

Spastisitet og kontrakturutvikling i underekstremitetene

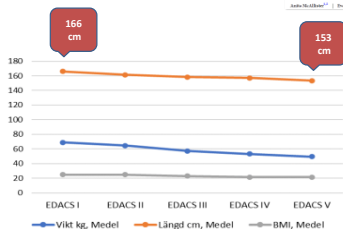
Elisabet Rodby Bousquet, FT, dosent ortopedi, leder CPUP

Muskler ved cerebral parese

- Stivere
- Mindre
- Færre stamceller for vekst
- Mindre energi tilgjengelig for bevegelse og vekst
- Kan ha begrenset kapasitet for restitusjon

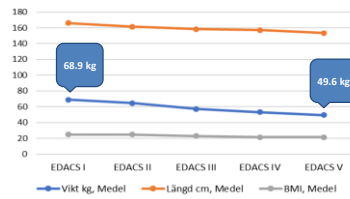
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Gjennomsnittlig høyde (13 cm)



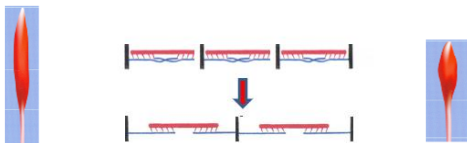
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Gjennomsnittsvekt (19,3 kg)



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Kontrakturutvikling



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Bein med kontraktur per GMFCS

GMFCS level	n (%)	Contracture, legs (%)	Person-years (mean)
I	1,901 (40)	237 (13)	11,450 (6.0)
II	765 (16)	183 (24)	4,495 (5.9)
III	540 (11)	247 (46)	2,250 (4.2)
IV	752 (16)	436 (58)	3,166 (4.2)
V	793 (17)	499 (63)	2,406 (3.0)
Total	4,751	1,602 (34)	23,768 (5.0)

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Første kontraktur nedre ex

Knee and foot contracture occur earliest in children with cerebral palsy: a longitudinal analysis of 2,693 children

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GMFCS I-II Ankel **GMFCS III-V Kne**

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Kontrakturutvikling

Knee and foot contracture occur earliest in children with cerebral palsy: a longitudinal analysis of 2,693 children

Human lower leg muscles grow asynchronously

De mediale gastrocnemius- og soleus-musklene, vokser raskere enn andre muskler de første fem årene hos barn uten CP

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Kontrakturutvikling

Knee and foot contracture occur earliest in children with cerebral palsy: a longitudinal analysis of 2,693 children

Human lower leg muscles grow asynchronously

The development of spasticity with age in 4,162 children with cerebral palsy: a register-based prospective cohort study

Knee and ankle range of motion and spasticity from childhood into adulthood: a longitudinal cohort study of 3,223 individuals with cerebral palsy

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Kontrakturutvikling

Knee and foot contracture occur earliest in children with cerebral palsy: a longitudinal analysis of 2,693 children

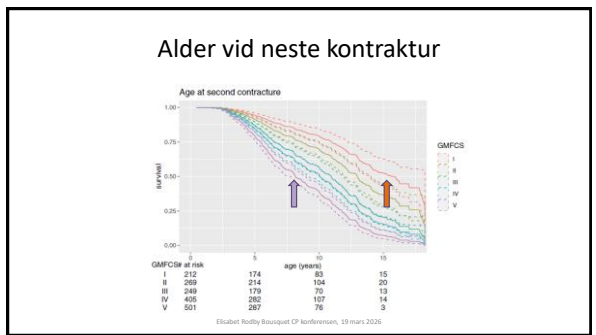
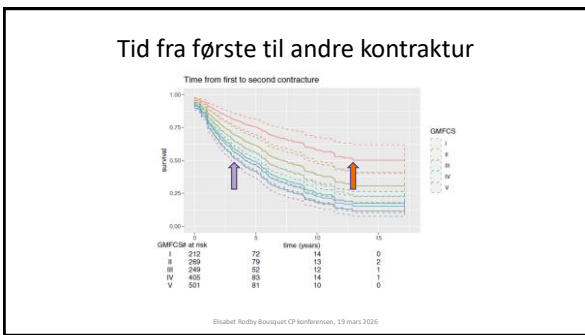
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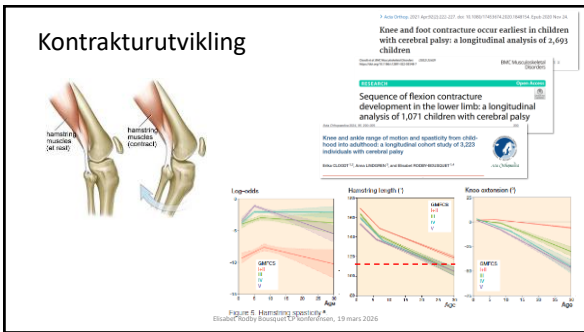
The development of spasticity with age in 4,162 children with cerebral palsy: a register-based prospective cohort study

Knee and ankle range of motion and spasticity from childhood into adulthood: a longitudinal cohort study of 3,223 individuals with cerebral palsy

Sequence of flexion contracture development in the lower limb: a longitudinal analysis of 1,071 children with cerebral palsy

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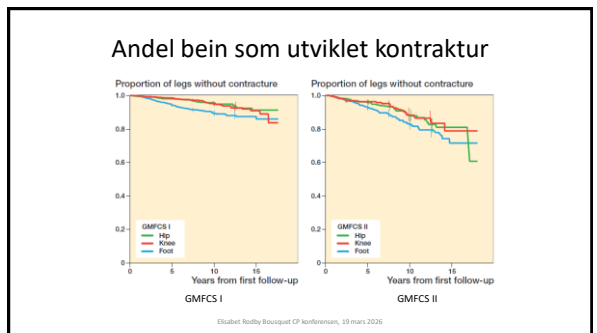
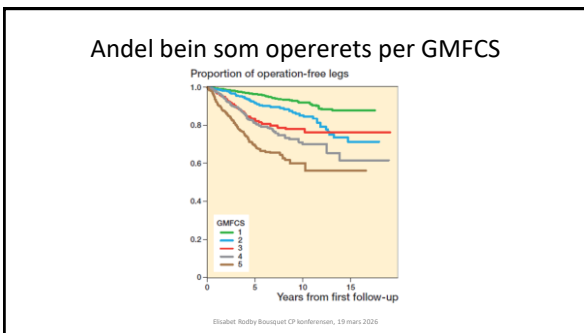


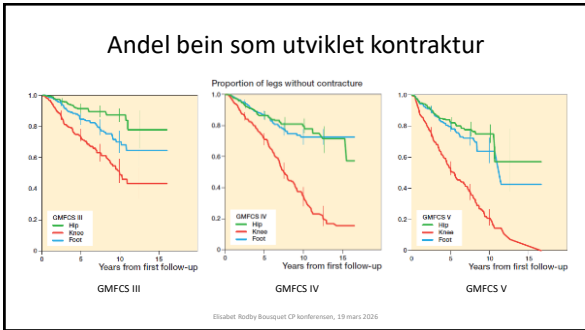
- ### Intervensjoner muskel
- Svekke – ITB, BTI, nevrektomi
 - Sterke – direkte – trening; indirekte – ortoser
 - Forlengte – direkte – seneforlengelse, muskellavøsning; indirekte - beinforkortelse
 - Forkorte – seneforkortelse
 - Endre muskelarkitektur – fascial forlengelse, myofasciotomi
 - Endre muskelgeometri – derotasjonsosteotomier, muskeloverføringer
- Elisabet Rodby Bousquet CP konferensen, 19 mars 2026

Alder ved første op nedre ex

Type of surgery	Age at first operation		
	Median	1st quartile	3rd quartile
Hip, soft tissue	4.0	3.0	6.0
Hip, bony	6.5	4.0	10
Knee, soft tissu	9.0	7.0	12
Knee, bony	10	5.5	12
Foot, soft tissu	7.0	5.0	10
Foot, bony	11	8.5	14

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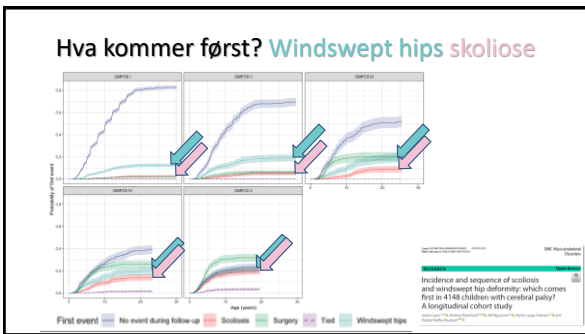


Tid og tyngdekraft

Risikofaktorer for feilstilling hoft og rygg

- Kan ikke endre posisjon
- Sover kun på ryggen
- Knekontraktur

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Retning feilstillinger

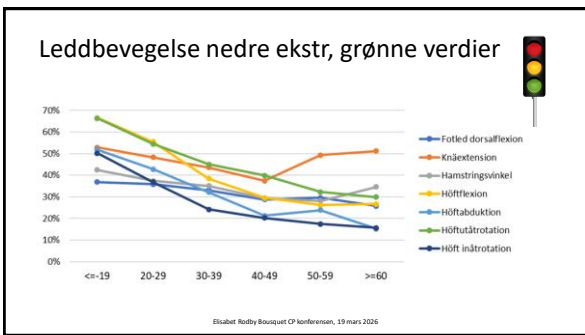
Retning feilstilling skoliose
Motsatt side:

- Hoftelateralisering (RI) $\geq 40\%$

Retning feilstilling windswept
Motsatt side:

- Hoftelateralisering (RI) $\geq 40\%$
- Fleksjonskontraktur hoft $\geq 10^\circ$
- Spastisitet adduktorer MAS 2-4

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Begrenset hofteflexjon øker risikoen for

- Bekkenasymmetri (OR 2.6)
- Bålasymmetri (OR 2.1)
- Skoliose (OR 3.7)
- Windswept (OR 2.6)

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