

# **Alignment of Prostheses and Orthoses**

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**ORTHOMANUAL**

Written by: Markus Thonius OMM / CPO

ICRC - Afghanistan Orthopaedic Workshop 1992

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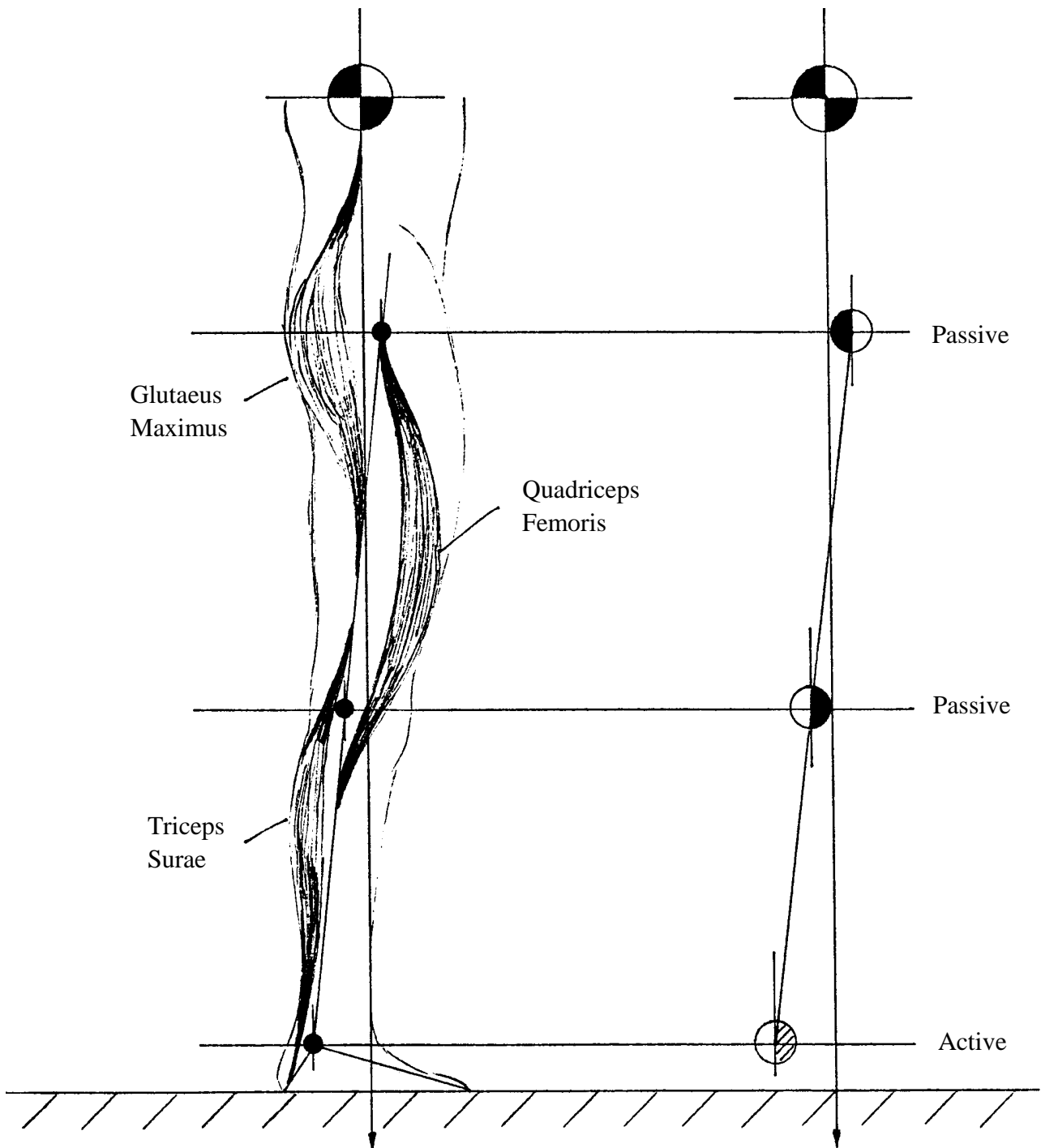
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# **Alignment of Prostheses**

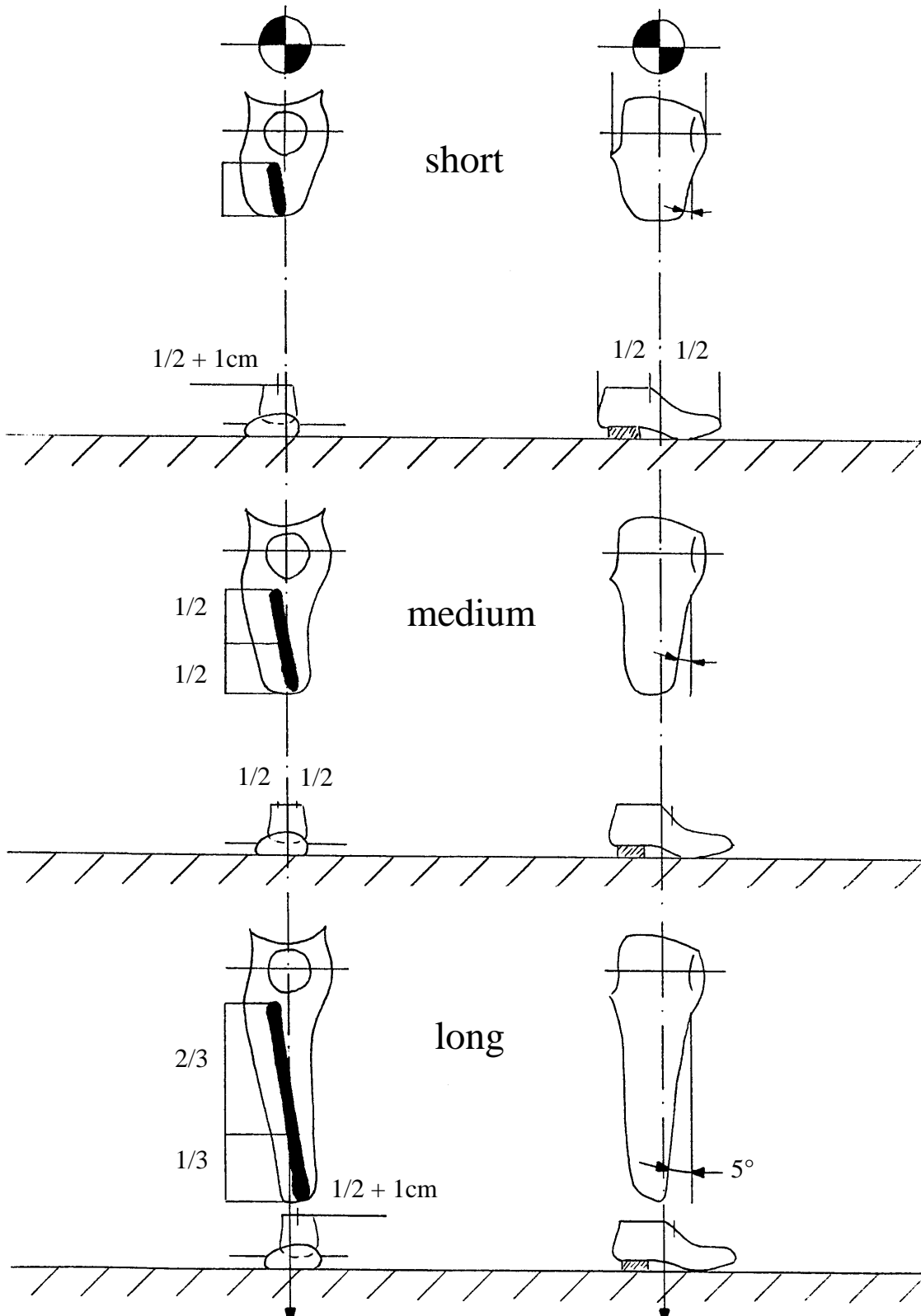
# Normal Position

acc. to

## Braune - Fischer



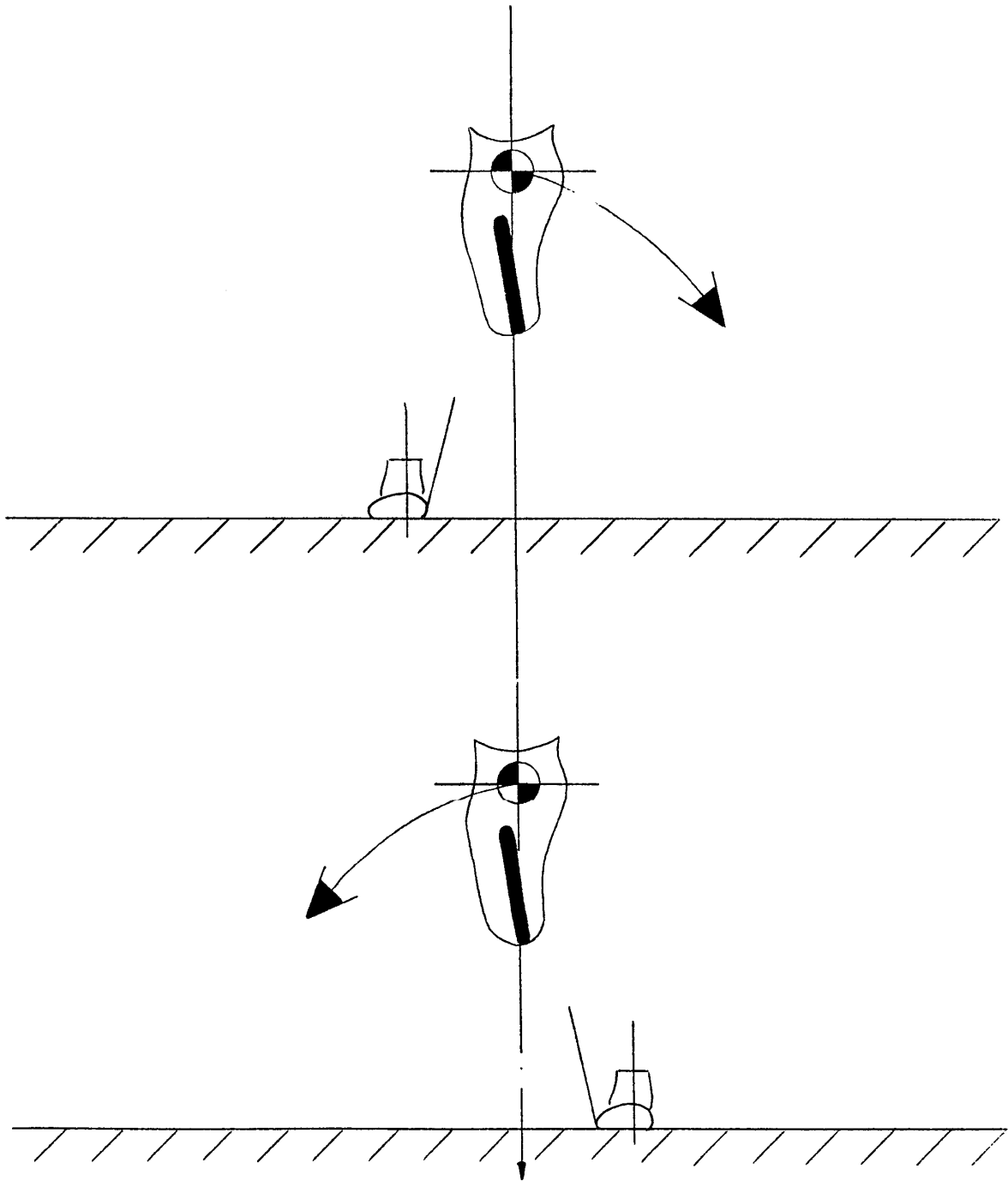
# Alignment Trans - Tibial





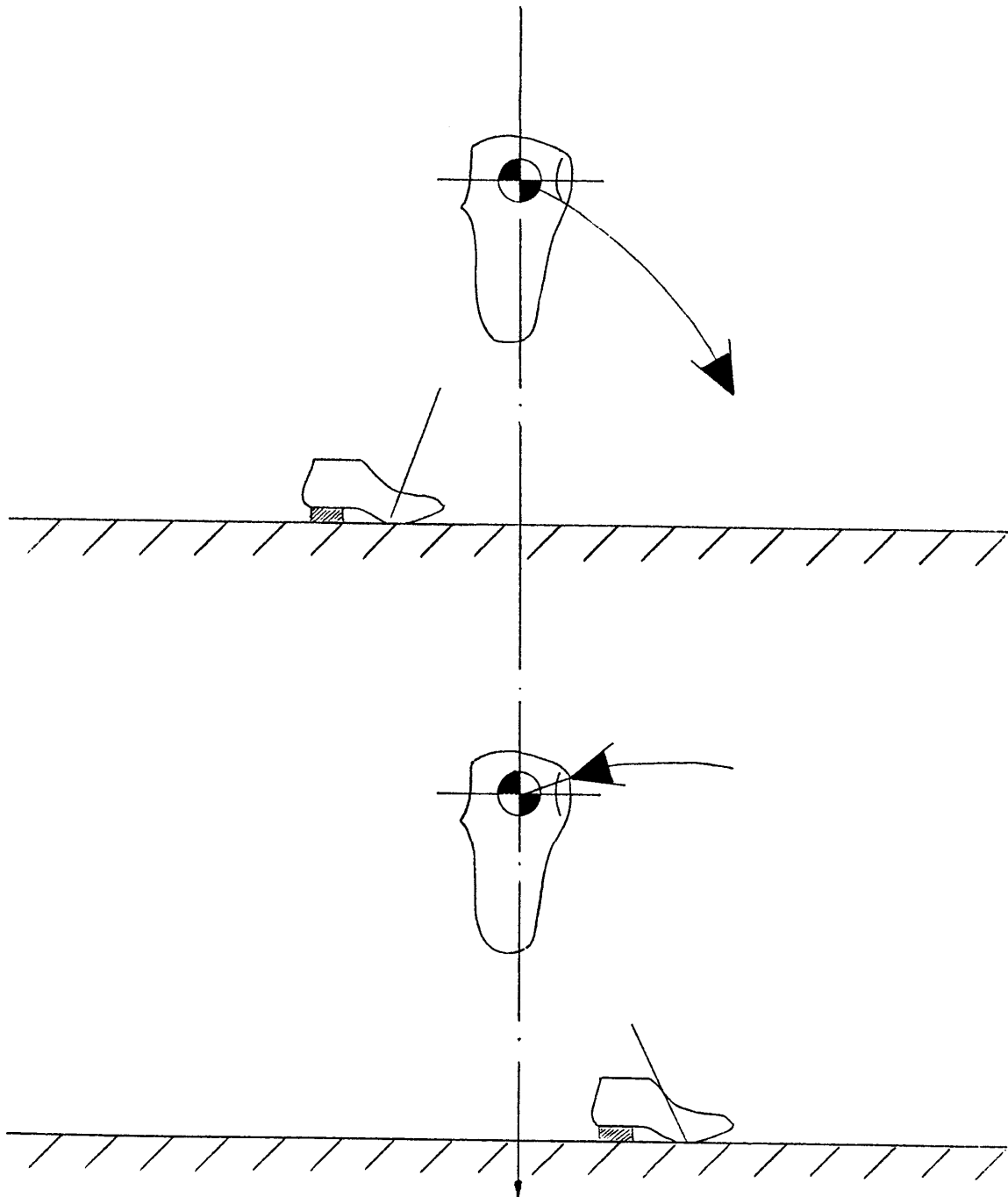
# Medio - Lateral

## Static Mistakes

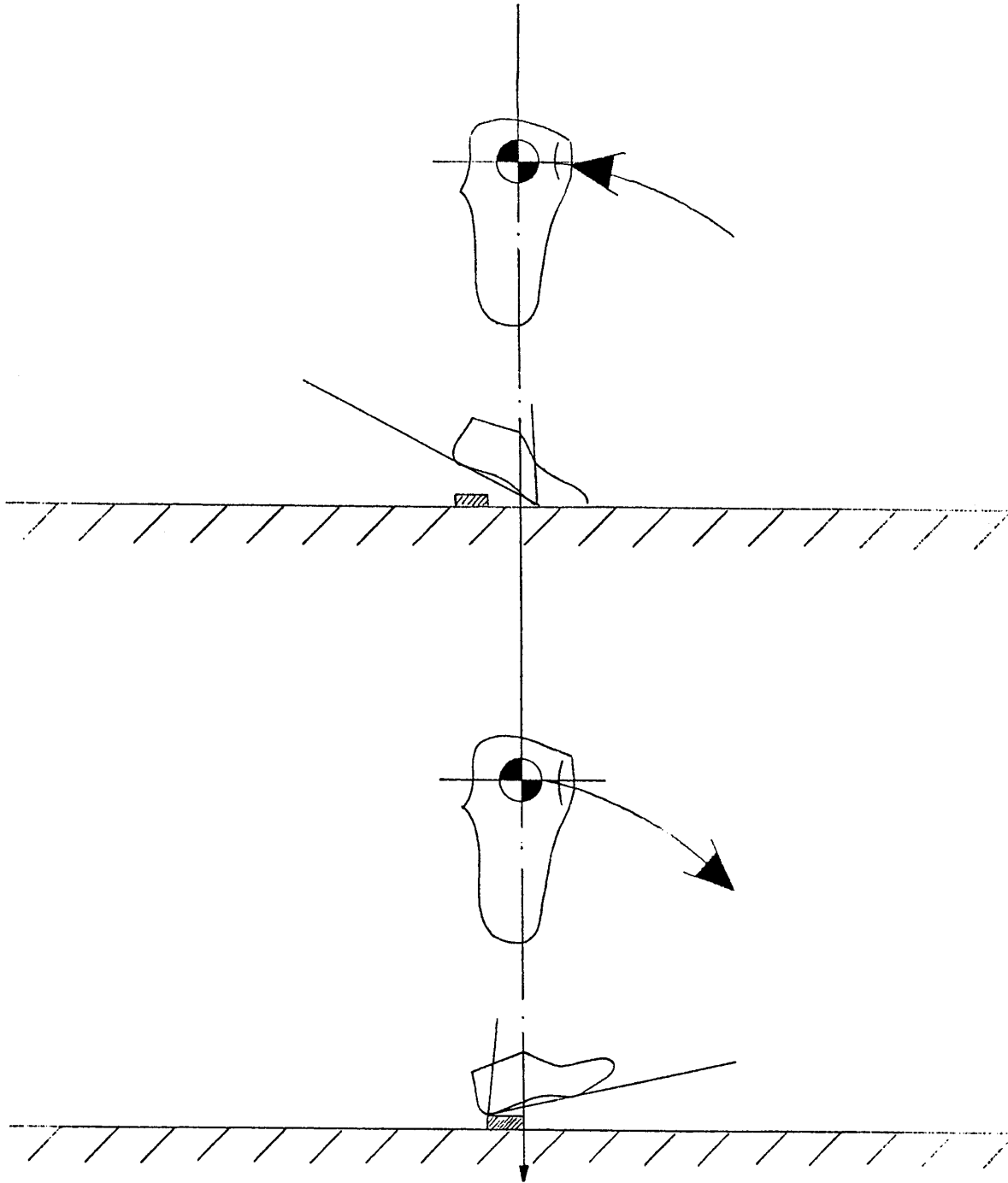


# Anterior - Posterior

## Static Mistakes



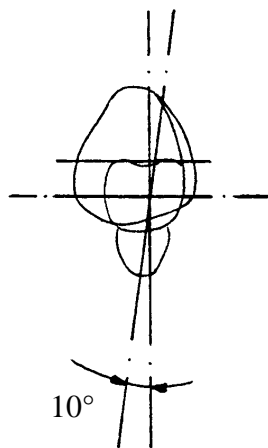
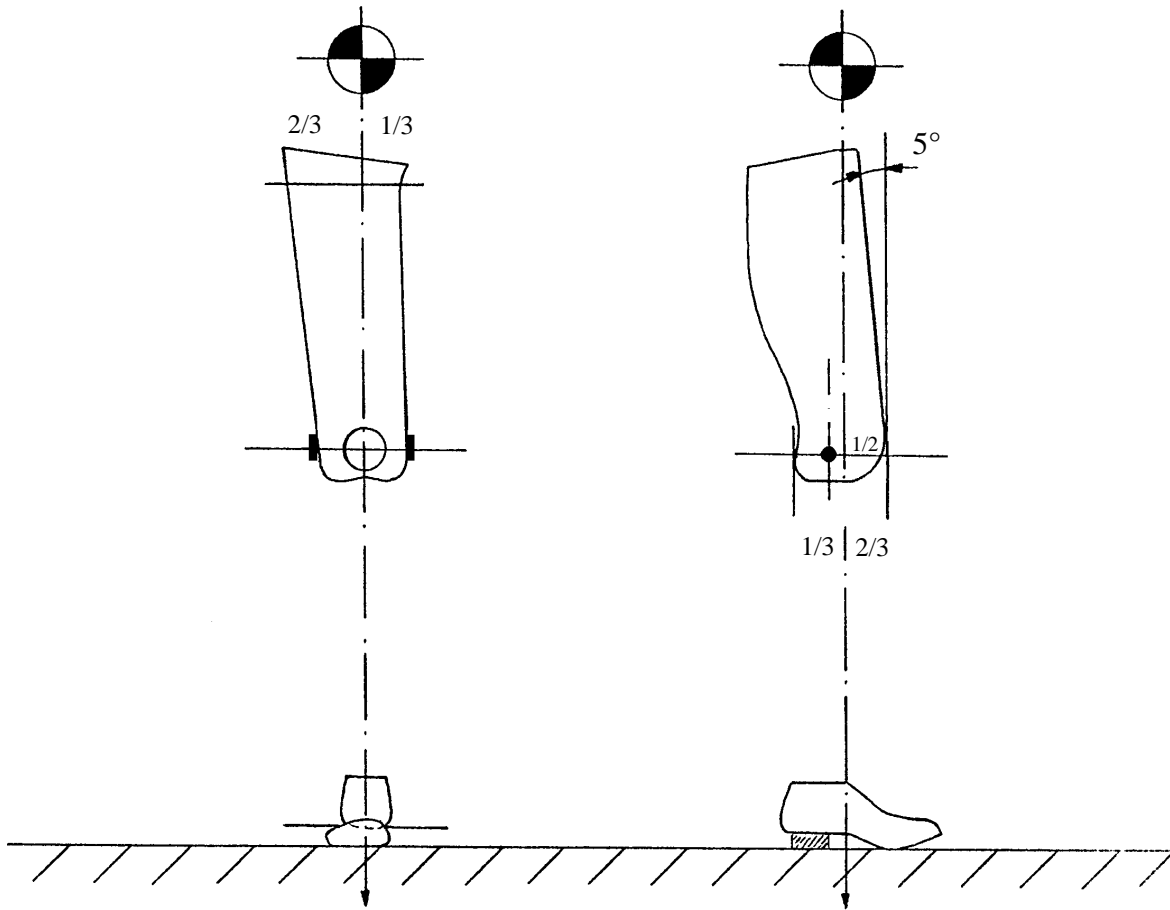
# Hyper Extension - Flexion



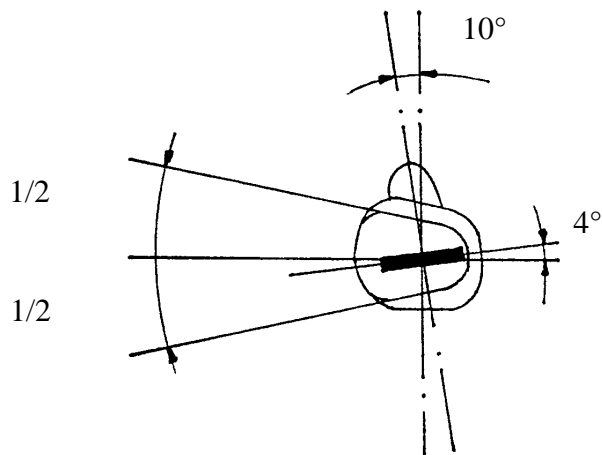
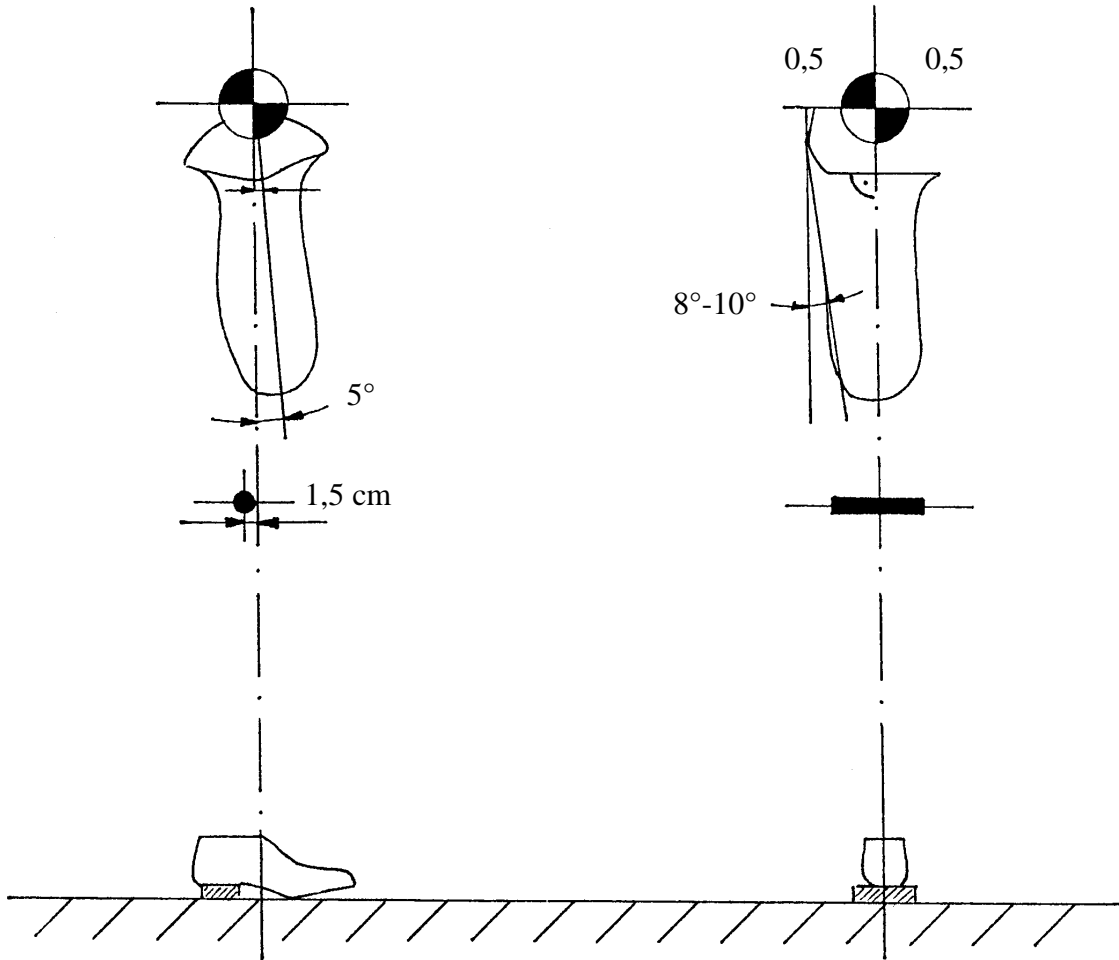


# Alignment

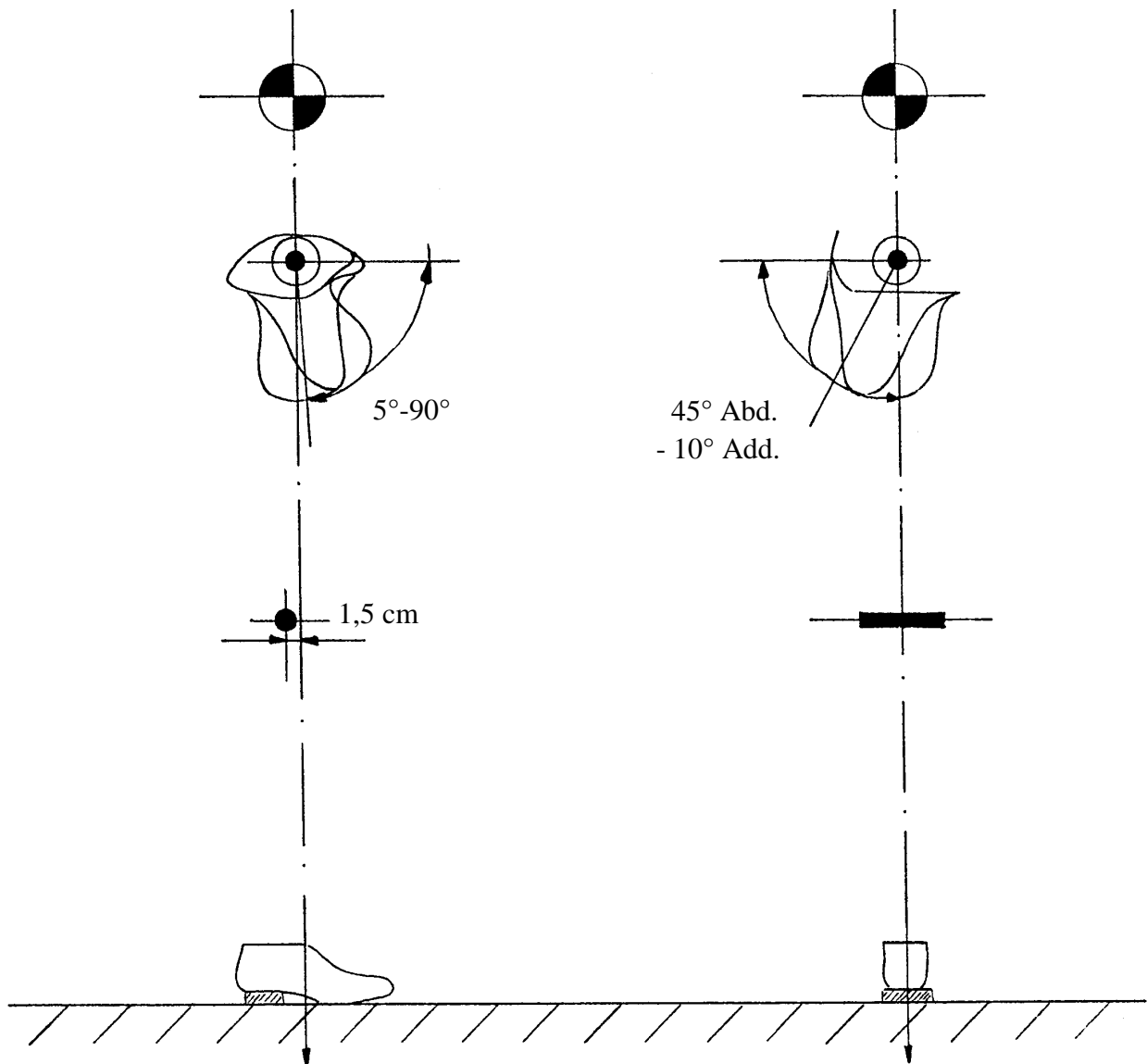
## Knee - Disarticulation



# Alignment Trans - Femoral

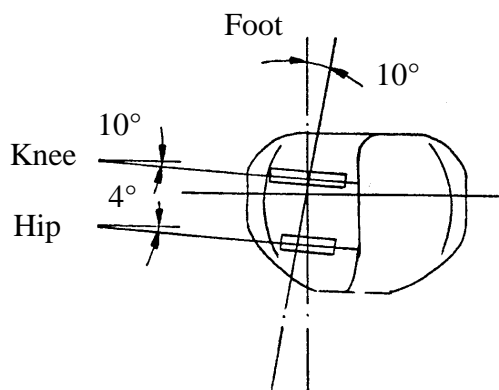
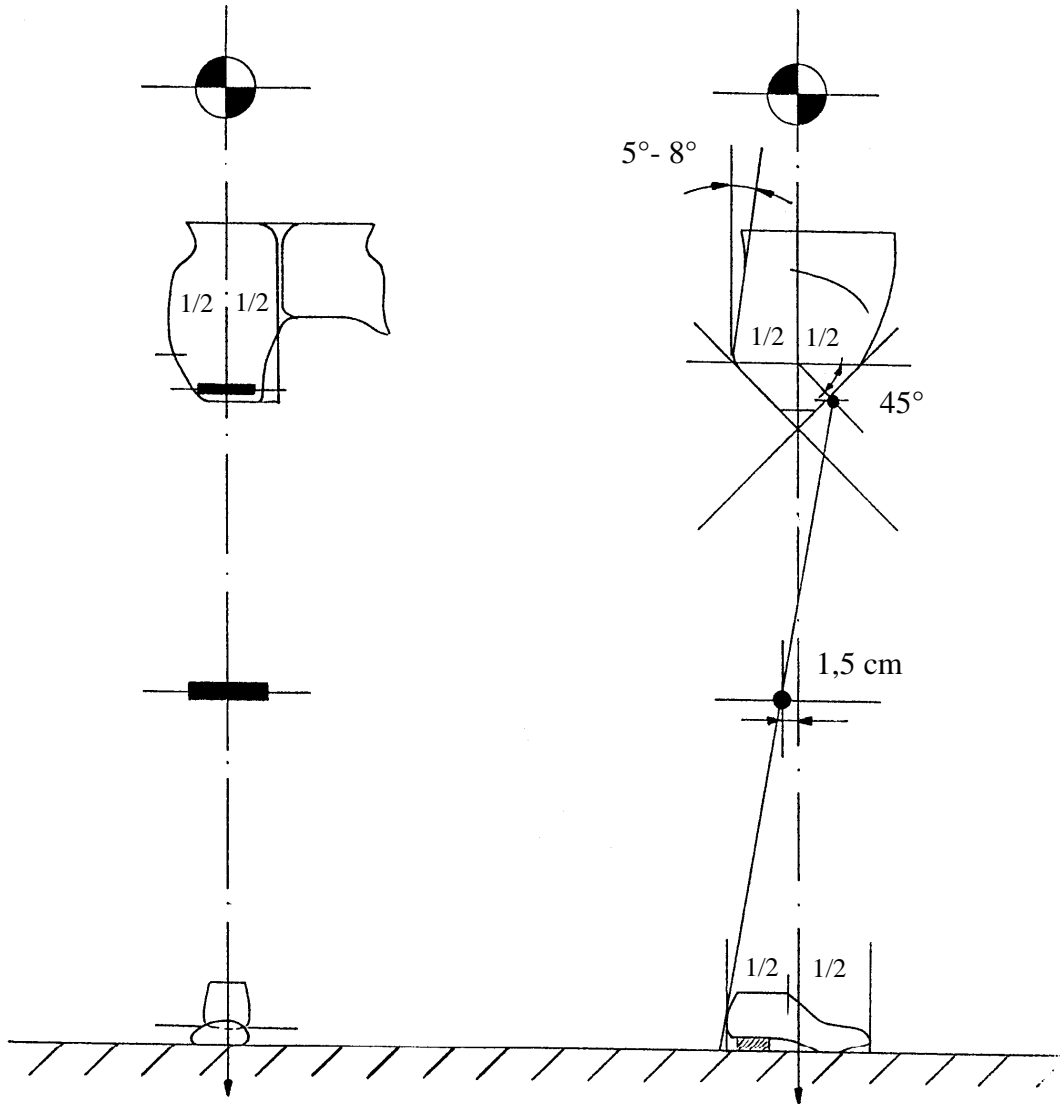


Reaction of a  
**Trans - Femoral Socket**  
by increasing  
**Flexion or Abduction**



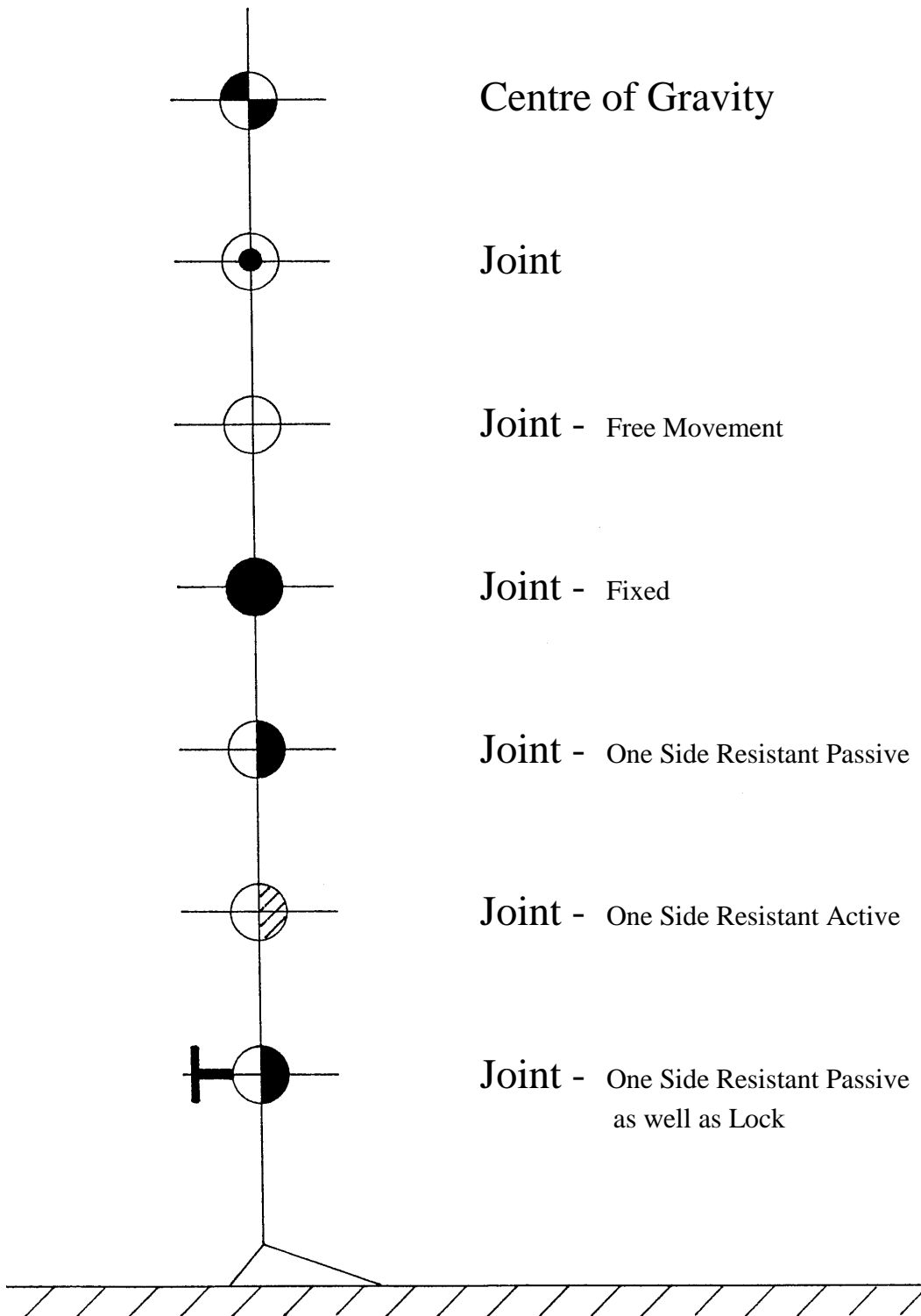
# Alignment

## Hip - Disarticulation

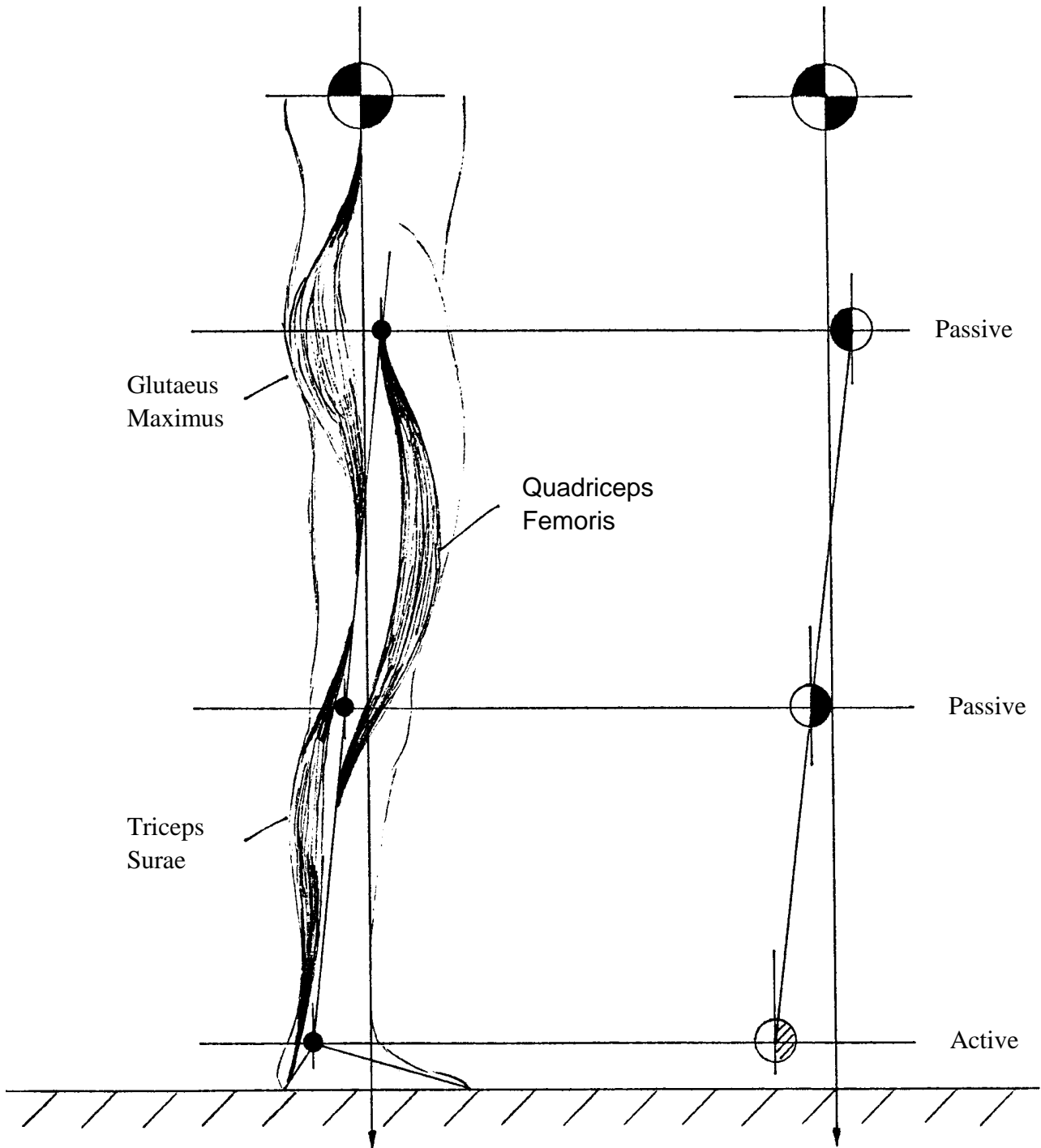


**Alignment of Orthoses  
for  
Paraplegic Patients**

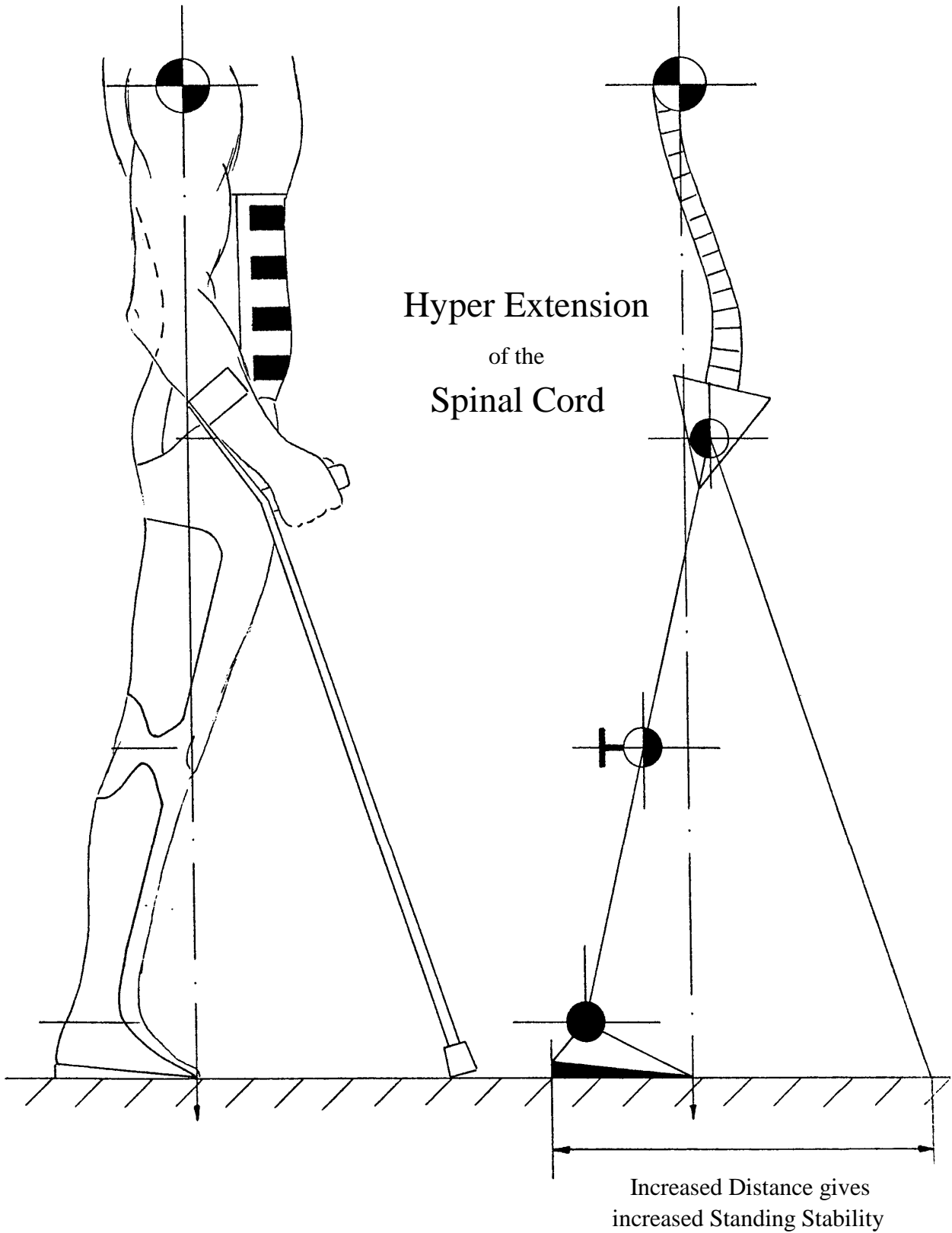
# Symbols



For **Paraplegic Patients** are  
the same rules of value like  
for the static of prostheses



**Normal Position**  
of a  
**Paraplegic Patient**  
( high level )

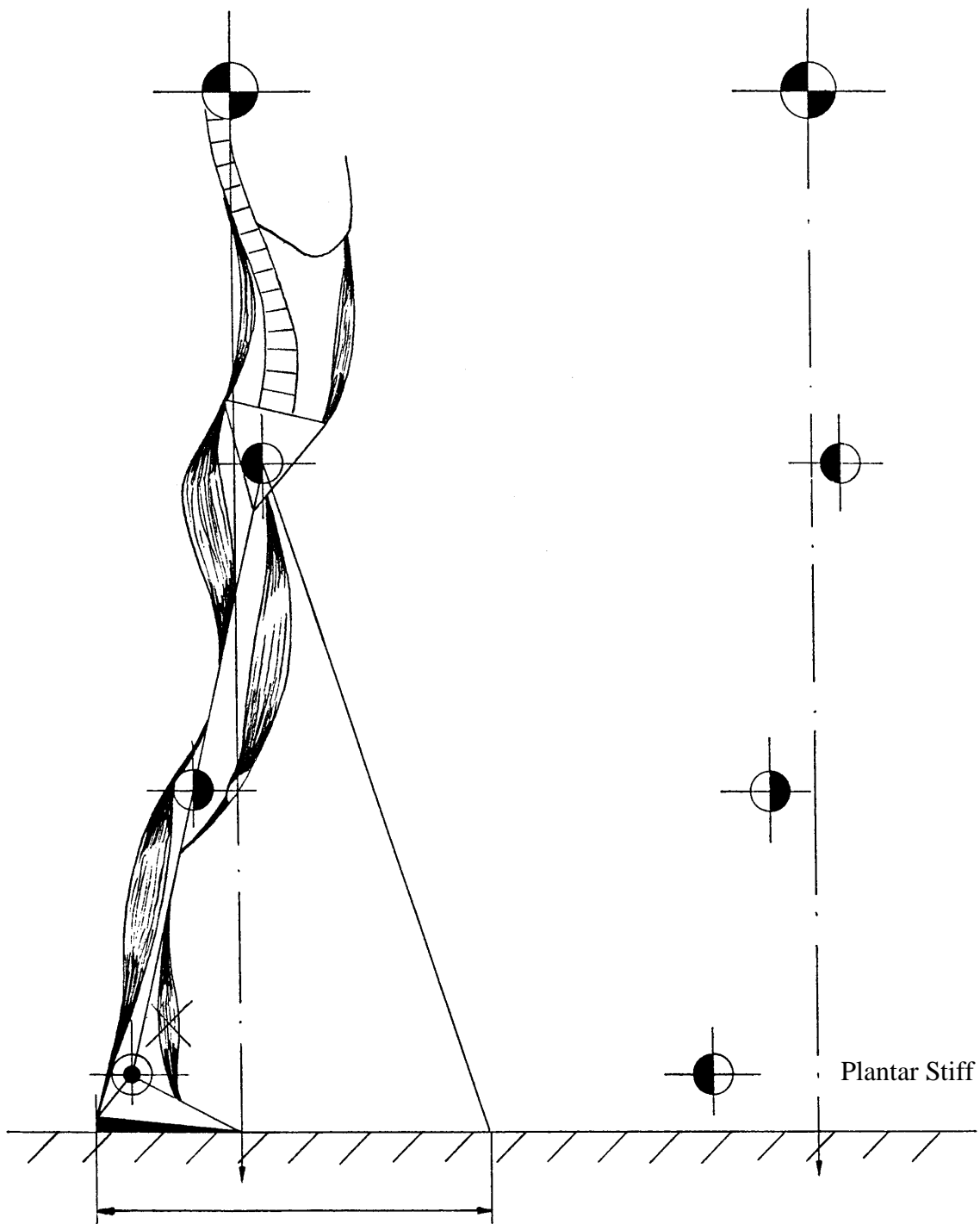




**Orthotic Management  
of Paraplegic Patients on  
Different Spinal Levels**

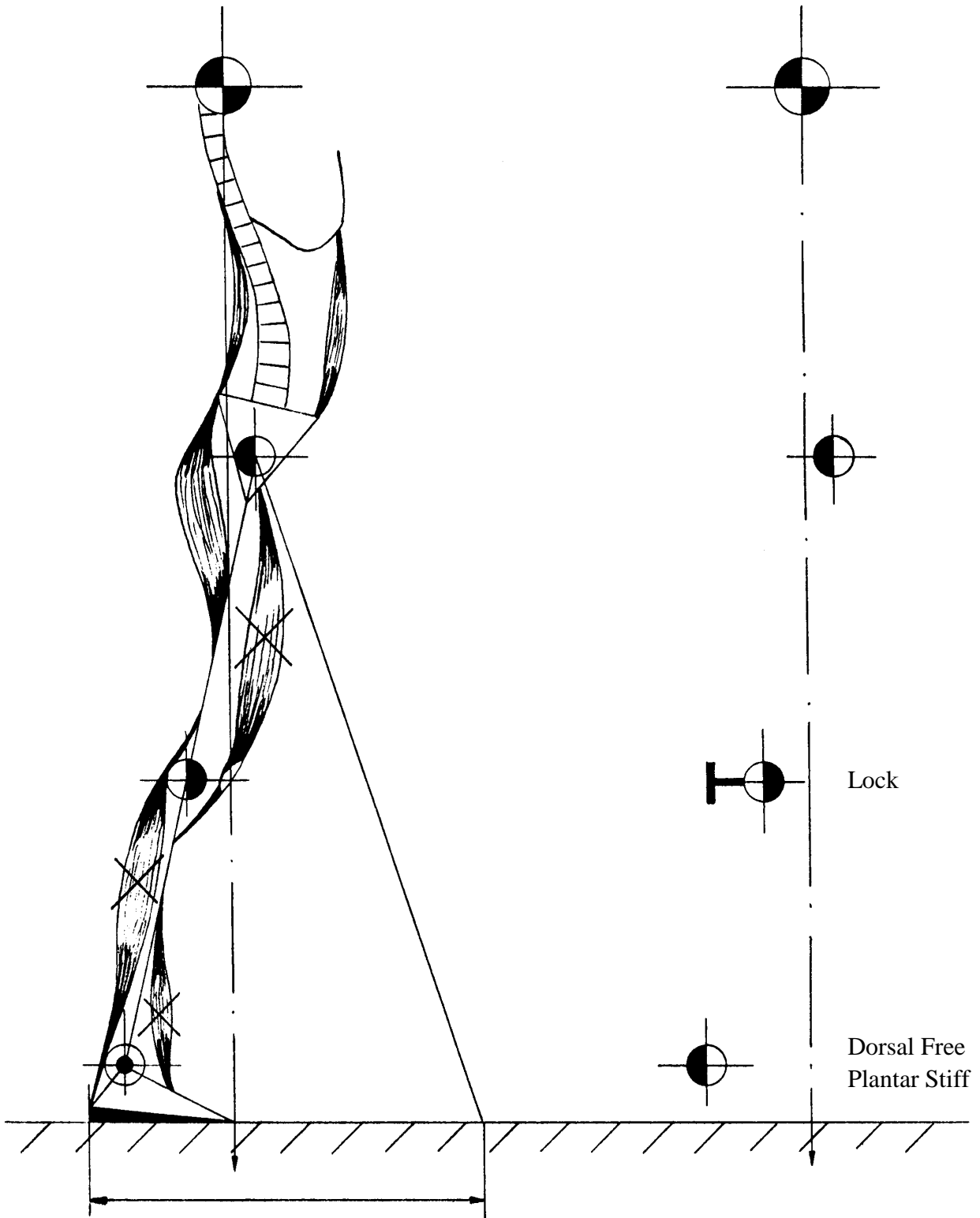
# Deficit

° Peroneus Muscles



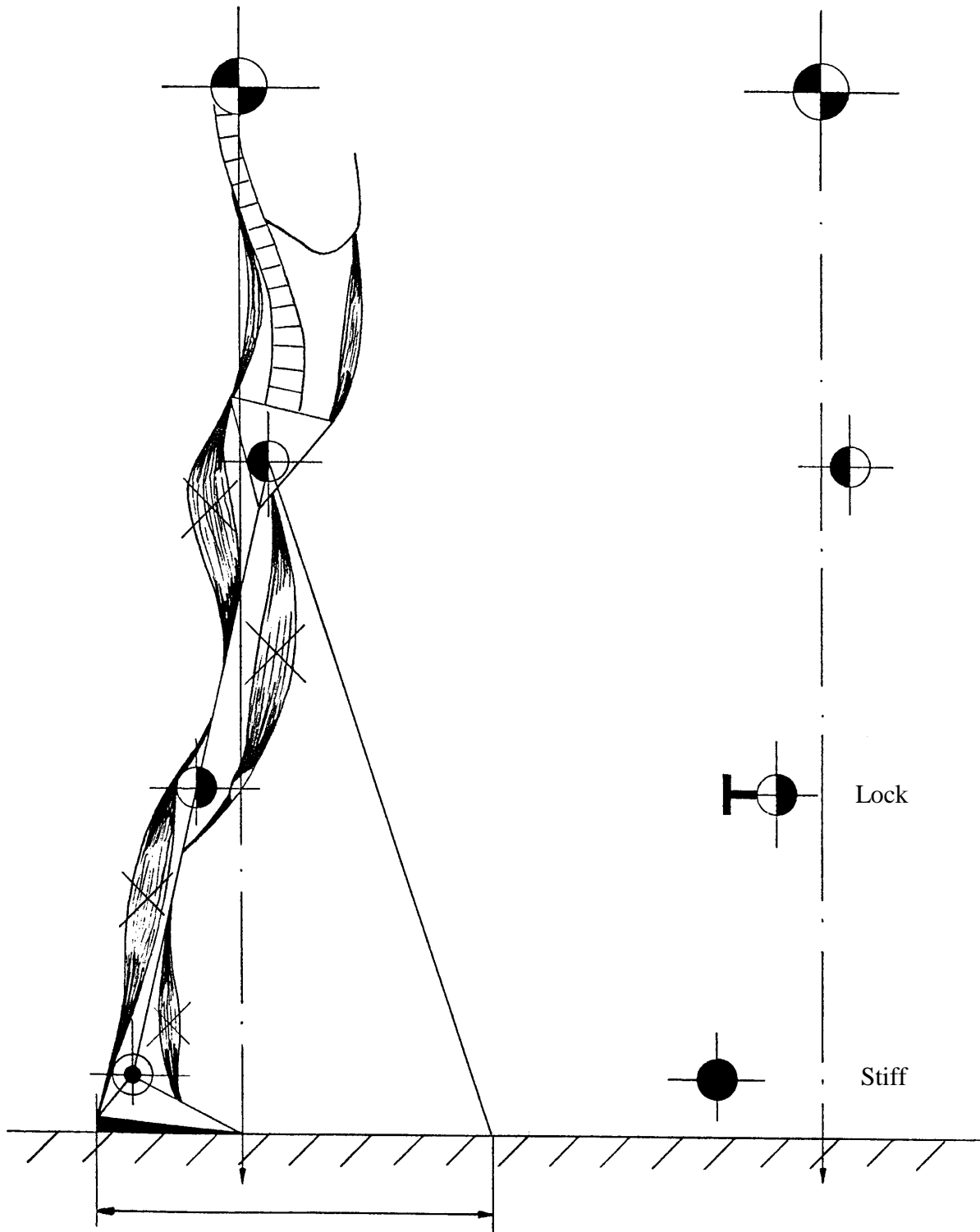
# Deficit

- Peroneus Muscles
- M. Triceps Surae
- M. Quadriceps Femoris



# Deficit

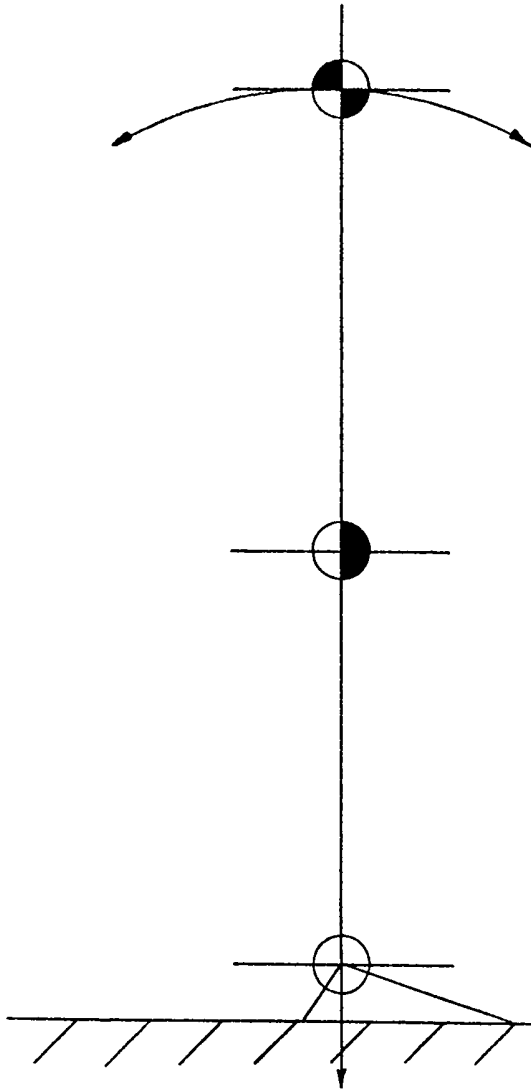
- Peroneus Muscles
- M. Triceps Surae
- M. Quadriceps Femoris
- M. Gluteus Maximus



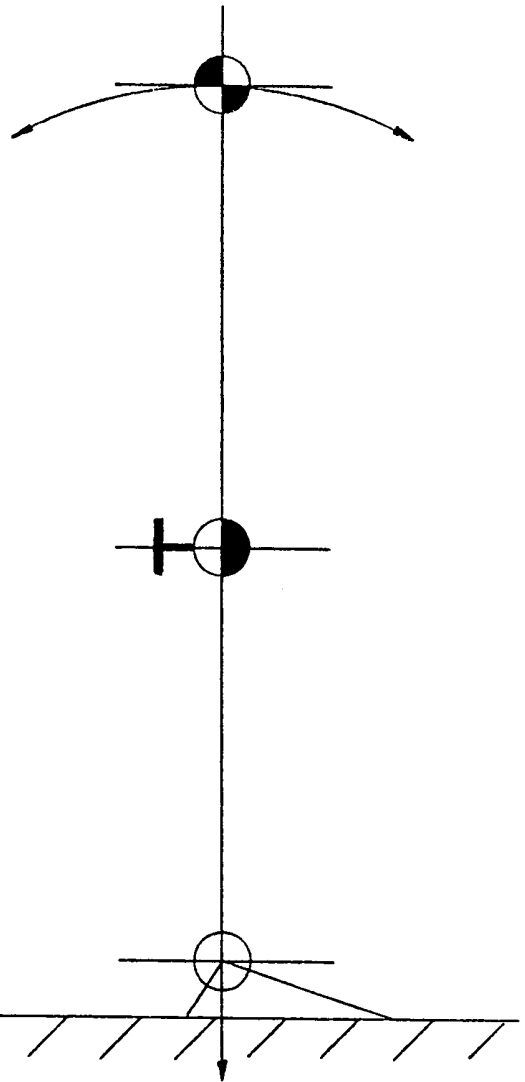


# Thoughts about Stability

<<<< Limit of stability >>>>



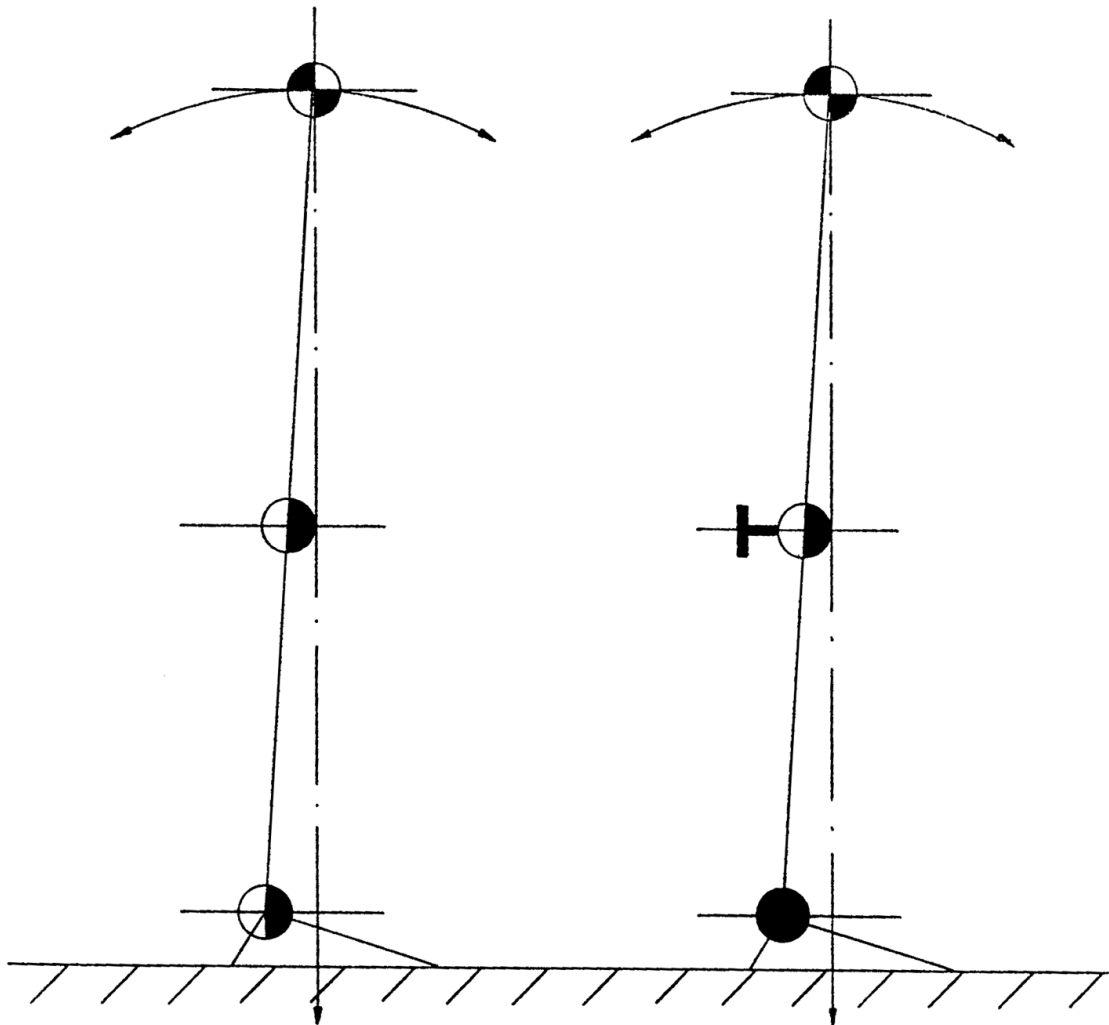
<<<< Limit of stability >>>>



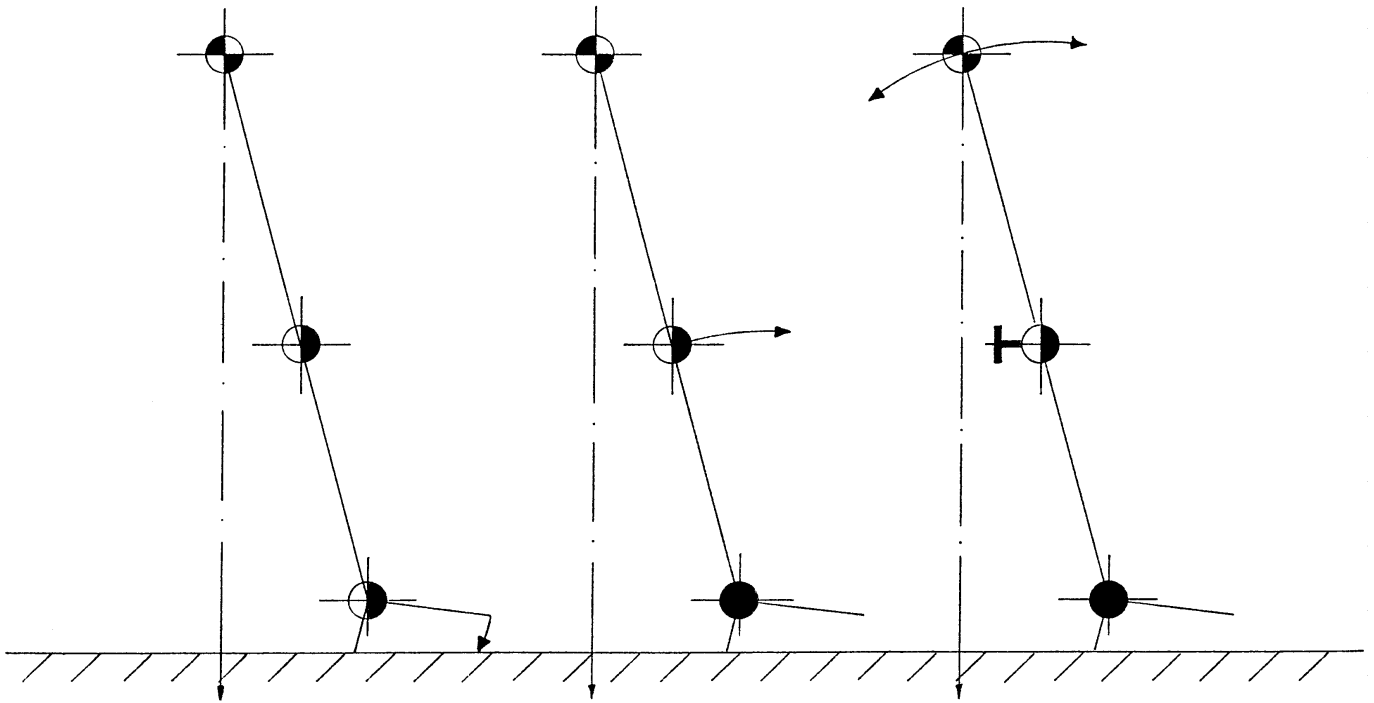
# Thoughts about Stability

limit of stability <<<< >>>> stabil

stabil<<<< >>>>stabil

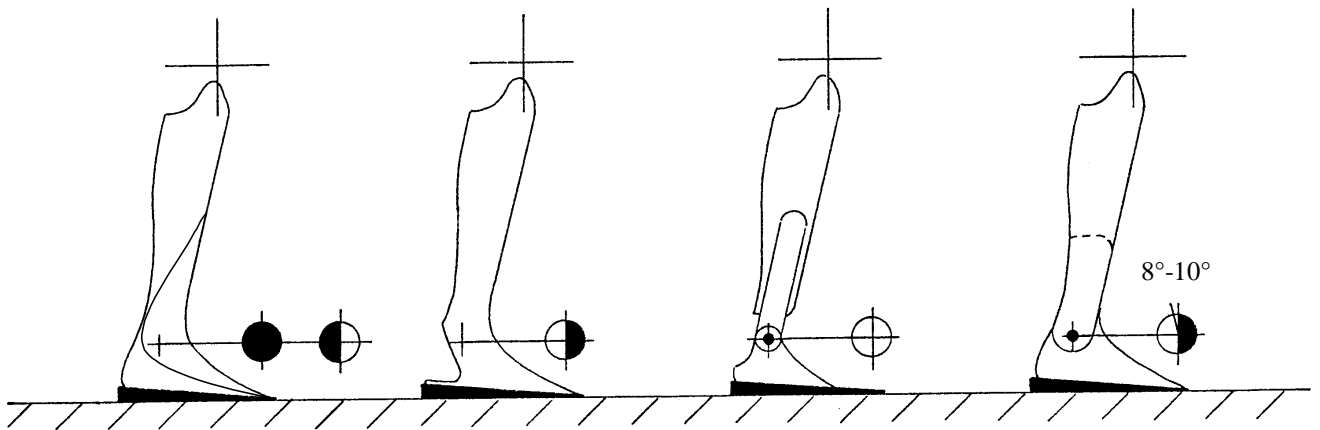


Reaction of  
**Kafo's**  
during  
**Heel Strike**





# Orthotic Management of the Ankle



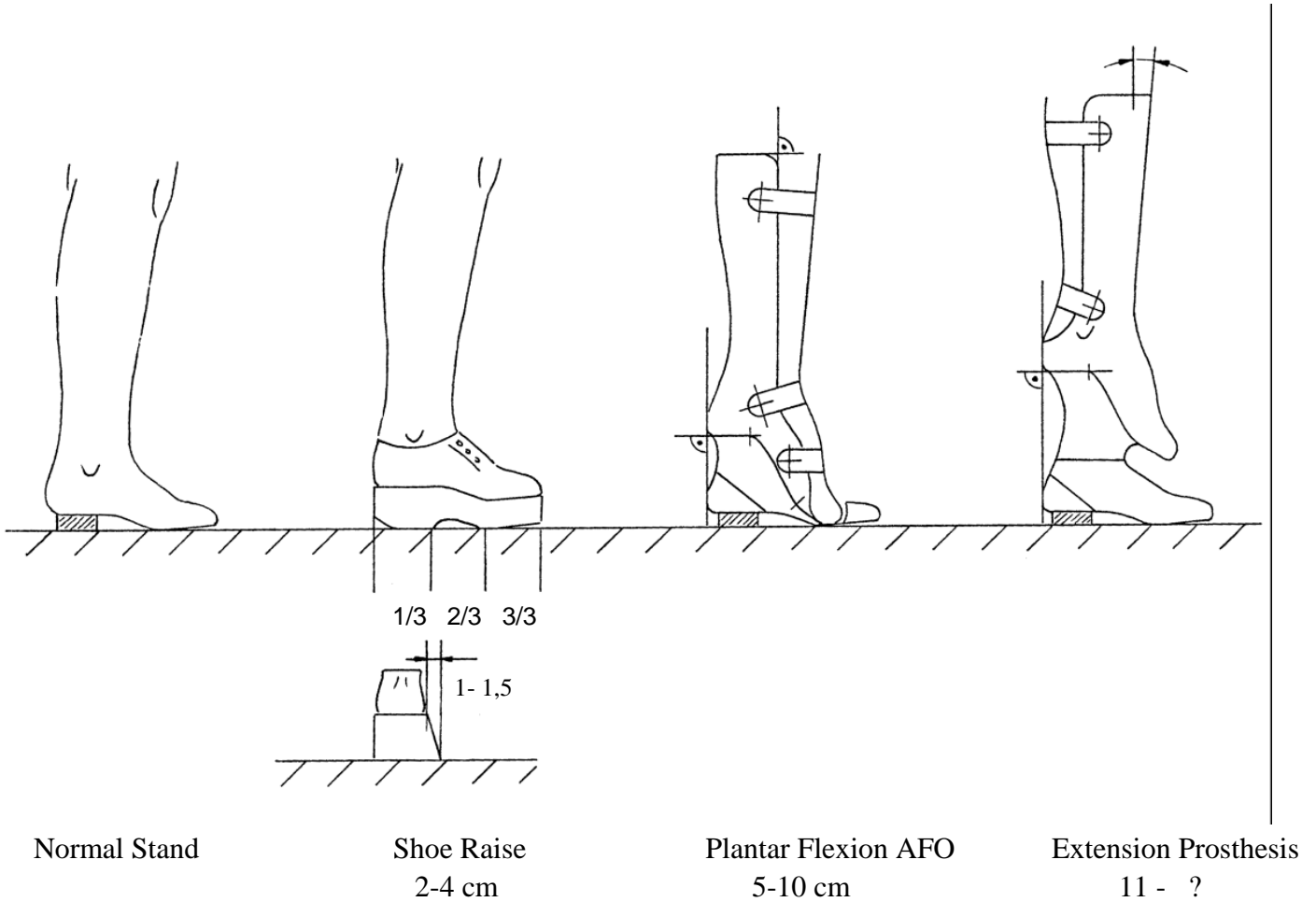
Model:  
PP 8 -10 mm stiff  
PP 3 - 4 mm (Dorsal Free)  
(Plantar Stiff)

Model:  
Plantar free

Model:  
Sarmiento free

Model:  
Ferrari plantar free

# Orthotic Management of Leg Length Discrepancy



## References

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Keywords: Alignment, Protheses, Orthoses, Trans, Femoral, Tibial, Knee, Hip,  
Disarticulation