



DAM CURSUS
Naschooling voor fysiotherapeuten



DAM CURSUS

voorcollege functionele morfologie (20.00-22.00 uur)

thoud:
oppelling van spierlengte en spierkracht. De spierverkorting als zinvolle functionele aanpassing. De non-sense van het spierrekken.



zelfstudie

leider:
eperkt bewegen en adaptatie van spierweefsel
adaptatie van spierweefsel bij jong en oud.

Download hier het cursusmateriaal van cursusavond 1

college algemene kinematica

Handout van het college	Downloaden
Bekijk de dia presentatie online	Openen
Artikel: bewegen is relatief	Downloaden

college functionele morfologie spieren

Handout van het college	Downloaden
Bekijk de dia presentatie online	Openen
Artikel: adaptatie spierweefsel	Downloaden
Artikel: adaptatie jong en oud	Downloaden

DE HAAGSE
HOOGESCHOOL

www.hhs.nl/bt



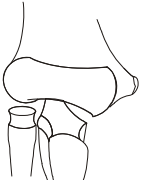
bewegings-technologie

VERSUS TIJDSCHRIFT
VOOR FYSIOTHERAPIE

Home Welkom op de website van VERSUS

www.versus.nl

Programma
Introductiecursus 2011

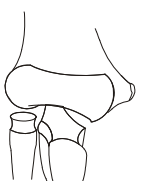


Avond 1:
Algemene kinematica.
Functionele morfologie van spierweefsel.

Avond 2:
Arthro-kinematica.
Het morfologisch substraat van de bewegingsbeperking.

Avond 3:
Inleiding praktisch.
Practicum gewrichtsmodellen.

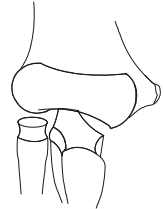
Drie dimensionale
Arthrokinematische
Mobilisatie





Doel:

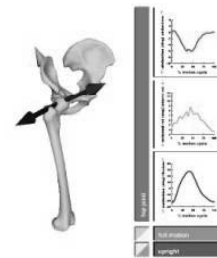
Het opheffen van functie-
storingen in gewrichten



BIOMECHANICA

- KINEMATICA
- DYNAMICA
- STATICA

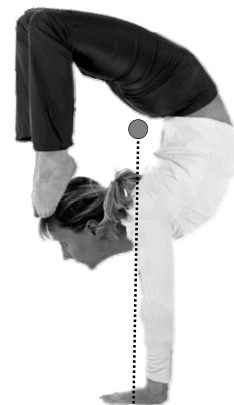
KINEMATICA



DYNAMICA

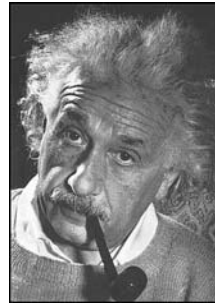


STATICA



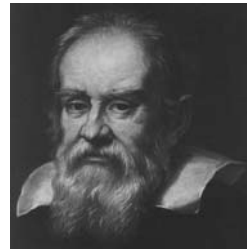
BIOMECHANICA

- KINEMATICA → Arthro-Kinematica
- DYNAMICA
- STATICA



Albert Einstein 1879-1955

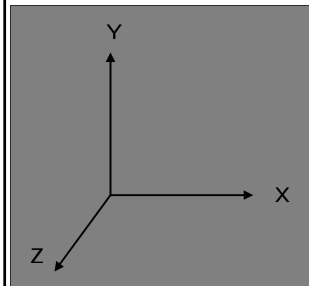
Bewegen is relatief !



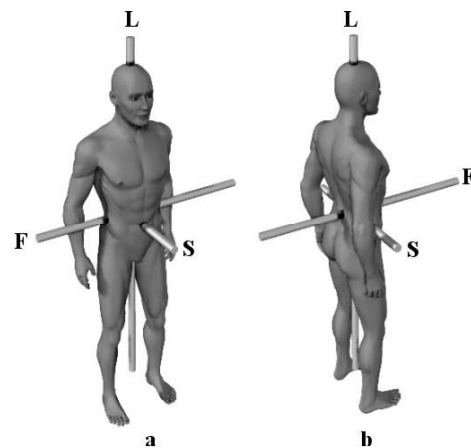
Galileo Galilei 1564-1642



Bewegingsbeschrijving is afhankelijk van het referentiekader

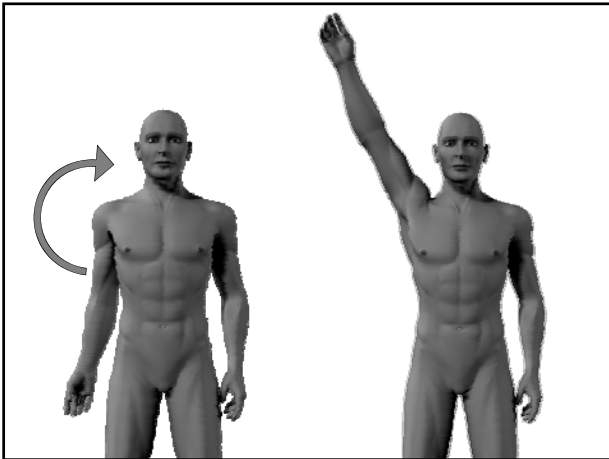
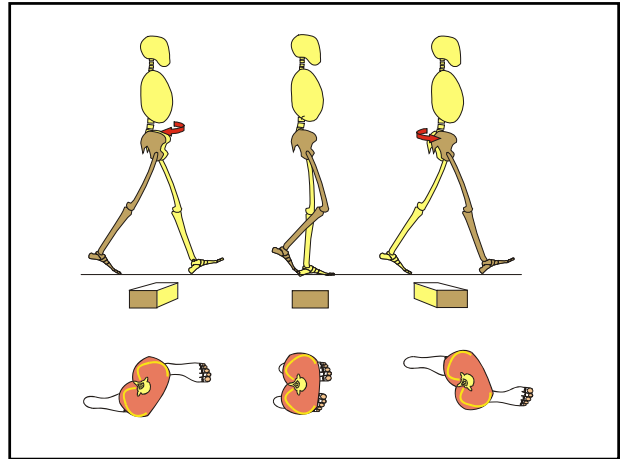
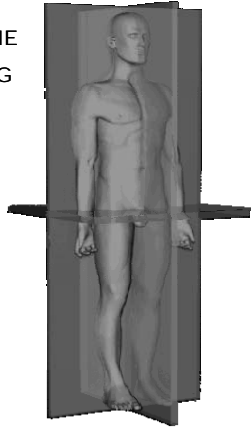


BEWEGINGS-BESCHRIJVING
t.o.v. wereld-coördinaten



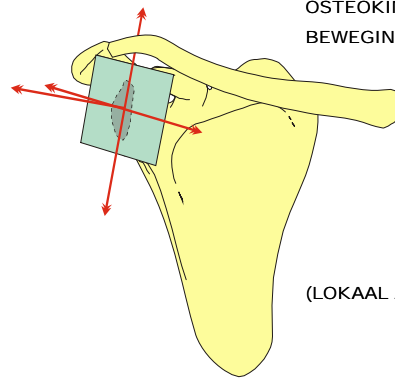
DESCRIPTIEF ANATOMISCHE
BEWEGINGS-BESCHRIJVING

(GLOBAAL ASSENSTELSEL)

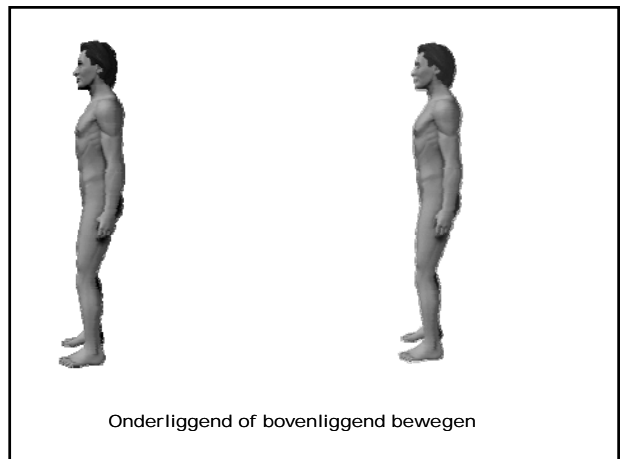
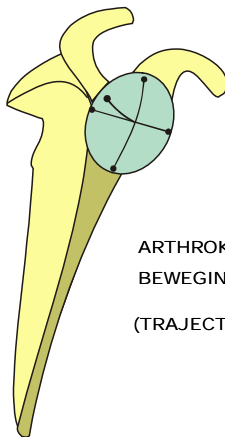


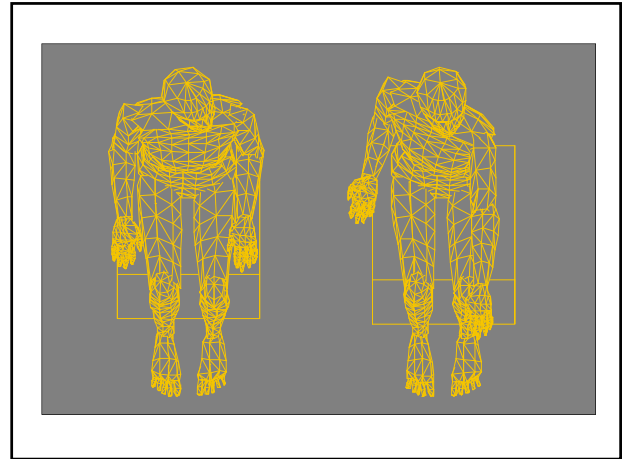
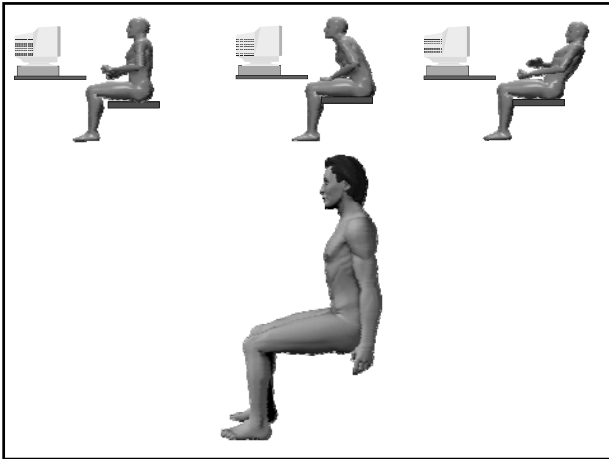
OSTEOKINEMATISCHE
BEWEGINGS-BESCHRIJVING

(LOKAAL ASSENSTELSEL)



ARTHROKINEMATISCHE
BEWEGINGS-BESCHRIJVING
(TRAJECTEN OP KOP EN KOM)



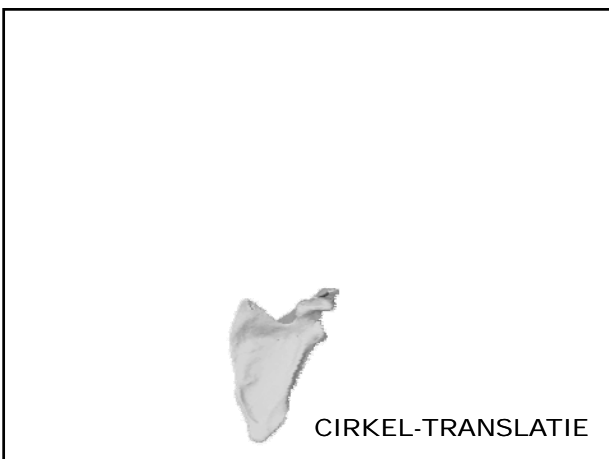
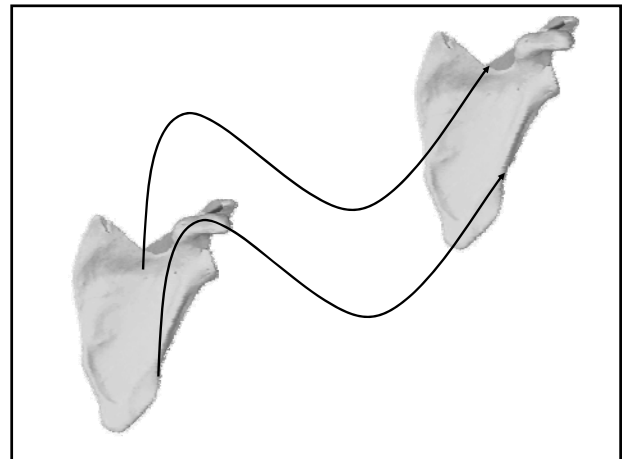


TRANSLATIE

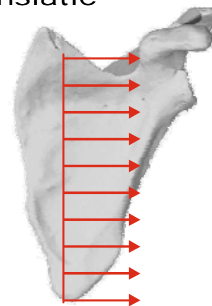
Alle punten van een lichaam doorlopen dezelfde afgelegde weg.

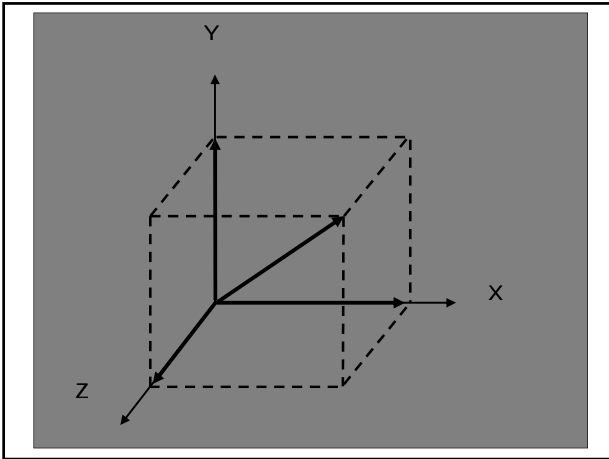
Wel verandering van plaats, maar niet van stand.

Verplaatsing evenwijdig aan zichzelf.



Snelheidsverdeling Translatie

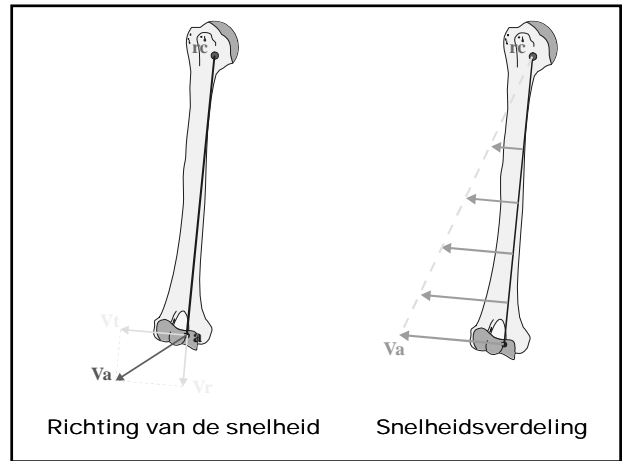
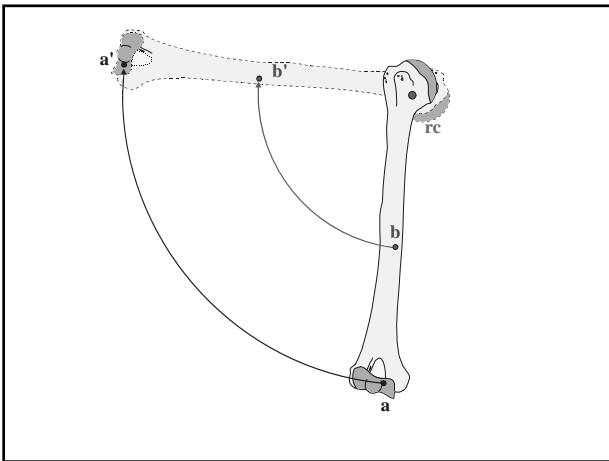




ROTATIE

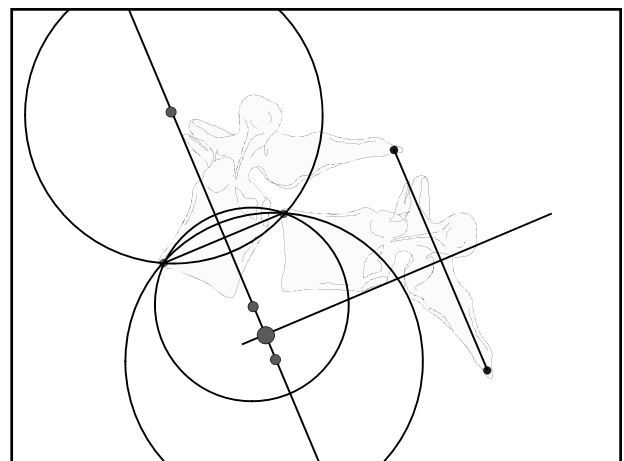
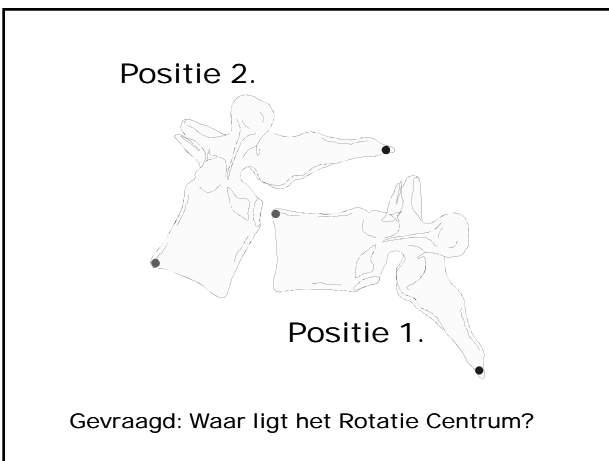
Een beweging waarbij op elk moment een punt aanwijsbaar is met snelheid 0 (de rotatie-as).

Alle punten beschrijven cirkelbanen met de rotatie-as als middelpunt.

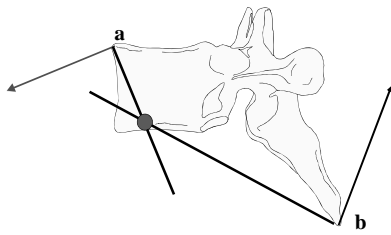


Richting van de snelheid

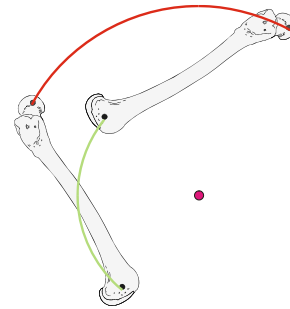
Snelheidsverdeling



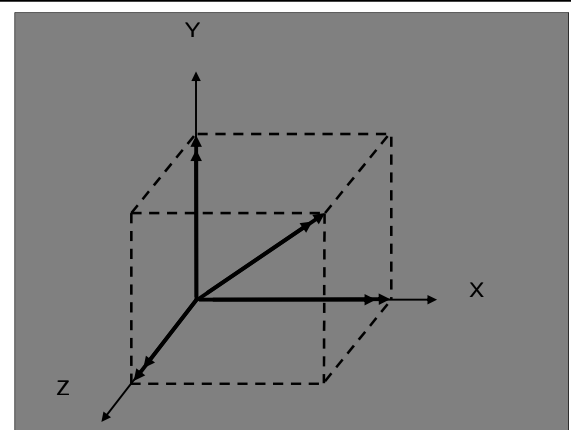
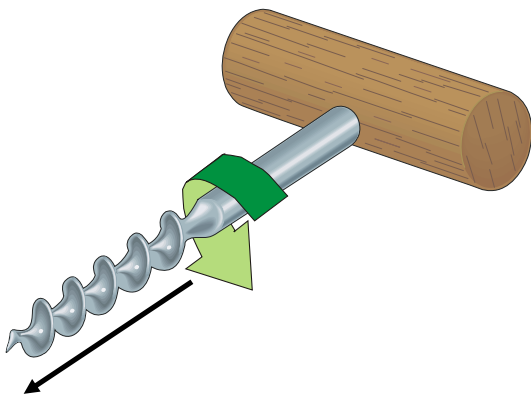
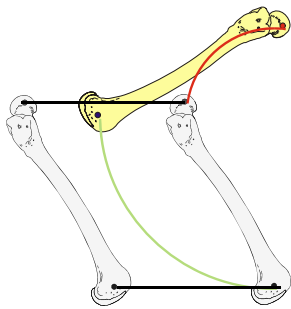
Gegeven: verpl. richting a en b.
Gevraagd: MRC

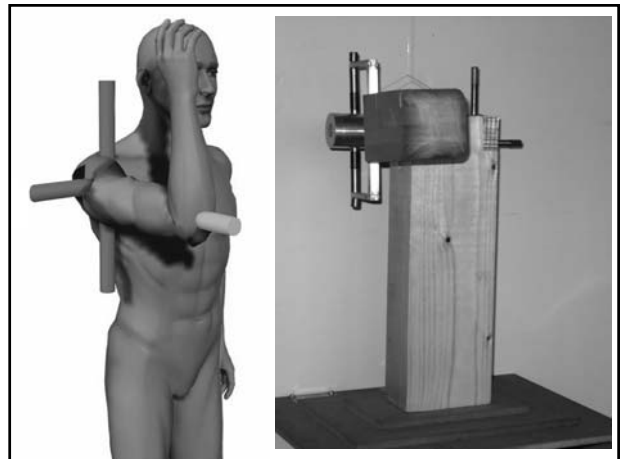
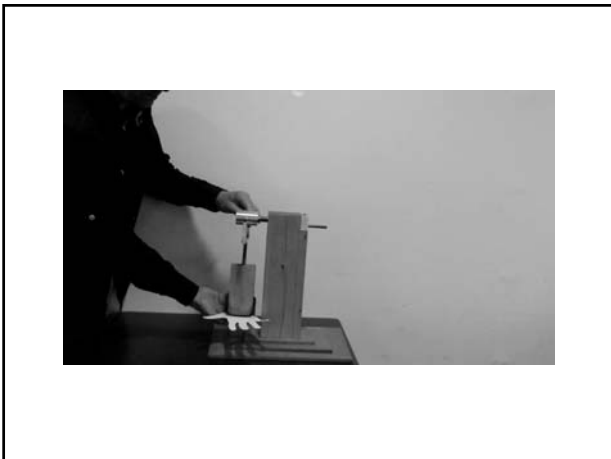
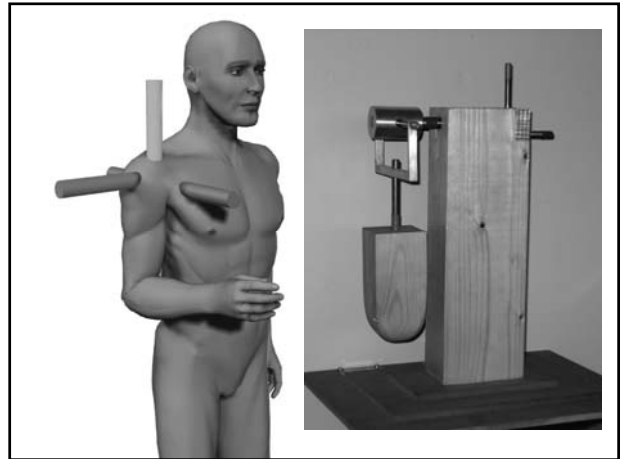
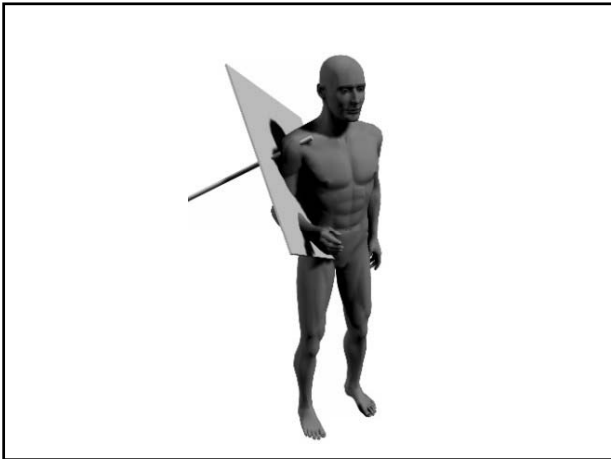
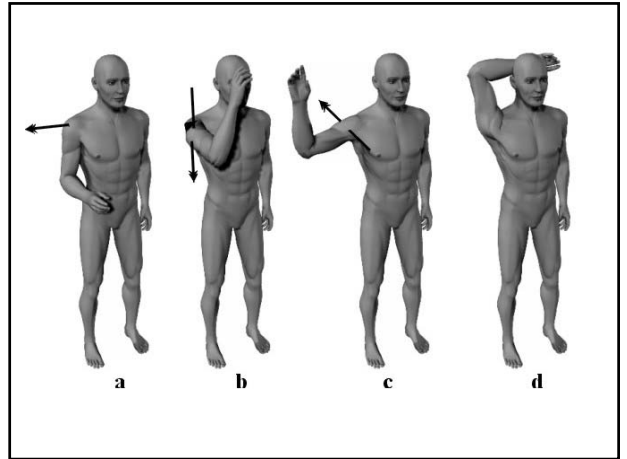
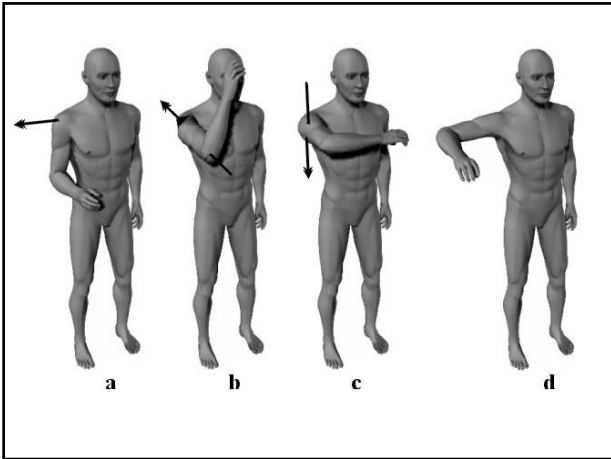


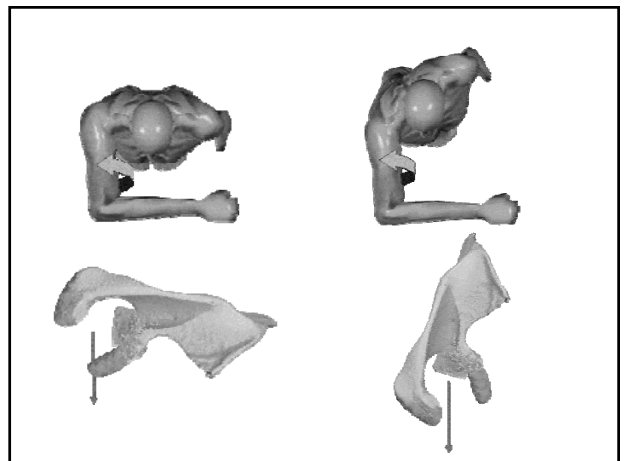
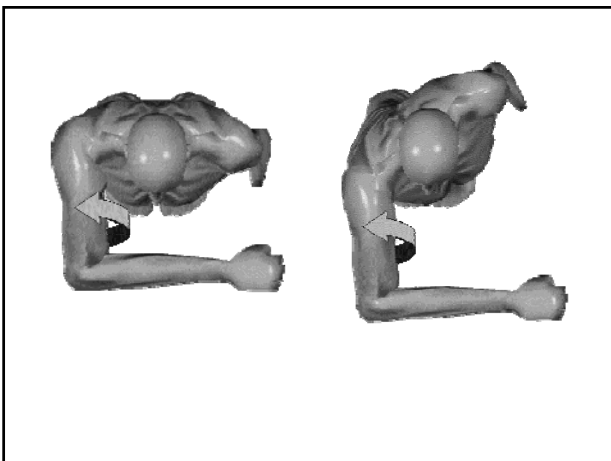
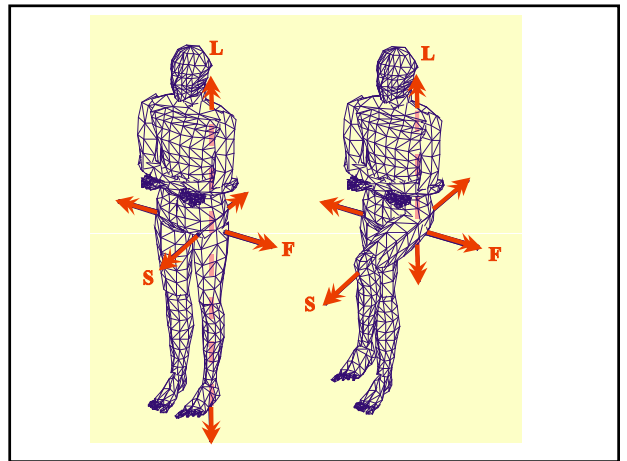
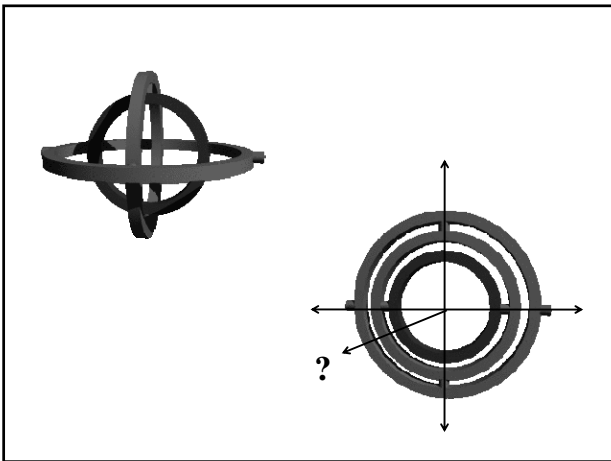
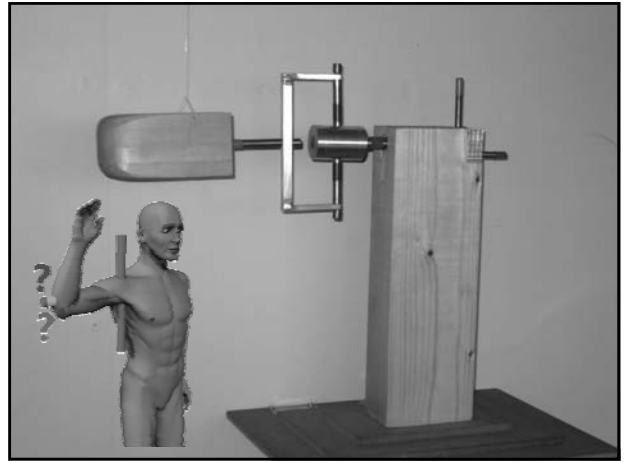
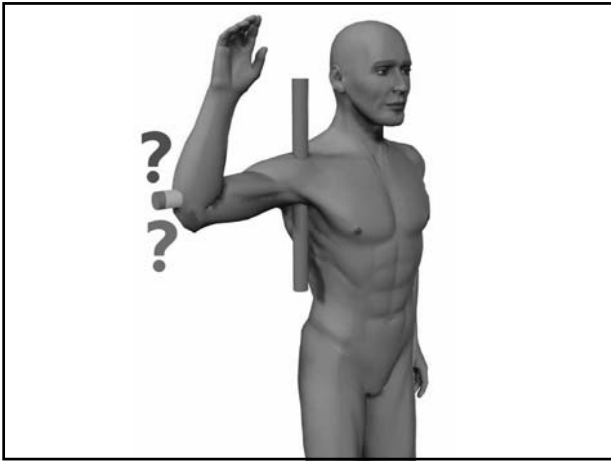
Beschrijving mbv Rotatie

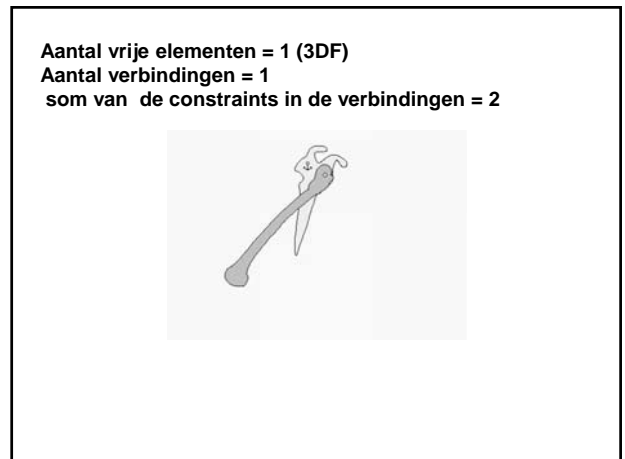
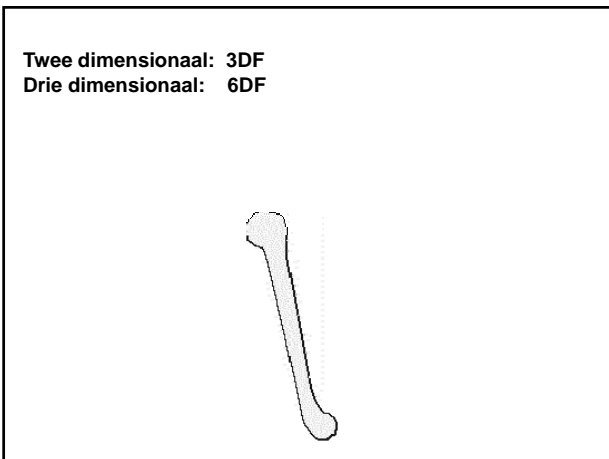
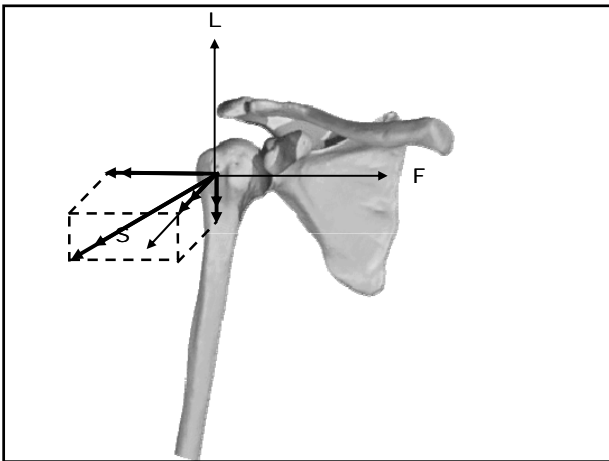
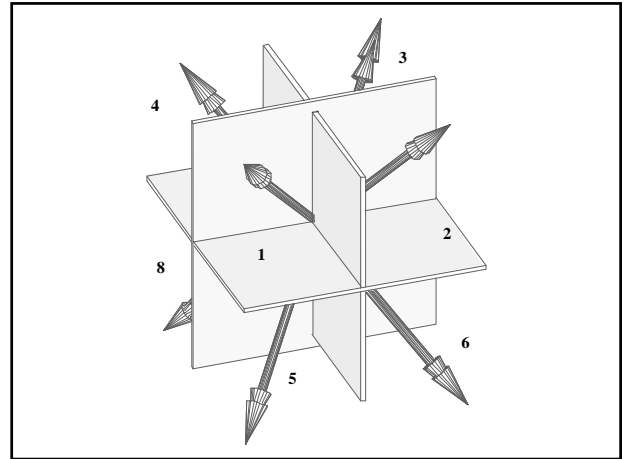
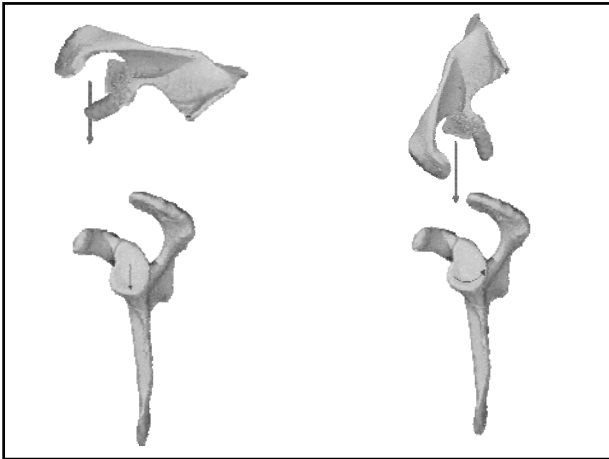


Beschrijving mbv translatie en rotatie.





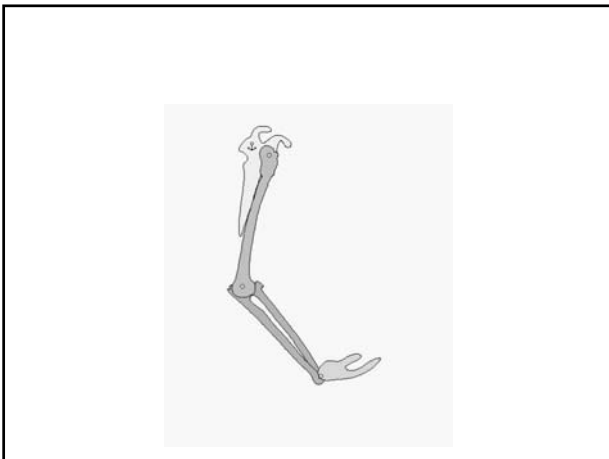




Aantal vrije elementen = 2 (samen 6 df)
 Aantal verbindingen = 2
 som van de constraints in de verbindingen = 4



Aantal vrije elementen = 3 (samen 9 df)
 Aantal verbindingen = 3
 som van de constraints in de verbindingen = 6



Bij een drie-dimensionale analyse:

$$DF = 6 \cdot (N - 1) - \sum C$$

Bij een twee-dimensionale analyse:

$$DF = 3 \cdot (N - 1) - \sum C$$

Vrijheidsgraden analyse van het fietsende been (twee dimensionaal)



