

The Role of Occupational Therapy & Physiotherapy in MS

Bernd Anderseck MSc PT
Louise Hamilton-Wenk BSc OT

Case report: Mrs Von Känel



The Case report will demonstrate how intense Physiotherapy can increase strength, endurance and mobility in order to improve motor function, thus increasing independence in certain aspects of daily living, and how occupational therapy, with the use of simple devices and strategies can enhance independence and improve performance of daily living activities.

Diagnosis:

- Secondary Progressive Multiple Sclerosis
- EDSS 8: *(Essentially restricted to bed, chair, or wheelchair, but may be out of bed much of day; retains self care functions, generally effective use of arms)*
- First Diagnosis 1993
- Clinical Picture: ataxic Tetra paresis, Fine-motor and Co-ordination deficit, cerebellar Tremor, Cystofix since 2011

Social Background:

- Johanna is married, her husband works full-time. They have 3 grown-up children. She lives with her husband in a Wheelchair accessible apartment with a lift.
- Assistive aids: Wheelchair, Swiss-tract
- Assistance at home: Has help from a full-time live in carer (washing, dressing, cleaning, cooking etc.)
- Hobbies: Computer - playing solitar & Sudoku, Reading, used to enjoy baking and knitting

Resources:

- + can independently drive wheelchair
- + supportive family / carer assistance
- + lives independently with private help
- + Cognitively fit: still enjoys her hobbies (contact with friends / reading / Computer)
- + ability to learn / realistic / adapt to changes
- + small household tasks possible
- + motivation

Rehabilitation Goal:

Occupational Therapy Goals:

- Able to perform some of her hobbies (baking bread, making coffee, knitting)
- Improve ability to independently and skilfully work on the computer

Physiotherapy Goals:

- Improve bed mobility, turning on the side, coming up to sit
- Improve sitting and dynamic balance and trunk control, in order to safely sit freely

Clinical Reasoning

Problems areas:

- **Trunk**, very weak, instable when sitting freely
- **Left Arm**: Stabilising arm, strength & fine motor skills considerably limited, strong ataxia
- **Right Arm**: Working arm, used for eating / washing face etc. Strength ok, limiting factors are fine motor skills and ataxia

Main focus

- improving strength, stamina, goal directed / fine motor movements
- adaptations in order to improve ease of skill, (avoid dropping / spilling) & independence & function,

Treatment Plan to Improve goal directed movement skills:

- Armeo (robot assisted) & Strength training
- Practical activities: Paying at cash till, working on computer
- Practical tips / adapting environment
- Helping aids (bottle cap opener / non-slip mat)
- Fine motor skills training (group)
- Reduce effort needed → energy saving tips



Video example 1:

Difficulties
encountered when the
body does not have
sufficient support...

Video example 2:

An insight into difficulties Johanna faces in her daily life



Practical Example:

Johanna making a `Zopf`,
a traditional Swiss breakfast bread.



Please pay close attention to Joahnnna`s body positioning, her body support, the helping aids & environmental adaptations

The battle against Ataxia!

Everyday tips and tricks

Positioning:

- Stable Chair: back rest, arm rest, feet contact with floor, broad base
- Upper body supported with cushions / trunk supports / leaning on table
- Arms supported at correct height
- Symetric position, shoulders and pelvis in sync

Supporting Movement :

- Objects have stable, non-slip grip, adapted grips, or non slip-material.
- Work within the centre of gravity / body near
- Elbows and forearms stay supported on the table
- Slow, short, controlled, goal orientated movements
- Sequenced movements with stops e.g. Hand to glass (stop, restabilise, adjust for next movement)
- Tricks e.g. Opening bottle → stabilise between legs / non-slip mat, helping devices.

Helping Aids / Adaptions

Here are a few photos of Helping aids, often helpful with MS patients.

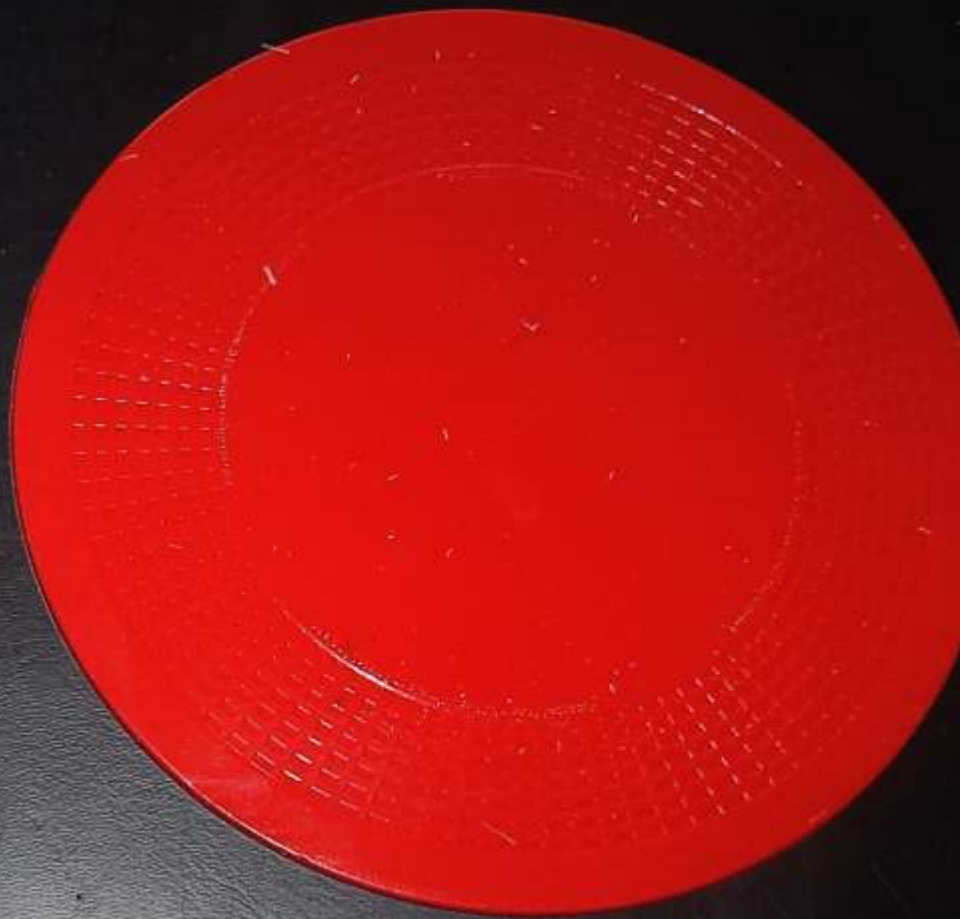
Johanna. has some of these in her home, and uses them to remain as independent as possible:

Kitchen Help





Computer
adaptions





VALENS

Custom fit cutlery



Gripping pliers



Bath board



Theory: Role of OT in MS

- Dealing with Fatigue / Changing daily routines
- Resource Management
- Maintaining independence & quality of life
- Canadian Model of OT / Goals Assessment
- Helping Aids

Theory: Role of OT in MS

Fatigue Management / Resource Management

OT recognises the individual needs to maintain & fulfill roles & activities in order to be productive / QOL / sense of worth

- Who is the Patient?
- Life roles
- Routine
- Environment
- Social life



Occupational Performance
Daily demands

``Does the Daily demands conflict with MS?``

Fatigue Management / COPM

- Reorganise / restructure routines / roles
- Canadian Occupational Performance Measure (COPM)
- Analyses daily tasks / demands: cook, clean
- Importance of task (1-10)
- Satisfaction of performance (1-10)

- Help patient to remain productive, also allows categorising of tasks which are important and those which are less important.