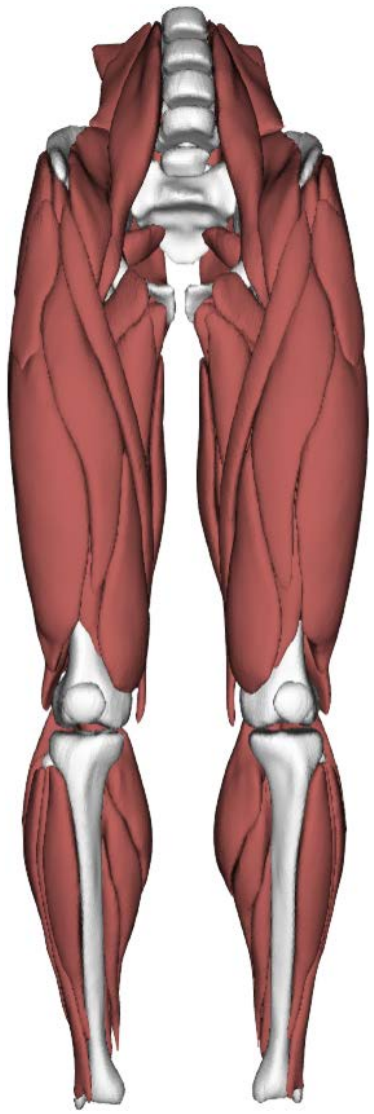
Subject 9
Carnegie Mellon University
Date of Scan | 02.21.2023



To check out this report in 3D, visit app.springbokanalytics.com.

The Springbok report is an in-depth analysis of the subject's musculature and is not intended to be used for diagnostic purposes.

Powered By

Executive Summary

Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

Key Observations

1. **Asymmetry:** Notable asymmetry in the adductor brevis, semimembranosus, gracilis, and soleus, all of which are larger on the right side.
2. **Asymmetry:** Notable asymmetry in the biceps femoris short head, vastus lateralis, and adductor magnus, all of which are larger on the left side.
3. **Development:** Notably high bilateral development in the gemelli.
4. **Development:** Notably low bilateral development in the popliteus and obturator internus.

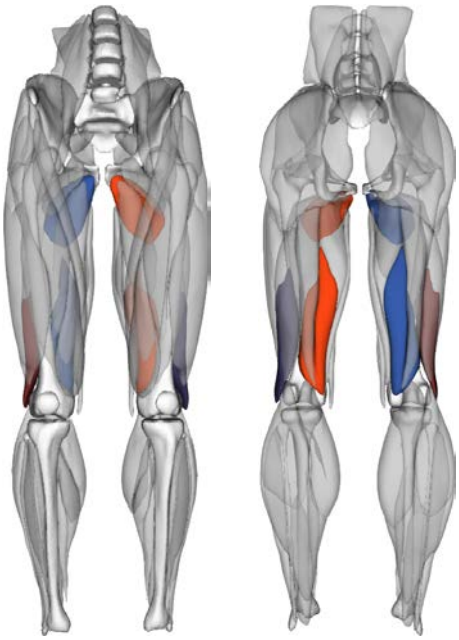
No injuries quantified.

Executive Summary

Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

Asymmetry Profile

Muscles with the greatest volumetric differences between legs are identified below. Blue muscles indicate a muscle is larger on that side, and the corresponding muscle on the opposing leg will be colored red.

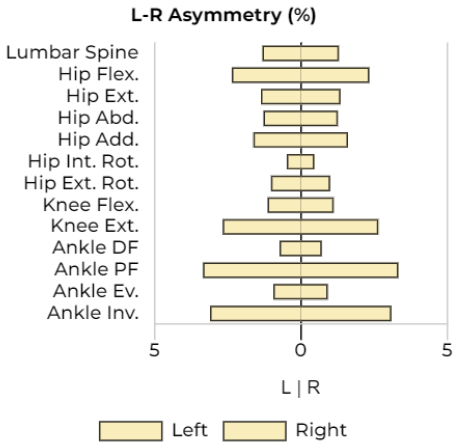


Muscle Groups

Left	Right

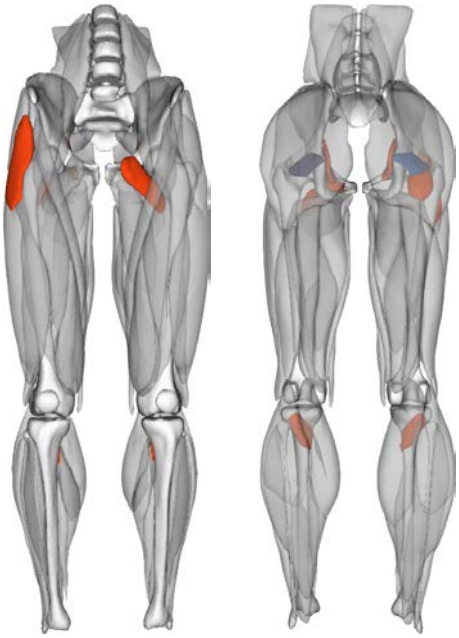
Individual Muscles

Left	Right
Semimembranosus	Biceps Femoris: Short Head
Adductor Brevis	



Development Profile

Muscle volumes are scored from 0-100, with expected volume based on the subject's height and weight scored as 50. Muscles deviating most from their expected volume are identified below, where blue muscles are larger and red muscles are smaller than expected.

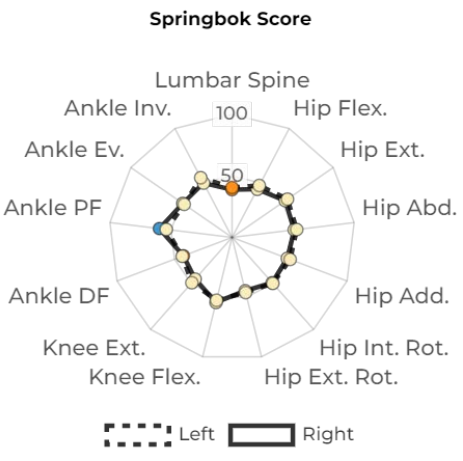


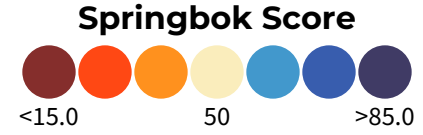
Muscle Groups

Left	Right

Individual Muscles

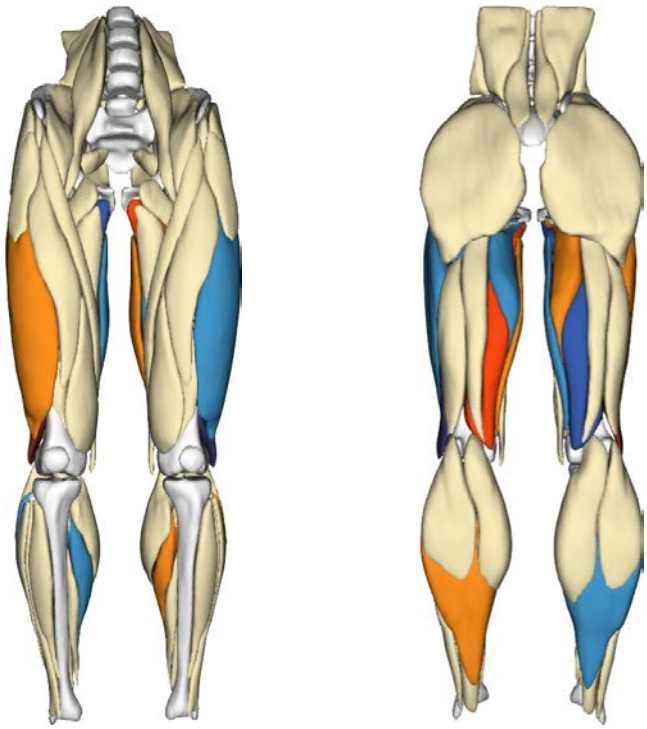
Left	Right
Gemelli	Gemelli
Obturator Internus	Popliteus
Pectineus	Tensor Fasciae Latae
Popliteus	Obturator Internus
	Quadratus Femoris





Full Lower Extremity
Muscle Asymmetry Profile

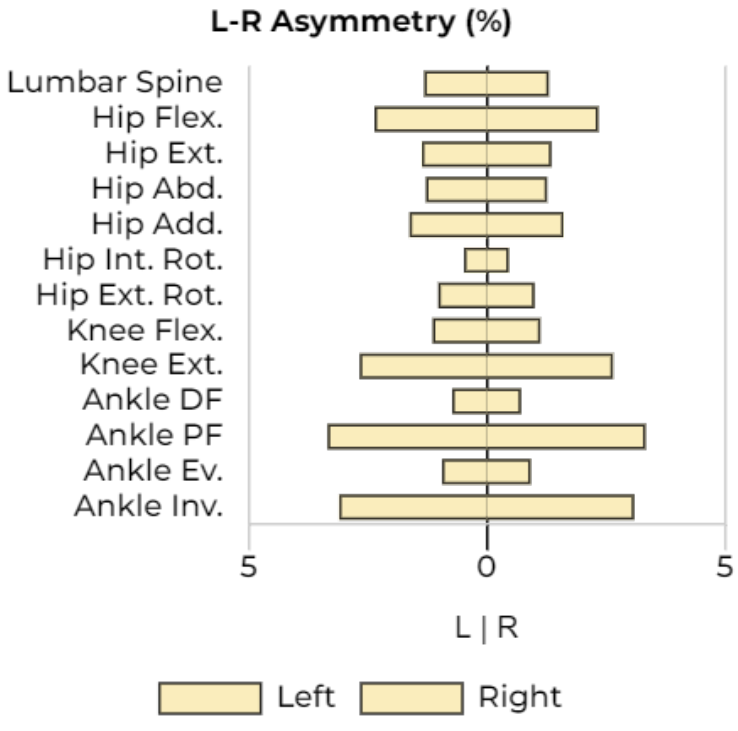
Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023



L | R Asymmetry

Smaller Normal Larger

	Group	L	R
Hip & Trunk	Lumbar Spine	1.3%	-1.3%
	Flexors	2.3%	-2.3%
	Extensors	1.4%	-1.4%
	Abductors	1.3%	-1.3%
	Adductors	1.6%	-1.6%
	Internal Rotators	0.5%	-0.5%
	External Rotators	1.0%	-1.0%
Knee	Flexors	-1.1%	1.1%
	Extensors	2.7%	-2.7%
Ankle	Dorsiflexors	0.7%	-0.7%
	Plantar Flexors	-3.3%	3.3%
	Evertors	-0.9%	0.9%
	Invertors	3.1%	-3.1%



Most Asymmetric Muscle Groups

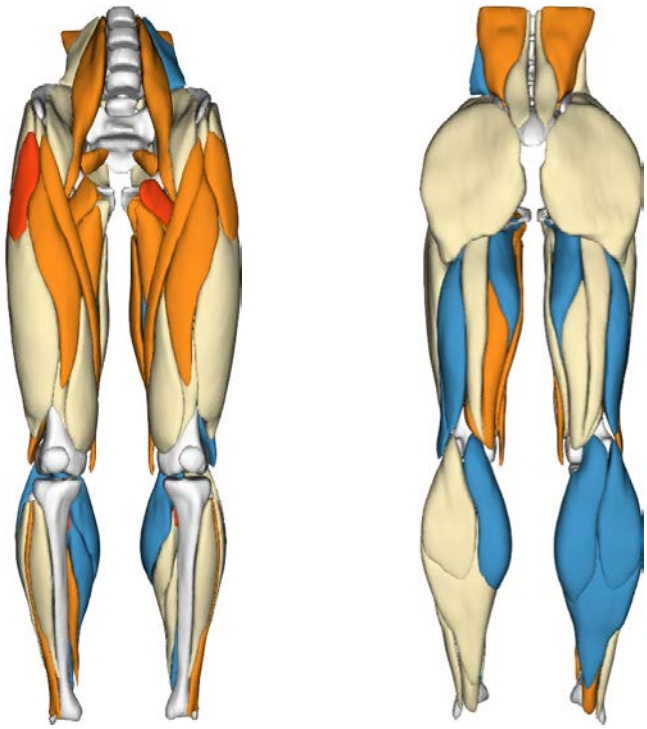
1. Hip Flexors
2. Ankle Plantar Flexors

Most Symmetric Muscle Groups

1. Hip Internal Rotators
2. Ankle Dorsiflexors

Full Lower Extremity
Muscle Development Profile

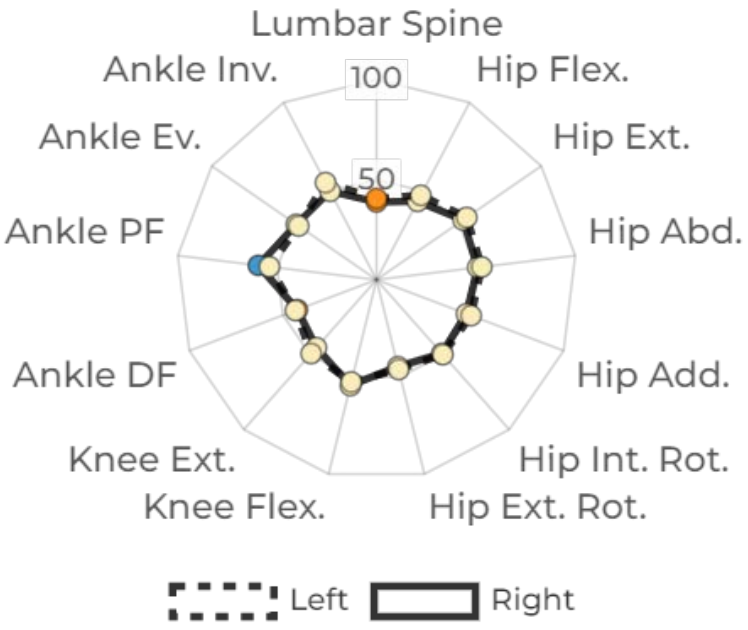
Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023



Springbok Score

	Group	L	R
Hip & Trunk	Lumbar Spine	40.6	38.9
	Flexors	47.6	44.2
	Extensors	54.8	52.6
	Abductors	53.0	51.0
	Adductors	50.5	48.1
	Internal Rotators	50.0	49.3
	External Rotators	46.2	44.7
Knee	Flexors	52.7	54.5
	Extensors	49.3	45.3
Ankle	Dorsiflexors	43.3	42.3
	Plantar Flexors	53.9	59.5
	Evertors	47.3	48.7
	Invertors	54.8	49.9

Springbok Score



Highest Scoring Muscle Groups

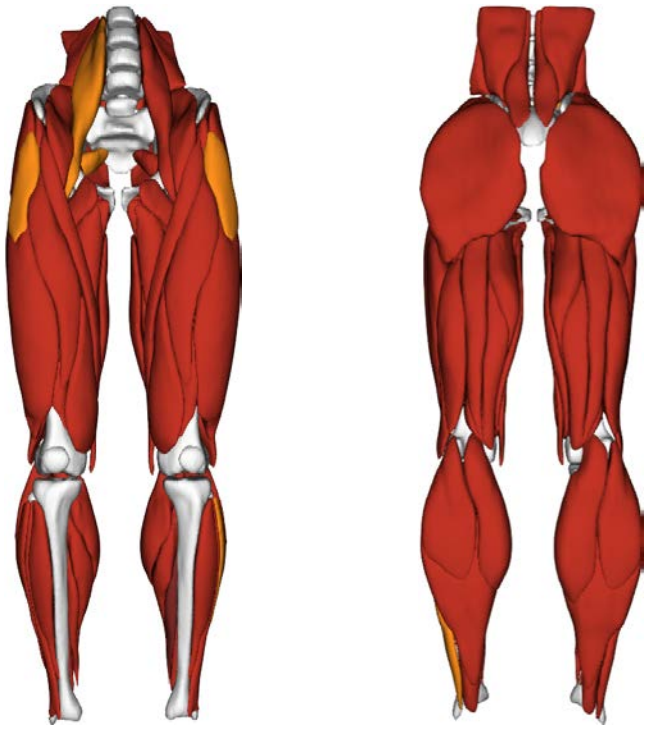
1. Ankle Plantar Flexors
2. Hip Extensors

Lowest Scoring Muscle Groups

1. Lumbar Spine
2. Ankle Dorsiflexors

Full Lower Extremity
Fat Infiltration Profile

Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023



Fat Infiltration

>60.0% <5.0%

	Group	L	R
Hip & Trunk	Lumbar Spine	13.0%	12.5%
	Flexors	10.5%	10.8%
	Extensors	12.1%	11.6%
	Abductors	12.4%	13.5%
	Adductors	9.6%	9.6%
	Internal Rotators	12.3%	13.0%
	External Rotators	13.0%	12.3%
Knee	Flexors	12.7%	12.4%
	Extensors	9.7%	8.1%
Ankle	Dorsiflexors	8.1%	7.2%
	Plantar Flexors	10.3%	10.4%
	Evertors	15.2%	11.0%
	Invertors	7.6%	7.2%

Most Fat Infiltrated Muscle Groups

1. L. Ankle Evertors
2. R. Hip Abductors

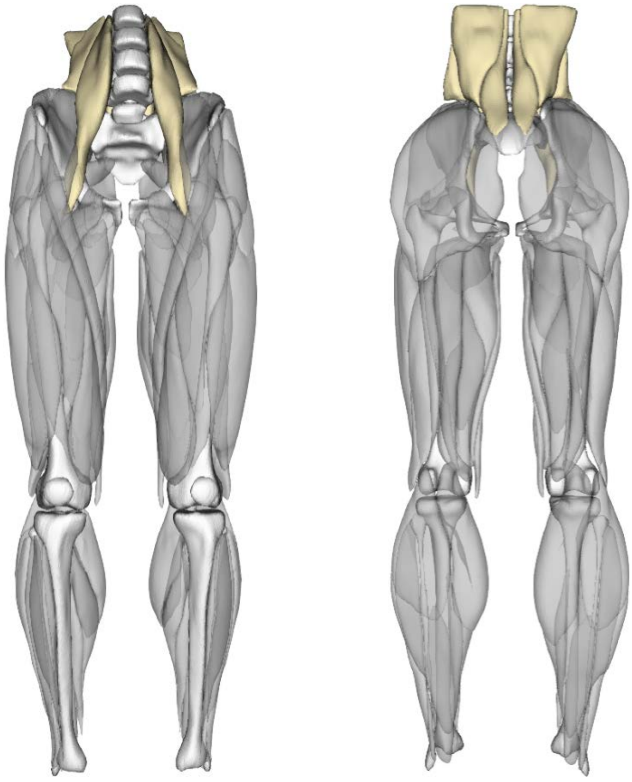
Least Fat Infiltrated Muscle Groups

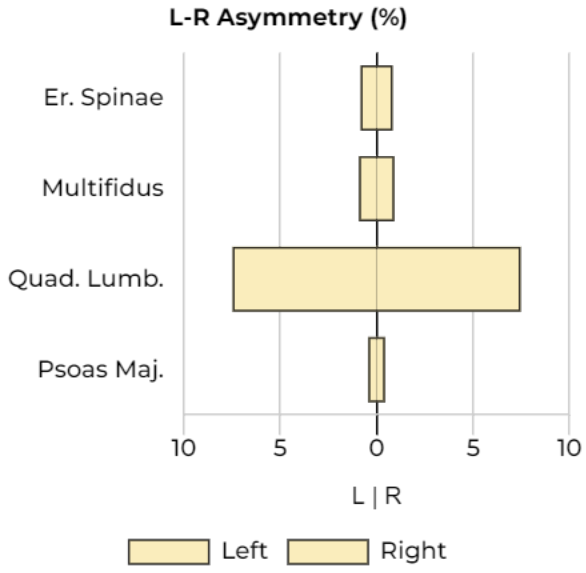
1. R. Ankle Dorsiflexors
2. R. Ankle Invertors

Muscle-Level Metrics
Lumbar Muscles

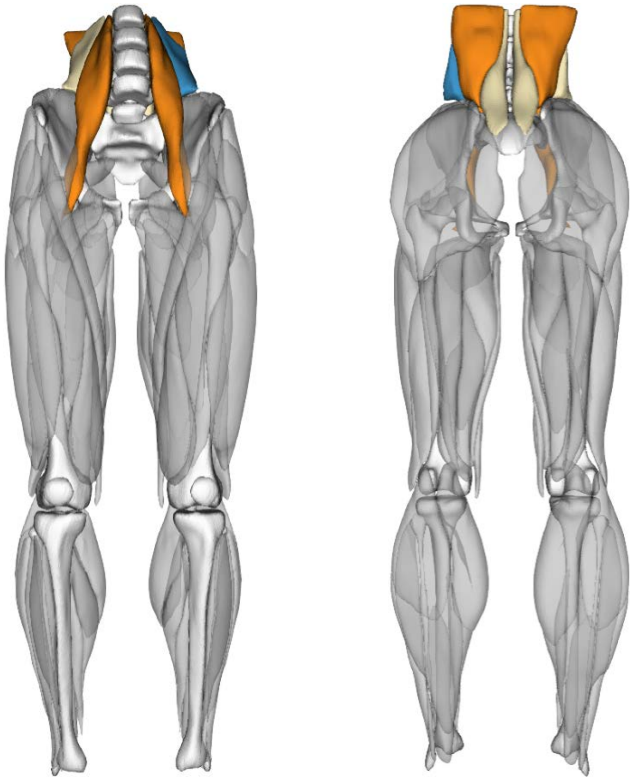
Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

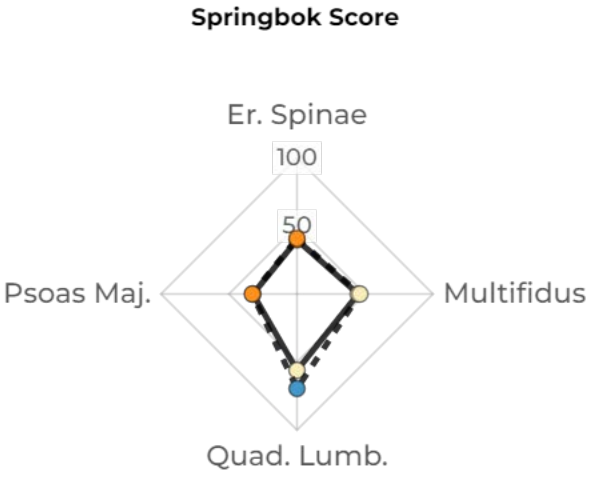
Asymmetry Profile

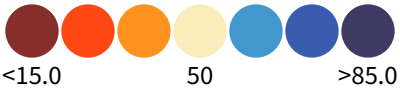




Development Profile



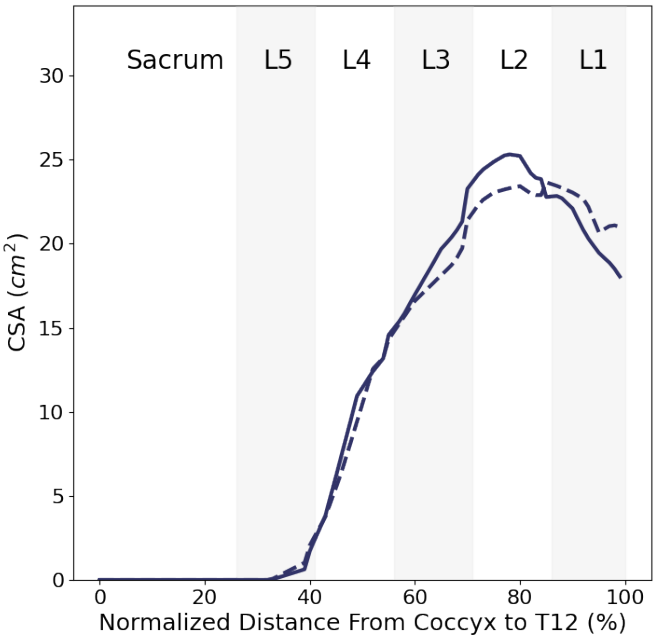




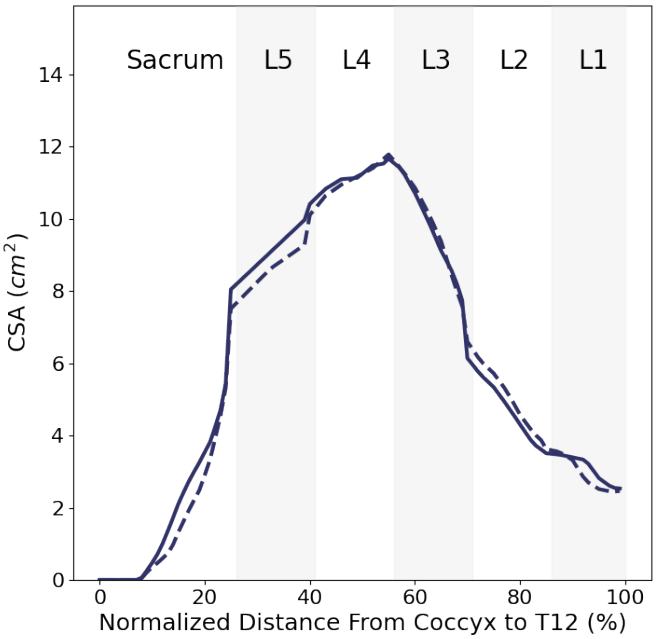
Muscle-Level Metrics
Lumbar Muscles - CSA Analysis

Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

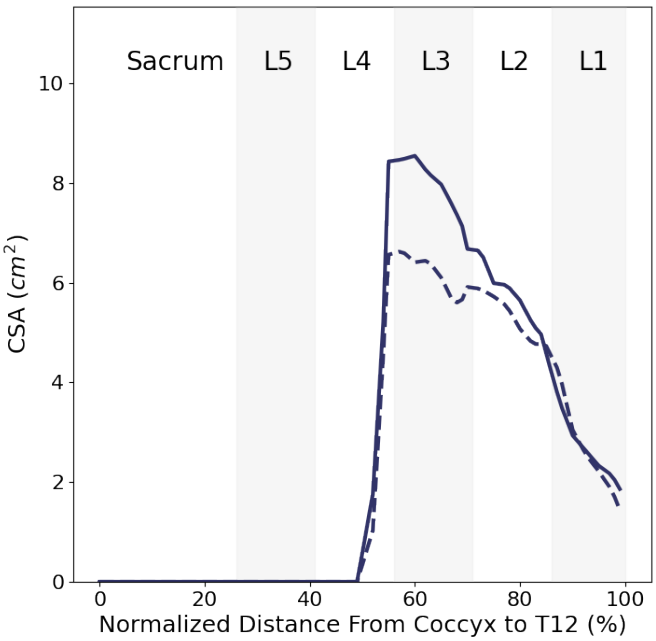
Erector Spinae



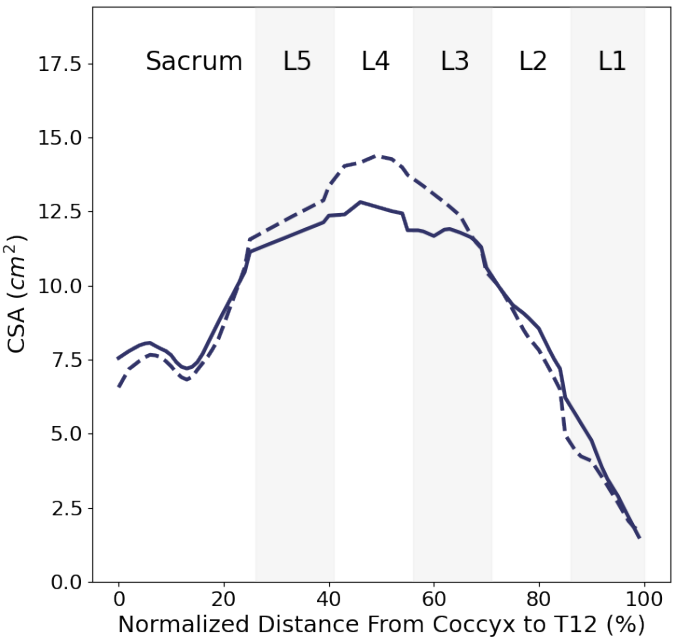
Multifidus



Quadratus Lumborum



Psoas Major

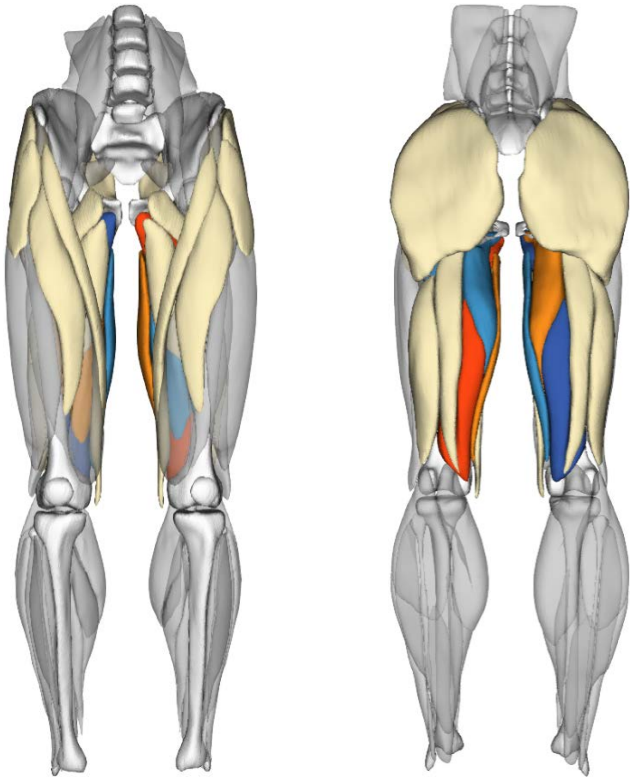


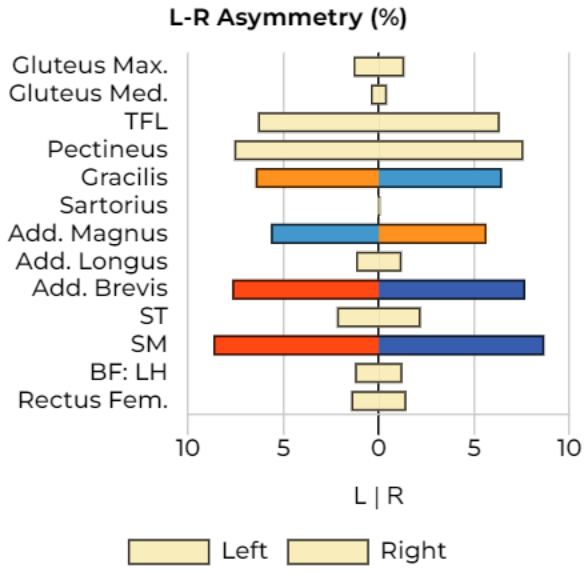
Left
Right

Muscle-Level Metrics
Superficial Hip Muscles

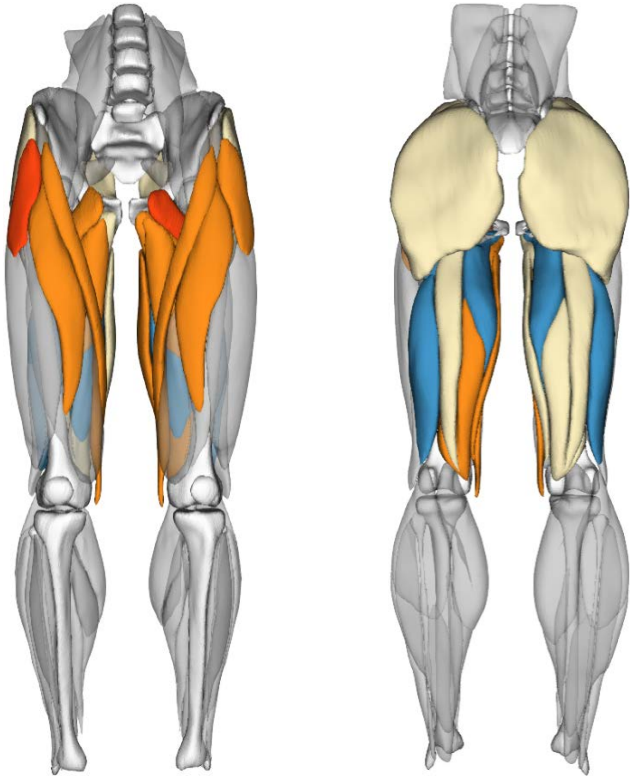
Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

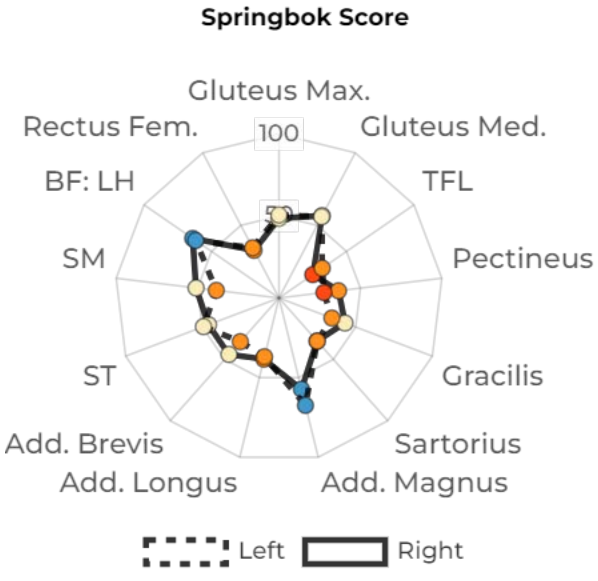
Asymmetry Profile

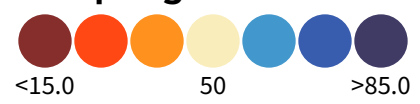




Development Profile



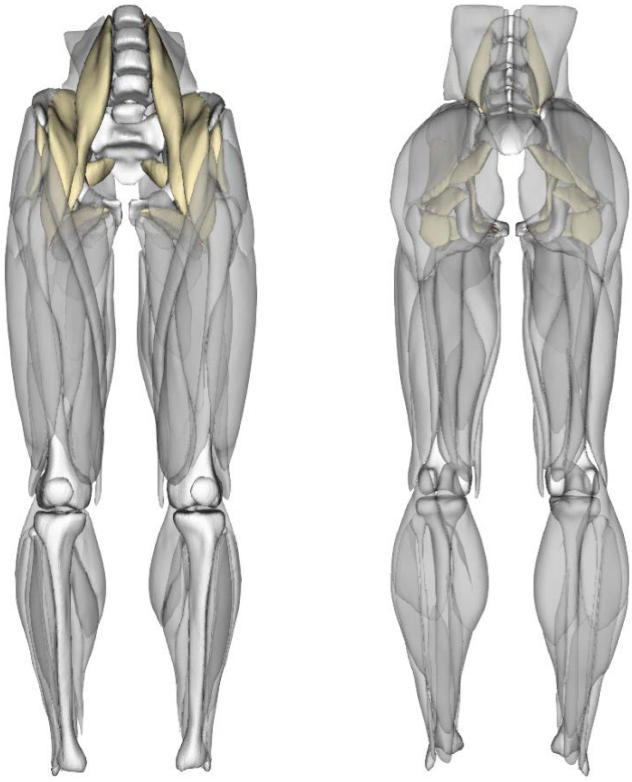




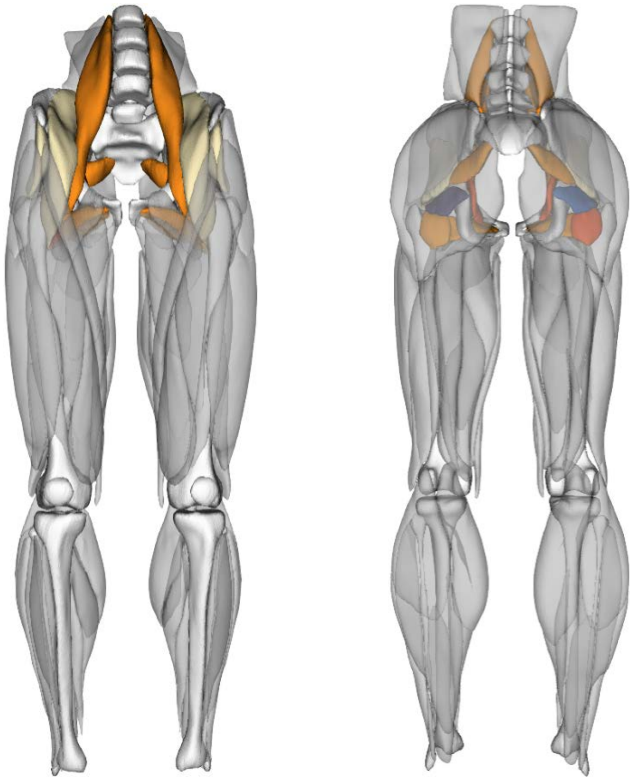
Muscle-Level Metrics
Deep Hip Muscles

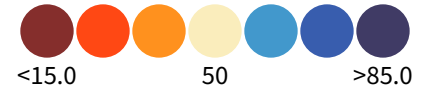
Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

Asymmetry Profile



Development Profile

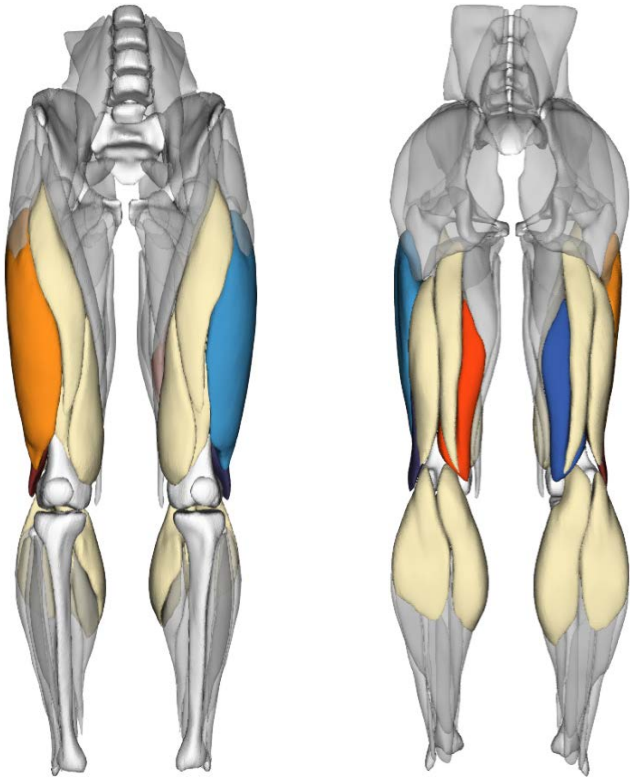


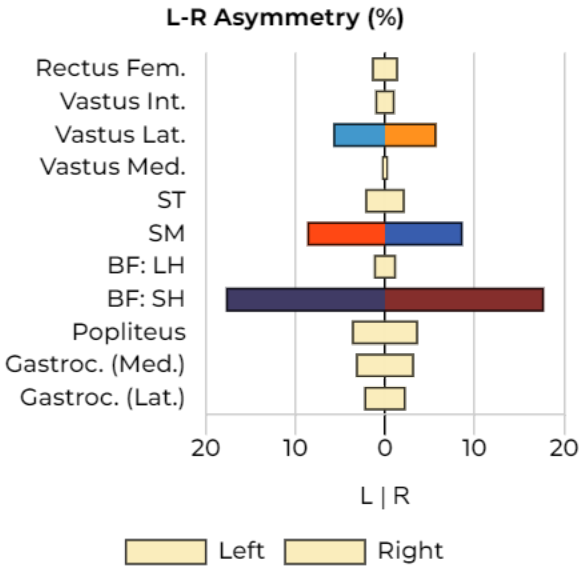


Muscle-Level Metrics
Knee Muscles

Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

Asymmetry Profile

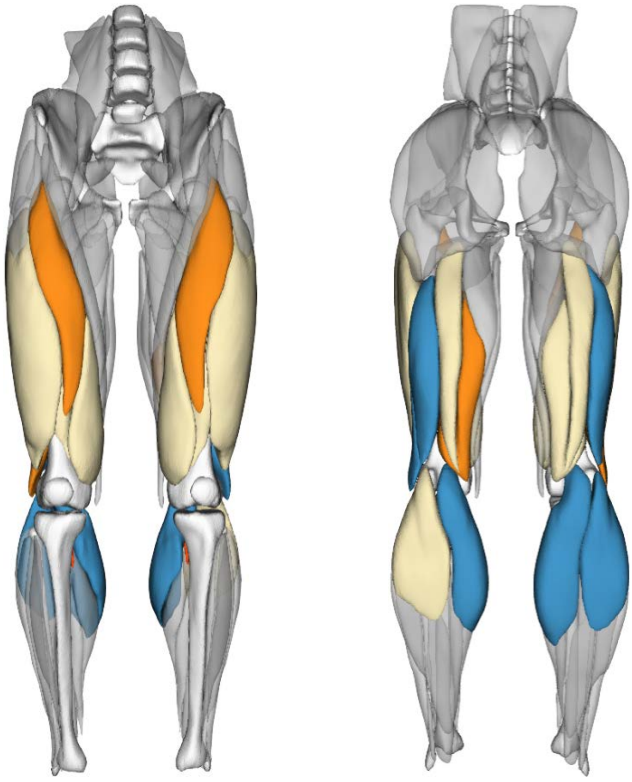


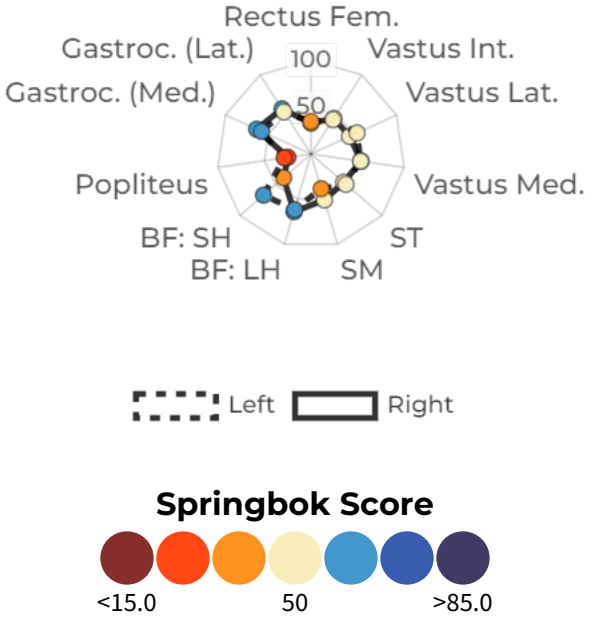


L | R Asymmetry

Smaller Normal Larger

Development Profile





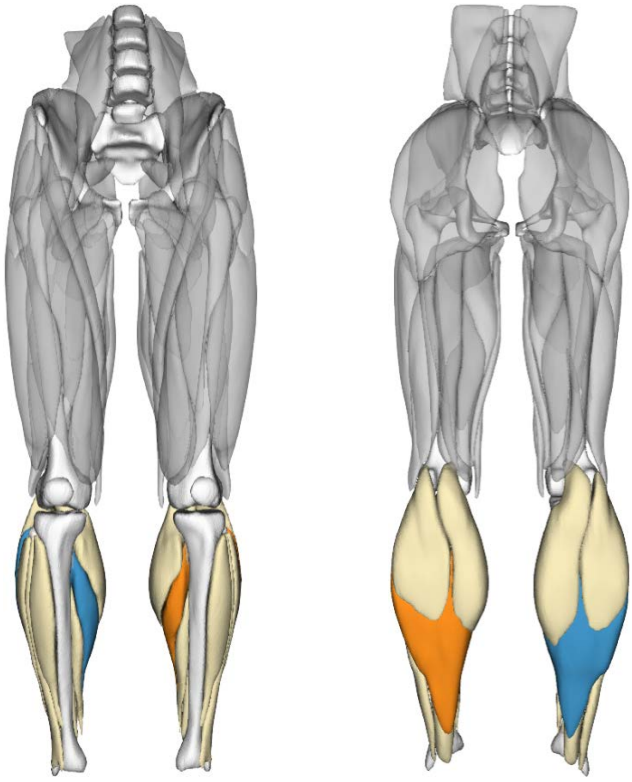
Springbok Score

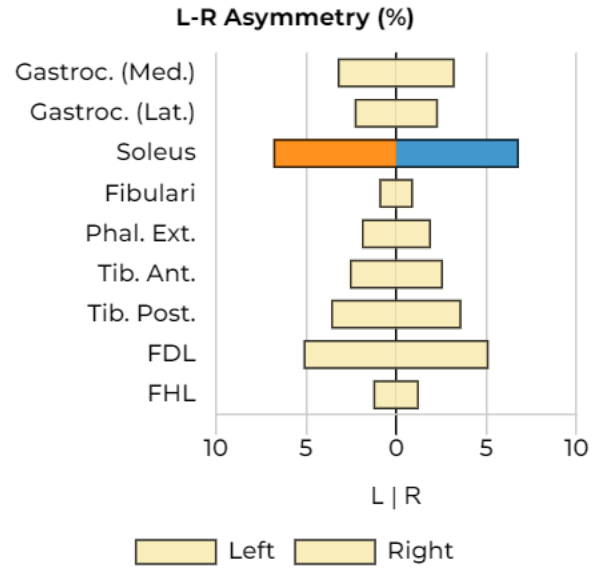
<15.0 50 >85.0

Muscle-Level Metrics
Ankle Muscles

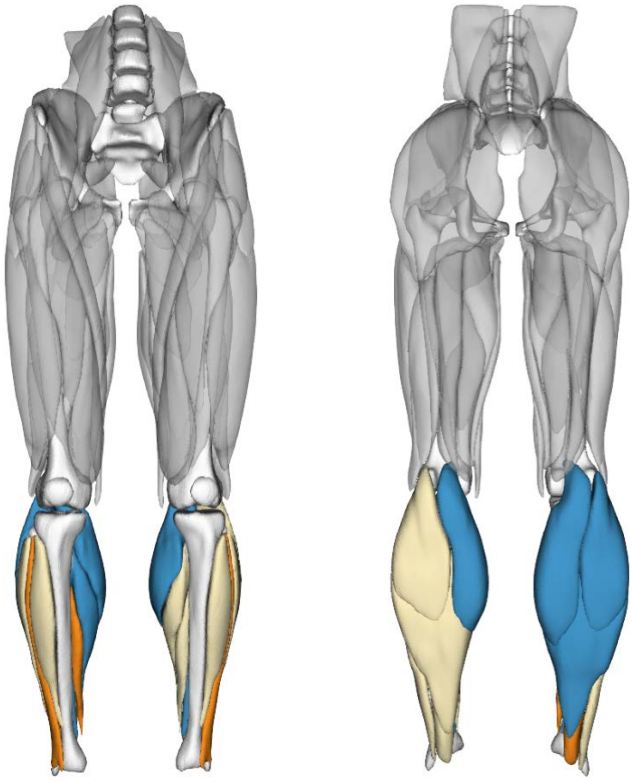
Height | 5ft 9in **Weight** | 166lbs **Scan Date** | 02.21.2023

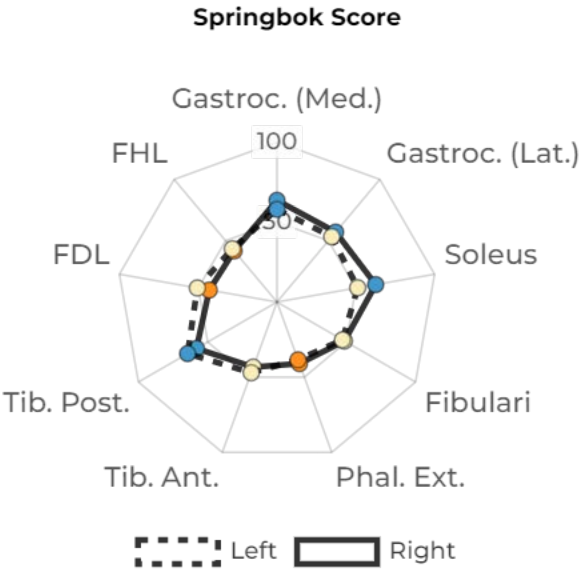
Asymmetry Profile

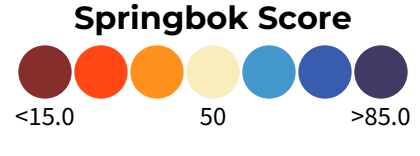




Development Profile





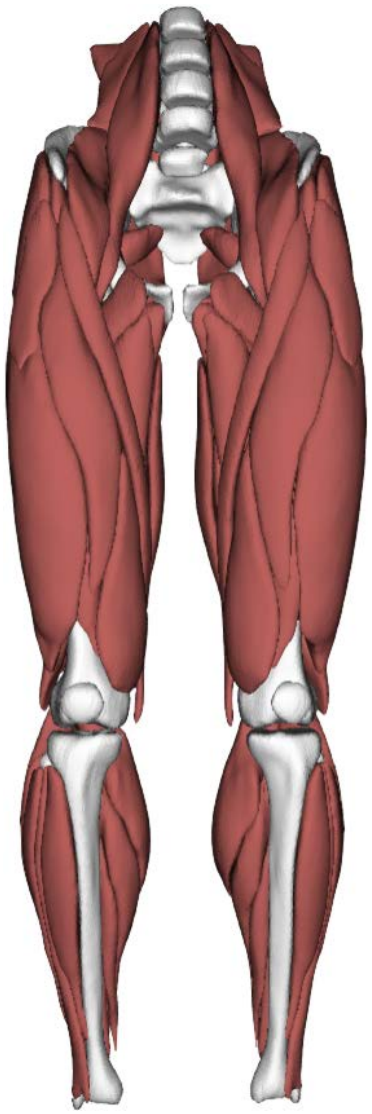


Interactive Viewer

For an interactive and in-depth view of your study, please visit the Interactive Viewer at app.springbokanalytics.com.

Features Include:

- Interactive anatomical structures
- Interactive data presentation
- Multiple viewing modes for examination of muscle characteristics
- In-depth anatomy database
- Access to original DICOM images
- Study comparison mode
- Integrated screen capture function
- Export feature to download data
- Feedback and suggestions portal



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