

Order ID: 11300d8a-3968-4157-86bb-88f7c9efc96a

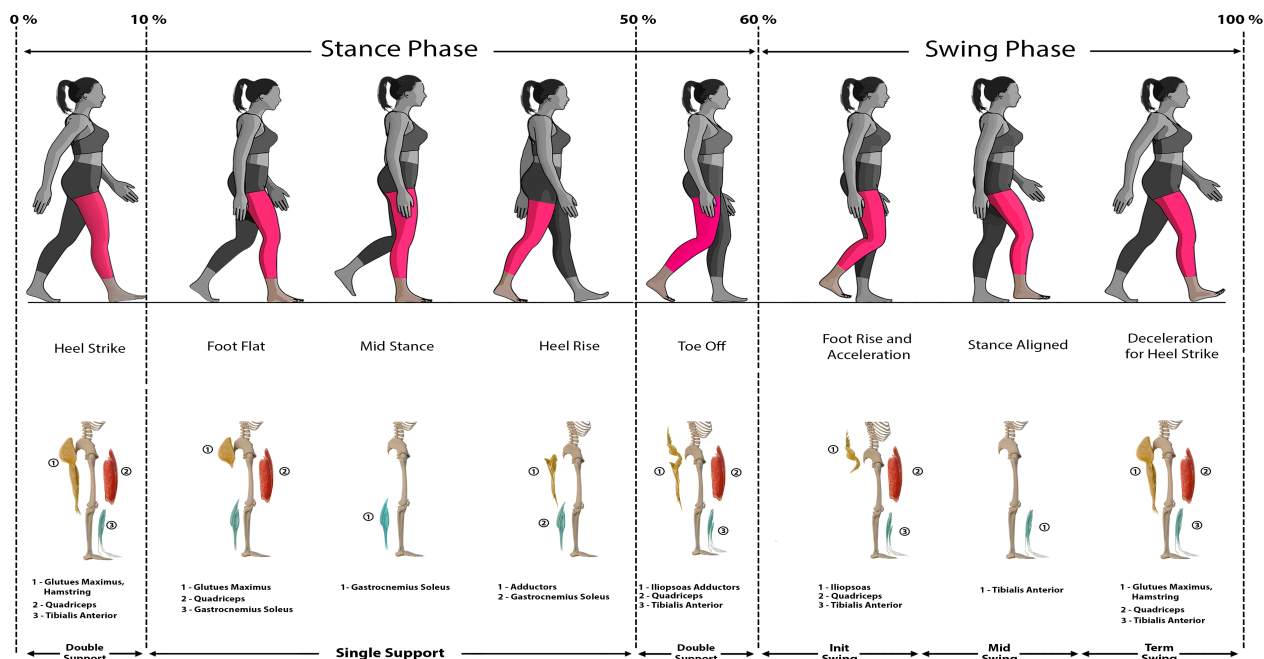
Date: 2025-08-14 14:19:44

Video Name: 11300d8a-3968-4157-86bb-88f7c9efc96a

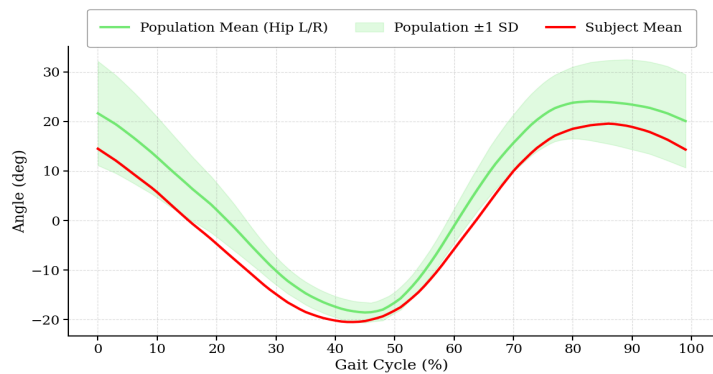
Description:

Hip Kinematics (Saggital Plane)

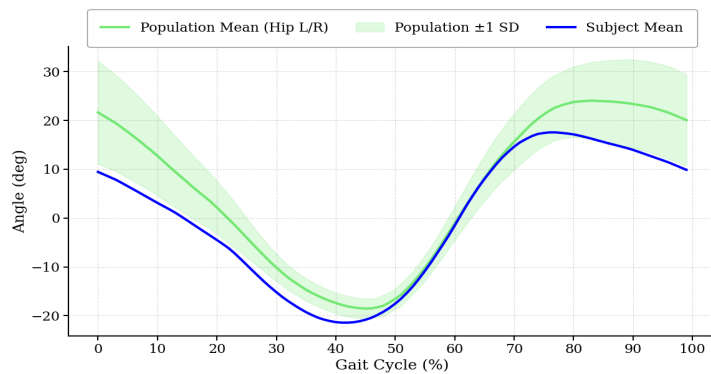
Right Leg Muscle Activation



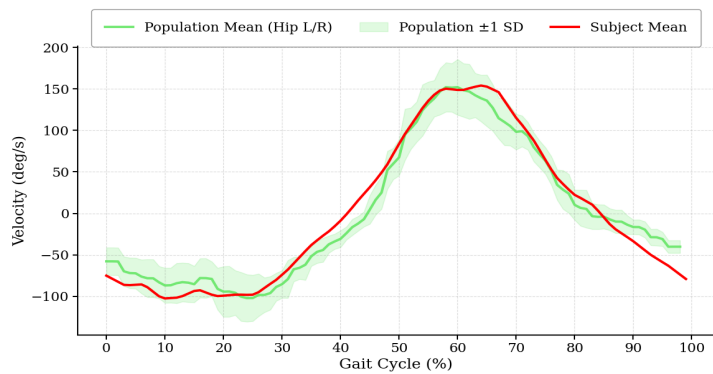
Left Hip Cycles



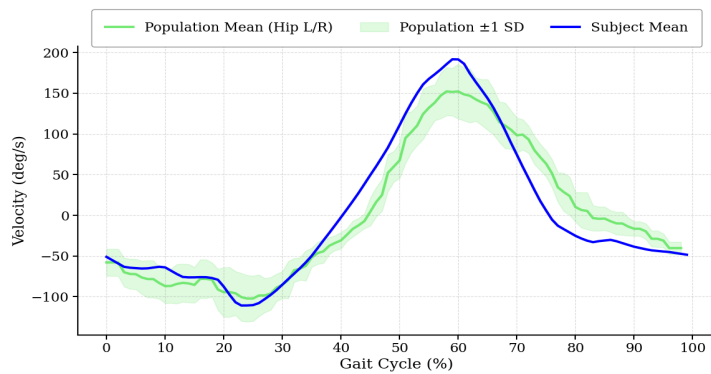
Right Hip Cycles



Left Hip Velocity Cycles



Right Hip Velocity Cycles



Order ID: 11300d8a-3968-4157-86bb-88f7c9efc96a

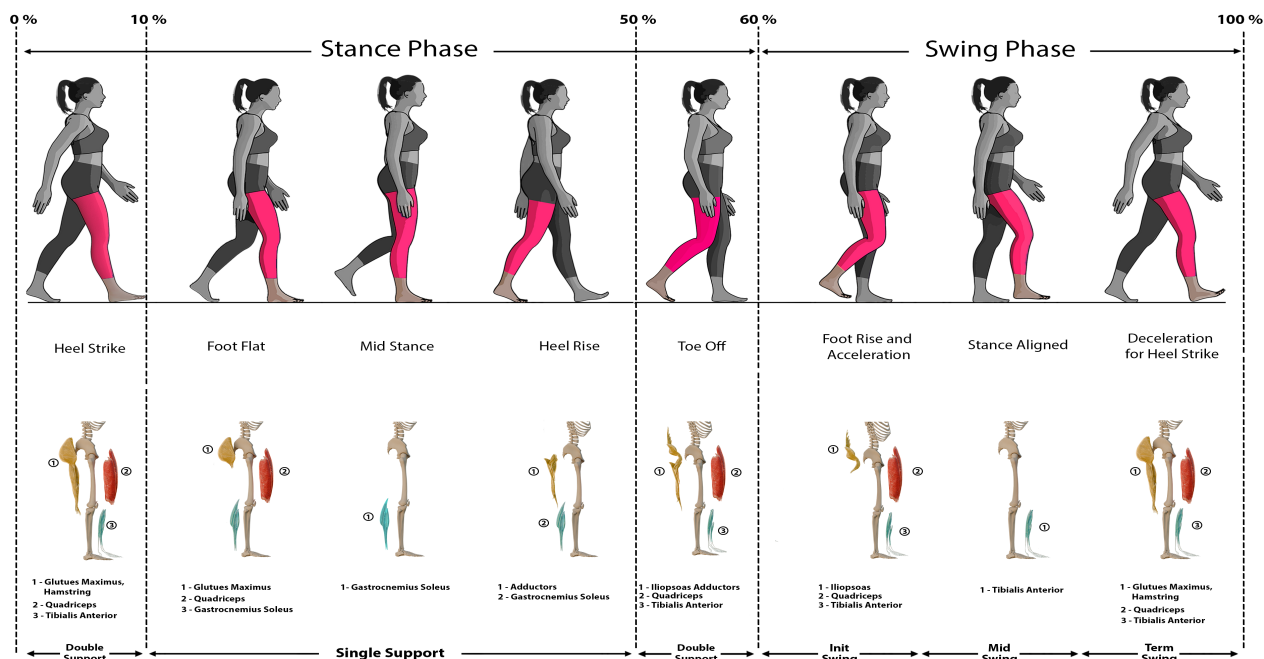
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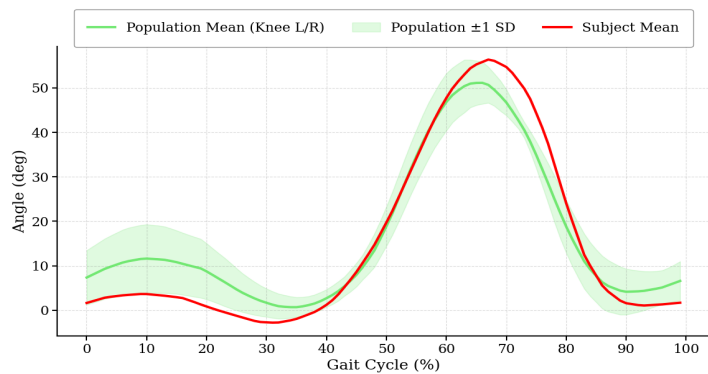
Description:

Knee Kinematics (Sagittal Plane)

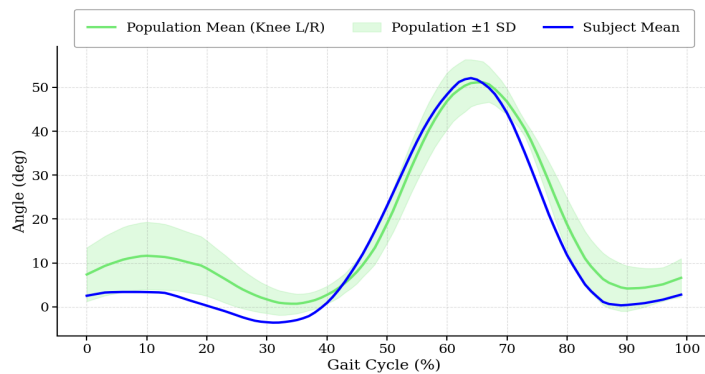
Right Leg Muscle Activation



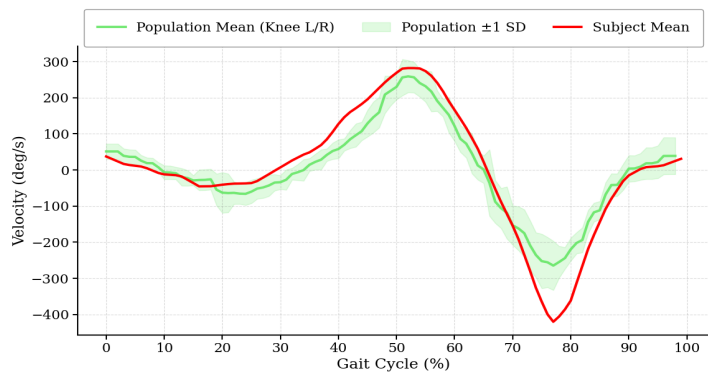
Left Knee Cycles



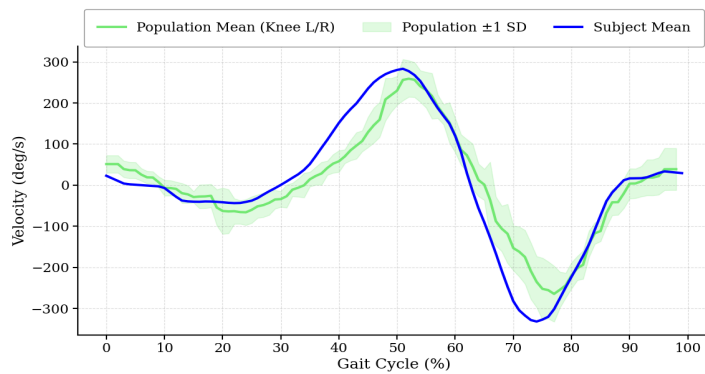
Right Knee Cycles



Left Knee Velocity Cycles

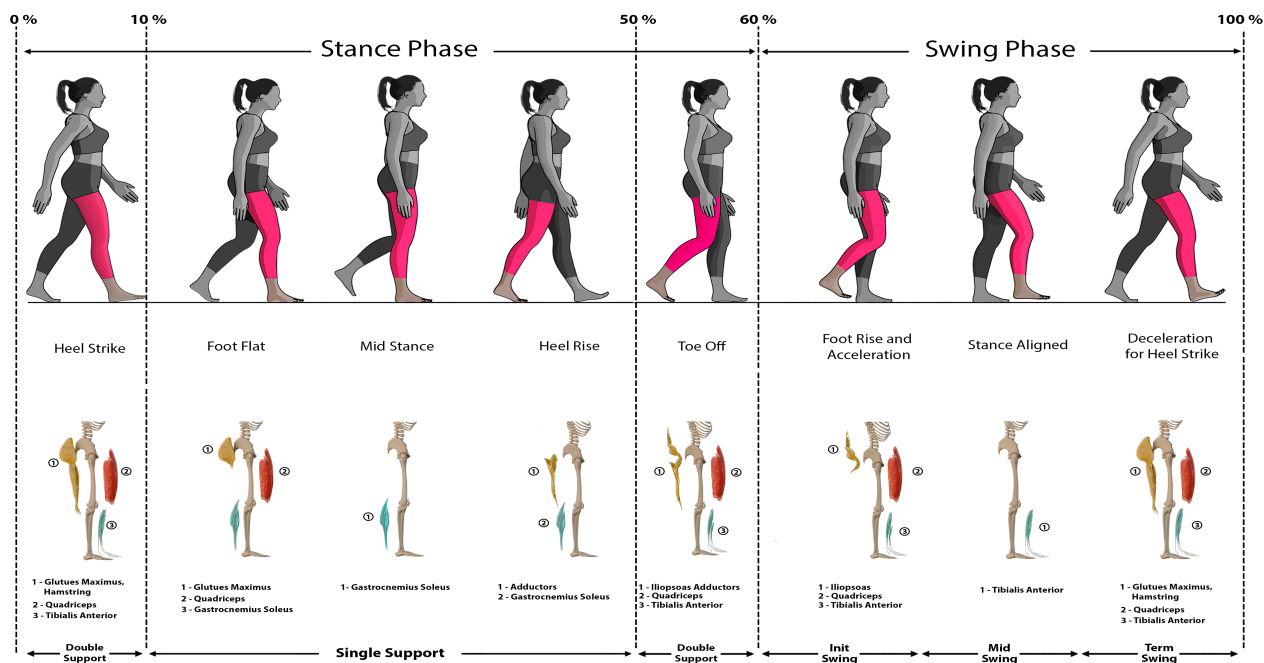


Right Knee Velocity Cycles

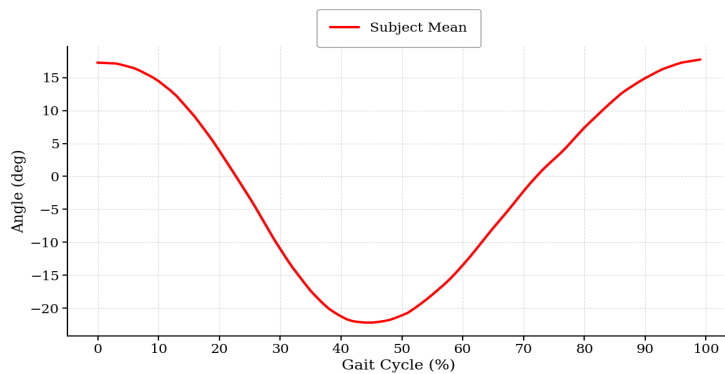


Shoulder Kinematics (Saggital Plane)

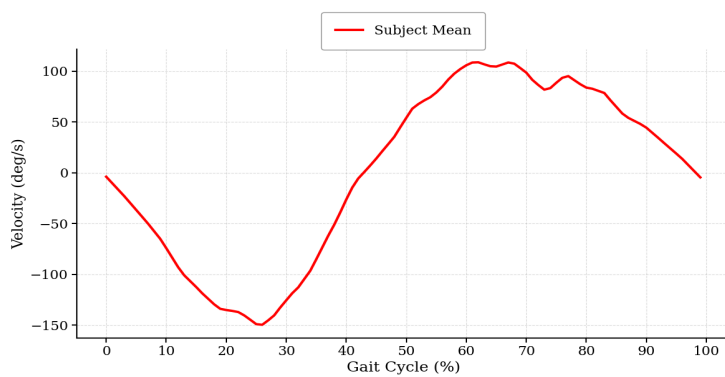
Right Leg Muscle Activation



Left Shoulder Cycles



Left Shoulder Cycles



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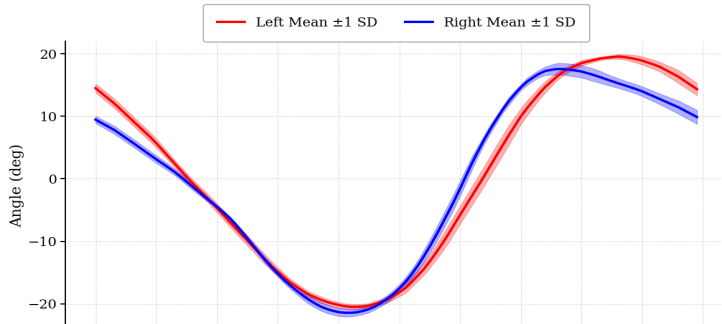
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Video Name: 11300d8a-3968-4157-86bb-88f7c9efc96a

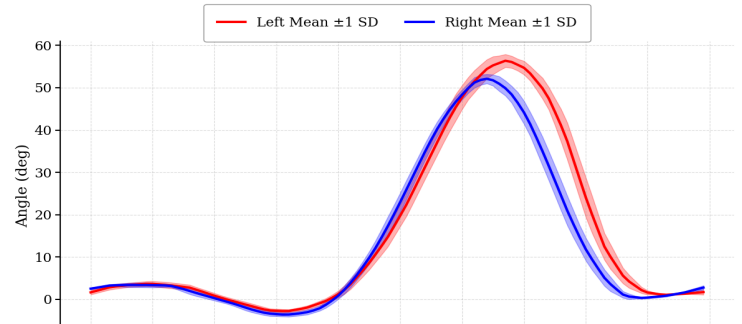
Description:

Asymmetry Analysis (Saggital Plane)

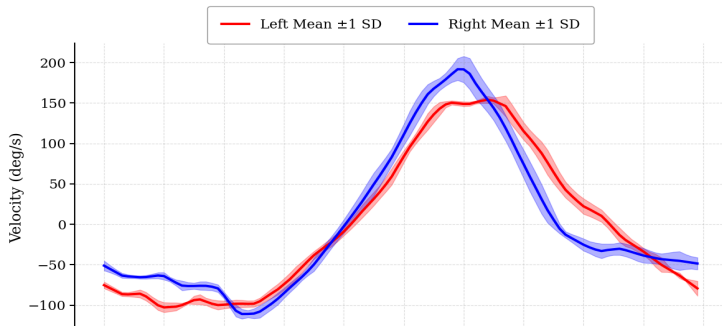
Hip Angle Comparison



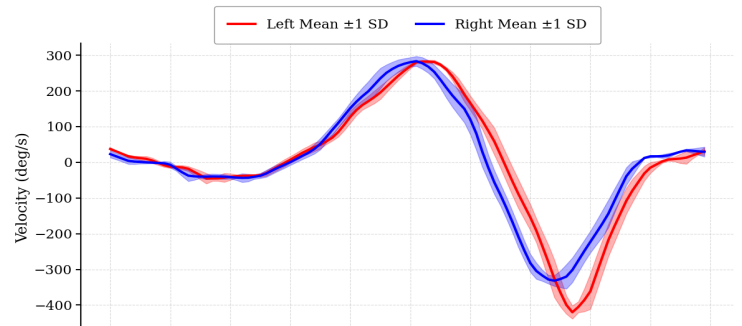
Knee Angle Comparison



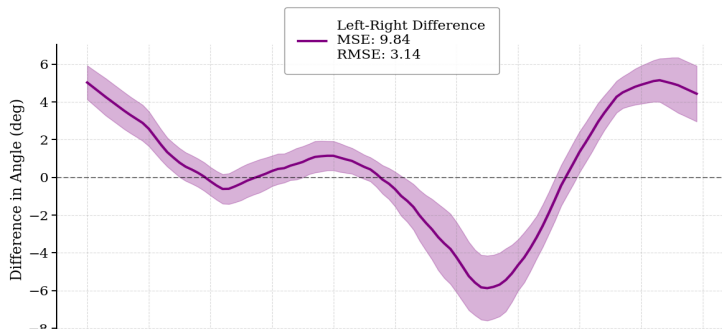
Hip Velocity Comparison



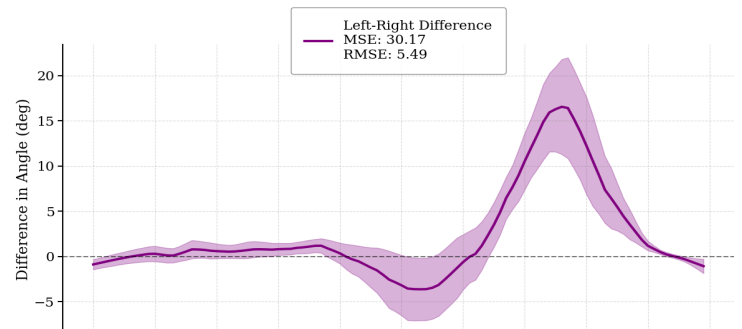
Knee Velocity Comparison



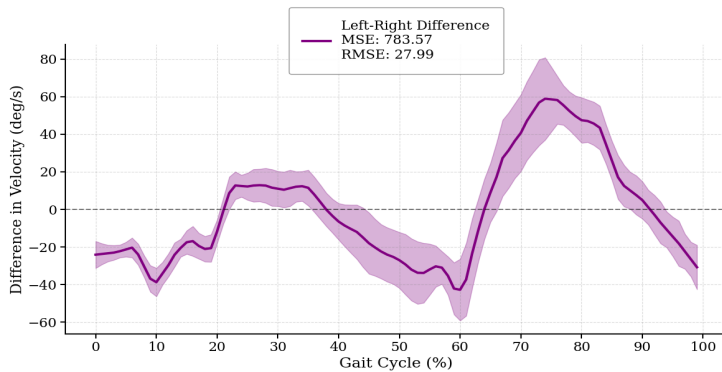
Hip Angle Difference



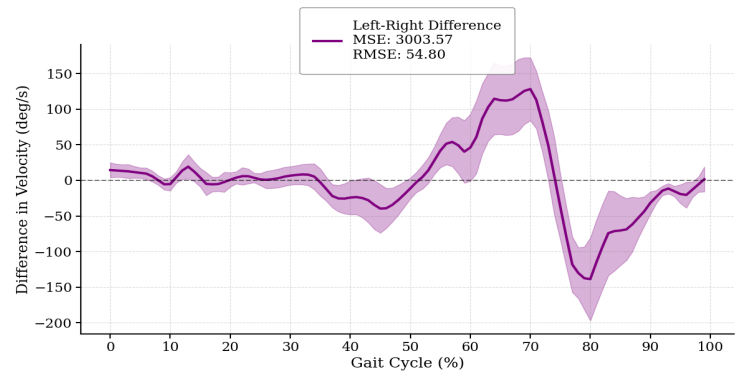
Knee Angle Difference



Hip Velocity Difference



Knee Velocity Difference



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Video Name: 11300d8a-3968-4157-86bb-88f7c9efc96a

Description:

Kinematic Gait Parameters

	Side	Step Time(s)	Stance Time(s)	Swing Time(s)	Stride Time(s)	Stride Length(m)	Step Length(m)	Stance Phase(%)	Swing Phase(%)	Cadence
	Left	0.54	0.68	0.36	1.04	0.01	0.06	65.6	34.4	115.38
	Right	0.50	0.63	0.41	1.04	0.02	0.06	60.3	39.7	115.38
	Mean	0.52	0.66	0.39	1.04	0.02	0.06	62.9	37.1	115.38

Approximate range (95% limits) for general gait parameters in free-speed walking by normal FEMALE subjects of different ages

Age (years)	Cadence (steps/min)	Cycle time (s)	Stride length (m)	Speed (m/s)
13-14	103-150	0.80-1.17	0.99-1.55	0.90-1.62
15-17	100-144	0.83-1.20	1.03-1.57	0.92-1.64
18-49	98-138	0.87-1.22	1.06-1.58	0.94-1.66
50-64	97-137	0.88-1.24	1.04-1.56	0.91-1.63
65-80	96-136	0.88-1.25	0.94-1.46	0.80-1.52

Approximate range (95% limits) for general gait parameters in free-speed walking by normal MALE subjects of different ages

Age (years)	Cadence (steps/min)	Cycle time (s)	Stride length (m)	Speed (m/s)
13-14	100-149	0.81-1.20	1.06-1.64	0.95-1.67
15-17	96-142	0.85-1.25	1.15-1.75	1.03-1.75
18-49	91-135	0.89-1.32	1.25-1.85	1.10-1.82
50-64	82-126	0.95-1.46	1.22-1.82	0.96-1.68
65-80	81-125	0.96-1.48	1.11-1.71	0.81-1.61

Approximate range (95% limits) for general gait parameters in free-speed walking by normal CHILDREN of different ages. (Ages one to seven based on reference Sutherland et al., 1988)

Age (years)	Cadence (steps/min)	Cycle time (s)	Stride length (m)	Speed (m/s)
1	127-223	0.54-0.94	0.29-0.58	0.32-0.96
1.5	126-212	0.57-0.95	0.33-0.66	0.39-1.03
2	125-201	0.60-0.96	0.37-0.73	0.45-1.09
2.5	124-190	0.63-0.97	0.42-0.81	0.52-1.16
3	123-188	0.64-0.98	0.46-0.89	0.58-1.22
3.5	122-186	0.65-0.98	0.50-0.96	0.65-1.29
4	121-184	0.65-0.99	0.54-1.04	0.67-1.32
5	119-180	0.67-1.01	0.59-1.10	0.71-1.37
6	117-176	0.68-1.03	0.64-1.16	0.75-1.43
7	115-172	0.70-1.04	0.69-1.22	0.80-1.48
8	113-169	0.71-1.06	0.75-1.30	0.82-1.50
9	111-166	0.72-1.08	0.82-1.37	0.83-1.53
10	109-162	0.74-1.10	0.88-1.45	0.85-1.55
11	107-159	0.75-1.12	0.92-1.49	0.86-1.57
12	105-156	0.77-1.14	0.96-1.54	0.88-1.60

Ref: Whittle, M.W., 2014. Gait analysis: an introduction. Butterworth-Heinemann.

Expert comments

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Description:

Note:

Plots:

- **Percentage-based:** A plot showing gait events as a percentage of the total cycle, measured from two successive heel strike positions.

Definitions:

- **Events:** Distinct segments of the gait cycle, divided into stance (foot on ground) and swing (foot in the air).
- **Cadence:** The number of steps per minute, indicating walking speed.
- **Leg Cycle:** One full gait cycle, from one foot position to when the same position occurs again (heel strike to the next heel strike).
- **Stride:** The phase when the foot is off the ground, moving forward to the next step.
- **Stance:** The phase of the gait cycle when the foot is in contact with the ground, providing support for the body.
- **Toe Off:** The moment the toes leave the ground, ending stance and starting the swing phase.
- **Heel Strike:** The initial contact of the heel with the ground at the start of the stance phase of the gait cycle.
- **Gait Step:** A gait step is the movement from one foot's heel strike to the opposite foot's heel strike.

Angles:

- **Knee Angle:** The complement angle formed at the knee joint between the thigh and shank.
- **Hip Angle:** The complement angle between the thigh and a vertical line drawn from the ground.