

Supplementary Table S1: Meaning of MOAKS scores.

Score	Meaning
<i>Meniscal extrusion</i>	
0	<2 mm
1	2-2.9 mm
2	3-4.9 mm
3	>5 mm
<i>Meniscal tear</i>	
0	Normal
2	Horizontal tear
3	Vertical tear
4	Complex tear
6	Partial maceration
7	Complete maceration
<i>Synovitis</i>	
0	None
1	Mild
2	Moderate
3	Severe
<i>Effusion</i>	
0	Physiologic amount
1	Small
2	Medium
3	Large

Supplementary Table S2: All Spearman correlations between gait domains and individual structural parameters.

Without ROA											
PC (gait domain)		Minimum JSW	FT angle	SBD	Osteophytes	FTJ ThC	Meniscal extrusion	Meniscal tear	Synovitis	Effusion	Total # BML
Upper leg	ρ	-.007	.042	-.101	-.135	-.067	.009	-.037	.058	.140	.102
	P-value	.942	.648	.266	.137	.469	.926	.685	.528	.127	.264
Lower leg	ρ	.058	-.209*	-.125	-.086	.208*	.119	.069	.134	-.080	-.047
	P-value	.523	.021	.171	.348	.022	.194	.453	.142	.386	.612
With ROA											
Upper leg	ρ	-.045	-.069	-.150	-.069	-.081	.026	-.009	.123	-.022	.108
	P-value	.586	.408	.069	.401	.332	.750	.916	.140	.789	.195
Lower leg	ρ	-.022	-.027	-.048	-.224**	.109	-.225**	-.074	.028	-.113	-.005
	P-value	.790	.745	.562	.006	.193	.006	.373	.735	.176	.953

ROA: radiographic osteoarthritis; JSW: joint space width; FT: femorotibial; SBD: subchondral bone density; FTJ ThC: FT joint cartilage thickness; BML: bone marrow lesion.

A

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.769	1.476		.521	.604	-2.160	3.697
	ROA_contra	.910	.410	.248	2.218	.029	.096	1.723
	Age	.009	.015	.064	.605	.547	-.020	.038
	Sex	-.179	.269	-.081	-.665	.507	-.713	.355
	BMI	-.029	.021	-.143	-1.369	.174	-.071	.013
	JSWmin	-.113	.157	-.094	-.717	.475	-.424	.199
	FTangle	.048	.055	.095	.878	.382	-.061	.158
	SBD	.007	.021	.036	.330	.742	-.035	.049
	Osteophytes	-.017	.020	-.094	-.816	.416	-.057	.024
	FTJ ThC	.016	.256	.008	.061	.951	-.492	.523
	MeniscalExtrusion	.083	.152	.059	.547	.586	-.219	.385
	Synovitis	-.034	.162	-.023	-.210	.834	-.355	.287
	Effusion	.173	.160	.117	1.080	.283	-.145	.491
	MeniscalTear	-.050	.054	-.103	-.935	.352	-.157	.056
	BMLnum	-.011	.144	-.008	-.078	.938	-.297	.274

a. ROA = ,00

b. Dependent Variable: GaitDomain_UpperLeg_BL

B

Coefficients^{a,b}

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.233	1.391		2.324	.022	.479	5.987
	ROA_contra	.132	.192	.063	.685	.495	-.249	.512
	Age	-.014	.013	-.098	-1.063	.290	-.041	.012
	Sex	-.274	.233	-.111	-1.176	.242	-.734	.187
	BMI	-.052	.017	-.278	-3.138	.002	-.084	-.019
	JSWmin	.011	.107	.015	.105	.916	-.201	.224
	FTangle	-.024	.032	-.078	-.754	.452	-.087	.039
	SBD	-.029	.018	-.149	-1.602	.112	-.065	.007
	Osteophytes	-.004	.005	-.078	-.755	.452	-.013	.006
	FTJ ThC	-.030	.205	-.018	-.145	.885	-.436	.376
	MeniscalExtrusion	.059	.111	.057	.529	.598	-.161	.279
	Synovitis	.273	.139	.198	1.962	.052	-.002	.548
	Effusion	-.140	.121	-.121	-1.160	.248	-.380	.099
	MeniscalTear	.039	.048	.092	.801	.424	-.057	.135
	BMLnum	-.002	.054	-.005	-.041	.967	-.110	.105

a. ROA = 1,00

b. Dependent Variable: GaitDomain_UpperLeg_BL

Supplementary Figure S1: Full regression output with the upper leg gait domain as dependent variable, for participants without radiographic osteoarthritis (ROA; A) and with ROA (B).

A**Coefficients^{a,b}**

Model		Unstandardized Coefficients		Standardized	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Coefficients Beta			Lower Bound	Upper Bound
1	(Constant)	2.158	1.198		1.801	.075	- .219	4.534
	ROA_contra	-.384	.333	-.116	-1.155	.251	-1.045	.276
	Age	-.021	.012	-.166	-1.750	.083	-.045	.003
	Sex	.470	.218	.235	2.153	.034	.037	.903
	BMI	-.042	.017	-.230	-2.437	.017	-.076	-.008
	JSWmin	.110	.127	.102	.863	.390	-.143	.363
	FTangle	-.087	.045	-.190	-1.939	.055	-.175	.002
	SBD	-.033	.017	-.185	-1.903	.060	-.067	.001
	Osteophytes	-.017	.016	-.106	-1.015	.313	-.049	.016
	FTJ ThC	.161	.208	.091	.775	.440	-.251	.573
	MeniscalExtrusion	.142	.123	.112	1.149	.253	-.103	.387
	Synovitis	.187	.131	.142	1.422	.158	-.074	.447
	Effusion	-.202	.130	-.151	-1.550	.124	-.460	.057
	MeniscalTear	.024	.044	.054	.546	.586	-.063	.110
	BMLnum	-.053	.117	-.044	-.450	.654	-.284	.179

a. ROA = ,00

b. Dependent Variable: GaitDomain_LowerLeg_BL

B**Coefficients^{a,b}**

Model		Unstandardized Coefficients		Standardized	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Coefficients Beta			Lower Bound	Upper Bound
1	(Constant)	-.130	1.330		-.098	.922	-2.764	2.503
	ROA_contra	-.148	.184	-.072	-.808	.421	-.512	.215
	Age	.004	.013	.027	.304	.762	-.021	.029
	Sex	.427	.222	.177	1.920	.057	-.013	.868
	BMI	-.034	.016	-.184	-2.127	.035	-.065	-.002
	JSWmin	-.136	.103	-.185	-1.323	.188	-.339	.067
	FTangle	.034	.030	.112	1.107	.270	-.027	.094
	SBD	.001	.017	.007	.073	.942	-.033	.036
	Osteophytes	-.010	.004	-.216	-2.131	.035	-.018	-.001
	FTJ ThC	.298	.196	.183	1.519	.131	-.090	.686
	MeniscalExtrusion	-.233	.106	-.230	-2.187	.031	-.443	-.022
	Synovitis	.086	.133	.064	.650	.517	-.177	.350
	Effusion	-.047	.116	-.042	-.410	.683	-.276	.181
	MeniscalTear	.049	.046	.118	1.053	.294	-.043	.140
	BMLnum	.016	.052	.035	.306	.760	-.087	.119

a. ROA = 1,00

b. Dependent Variable: GaitDomain_LowerLeg_BL

Supplementary Figure S2: Full regression output with the lower leg gait domain as dependent variable, for participants without radiographic osteoarthritis (ROA; A) and with ROA (B).