



# POST POLIO SYNDROME – a challenge of today

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## Rehabilitation assessment

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# Content

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1 **Rehabilitation is about Functioning**

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2 **Functional Diagnosis of Symptoms**

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3 **Assessment of Functioning**

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4 **Conclusions**

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# Content

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**1 Rehabilitation is about Functioning**

**2 Functional Diagnosis of Symptoms**

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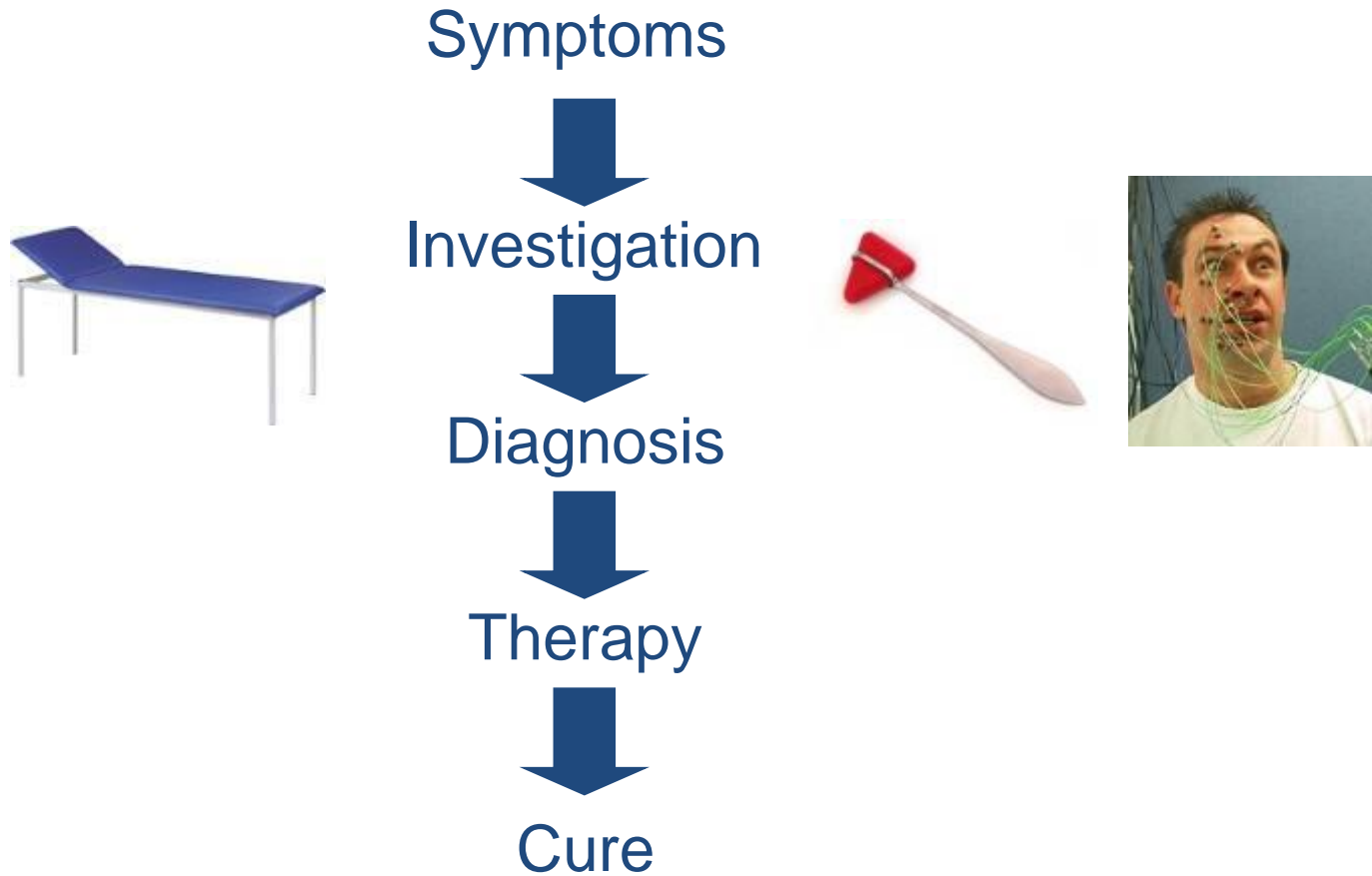
**3 Assessment of Functioning**

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**4 Conclusions**

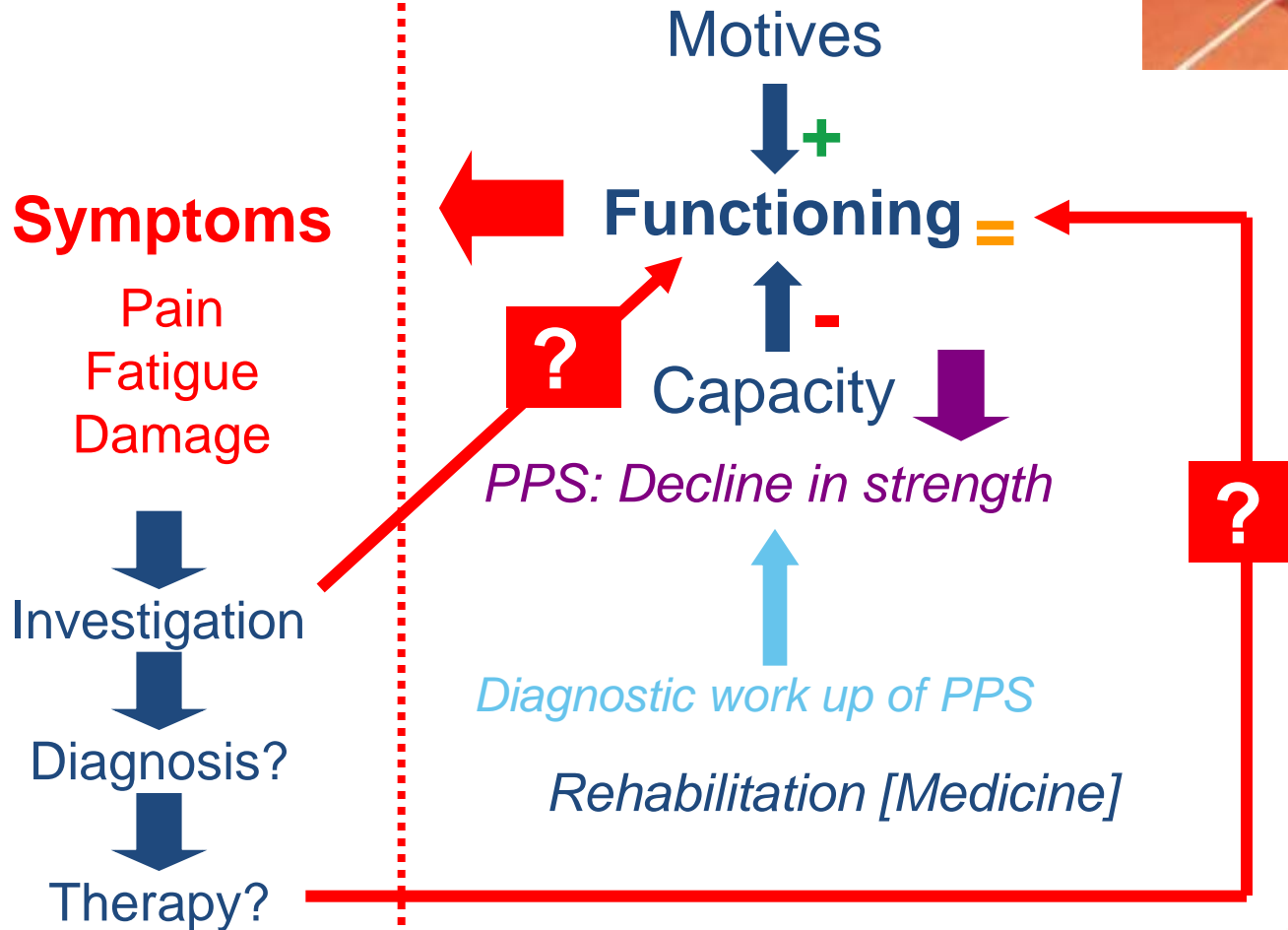
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# Curative medicine



Pain → Radicular syndrome → Lumbar disk hernia → Operation  
Or → No radicular syndrome → Pain blocks

# Functional diagnosis



Pain → No radicular syndrome → Intervene in functioning

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# Functional diagnosis of symptoms

Male, 1957, Polio right leg

- Back pain
- Knee and muscle pain 'good' leg
- Decline in walking ability, very fatiguing, falls
- Working difficulty, cleaner (!)

Physical examination:

- knee flexion contracture  $15^\circ$ , ankle dorsal flexion  $0^\circ$
- Knee extensors 2, plantar flexors 4 (manual).

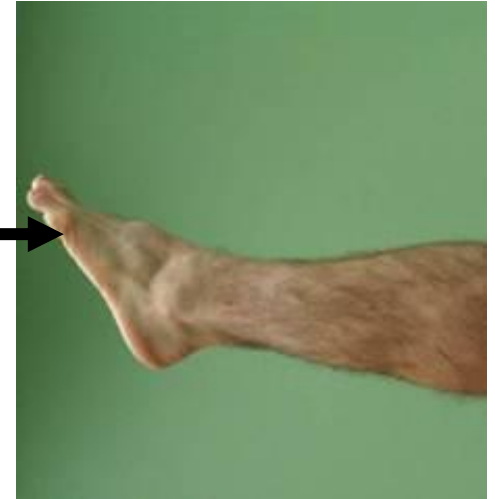
# Functional tests

- Strength and contractures



700-800 N

200-250 N

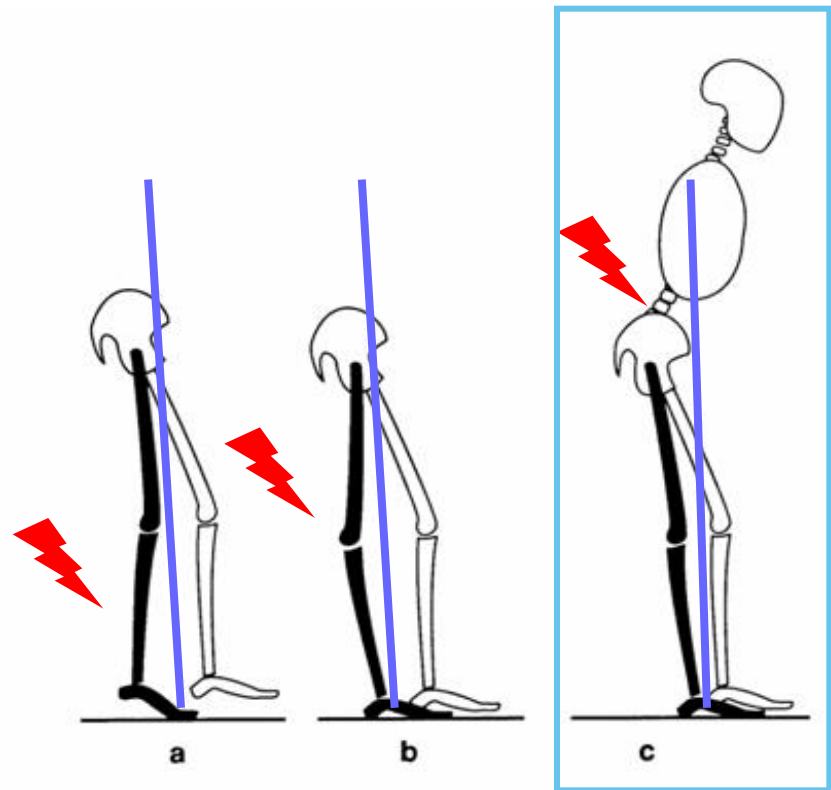
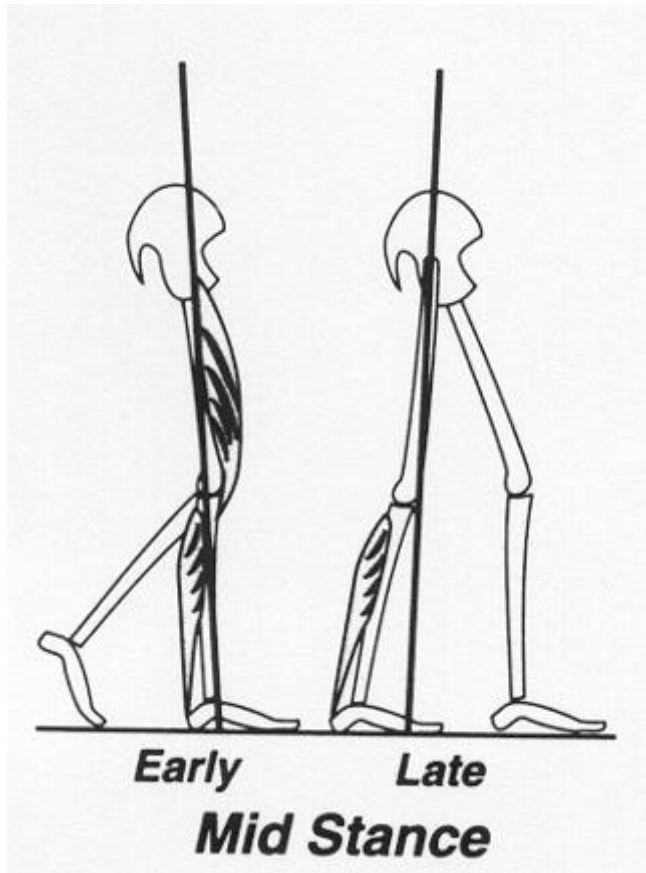


# Gait evaluation



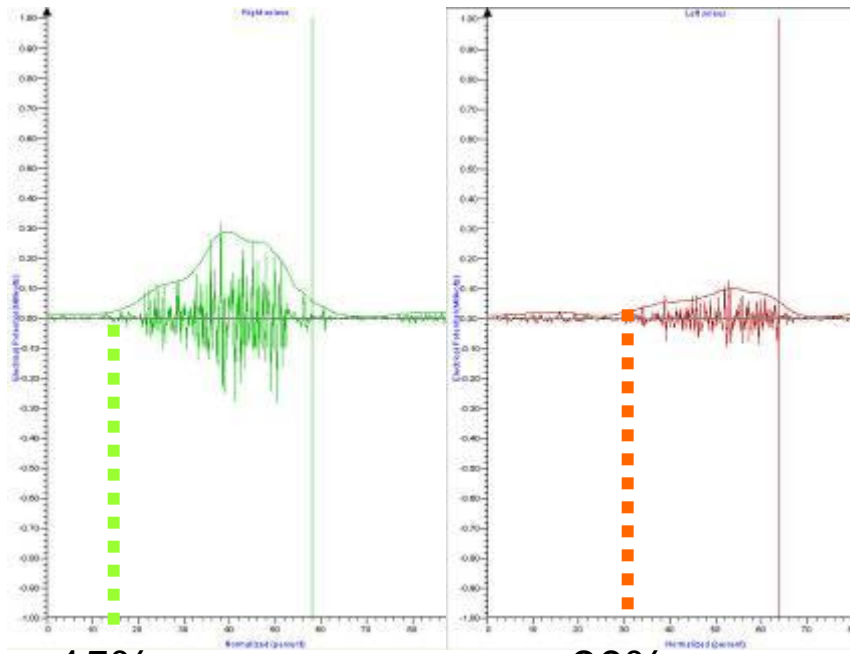
# Quadriceps muscle function

- Knee stability in sagittal plane during weight acceptance and early midstance



# Calf muscle overactivity

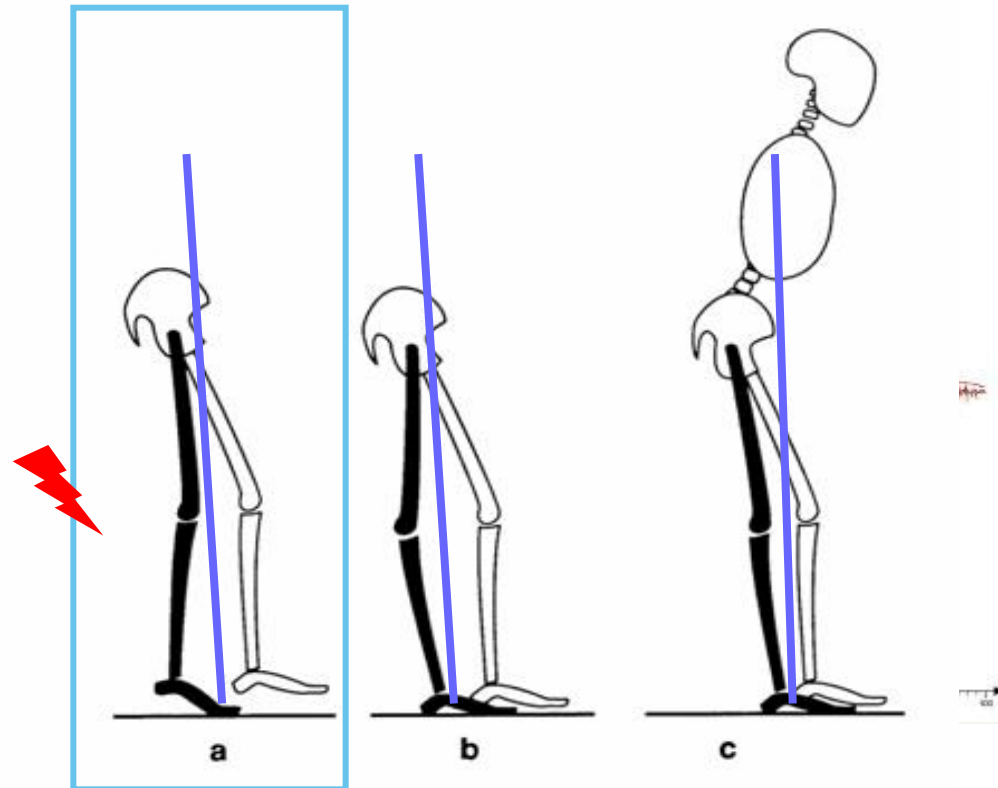
- Compensation strategy = active forefoot loading → calf complaints



15%

30%

EMG Gastrocnemius



# Damage - secondary hip destruction



# Secondary ankle destruction



# Secondary upper extremity damage



# Long term overloading of the locomotory system

- Legs: abnormal & high loads
  - deformities, paresis, altered movement patterns
- Arms: high loads
  - Not designed to serve as legs



→ Therapy includes  
change in  
functioning

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# Assessment of functioning

- What does the individual do, what does he or she want to do, how does he or she want to do it? (and why?)
- Which activities and participation problems are there?
- How are activities being executed?
- Detailed evaluation, house visits, work place evaluation and so on.

# Observation of functioning



Link Youtube: [http://www.youtube.com/watch?v=z\\_jplatC\\_L4](http://www.youtube.com/watch?v=z_jplatC_L4)

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# Conclusions

- Functioning is the central issue in rehabilitation assessment
- A thorough functional evaluation of how activities are executed can explain certain symptoms, especially those that are due to chronic physical overuse.
- A detailed evaluation of functioning with respect to activities and participation and the individual's attitude towards these is the basis for any rehabilitation intervention and should be for many medical interventions as well.