



Functional Orientation and Mobility of People with Visual Impairment

Effects of Visual Impairment

- Information deficit
- Independence
- Social skills

What do we understand by Mobility & Orientation?

- Moving safely
- Control over daily lives
- A set of skills
- Understanding and Organizing environment
- Method substituting normal vision

Orientation and mobility "O&M"

- "O&M" is a profession which focuses on instructing individuals who are blind or visually impaired to safely and effectively travel through their environment

(www.orientationandmobility.org)



Orientation and mobility for different groups of VI people

- Visually impaired – low vision
 - Training of Residual vision
 - Visual orientation points
 - Optical aids and camera systems
 - Signalization white cane
- Visually impaired – blind
 - Training of Compensatory senses
 - Guide techniques
 - Protective techniques
 - Trailing
 - Cane techniques

O&M for visually impaired people



Optical aids

Camera systems



Galilei system

Spojka + rozptylka, do blízka i do dálky, zvětšení 1,5-4x, i binokulárně, kombinace s předsádkami nebo korekcí



Kepler system

spojka + spojka, do dálky, Zvětšení 3-8x, použití jen monokulárně



Turmon



Dalekohledové brýle

Aids against the shining



O&M for blind people

- According to age
- According to trained skills
 - Basic Skills
 - Guide techniques
 - Protective techniques
 - Trailing techniques
 - Long cane techniques
 - Dog Guide

Guide techniques

- For older people – the only method of travel
- Variation for children
- Above the elbow (thumb outside)
- Half-step behind
- Communication verbal and kinesthetic
- Changing side
- Walking through narrow space
- Stairs
- Doors
- Seating

Protective techniques

- Positioning of the forearms from head to chest level obstacles

Trailing

- Positioning in which the hand is used to keep contact with a wall

„Tell me who I am?“



„Řekni mi, kdo jsem?

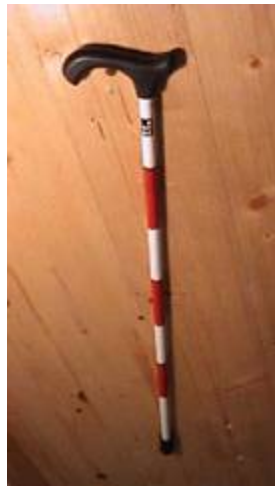
...“

Canes

Signalization cane



Sticks

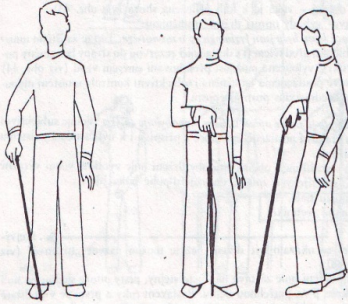


Orientation cane



Cane techniques – basic grip, walking on steps

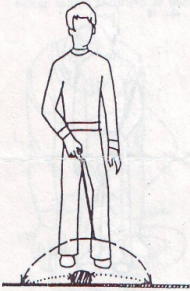
pulaci s holi (viz obr. 50).



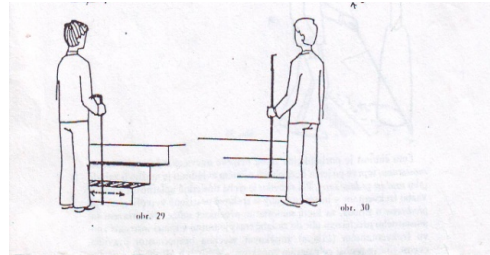
obr. 49

obr. 50

4. Držení hole je správné, ale její spodní konec opisuje příliš vysoký oblouk nad zemí. Tím vzniká nebezpečí opomnutí nízké překážky, z čehož vyplývá nebezpečí pádu a případného úrazu (viz obr. 51).

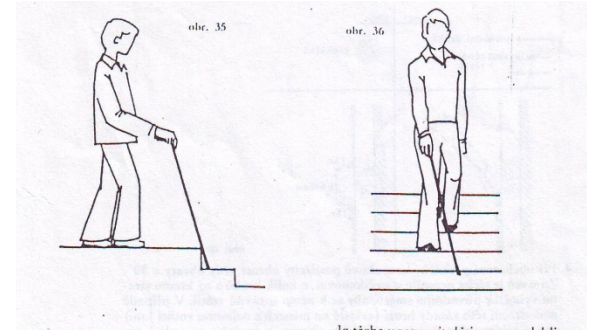


obr. 51



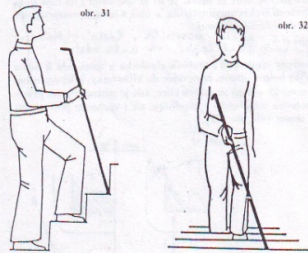
obr. 29

obr. 30



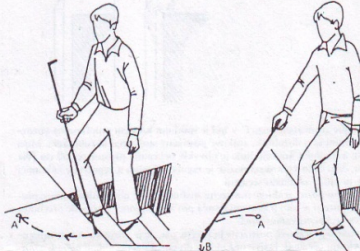
obr. 35

obr. 36



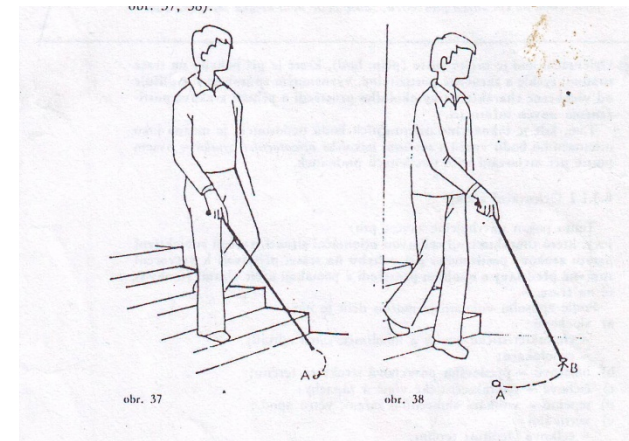
obr. 31

obr. 32



obr. 33

obr. 34



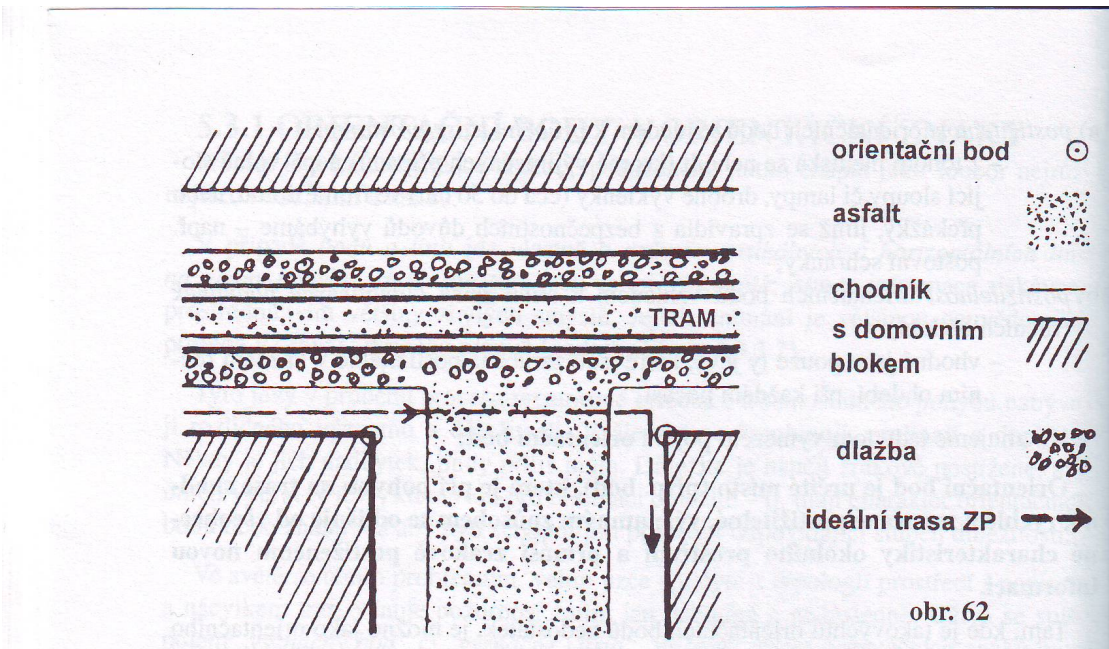
obr. 37

obr. 38

Cane techniques II

- Two-point touch
 - Touch and drag
- Constant technique
 - As two-point touch BUT tip remains on the floor during the side-to-side motion
- Diagonal (thumb or pencil grasp)
 - Familiar surface
 - Identification role

Orientation points and signs



Orientační bod – místo, které je snadno a rychle postižitelné a významně se odlišuje od charakteristiky prostředí

Orientační znak – jevy, které charakterizují orientační situaci, zvyšují subjektivní jistotu ZP na trase (sluchové, hmatové, čichové, tepelné, atd.)

Thank you for your attention
LET'S GO OUT!

References

- SILVERSTONE, B. *The Lighthouse Handbook on Vision impairment and Vision rehabilitation*. NewYorkCity: Oxford University Press. 2000.
- WIENER, P. *Prostorová orientace zrakově postižených*. Praha: MŠMT, 1998.
- <http://www.tyfloservis.cz>
- <http://www.orientationandmobility.org>
- <http://www.svarovsky.cz>