Supplementary Table S1. Correlations between qMRI measures of the right and left thigh and knee extension measures at baseline (n=18). FF: Fat Fraction; FFa: Fat fraction apparent; IBMFRS: Inclusion Body Myositis Functional Rating Scale; MMT: Manual Muscle Testing; T2m: T2 muscle water.
Dark grey highlights represent strong correlations. Light grey highlights represent moderate correlations.

		Right knee extension MMT	Right knee extension myometry (kg)
Right thigh FF (%)	r	-0.75**	-0.51*
	p-value	**<0.001**	**0.030**
Right thigh RMA (cm²)	r	0.56*	0.68*
	p-value	**0.015**	**0.002**
Right thigh MTR (%)	r	0.75**	0.50*
	p-value	**<0.001**	**0.036**
Right thigh FFa (%)	r	-0.71**	-0.50*
	p-value	**<0.001**	**0.034**
Right thigh T2m (ms)	r	-0.28	-0.21
	p-value	0.255	0.397
		Left knee extension MMT	Left knee extension myometry (kg)
Left thigh FF (%)	r	-0.76**	-0.32
	p-value	**<0.001**	0.194
Left thigh RMA (cm²)	r	0.53*	0.45
	p-value	**0.024**	0.062
Left thigh MTR (%)	r	0.73**	0.30
	p-value	**<0.001**	0.226
Left thigh FFa (%)	r	-0.76**	-0.37
	p-value	**<0.001**	0.130
Left thigh T2m (ms)	r	-0.18	-0.19
	p-value	0.481	0.448

Supplementary Table S2. Correlations between qMRI measures of the right and left quadriceps and knee extension measures at baseline (n=18). FF: Fat Fraction; FFa: Fat fraction apparent; IBMFRS: Inclusion Body Myositis Functional Rating Scale; MMT: Manual Muscle Testing; quads: quadriceps; T2m: T2 muscle water.
Dark grey highlights represent strong correlations. Light grey highlights represent moderate correlations.

		Right knee extension MMT	Right knee extension myometry (kg)
Right quads FF (%)	r	-0.71**	-0.64*
	p-value	**<0.001**	**0.004**
Right quads RMA (cm²)	r	0.54*	0.69*
	p-value	**0.022**	**0.001**
Right quads MTR (%)	r	0.77**	0.70*
	p-value	**<0.001**	**0.001**
Right quads FFa (%)	r	-0.79**	-0.64*
	p-value	**<0.001**	**0.004**
Right quads T2m (ms)	r	-0.44	-0.25
	p-value	0.071	0.313
		Left knee extension MMT	Left knee extension myometry (kg)
Left quads FF (%)	r	-0.64*	-0.38
	p-value	**0.004**	0.119
Left quads RMA (cm²)	r	0.47	0.55*
	p-value	0.050	**0.019**
Left quads MTR (%)	r	0.71**	0.43
	p-value	**<0.001**	0.075
Left quads FFa (%)	r	-0.71**	-0.46
	p-value	**<0.001**	0.054
Left quads T2m (ms)	r	-0.18	-0.19
	p-value	0.475	0.443

Supplementary Table S3. Correlations between qMRI measures of right individual quadriceps muscles and right knee extension measures at baseline (n=18). FF: Fat Fraction; FFa: Fat fraction apparent; MMT: Manual Muscle Testing; T2m: T2 muscle water; RF: rectus femoris; VM: vastus medialis; VI: vastus intermedius; VL: vastus lateralis.
Dark grey highlights represent strong correlations. Light grey highlights represent moderate correlations.

		Right knee extension MMT	Right knee extension myometry (kg)
Right RF FF (%)	r	-0.51*	-0.58*
	p-value	**0.031**	**0.012**
Right VM FF (%)	r	-0.77**	-0.64**
	p-value	**<0.001**	**0.005**
Right VL FF (%)	r	-0.57*	-0.57*
	p-value	**0.013**	**0.013**
Right VI FF (%)	r	-0.66**	-0.62**
	p-value	**0.003**	**0.006**
Right RF RMA (cm^2)	r	0.63**	0.77**
	p-value	**0.005**	**<0.001**
Right VM RMA (cm^2)	r	0.56*	0.73**
	p-value	**0.016**	**<0.001**
Right VI RMA (cm^2)	r	0.49*	0.61**
	p-value	**0.038**	**0.007**
Right VL RMA (cm^2)	r	0.52*	0.65**
	p-value	**0.027**	**0.004**
Right RF MTR (%)	r	0.48*	0.49*
	p-value	**0.042**	**0.041**
Right VM MTR (%)	r	0.80**	0.58*
	p-value	**<0.001**	**0.011**
Right VI MTR (%)	r	0.73**	0.66**
	p-value	**<0.001**	**0.003**
Right VL MTR (%)	r	0.56*	0.50*
	p-value	**0.015**	**0.032**
Right RF FFa (%)	r	-0.59**	-0.54*
	p-value	**0.010**	**0.021**
Right VM FFa (%)	r	-0.79**	-0.63**
	p-value	**<0.001**	**0.005**
Right VI FFa (%)	r	-0.66**	-0.47*
	p-value	**0.003**	**0.047**
Right VL FFa (%)	r	-0.57*	-0.44
	p-value	**0.015**	**0.067**
Right RF T2m (ms)	r	-0.02	-0.04
	p-value	0.941	0.884
Right VM T2m (ms)	r	-0.279	-0.200
	p-value	0.26	0.043
Right VI T2m (ms)	r	-0.49*	-0.35
	p-value	**0.039**	0.149
Right VL T2m (ms)	r	-0.24	-0.07
	p-value	0.347	0.779

Supplementary Table S4. Correlations between qMRI measures of left individual quadriceps muscles and left knee extension measures at baseline (n=18). FF: Fat Fraction; FFa: Fat fraction apparent; MMT: Manual Muscle Testing; T2m: T2 muscle water; RF: rectus femoris; VM: vastus medialis; VI: vastus intermedius; VL: vastus lateralis.
Dark grey highlights represent strong correlations. Light grey highlights represent moderate correlations.

		Left knee extension MMT	Left knee extension myometry (kg)
Left RF FF (%)	r	-0.27	-0.31
	p-value	0.284	0.216
Left VM FF (%)	r	-0.72**	-0.50*
	p-value	**<0.001**	**0.035**
Left VL FF (%)	r	-0.61*	-0.34
	p-value	**0.008**	0.174
Left VI FF (%)	r	-0.59*	-0.29
	p-value	**0.011**	0.24
Left RF RMA (cm^2)	r	0.36	0.37
	p-value	0.145	0.128
Left VM RMA (cm^2)	r	0.64*	0.56*
	p-value	**0.004**	**0.017**
Left VI RMA (cm^2)	r	0.49*	0.46
	p-value	**0.038**	0.054
Left VL RMA (cm^2)	r	0.48*	0.45
	p-value	**0.043**	0.060
Left RF MTR (%)	r	-0.01	-0.13
	p-value	0.970	0.604
Left VM MTR (%)	r	0.68*	0.43
	p-value	**0.002**	0.076
Left VI MTR (%)	r	0.76**	0.38
	p-value	**<0.001**	0.117
Left VL MTR (%)	r	0.67*	0.32
	p-value	**0.002**	0.197
Left RF FFa (%)	r	-0.64*	-0.66*
	p-value	**0.004**	**0.003**
Left VM FFa (%)	r	-0.65*	-0.37
	p-value	**0.004**	0.130
Left VI FFa (%)	r	-0.75**	-0.51*
	p-value	**<0.001**	**0.030**
Left VL FFa (%)	r	-0.57*	-0.38
	p-value	**0.014**	0.123
Left RF T2m (ms)	r	-0.16	-0.18
	p-value	0.535	0.484
Left VM T2m (ms)	r	-0.10	-0.22
	p-value	0.709	0.390
Left VI T2m (ms)	r	-0.19	-0.25
	p-value	0.452	0.324
Left VL T2m (ms)	r	-0.12	-0.10
	p-value	0.645	0.723