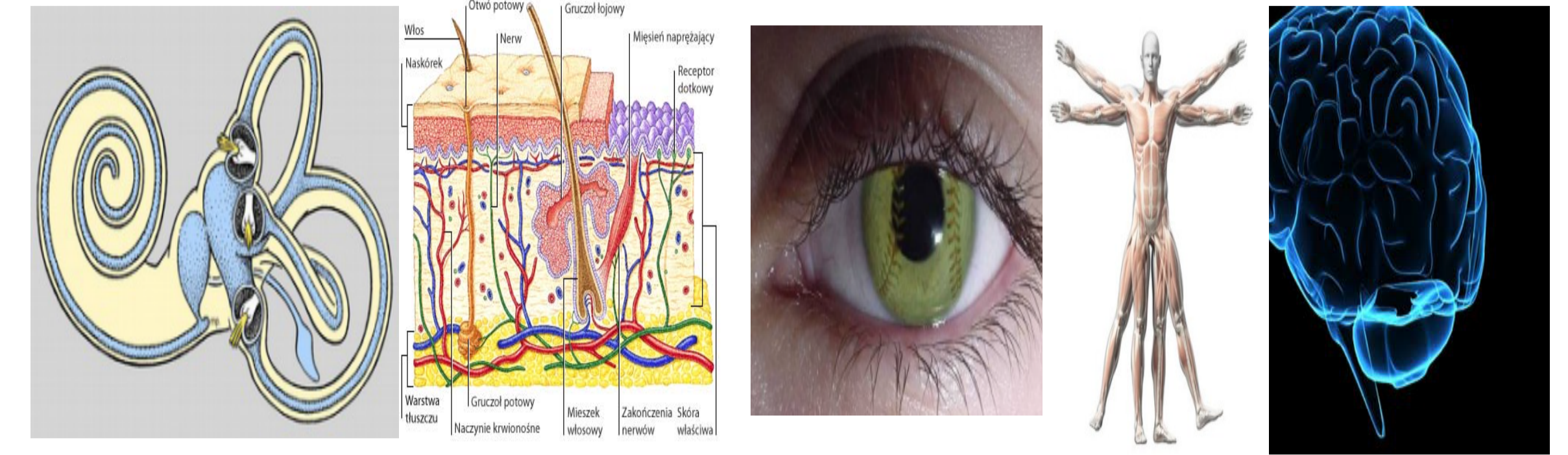


Introduction

Hearing loss in children represents an important problem of public health as it conveys, apart from major difficulties connected with linguistic and social communication, a number of abnormalities both in the area of emotional and psychomotor behaviours. Sound perception determines proper human development at any stage of life, in each aspect, and is a great stimulator of motor behaviours. (A. Zwierzchowska, 2013)

Our studies indicate that compensation of deprivations of deafness results from on:

- efficiency of the CNS and speed of creation of new connections between the vestibular organs
- efficiency of vision and proprioceptive sensitivity (also directly on the efficiency of the whole motion system)



STIMULATION AND INTEGRATION OF NON-DAMAGED SENSES

- sense of touch - recognizing physical properties of objects
- sense of hearing – differentiation and localization of sounds, their speed, communication
- sense of vision - visual didactic resources, development of visual-motor memory, stabilization of look
- kinaesthetic sense – exercises to learn child's own body schema

METHODOLOGICAL GUIDELINES FOR MOVEMENT TEACHING

1. Plan time of work accurately (knowledge about the group or a student).
2. Effectively (accurately, precision of movement technique) introduce and perform several exercises and the rest of the time should be spent on playing or games.
3. Especially in the beginning of the lesson or in the case of difficulties in controlling the group, use low positions (sitting, kneeling etc.). These positions can be also used to pass knowledge.
4. Keep eye contact with the group.
5. Use your voice. Do not whisper and do not speak only by moving lips.
6. Make short instructions. Prefer using the second- or third-person singular e.g. „sit” „give it” „throw” „kicks” „ Tomek is lying”.
7. Start learning from illustration, presentation, introduction of vocabulary (label) depending on the group level.
8. Prepare your own labels and teaching aids. Show them to the students for several times during a lesson. Avoid excessive number of labels.
9. Use attractive aids, which are colourful or atypical Distribute them among the students sitting in a low position before the main task in order for them to familiarize with the aids or at least to touch them. Next, the aids are put aside and the teacher makes a presentation.
10. Performing the tasks without aids, especially in younger children, accelerates tiredness.

PRACTICAL GUIDELINES

1. Before the classes you should remember:
2. there is no a universal method to "reach" the deaf child - teaching means continuous searching for ways to achieve this while the success is largely dependent on the experience and competencies of the teacher.
3. in a group of even younger children there can be students who are very good in sign language, also in mimicking (e.g. children of deaf adults, CODA) - use the opportunities for being helped by such students.

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Factors that determine movement teaching and learning process in children with hearing impairments



1. Age and motor, physical and cognitive potential for eg. (Zwierzchowska, Bienkowska Logopedia 2017)
2. Coexistence of coupled disabilities, e.g. below intellectual norm, vision impairment, physical disability, damage to the balance organ, ADHD, Tourette's syndrome and other neurological syndromes and disturbances for eg. Zwierzchowska et al. *Biology of Sport* 25(3)2008,
3. Lifestyles in families, movement patterns from the early childhood . The place of residence (family home/dormitory) was proposed as an environmental and upbringing factor that might affect the development of motor abilities. The study revealed statistically significant differences in coordination abilities (kinesthetic differentiation, motor adjustment, and reaction time) in favour of the DHG participants for eg. Zwierzchowska et al. *ICED Proceedings Book* 2015,
4. Communication abilities, e.g. using sign language (PJM, SJM), knowledge of cued speech, knowledge of Polish language, level of speech abilities, lip reading for eg. Zebrowska et al. 2016

COMPENSATION

The function of the damaged hearing sense by vision analyser and kinaesthetic analyser (sensing vibration, bone conduction). Vision, coupled with cutaneous sense and musculoarticular sense, also compensates for damages to the vestibular system (the labyrinth and bony semicircular canals). Therefore, teaching should be based on activation of vision, proprioceptors and kinaesthesia to create compensatory schemas



SENSORY COMPENSATION

Replacing of the function of the damaged sense in recognition and experiencing of the reality through oriented stimulation of dominant senses and forming the schemas:

- kinaesthetic-visual-tactile schema
- kinaesthetic-auditory-tactile schema
- auditory-visual-tactile schema

