

Full-body running analysis

Sports 3DMA 2020.0 Version 2020.0 -BETA- | Powered by STT SYSTEMS

FULL NAME Sports, Samples		STUDY PERFORMED BY: 
ANALYSIS PROTOCOL Full-body running analysis	REPORT DATE 17/1/2020	

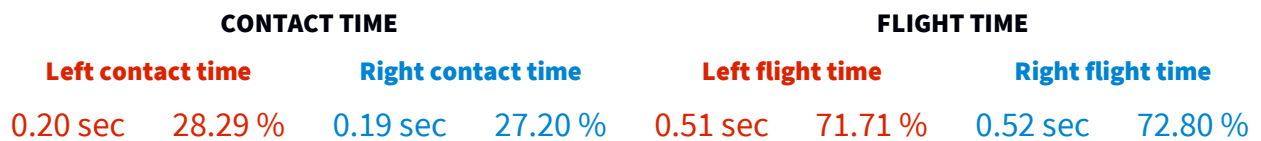
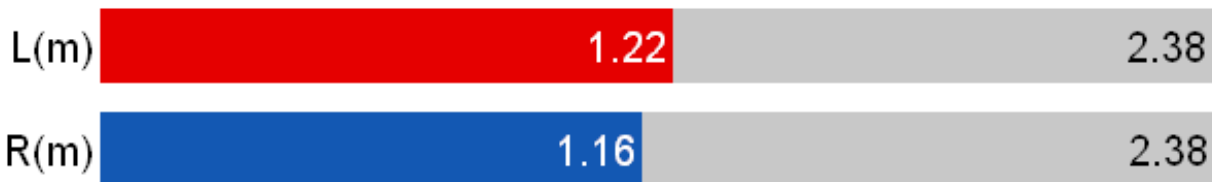
3D Motion Capture: Technical details

RECORDING DATE 2018-12-19	DATA SAMPLING RATE 100 Hz (frames/sec.)	RECORDING TIME 28.22 sec.	AVG RUNNING SPEED 12.00 km/h
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1. OVERVIEW - STRIDE ANALYSIS

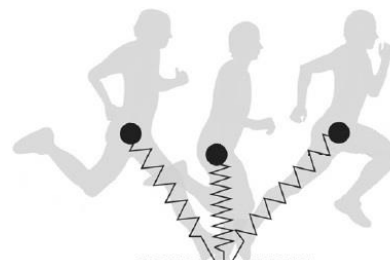


STEP LENGTH OVER STRIDE LENGTH:



CONTACT TIMES OVER STRIDE TIMES (sec):

FLIGHT TIMES OVER STRIDE TIMES (sec):

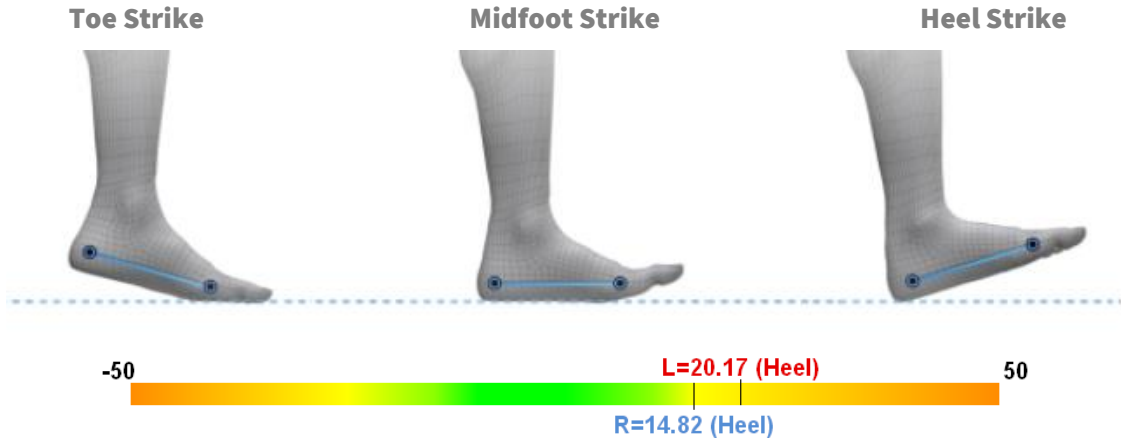


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2. FOOT ANALYSIS

FOOT ANGLE AT STRIKE:



FOOT INVERSION/EVERSION DURING THE RUNNING CYCLE:



MAXIMUM FOOT INVERSION ANGLE AT INITIAL FOOT STRIKE (°)



MAXIMUM FOOT INVERSION VELOCITY (°/seg)



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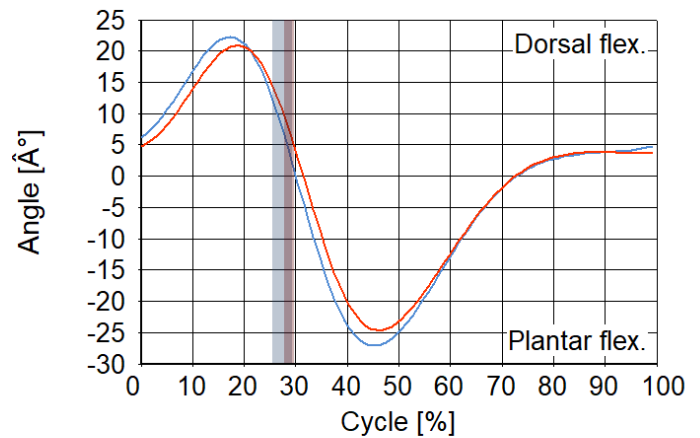
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3. ANKLE ANALYSIS



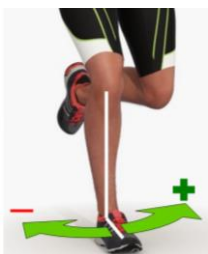
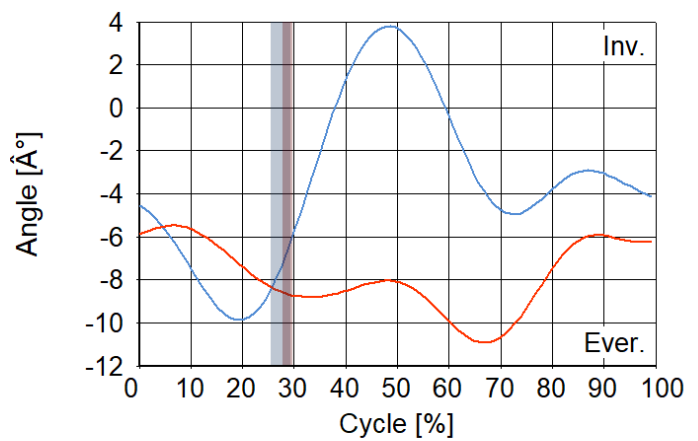
DORSAL/PLANTAR FLEXION

	Min	Max	Range
LEFT	-26.24°	21.93°	48.17°
RIGHT	-28.96°	25.74°	54.71°



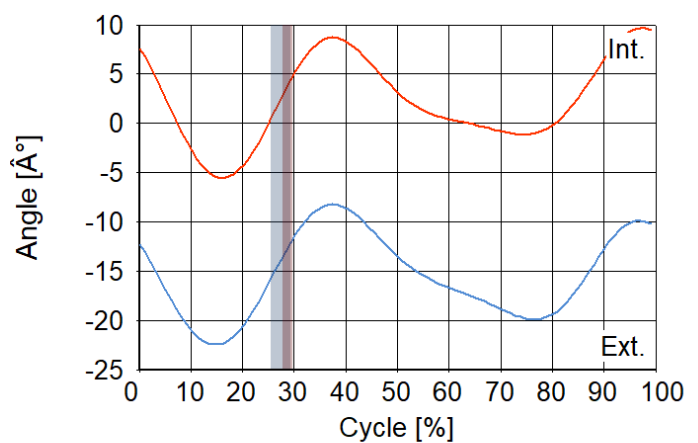
ABDUCTION/ADDUCTION

	Min	Max	Range
LEFT	11.85°	-3.39°	8.46°
RIGHT	12.29°	7.13°	19.42°



INTERNAL/EXTERNAL ROTATION

	Min	Max	Range
LEFT	-6.97°	11.09°	18.06°
RIGHT	23.43°	-6.17°	17.26°



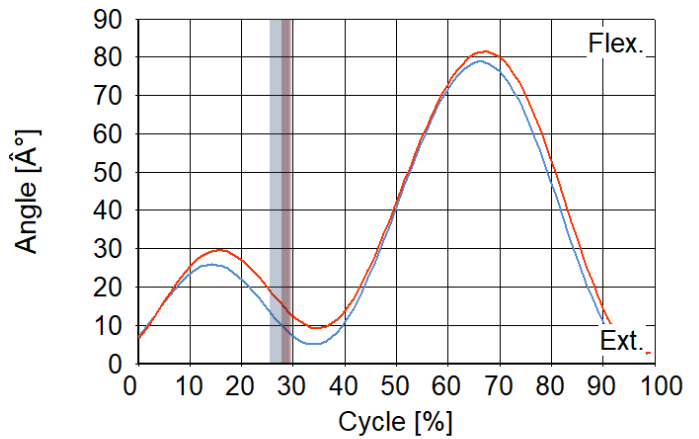
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4. KNEE ANALYSIS



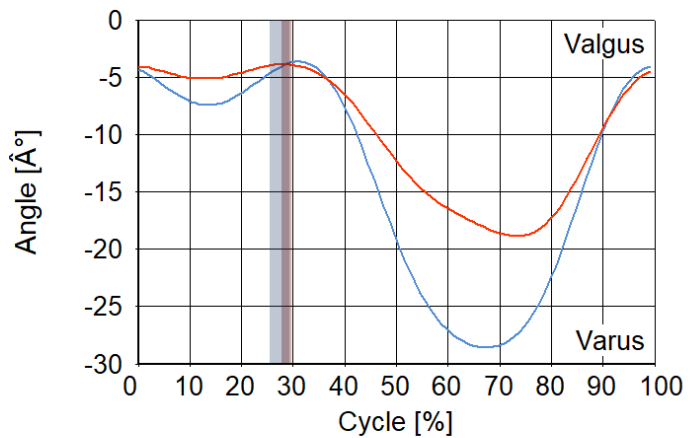
FLEXION/EXTENSION



	Min	Max	Range
LEFT	1.12 °	83.17 °	82.05 °
RIGHT	-0.12 °	81.39 °	81.51 °



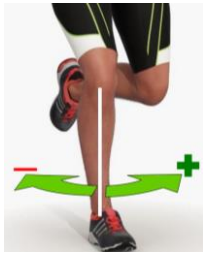
VARUS / VALGUS



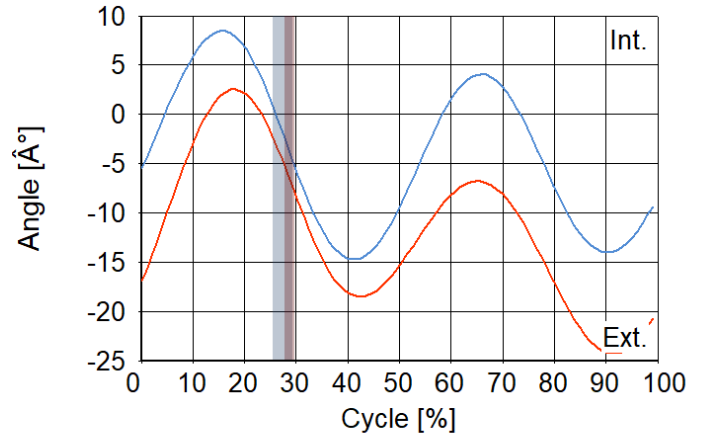
	Min	Max	Range
LEFT	-20.48 °	-3.35 °	17.13 °
RIGHT	-29.80 °	-3.06 °	26.74 °

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INTERNAL/ EXTERNAL ROTATION

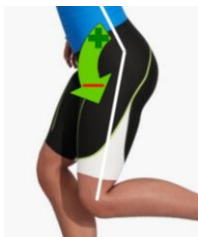


	Min	Max	Range
LEFT	-25.51 ₀	3.89 °	29.40 °
RIGHT	-15.99 ₀	9.60 °	25.58 °

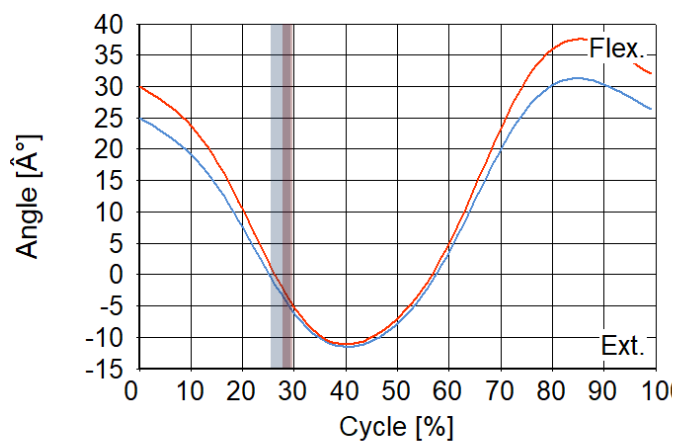
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5. HIP ANALYSIS



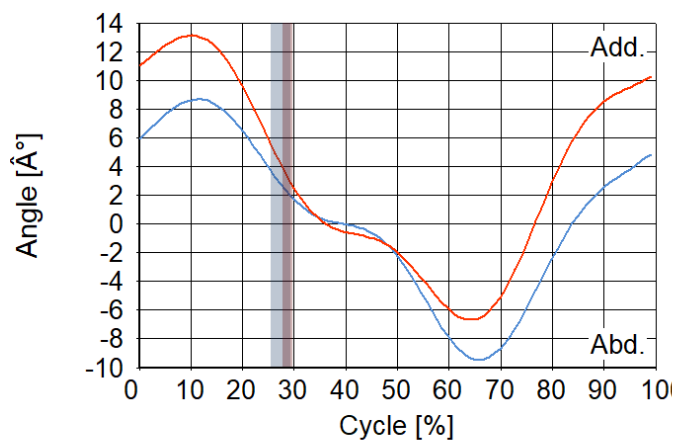
FLEXION/ EXTENSION



	Min	Max	Range
LEFT	-12.22°	38.68°	50.90°
RIGHT	-12.78°	32.41°	45.19°



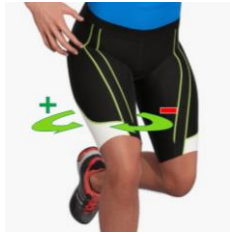
ABDUCTION/ADDUCTION



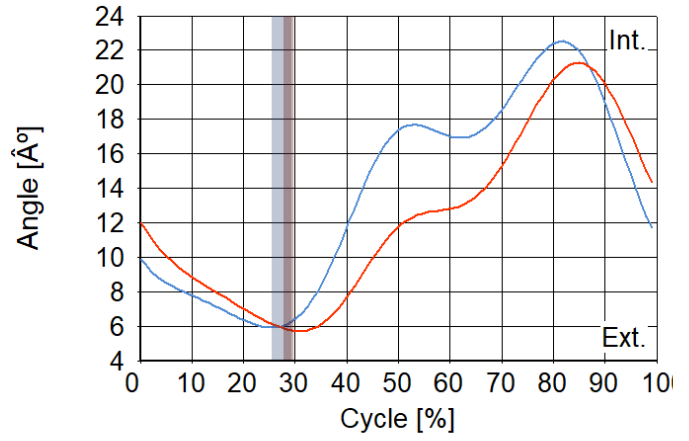
	Min	Max	Range
LEFT	-7.79°	14.24°	22.02°
RIGHT	-10.20°	9.61°	19.81°

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INTERNAL/ EXTERNAL ROTATION

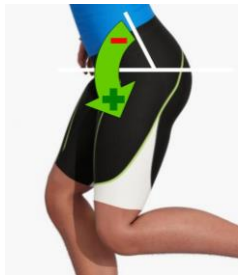


	Min	Max	Range
LEFT	4.95 °	22.52 °	17.56 °
RIGHT	4.65 °	23.68 °	19.03 °

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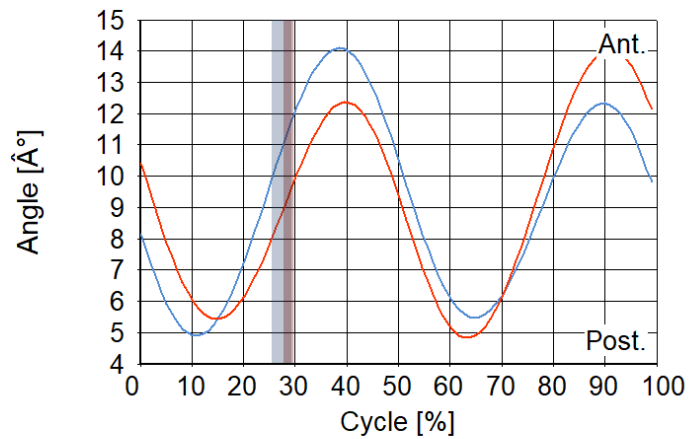
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6. PELVIC ANALYSIS



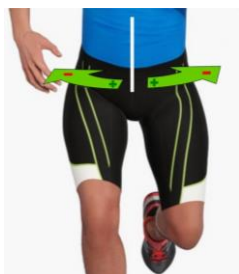
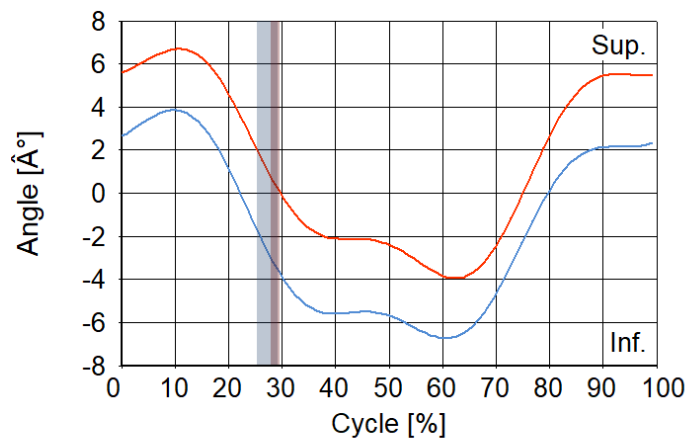
TILT

	Min	Max	Range
LEFT	4.25°	15.26°	11.01°
RIGHT	3.93°	15.00°	11.07°



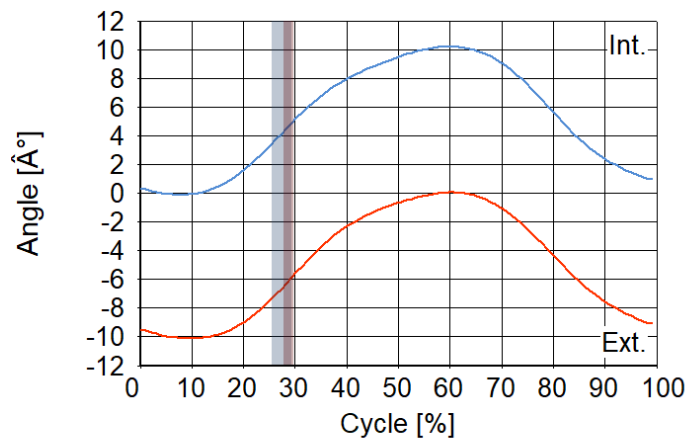
OBLIQUITY

	Min	Max	Range
LEFT	-4.82°	7.70°	12.52°
RIGHT	-7.74°	4.77°	12.52°



ROTATION

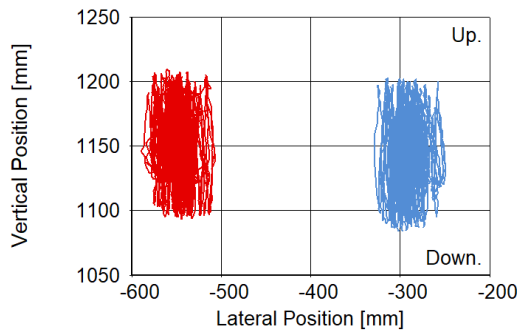
	Min	Max	Range
LEFT	-11.69°	2.20°	13.89°
RIGHT	-11.64°	2.20°	13.84°



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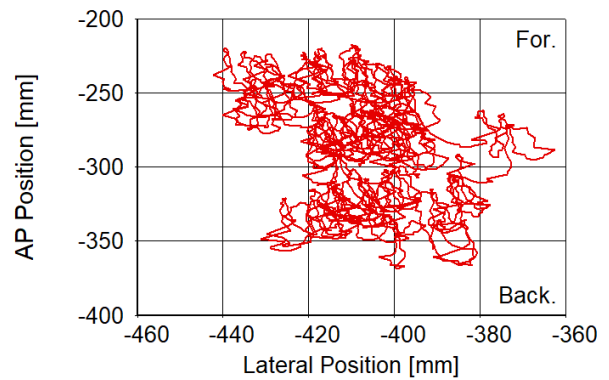
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ROM SYMMETRY IN PELVIC OBLIQUITY



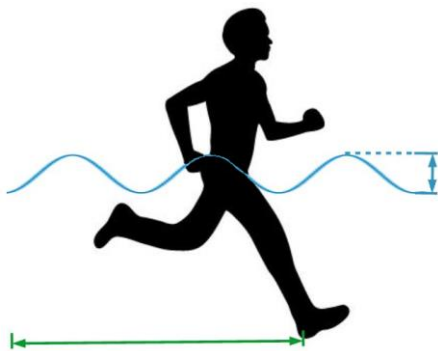
Left ASIS track Right ASIS track

PELVIC TRACK

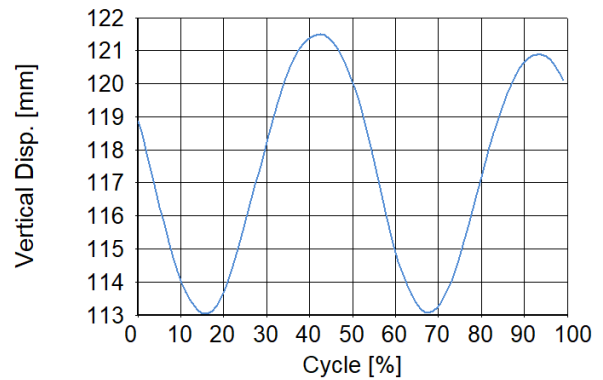


VERTICAL RATIO

$$VR \% = (\text{Vertical Displacement} / \text{Stride Length}) * 100$$



COG VERTICAL DISPLACEMENT



3.50 %



Min:
112.61 cm

Max:
122.14 cm

Range:
9.53 cm

FRONTAL DISPLACEMENT OF THE WRIST FROM THE COG

	Min	Mean	Max
Left	-155.80 mm	23.99 mm	163.37 mm
Right	-133.64 mm	15.06 mm	143.04 mm

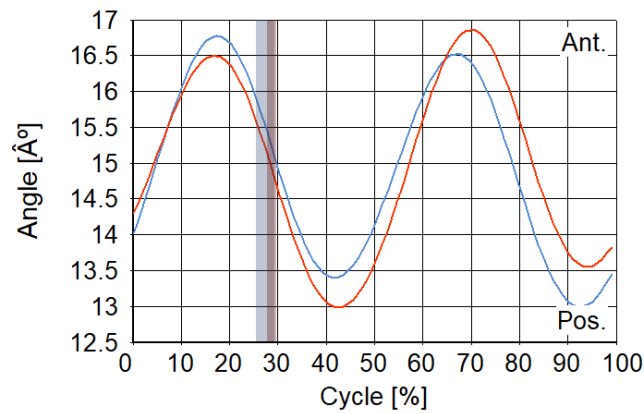
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7. UPPER BODY ANALYSIS

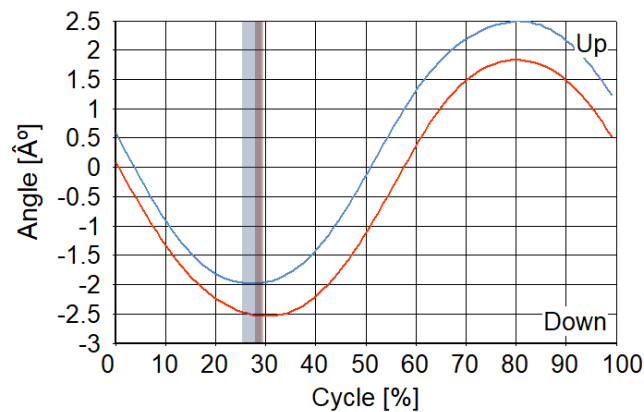
UPPER BODY TILT

	Angle (°)
Min	12.28
Max	17.89
Range	5.61



UPPER BODY LATERAL FLEX.

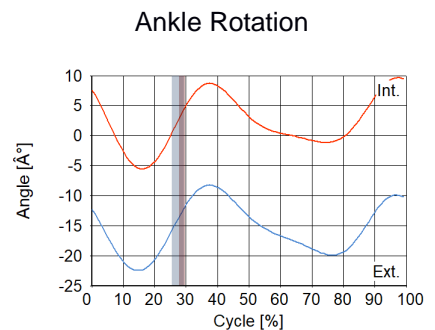
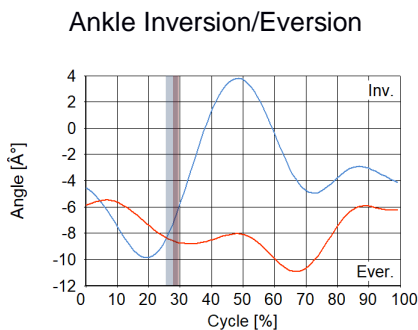
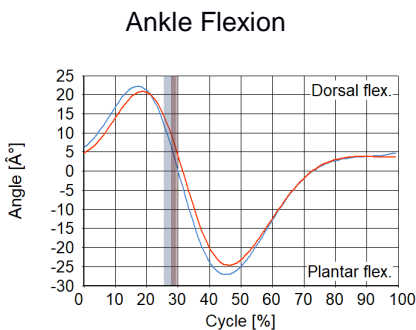
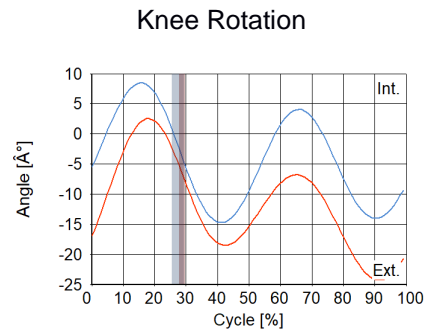
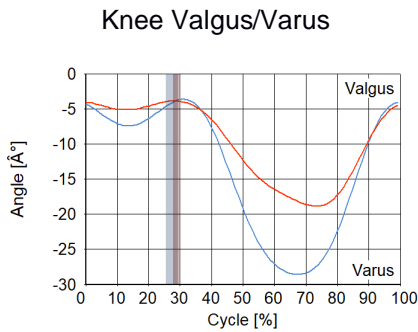
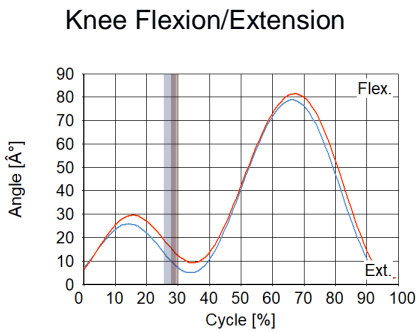
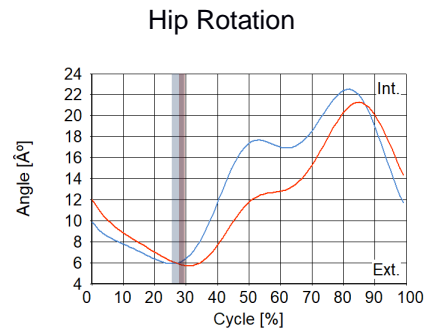
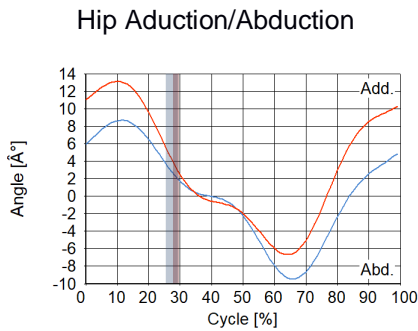
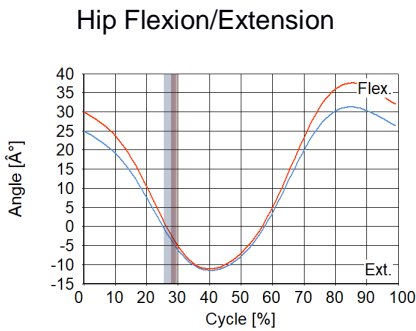
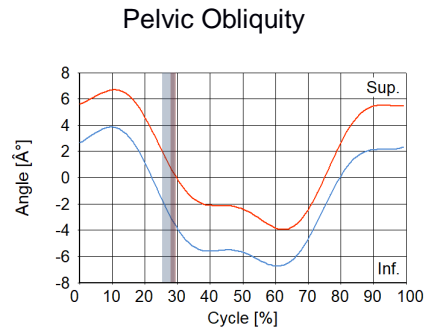
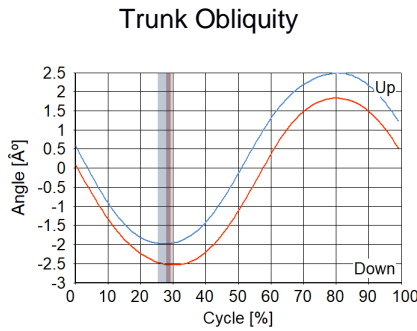
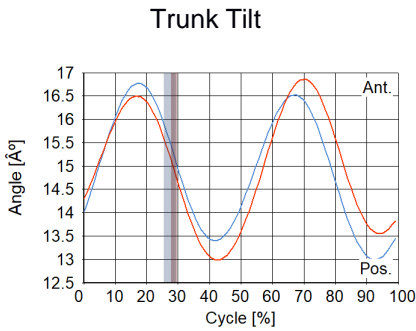
	Angle (°)
Min	-2.85
Max	3.32
Range	6.17



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8. SUMMARY



9. CONCLUSIONS

10. RECOMMENDATIONS
