Tracking Changes in Body Composition: Comparison of Methods and Influence of Pre-assessment Standardization. *Tinsley et al.*

Supplementary Tables

Abbreviations for all supplementary tables: 4C – 4-component model; 4C-DXA – 4-component model with dual-energy X-ray absorptiometry body volume estimate; 3C-Siri – 3-component model using the equation of Siri; 3C-Loh – 3-component model using the equation of Lohman; DXA-R – dual-energy X-ray absorptiometry region estimate (GE Lunar Prodigy); ADP – air displacement plethysmography (Cosmed Bod Pod); BIS – bioimpedance spectroscopy (ImpediMed SFB7); MFBIA-S – multi-frequency bioelectrical impedance analysis (Seca mBCA 515/514); MFBIA-IB – multi-frequency bioelectrical impedance analysis (InBody 770); SFBIA – single-frequency bioelectrical impedance analysis (RJL Quantum V); 3DO-SS – 3-dimensional optical scanner (SizeStream SS20); 3DO-F3D – 3-dimensional optical scanner (Fit3D ProScanner); 3DO-STY – 3-dimensional optical scanner (Styku S100); DoD – United States Department of Defense body fat equation; SS – standardized pre and post body composition assessments; SU – standardized pre and unstandardized post body composition assessments; US – unstandardized pre and standardized post body composition assessments; UU – unstandardized pre and post body composition assessments; test_statistic – test statistic for pairwise comparison; p – *p* value; p.adj – *p* value adjusted with Benjamini and Hochberg method to correct for multiple comparisons; S – surprisal value, calculated as $-\log_2(p)$; S.adj – adjusted surprisal value, calculated as $-\log_2(p.adj)$; ns – not significant at $p < 0.05$ level.

Supplementary Table 1. Resistance Training Program.

Weeks 1-3			Weeks 4-6		
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
2 RIR	1 RIR	0 RIR	2 RIR	1 RIR	0 RIR
Training Sessions	Exercises	(Sets) x (Reps)	Training Sessions	Exercises	(Sets) x (Reps)
Lower Body	Hip Sled	3 x 6-8	Lower Body	Hip Sled	3 x 4-6
	Romanian Deadlift	3 x 10-12		Romanian Deadlift	3 x 8-10
	DB Walking Lunges	3 x 10-12		DB Walking Lunges	3 x 8-10
	Lying Leg Curl	2 x 10-12		Lying Leg Curl	2 x 8-10
	Leg Extension	2 x 10-12		Leg Extension	2 x 8-10
	Single Leg DB Calf Raise	2 x 10-12		Single Leg DB Calf Raise	2 x 8-10
Upper Body	Bench Press	4 x 6-8	Upper Body	Bench Press	4 x 4-6
	Supinated BB Row	3 x 6-8		Supinated BB Row	3 x 4-6
	Close Grip Bench Press	3 x 10-12		Close Grip Bench Press	3 x 8-10
	Neutral Grip Pull up	2 x 10-12		Neutral Grip Pull up	2 x 8-10
	DB Side Laterals	2 x 10-12		DB Side Laterals	2 x 8-10
	EZ Bar Bicep Curl	2 x 10-12		EZ Bar Bicep Curl	2 x 8-10
Full Body	BB Conventional Deadlift	3 x 6-8	Full Body	BB Conventional Deadlift	3 x 4-6
	Hip Sled	2 x 10-12		Hip Sled	2 x 8-10
	Seated Leg Curl	2 x 10-12		Seated Leg Curl	2 x 8-10
	Feet up Bench Press	3 x 10-12		Feet up Bench Press	3 x 8-10
	Pendlay Row	2 x 10-12		Pendlay Row	2 x 8-10
	DB Kickbacks	2 x 10-12		DB Kickbacks	2 x 8-10
	DB Curl	2 x 10-12		DB Curl	2 x 8-10

RIR = repetitions in reserve, DB = dumbbell, BB = barbell

Supplementary Table 2. Raw Fat-Free Mass Estimates.

method	standardization	n	mean	sd	median
4C	SS	19	3.21	1.77	3.54
4C	SU	19	4.7	2.46	4.36
4C	US	19	2.35	1.95	2.62
4C	UU	19	3.84	2.64	3.53
4C-DXA	SS	19	2.8	1.71	2.87
4C-DXA	SU	19	3.47	2.26	3.5
4C-DXA	US	19	1.68	1.88	2.27
4C-DXA	UU	19	2.35	1.96	2.28
3C-Siri	SS	19	3.24	1.76	3.53
3C-Siri	SU	19	4.56	2.32	4.18
3C-Siri	US	19	2.29	1.94	2.42
3C-Siri	UU	19	3.6	2.42	3.08
3C-Loh	SS	19	2.46	1.84	2.56
3C-Loh	SU	19	4.83	3.35	4.7
3C-Loh	US	19	2.45	2.09	2.8
3C-Loh	UU	19	4.82	4.01	4.36
DXA-R	SS	19	2.45	1.54	2.6
DXA-R	SU	19	2.52	1.59	2.59
DXA-R	US	19	2.21	1.56	2.44
DXA-R	UU	19	2.29	1.35	2.37
ADP	SS	19	2	1.38	2.1
ADP	SU	19	3.9	2.69	3.62
ADP	US	19	1.99	1.54	2.3
ADP	UU	19	3.89	3.2	3.52
BIS	SS	19	4.16	2.44	4.28
BIS	SU	19	5.06	2.59	5.54
BIS	US	19	2.49	2.67	2.75
BIS	UU	19	3.38	2.36	3.68
MFBIA-S	SS	19	2.03	1.26	2.25
MFBIA-S	SU	19	2.86	1.69	3.02
MFBIA-S	US	19	0.55	1.72	0.89
MFBIA-S	UU	19	1.38	1.8	1.75
MFBIA-IB	SS	19	2.72	1.79	2.67
MFBIA-IB	SU	19	3.2	2.43	3.17
MFBIA-IB	US	19	1.59	1.9	2.13
MFBIA-IB	UU	19	2.07	2.39	2.07
SFBIA	SS	19	2.62	1.65	3.17
SFBIA	SU	19	3.06	2.11	3.15
SFBIA	US	19	1.98	2.02	2.32
SFBIA	UU	19	2.42	2.16	2.51
3DO-SS	SS	19	2.14	0.97	2.19
3DO-SS	SU	19	2.03	1.04	2.16
3DO-SS	US	19	2.21	0.99	2.1
3DO-SS	UU	19	2.1	0.91	1.97
3DO-F3D	SS	19	2.05	1.35	2.33
3DO-F3D	SU	19	1.02	1.97	0.69
3DO-F3D	US	19	2.55	1.46	2.43
3DO-F3D	UU	19	1.52	2.08	1.27
3DO-STY	SS	19	2.47	1.41	2.58
3DO-STY	SU	19	2.6	1.44	2.29
3DO-STY	US	19	2.55	1.29	2.52
3DO-STY	UU	19	2.69	1.25	2.3
DoD	SS	19	1.16	4.42	1.91
DoD	SU	19	2.07	3.17	1.88
DoD	US	19	1.76	4.73	1.64
DoD	UU	19	2.67	2.88	1.88

Supplementary Table 3. Raw Fat Mass Estimates.

method	standardization	n	mean	sd	median
4C	SS	19	0.8	1.4	0.51
4C	SU	19	-0.5	2	-0.19
4C	US	19	1.2	1.5	1.27
4C	UU	19	-0.11	2.2	0.12
4C-DXA	SS	19	1.21	1.5	1.45
4C-DXA	SU	19	0.72	1.7	0.85
4C-DXA	US	19	1.87	1.6	1.85
4C-DXA	UU	19	1.38	1.4	1.54
3C-Siri	SS	19	0.77	1.4	0.42
3C-Siri	SU	19	-0.36	1.9	-0.15
3C-Siri	US	19	1.26	1.5	1.34
3C-Siri	UU	19	0.14	2	0.48
3C-Loh	SS	19	1.55	1.8	1.67
3C-Loh	SU	19	-0.64	3	-0.51
3C-Loh	US	19	1.1	2.2	1.08
3C-Loh	UU	19	-1.09	3.8	0.54
DXA-R	SS	19	1.57	1.6	1.14
DXA-R	SU	19	1.67	1.4	1.25
DXA-R	US	19	1.34	1.6	1.11
DXA-R	UU	19	1.45	1.4	0.77
ADP	SS	19	2.01	1.7	2.05
ADP	SU	19	0.29	2.5	0.57
ADP	US	19	1.56	1.9	1.66
ADP	UU	19	-0.16	3	1.05
BIS	SS	19	-0.15	1.8	-0.2
BIS	SU	19	-0.86	2.1	-0.95
BIS	US	19	1.06	1.8	1.13
BIS	UU	19	0.36	1.7	0.45
MFBIA-S	SS	19	1.98	1.4	2.09
MFBIA-S	SU	19	1.34	1.8	1.27
MFBIA-S	US	19	3	1.4	3.4
MFBIA-S	UU	19	2.35	1.8	2.45
MFBIA-IB	SS	19	1.29	1.5	1.2
MFBIA-IB	SU	19	0.99	2	0.93
MFBIA-IB	US	19	1.96	1.6	2.23
MFBIA-IB	UU	19	1.66	2.1	1.69
SFBIA	SS	19	1.39	2.2	1.21
SFBIA	SU	19	1.14	2.1	0.48
SFBIA	US	19	1.57	2.4	1.38
SFBIA	UU	19	1.32	2.3	1.39
3DO-SS	SS	19	1.87	1.6	2.08
3DO-SS	SU	19	2.16	1.6	2.27
3DO-SS	US	19	1.34	1.9	1.56
3DO-SS	UU	19	1.63	1.8	2.03
3DO-F3D	SS	19	1.96	2	2.23
3DO-F3D	SU	19	3.18	2.1	3.21
3DO-F3D	US	19	1	2.1	0.89
3DO-F3D	UU	19	2.22	2.2	2.14
3DO-STY	SS	19	1.55	1	1.58
3DO-STY	SU	19	1.6	1.2	1.85
3DO-STY	US	19	1	1.2	0.84
3DO-STY	UU	19	1.05	1.3	0.8
DoD	SS	19	2.85	3.9	2.95
DoD	SU	19	2.13	3	1.83
DoD	US	19	1.79	4.2	1.47
DoD	UU	19	1.07	2.8	1.02

Supplementary Table 4. Raw Body Fat Percentage Estimates.

method	standardization	n	mean	sd	median
4C	SS	19	0.174	1.67	-0.43
4C	SU	19	-1.479	2.57	-1.295
4C	US	19	0.78	1.8	1.106
4C	UU	19	-0.873	2.85	-0.419
4C-DXA	SS	19	0.599	1.68	0.692
4C-DXA	SU	19	-0.035	2.1	0.208
4C-DXA	US	19	1.542	1.68	1.718
4C-DXA	UU	19	0.908	1.68	1.369
3C-Siri	SS	19	0.095	1.65	-0.216
3C-Siri	SU	19	-1.348	2.41	-1.397
3C-Siri	US	19	0.84	1.72	0.923
3C-Siri	UU	19	-0.603	2.52	-0.204
3C-Loh	SS	19	1.284	2.18	1.15
3C-Loh	SU	19	-1.406	3.84	-1.485
3C-Loh	US	19	0.719	2.72	0.739
3C-Loh	UU	19	-1.972	4.89	-0.46
DXA-R	SS	19	0.926	1.65	0.4
DXA-R	SU	19	1.032	1.42	0.8
DXA-R	US	19	0.737	1.62	0.3
DXA-R	UU	19	0.842	1.37	0.7
ADP	SS	19	1.674	1.82	1.9
ADP	SU	19	-0.437	3.16	-0.1
ADP	US	19	1.137	2.23	1.5
ADP	UU	19	-0.974	3.95	0.7
BIS	SS	19	-1.078	2.35	-1.907
BIS	SU	19	-2.042	2.7	-2.549
BIS	US	19	0.637	2.42	0.949
BIS	UU	19	-0.327	2.17	-0.098
MFBIA-S	SS	19	1.725	1.44	1.73
MFBIA-S	SU	19	0.853	2.09	0.61
MFBIA-S	US	19	3.176	1.59	3.63
MFBIA-S	UU	19	2.304	2.1	2.22
MFBIA-IB	SS	19	0.842	1.66	0.7
MFBIA-IB	SU	19	0.474	2.44	0.6
MFBIA-IB	US	19	1.805	1.75	2.3
MFBIA-IB	UU	19	1.437	2.48	1.5
SFBIA	SS	19	1.013	2.03	1.108
SFBIA	SU	19	0.699	2.36	-0.278
SFBIA	US	19	1.287	2.3	1.791
SFBIA	UU	19	0.972	2.43	0.911
3DO-SS	SS	19	1.422	1.4	1.63
3DO-SS	SU	19	1.747	1.37	2.22
3DO-SS	US	19	0.799	1.65	1.38
3DO-SS	UU	19	1.124	1.57	1.68
3DO-F3D	SS	19	1.405	1.9	1.6
3DO-F3D	SU	19	3.026	2.75	2.5
3DO-F3D	US	19	0.253	2.16	-0.1
3DO-F3D	UU	19	1.874	2.92	1.8
3DO-STY	SS	19	0.953	0.89	0.7
3DO-STY	SU	19	0.979	1.23	0.9
3DO-STY	US	19	0.321	1.01	0.4
3DO-STY	UU	19	0.347	1.25	0.4
DoD	SS	19	2.534	5.27	2.226
DoD	SU	19	1.461	3.87	1.149
DoD	US	19	1.244	5.64	0.65
DoD	UU	19	0.17	3.44	1.046

Supplementary Table 5. Pairwise Comparisons: Influence of Standardization on Fat-Free Mass Estimates.

method	standardization1	standardization2	n	test_statistic	p	p.adj	p.adj.signif	S	S.adj
4C	SS	SU	19	18	9.70E-04	1.00E-03	**	10.017	9.966
4C	SS	US	19	173	7.90E-04	1.00E-03	**	10.306	9.966
4C	SS	UU	19	64	2.30E-01	2.30E-01	ns	2.152	2.152
4C	SU	US	19	184	5.30E-05	3.20E-04	***	14.193	11.61
4C	SU	UU	19	173	7.90E-04	1.00E-03	**	10.306	9.966
4C	US	UU	19	18	9.70E-04	1.00E-03	**	10.017	9.966
4C-DXA	SS	SU	19	40	2.60E-02	2.60E-02	*	5.265	5.265
4C-DXA	SS	US	19	175	5.20E-04	2.00E-03	**	10.901	8.966
4C-DXA	SS	UU	19	156	1.20E-02	1.90E-02	*	6.381	5.718
4C-DXA	SU	US	19	167	2.00E-03	5.00E-03	**	8.966	7.644
4C-DXA	SU	UU	19	175	5.20E-04	2.00E-03	**	10.901	8.966
4C-DXA	US	UU	19	40	2.60E-02	2.60E-02	*	5.265	5.265
3C-Siri	SS	SU	19	16	6.40E-04	7.70E-04	***	10.598	10.335
3C-Siri	SS	US	19	178	2.70E-04	5.30E-04	***	11.871	10.871
3C-Siri	SS	UU	19	76	4.70E-01	4.70E-01	ns	1.105	1.105
3C-Siri	SU	US	19	183	7.30E-05	4.40E-04	***	13.752	11.167
3C-Siri	SU	UU	19	178	2.70E-04	5.30E-04	***	11.871	10.871
3C-Siri	US	UU	19	16	6.40E-04	7.70E-04	***	10.598	10.335
3C-Loh	SS	SU	19	25	3.00E-03	7.00E-03	**	8.381	7.158
3C-Loh	SS	US	19	103	7.70E-01	7.70E-01	ns	0.381	0.381
3C-Loh	SS	UU	19	43	3.60E-02	5.40E-02	ns	4.796	4.211
3C-Loh	SU	US	19	171	1.00E-03	7.00E-03	**	9.966	7.158
3C-Loh	SU	UU	19	103	7.70E-01	7.70E-01	ns	0.381	0.381
3C-Loh	US	UU	19	25	3.00E-03	7.00E-03	**	8.381	7.158
DXA-R	SS	SU	19	91	8.90E-01	8.90E-01	ns	0.167	0.167
DXA-R	SS	US	19	124	2.60E-01	7.70E-01	ns	1.955	0.37
DXA-R	SS	UU	19	111	5.40E-01	8.50E-01	ns	0.886	0.231
DXA-R	SU	US	19	110	5.70E-01	8.50E-01	ns	0.816	0.231
DXA-R	SU	UU	19	124	2.60E-01	7.70E-01	ns	1.955	0.37
DXA-R	US	UU	19	91	8.90E-01	8.90E-01	ns	0.167	0.167
ADP	SS	SU	19	25	3.00E-03	7.00E-03	**	8.381	7.158
ADP	SS	US	19	97	9.50E-01	9.50E-01	ns	0.069	0.069
ADP	SS	UU	19	45	4.50E-02	6.70E-02	ns	4.474	3.9
ADP	SU	US	19	174	6.40E-04	4.00E-03	**	10.598	7.966
ADP	SU	UU	19	97	9.50E-01	9.50E-01	ns	0.069	0.069
ADP	US	UU	19	25	3.00E-03	7.00E-03	**	8.381	7.158
BIS	SS	SU	19	36	1.60E-02	1.60E-02	*	5.966	5.966
BIS	SS	US	19	179	2.10E-04	6.30E-04	***	12.217	10.632
BIS	SS	UU	19	158	9.00E-03	1.40E-02	*	6.796	6.158
BIS	SU	US	19	175	5.20E-04	1.00E-03	**	10.901	9.966
BIS	SU	UU	19	179	2.10E-04	6.30E-04	***	12.217	10.632
BIS	US	UU	19	36	1.60E-02	1.60E-02	*	5.966	5.966
MFBIA-S	SS	SU	19	22	2.00E-03	2.00E-03	**	8.966	8.966
MFBIA-S	SS	US	19	190	3.80E-06	1.10E-05	****	18.002	16.421
MFBIA-S	SS	UU	19	155	1.40E-02	1.40E-02	*	6.158	6.158
MFBIA-S	SU	US	19	182	9.50E-05	1.90E-04	***	13.356	12.354
MFBIA-S	SU	UU	19	190	3.80E-06	1.10E-05	****	18.002	16.421
MFBIA-S	US	UU	19	22	2.00E-03	2.00E-03	**	8.966	8.966
MFBIA-IB	SS	SU	19	62	2.00E-01	2.00E-01	ns	2.351	2.351
MFBIA-IB	SS	US	19	188	1.10E-05	3.40E-05	****	16.421	14.836
MFBIA-IB	SS	UU	19	145	4.50E-02	6.70E-02	ns	4.474	3.9
MFBIA-IB	SU	US	19	170	1.00E-03	3.00E-03	**	9.966	8.381
MFBIA-IB	SU	UU	19	188	1.10E-05	3.40E-05	****	16.421	14.836
MFBIA-IB	US	UU	19	62	2.00E-01	2.00E-01	ns	2.351	2.351
SFBIA	SS	SU	19	48	6.00E-02	7.20E-02	ns	4.059	3.796
SFBIA	SS	US	19	148	3.20E-02	6.50E-02	ns	4.966	3.943
SFBIA	SS	UU	19	108	6.20E-01	6.20E-01	ns	0.683	0.683
SFBIA	SU	US	19	151	2.30E-02	6.50E-02	ns	5.442	3.943
SFBIA	SU	UU	19	148	3.20E-02	6.50E-02	ns	4.966	3.943
SFBIA	US	UU	19	48	6.00E-02	7.20E-02	ns	4.059	3.796
3DO-SS	SS	SU	19	117	4.00E-01	8.00E-01	ns	1.34	0.326
3DO-SS	SS	US	19	88	8.00E-01	8.00E-01	ns	0.326	0.326
3DO-SS	SS	UU	19	106	6.80E-01	8.00E-01	ns	0.559	0.326
3DO-SS	SU	US	19	86	7.40E-01	8.00E-01	ns	0.438	0.326
3DO-SS	SU	UU	19	88	8.00E-01	8.00E-01	ns	0.326	0.326

3DO-SS	US	UU	19	117	4.00E-01	8.00E-01	ns	1.34	0.326
3DO-F3D	SS	SU	19	154	1.60E-02	3.20E-02	*	5.966	4.966
3DO-F3D	SS	US	19	46	4.90E-02	5.90E-02	ns	4.351	4.083
3DO-F3D	SS	UU	19	121	3.10E-01	3.10E-01	ns	1.68	1.68
3DO-F3D	SU	US	19	29	6.00E-03	3.20E-02	*	7.381	4.966
3DO-F3D	SU	UU	19	46	4.90E-02	5.90E-02	ns	4.351	4.083
3DO-F3D	US	UU	19	154	1.60E-02	3.20E-02	*	5.966	4.966
3DO-STY	SS	SU	19	73	4.00E-01	7.80E-01	ns	1.34	0.357
3DO-STY	SS	US	19	83	6.50E-01	7.80E-01	ns	0.619	0.357
3DO-STY	SS	UU	19	81	5.90E-01	7.80E-01	ns	0.749	0.357
3DO-STY	SU	US	19	97	9.50E-01	9.50E-01	ns	0.069	0.069
3DO-STY	SU	UU	19	83	6.50E-01	7.80E-01	ns	0.619	0.357
3DO-STY	US	UU	19	73	4.00E-01	7.80E-01	ns	1.34	0.357
DoD	SS	SU	19	87	7.70E-01	9.20E-01	ns	0.381	0.117
DoD	SS	US	19	79	5.40E-01	9.20E-01	ns	0.886	0.117
DoD	SS	UU	19	66	2.60E-01	9.20E-01	ns	1.955	0.117
DoD	SU	US	19	96	9.80E-01	9.80E-01	ns	0.023	0.023
DoD	SU	UU	19	79	5.40E-01	9.20E-01	ns	0.886	0.117
DoD	US	UU	19	87	7.70E-01	9.20E-01	ns	0.381	0.117

Supplementary Table 6. Pairwise Comparisons: Influence of Standardization on Fat Mass Estimates.

method	standardization1	standardization2	n	test_statistic	p	p.adj	p.adj.signif	S	S.adj
4C	SS	SU	19	169	2.00E-03	3.00E-03	**	8.966	8.381
4C	SS	US	19	47	5.50E-02	5.50E-02	ns	4.184	4.184
4C	SS	UU	19	143	5.50E-02	5.50E-02	ns	4.184	4.184
4C	SU	US	19	11	2.10E-04	1.00E-03	**	12.217	9.966
4C	SU	UU	19	47	5.50E-02	5.50E-02	ns	4.184	4.184
4C	US	UU	19	169	2.00E-03	3.00E-03	**	8.966	8.381
4C-DXA	SS	SU	19	144	4.90E-02	5.90E-02	ns	4.351	4.083
4C-DXA	SS	US	19	26	4.00E-03	1.20E-02	*	7.966	6.381
4C-DXA	SS	UU	19	80	5.70E-01	5.70E-01	ns	0.816	0.816
4C-DXA	SU	US	19	31	8.00E-03	1.60E-02	*	6.966	5.966
4C-DXA	SU	UU	19	26	4.00E-03	1.20E-02	*	7.966	6.381
4C-DXA	US	UU	19	144	4.90E-02	5.90E-02	ns	4.351	4.083
3C-Siri	SS	SU	19	171	1.00E-03	2.00E-03	**	9.966	8.966
3C-Siri	SS	US	19	42	3.20E-02	3.90E-02	*	4.966	4.68
3C-Siri	SS	UU	19	134	1.20E-01	1.20E-01	ns	3.023	3.023
3C-Siri	SU	US	19	11	2.10E-04	1.00E-03	**	12.217	9.966
3C-Siri	SU	UU	19	42	3.20E-02	3.90E-02	*	4.966	4.68
3C-Siri	US	UU	19	171	1.00E-03	2.00E-03	**	9.966	8.966
3C-Loh	SS	SU	19	161	6.00E-03	1.40E-02	*	7.381	6.158
3C-Loh	SS	US	19	127	2.10E-01	2.10E-01	ns	2.252	2.252
3C-Loh	SS	UU	19	160	7.00E-03	1.40E-02	*	7.158	6.158
3C-Loh	SU	US	19	35	1.40E-02	2.10E-02	*	6.158	5.573
3C-Loh	SU	UU	19	127	2.10E-01	2.10E-01	ns	2.252	2.252
3C-Loh	US	UU	19	161	6.00E-03	1.40E-02	*	7.381	6.158
DXA-R	SS	SU	19	87	7.70E-01	7.70E-01	ns	0.381	0.381
DXA-R	SS	US	19	152	2.00E-02	6.10E-02	ns	5.644	4.035
DXA-R	SS	UU	19	111	5.40E-01	7.70E-01	ns	0.886	0.381
DXA-R	SU	US	19	132	1.40E-01	2.90E-01	ns	2.786	1.786
DXA-R	SU	UU	19	152	2.00E-02	6.10E-02	ns	5.644	4.035
DXA-R	US	UU	19	87	7.70E-01	7.70E-01	ns	0.381	0.381
ADP	SS	SU	19	161	6.00E-03	1.20E-02	*	7.381	6.381
ADP	SS	US	19	136	1.00E-01	1.00E-01	ns	3.265	3.265
ADP	SS	UU	19	161	6.00E-03	1.20E-02	*	7.381	6.381
ADP	SU	US	19	37	1.80E-02	2.70E-02	*	5.796	5.211
ADP	SU	UU	19	136	1.00E-01	1.00E-01	ns	3.265	3.265
ADP	US	UU	19	161	6.00E-03	1.20E-02	*	7.381	6.381
BIS	SS	SU	19	149	2.90E-02	3.50E-02	*	5.108	4.837
BIS	SS	US	19	18	9.70E-04	3.00E-03	**	10.017	8.381
BIS	SS	UU	19	53	9.60E-02	9.60E-02	ns	3.381	3.381
BIS	SU	US	19	22	2.00E-03	4.00E-03	**	8.966	7.966
BIS	SU	UU	19	18	9.70E-04	3.00E-03	**	10.017	8.381
BIS	US	UU	19	149	2.90E-02	3.50E-02	*	5.108	4.837
MFBIA-S	SS	SU	19	173	7.90E-04	9.50E-04	***	10.306	10.043
MFBIA-S	SS	US	19	2	1.10E-05	3.40E-05	****	16.421	14.836
MFBIA-S	SS	UU	19	66	2.60E-01	2.60E-01	ns	1.955	1.955
MFBIA-S	SU	US	19	6	5.30E-05	1.10E-04	***	14.193	13.19
MFBIA-S	SU	UU	19	2	1.10E-05	3.40E-05	****	16.421	14.836
MFBIA-S	US	UU	19	173	7.90E-04	9.50E-04	***	10.306	10.043
MFBIA-IB	SS	SU	19	121	3.10E-01	3.10E-01	ns	1.68	1.68
MFBIA-IB	SS	US	19	7	7.30E-05	2.20E-04	***	13.752	12.163
MFBIA-IB	SS	UU	19	57	1.30E-01	2.00E-01	ns	2.9	2.315
MFBIA-IB	SU	US	19	33	1.10E-02	2.20E-02	*	6.506	5.506
MFBIA-IB	SU	UU	19	7	7.30E-05	2.20E-04	***	13.752	12.163
MFBIA-IB	US	UU	19	121	3.10E-01	3.10E-01	ns	1.68	1.68
SFBIA	SS	SU	19	130	1.70E-01	3.40E-01	ns	2.565	1.565
SFBIA	SS	US	19	81	5.90E-01	7.10E-01	ns	0.749	0.486
SFBIA	SS	UU	19	98	9.20E-01	9.20E-01	ns	0.117	0.117
SFBIA	SU	US	19	60	1.70E-01	3.40E-01	ns	2.565	1.565
SFBIA	SU	UU	19	81	5.90E-01	7.10E-01	ns	0.749	0.486
SFBIA	US	UU	19	130	1.70E-01	3.40E-01	ns	2.565	1.565
3DO-SS	SS	SU	19	32	9.00E-03	1.10E-02	*	6.796	6.506
3DO-SS	SS	US	19	172	9.70E-04	2.00E-03	**	10.017	8.966
3DO-SS	SS	UU	19	128	2.00E-01	2.00E-01	ns	2.351	2.351
3DO-SS	SU	US	19	174	6.40E-04	2.00E-03	**	10.598	8.966
3DO-SS	SU	UU	19	172	9.70E-04	2.00E-03	**	10.017	8.966

3DO-SS	US	UU	19	32	9.00E-03	1.10E-02	*	6.796	6.506
3DO-F3D	SS	SU	19	21	2.00E-03	2.00E-03	**	8.966	8.966
3DO-F3D	SS	US	19	179	2.10E-04	4.20E-04	***	12.217	11.217
3DO-F3D	SS	UU	19	96	9.80E-01	9.80E-01	ns	0.023	0.023
3DO-F3D	SU	US	19	181	1.30E-04	4.20E-04	***	12.954	11.217
3DO-F3D	SU	UU	19	179	2.10E-04	4.20E-04	***	12.217	11.217
3DO-F3D	US	UU	19	21	2.00E-03	2.00E-03	**	8.966	8.966
3DO-STY	SS	SU	19	72	3.70E-01	3.70E-01	ns	1.419	1.419
3DO-STY	SS	US	19	162	5.00E-03	1.60E-02	*	7.644	5.966
3DO-STY	SS	UU	19	147	3.60E-02	5.40E-02	ns	4.796	4.211
3DO-STY	SU	US	19	150	2.60E-02	5.20E-02	ns	5.265	4.265
3DO-STY	SU	UU	19	162	5.00E-03	1.60E-02	*	7.644	5.966
3DO-STY	US	UU	19	72	3.70E-01	3.70E-01	ns	1.419	1.419
DoD	SS	SU	19	89	8.30E-01	8.30E-01	ns	0.271	0.271
DoD	SS	US	19	134	1.20E-01	2.50E-01	ns	3.023	2.023
DoD	SS	UU	19	136	1.00E-01	2.50E-01	ns	3.265	2.023
DoD	SU	US	19	111	5.40E-01	8.10E-01	ns	0.886	0.3
DoD	SU	UU	19	134	1.20E-01	2.50E-01	ns	3.023	2.023
DoD	US	UU	19	89	8.30E-01	8.30E-01	ns	0.271	0.271

Supplementary Table 7. Pairwise Comparisons: Influence of Standardization on Body Fat Percentage Estimates.

method	standardization1	standardization2	n	test_statistic	p	p.adj	p.adj.signif	S	S.adj
4C	SS	SU	19	169	2.00E-03	3.00E-03	**	8.966	8.381
4C	SS	US	19	43	3.60E-02	4.30E-02	*	4.796	4.54
4C	SS	UU	19	138	8.70E-02	8.70E-02	ns	3.523	3.523
4C	SU	US	19	8	9.50E-05	5.70E-04	***	13.356	10.772
4C	SU	UU	19	43	3.60E-02	4.30E-02	*	4.796	4.54
4C	US	UU	19	169	2.00E-03	3.00E-03	**	8.966	8.381
4C-DXA	SS	SU	19	144	4.90E-02	5.90E-02	ns	4.351	4.083
4C-DXA	SS	US	19	22	2.00E-03	6.00E-03	**	8.966	7.381
4C-DXA	SS	UU	19	67	2.80E-01	2.80E-01	ns	1.862	1.862
4C-DXA	SU	US	19	29	6.00E-03	1.20E-02	*	7.381	6.381
4C-DXA	SU	UU	19	22	2.00E-03	6.00E-03	**	8.966	7.381
4C-DXA	US	UU	19	144	4.90E-02	5.90E-02	ns	4.351	4.083
3C-Siri	SS	SU	19	170	1.00E-03	3.00E-03	**	9.966	8.381
3C-Siri	SS	US	19	35	1.40E-02	1.70E-02	*	6.158	5.878
3C-Siri	SS	UU	19	129	1.80E-01	1.80E-01	ns	2.458	2.458
3C-Siri	SU	US	19	10	1.60E-04	9.80E-04	***	12.574	9.989
3C-Siri	SU	UU	19	35	1.40E-02	1.70E-02	*	6.158	5.878
3C-Siri	US	UU	19	170	1.00E-03	3.00E-03	**	9.966	8.381
3C-Loh	SS	SU	19	162	5.00E-03	1.40E-02	*	7.644	6.158
3C-Loh	SS	US	19	125	2.40E-01	2.40E-01	ns	2.053	2.053
3C-Loh	SS	UU	19	158	9.00E-03	1.40E-02	*	6.796	6.158
3C-Loh	SU	US	19	32	9.00E-03	1.40E-02	*	6.796	6.158
3C-Loh	SU	UU	19	125	2.40E-01	2.40E-01	ns	2.053	2.053
3C-Loh	US	UU	19	162	5.00E-03	1.40E-02	*	7.644	6.158
DXA-R	SS	SU	19	78	7.60E-01	7.60E-01	ns	0.396	0.396
DXA-R	SS	US	19	102	2.40E-01	6.80E-01	ns	2.083	0.565
DXA-R	SS	UU	19	85.5	6.90E-01	7.60E-01	ns	0.542	0.396
DXA-R	SU	US	19	108	3.40E-01	6.80E-01	ns	1.565	0.565
DXA-R	SU	UU	19	103.5	2.10E-01	6.80E-01	ns	2.252	0.565
DXA-R	US	UU	19	77	7.30E-01	7.60E-01	ns	0.46	0.396
ADP	SS	SU	19	163	7.00E-03	1.30E-02	*	7.158	6.265
ADP	SS	US	19	131	1.50E-01	1.50E-01	ns	2.708	2.708
ADP	SS	UU	19	162	5.00E-03	1.30E-02	*	7.644	6.265
ADP	SU	US	19	33	1.30E-02	2.00E-02	*	6.265	5.644
ADP	SU	UU	19	132	1.40E-01	1.50E-01	ns	2.816	2.708
ADP	US	UU	19	163	7.00E-03	1.30E-02	*	7.158	6.265
BIS	SS	SU	19	149	2.90E-02	3.50E-02	*	5.108	4.837
BIS	SS	US	19	17	7.90E-04	2.00E-03	**	10.306	8.966
BIS	SS	UU	19	51	8.00E-02	8.00E-02	ns	3.644	3.644
BIS	SU	US	19	23	2.00E-03	5.00E-03	**	8.966	7.644
BIS	SU	UU	19	17	7.90E-04	2.00E-03	**	10.306	8.966
BIS	US	UU	19	149	2.90E-02	3.50E-02	*	5.108	4.837
MFBIA-S	SS	SU	19	137	5.00E-03	5.00E-03	**	7.644	7.644
MFBIA-S	SS	US	19	0	3.80E-06	1.10E-05	****	18.002	16.421
MFBIA-S	SS	UU	19	60	1.70E-01	1.70E-01	ns	2.565	2.565
MFBIA-S	SU	US	19	6	5.30E-05	1.10E-04	***	14.193	13.19
MFBIA-S	SU	UU	19	0	3.80E-06	1.10E-05	****	18.002	16.421
MFBIA-S	US	UU	19	137	5.00E-03	5.00E-03	**	7.644	7.644
MFBIA-IB	SS	SU	19	99	3.00E-01	3.00E-01	ns	1.747	1.747
MFBIA-IB	SS	US	19	8	5.00E-04	1.00E-03	**	10.972	9.966
MFBIA-IB	SS	UU	19	50	1.30E-01	1.90E-01	ns	2.977	2.396
MFBIA-IB	SU	US	19	27.5	7.00E-03	1.40E-02	*	7.158	6.158
MFBIA-IB	SU	UU	19	6.5	4.00E-04	1.00E-03	**	11.299	9.966
MFBIA-IB	US	UU	19	100	2.80E-01	3.00E-01	ns	1.857	1.747
SFBIA	SS	SU	19	132	1.40E-01	3.10E-01	ns	2.786	1.68
SFBIA	SS	US	19	78	5.20E-01	6.20E-01	ns	0.957	0.694
SFBIA	SS	UU	19	101	8.30E-01	8.30E-01	ns	0.271	0.271
SFBIA	SU	US	19	59	1.60E-01	3.10E-01	ns	2.68	1.68
SFBIA	SU	UU	19	78	5.20E-01	6.20E-01	ns	0.957	0.694
SFBIA	US	UU	19	132	1.40E-01	3.10E-01	ns	2.786	1.68
3DO-SS	SS	SU	19	30	1.70E-02	2.00E-02	*	5.878	5.644
3DO-SS	SS	US	19	167	2.00E-03	5.00E-03	**	8.966	7.644
3DO-SS	SS	UU	19	127.5	2.00E-01	2.00E-01	ns	2.336	2.336

3DO-SS	SU	US	19	172	9.70E-04	5.00E-03	**	10.017	7.644
3DO-SS	SU	UU	19	167	2.00E-03	5.00E-03	**	8.966	7.644
3DO-SS	US	UU	19	30	1.70E-02	2.00E-02	*	5.878	5.644
3DO-F3D	SS	SU	19	22	4.00E-03	4.00E-03	**	7.966	7.966
3DO-F3D	SS	US	19	157.5	2.00E-03	3.00E-03	**	8.966	8.381
3DO-F3D	SS	UU	19	93	9.50E-01	9.50E-01	ns	0.071	0.071
3DO-F3D	SU	US	19	164	6.80E-04	3.00E-03	**	10.52	8.381
3DO-F3D	SU	UU	19	157.5	2.00E-03	3.00E-03	**	8.966	8.381
3DO-F3D	US	UU	19	22	2.00E-03	3.00E-03	**	8.966	8.381
3DO-STY	SS	SU	19	80.5	5.70E-01	5.90E-01	ns	0.803	0.749
3DO-STY	SS	US	19	155	1.70E-02	5.00E-02	*	5.878	4.322
3DO-STY	SS	UU	19	149.5	3.00E-02	6.00E-02	ns	5.059	4.059
3DO-STY	SU	US	19	143	5.50E-02	8.20E-02	ns	4.184	3.608
3DO-STY	SU	UU	19	155	1.70E-02	5.00E-02	*	5.878	4.322
3DO-STY	US	UU	19	81	5.90E-01	5.90E-01	ns	0.749	0.749
DoD	SS	SU	19	84	9.60E-01	9.60E-01	ns	0.051	0.051
DoD	SS	US	19	130	1.70E-01	3.40E-01	ns	2.565	1.565
DoD	SS	UU	19	135	1.10E-01	3.40E-01	ns	3.146	1.565
DoD	SU	US	19	108	6.20E-01	9.30E-01	ns	0.683	0.099
DoD	SU	UU	19	130	1.70E-01	3.40E-01	ns	2.565	1.565
DoD	US	UU	19	84	9.60E-01	9.60E-01	ns	0.051	0.051

Supplementary Table 8. Pairwise Comparisons for Standardized Fat-Free Mass Changes.

method1	method2	n	test_statistic	p	p.adj	p.adj.signif	S	S.adj
4C	4C-DXA	19	139	8.00E-02	0.173	ns	3.644	2.531
4C	3C-Siri	19	80	5.70E-01	0.663	ns	0.816	0.593
4C	3C-Loh	19	152	2.00E-02	0.065	ns	5.644	3.943
4C	DXA-R	19	157	1.10E-02	0.043	*	6.506	4.54
4C	ADP	19	178	2.70E-04	0.006	**	11.871	7.381
4C	BIS	19	20	1.00E-03	0.008	**	9.966	6.966
4C	MFBIA-S	19	176	4.20E-04	0.007	**	11.217	7.158
4C	MFBIA-IB	19	132	1.40E-01	0.244	ns	2.786	2.035
4C	SFBIA	19	130	1.70E-01	0.27	ns	2.565	1.889
4C	3DO-SS	19	154	1.60E-02	0.054	ns	5.966	4.211
4C	3DO-F3D	19	156	1.20E-02	0.045	*	6.381	4.474
4C	3DO-STY	19	151	2.30E-02	0.065	ns	5.442	3.943
4C	DoD	19	151	2.30E-02	0.065	ns	5.442	3.943
4C-DXA	3C-Siri	19	49	6.60E-02	0.155	ns	3.921	2.69
4C-DXA	3C-Loh	19	114	4.70E-01	0.55	ns	1.105	0.862
4C-DXA	DXA-R	19	142	6.00E-02	0.148	ns	4.059	2.756
4C-DXA	ADP	19	145	4.50E-02	0.119	ns	4.474	3.071
4C-DXA	BIS	19	9	1.30E-04	0.005	**	12.954	7.644
4C-DXA	MFBIA-S	19	159	8.00E-03	0.034	*	6.966	4.878
4C-DXA	MFBIA-IB	19	98	9.20E-01	0.943	ns	0.117	0.085
4C-DXA	SFBIA	19	103	7.70E-01	0.832	ns	0.381	0.265
4C-DXA	3DO-SS	19	141	6.60E-02	0.155	ns	3.921	2.69
4C-DXA	3DO-F3D	19	140	7.30E-02	0.162	ns	3.776	2.626
4C-DXA	3DO-STY	19	117	4.00E-01	0.514	ns	1.34	0.96
4C-DXA	DoD	19	134	1.20E-01	0.224	ns	3.023	2.158
3C-Siri	3C-Loh	19	148	3.20E-02	0.089	ns	4.966	3.49
3C-Siri	DXA-R	19	159	8.00E-03	0.034	*	6.966	4.878
3C-Siri	ADP	19	175	5.20E-04	0.007	**	10.901	7.158
3C-Siri	BIS	19	16	6.40E-04	0.007	**	10.598	7.158
3C-Siri	MFBIA-S	19	180	1.60E-04	0.005	**	12.574	7.644
3C-Siri	MFBIA-IB	19	135	1.10E-01	0.21	ns	3.146	2.252
3C-Siri	SFBIA	19	133	1.30E-01	0.235	ns	2.9	2.089
3C-Siri	3DO-SS	19	155	1.40E-02	0.049	*	6.158	4.351
3C-Siri	3DO-F3D	19	156	1.20E-02	0.045	*	6.381	4.474
3C-Siri	3DO-STY	19	151	2.30E-02	0.065	ns	5.442	3.943
3C-Siri	DoD	19	151	2.30E-02	0.065	ns	5.442	3.943
3C-Loh	DXA-R	19	92	9.20E-01	0.943	ns	0.117	0.085
3C-Loh	ADP	19	172	9.70E-04	0.008	**	10.017	6.966
3C-Loh	BIS	19	30	7.00E-03	0.032	*	7.158	4.966
3C-Loh	MFBIA-S	19	128	2.00E-01	0.302	ns	2.351	1.727
3C-Loh	MFBIA-IB	19	86	7.40E-01	0.809	ns	0.438	0.306
3C-Loh	SFBIA	19	83	6.50E-01	0.731	ns	0.619	0.452
3C-Loh	3DO-SS	19	123	2.80E-01	0.397	ns	1.862	1.333
3C-Loh	3DO-F3D	19	119	3.50E-01	0.471	ns	1.506	1.086
3C-Loh	3DO-STY	19	108	6.20E-01	0.718	ns	0.683	0.478
3C-Loh	DoD	19	132	1.40E-01	0.244	ns	2.786	2.035
DXA-R	ADP	19	129	1.80E-01	0.286	ns	2.458	1.806
DXA-R	BIS	19	16	6.40E-04	0.007	**	10.598	7.158
DXA-R	MFBIA-S	19	137	9.60E-02	0.201	ns	3.381	2.315
DXA-R	MFBIA-IB	19	66	2.60E-01	0.385	ns	1.955	1.377
DXA-R	SFBIA	19	67	2.80E-01	0.397	ns	1.862	1.333
DXA-R	3DO-SS	19	120	3.30E-01	0.451	ns	1.591	1.149
DXA-R	3DO-F3D	19	120	3.30E-01	0.451	ns	1.591	1.149
DXA-R	3DO-STY	19	99	8.90E-01	0.932	ns	0.167	0.102
DXA-R	DoD	19	120	3.30E-01	0.451	ns	1.591	1.149
ADP	BIS	19	15	5.20E-04	0.007	**	10.901	7.158
ADP	MFBIA-S	19	97	9.50E-01	0.953	ns	0.069	0.069
ADP	MFBIA-IB	19	47	5.50E-02	0.142	ns	4.184	2.816
ADP	SFBIA	19	50	7.30E-02	0.162	ns	3.776	2.626
ADP	3DO-SS	19	84	6.80E-01	0.754	ns	0.559	0.407
ADP	3DO-F3D	19	91	8.90E-01	0.932	ns	0.167	0.102
ADP	3DO-STY	19	54	1.00E-01	0.201	ns	3.265	2.315
ADP	DoD	19	114	4.70E-01	0.55	ns	1.105	0.862
BIS	MFBIA-S	19	183	7.30E-05	0.005	**	13.752	7.644
BIS	MFBIA-IB	19	171	1.00E-03	0.008	**	9.966	6.966

BIS	SFBIA	19	172	9.70E-04	0.008	**	10.017	6.966
BIS	3DO-SS	19	171	1.00E-03	0.008	**	9.966	6.966
BIS	3DO-F3D	19	170	1.00E-03	0.008	**	9.966	6.966
BIS	3DO-STY	19	169	2.00E-03	0.009	**	8.966	6.796
BIS	DoD	19	168	2.00E-03	0.01	*	8.966	6.644
MFBIA-S	MFBIA-IB	19	27	5.00E-03	0.022	*	7.644	5.506
MFBIA-S	SFBIA	19	19	1.00E-03	0.008	**	9.966	6.966
MFBIA-S	3DO-SS	19	70	3.30E-01	0.451	ns	1.591	1.149
MFBIA-S	3DO-F3D	19	83	6.50E-01	0.731	ns	0.619	0.452
MFBIA-S	3DO-STY	19	54	1.00E-01	0.201	ns	3.265	2.315
MFBIA-S	DoD	19	114	4.70E-01	0.55	ns	1.105	0.862
MFBIA-IB	SFBIA	19	97	9.50E-01	0.953	ns	0.069	0.069
MFBIA-IB	3DO-SS	19	142	6.00E-02	0.148	ns	4.059	2.756
MFBIA-IB	3DO-F3D	19	133	1.30E-01	0.235	ns	2.9	2.089
MFBIA-IB	3DO-STY	19	115	4.40E-01	0.55	ns	1.181	0.862
MFBIA-IB	DoD	19	136	1.00E-01	0.201	ns	3.265	2.315
SFBIA	3DO-SS	19	136	1.00E-01	0.201	ns	3.265	2.315
SFBIA	3DO-F3D	19	131	1.60E-01	0.254	ns	2.68	1.977
SFBIA	3DO-STY	19	126	2.30E-01	0.341	ns	2.152	1.552
SFBIA	DoD	19	135	1.10E-01	0.21	ns	3.146	2.252
3DO-SS	3DO-F3D	19	90	8.60E-01	0.921	ns	0.218	0.119
3DO-SS	3DO-STY	19	72	3.70E-01	0.493	ns	1.419	1.02
3DO-SS	DoD	19	115	4.40E-01	0.55	ns	1.181	0.862
3DO-F3D	3DO-STY	19	75	4.40E-01	0.55	ns	1.181	0.862
3DO-F3D	DoD	19	114	4.70E-01	0.55	ns	1.105	0.862
3DO-STY	DoD	19	131	1.60E-01	0.254	ns	2.68	1.977

Supplementary Table 9. Pairwise Comparisons for Standardized Fat Mass Changes.

method1	method2	n	test_statistic	p	p.adj	p.adj.signif	S	S.adj
4C	4C-DXA	19	51	8.00E-02	0.173	ns	3.644	2.531
4C	3C-Siri	19	110	5.70E-01	0.663	ns	0.816	0.593
4C	3C-Loh	19	38	2.00E-02	0.065	ns	5.644	3.943
4C	DXA-R	19	33	1.10E-02	0.043	*	6.506	4.54
4C	ADP	19	12	2.70E-04	0.006	**	11.871	7.381
4C	BIS	19	170	1.00E-03	0.008	**	9.966	6.966
4C	MFBIA-S	19	14	4.20E-04	0.007	**	11.217	7.158
4C	MFBIA-IB	19	58	1.40E-01	0.244	ns	2.786	2.035
4C	SFBIA	19	60	1.70E-01	0.27	ns	2.565	1.889
4C	3DO-SS	19	36	1.60E-02	0.054	ns	5.966	4.211
4C	3DO-F3D	19	34	1.20E-02	0.045	*	6.381	4.474
4C	3DO-STY	19	39	2.30E-02	0.065	ns	5.442	3.943
4C	DoD	19	39	2.30E-02	0.065	ns	5.442	3.943
4C-DXA	3C-Siri	19	141	6.60E-02	0.155	ns	3.921	2.69
4C-DXA	3C-Loh	19	76	4.70E-01	0.55	ns	1.105	0.862
4C-DXA	DXA-R	19	48	6.00E-02	0.148	ns	4.059	2.756
4C-DXA	ADP	19	45	4.50E-02	0.119	ns	4.474	3.071
4C-DXA	BIS	19	181	1.30E-04	0.005	**	12.954	7.644
4C-DXA	MFBIA-S	19	31	8.00E-03	0.034	*	6.966	4.878
4C-DXA	MFBIA-IB	19	92	9.20E-01	0.943	ns	0.117	0.085
4C-DXA	SFBIA	19	87	7.70E-01	0.832	ns	0.381	0.265
4C-DXA	3DO-SS	19	49	6.60E-02	0.155	ns	3.921	2.69
4C-DXA	3DO-F3D	19	50	7.30E-02	0.162	ns	3.776	2.626
4C-DXA	3DO-STY	19	73	4.00E-01	0.514	ns	1.34	0.96
4C-DXA	DoD	19	56	1.20E-01	0.224	ns	3.023	2.158
3C-Siri	3C-Loh	19	42	3.20E-02	0.089	ns	4.966	3.49
3C-Siri	DXA-R	19	31	8.00E-03	0.034	*	6.966	4.878
3C-Siri	ADP	19	15	5.20E-04	0.007	**	10.901	7.158
3C-Siri	BIS	19	174	6.40E-04	0.007	**	10.598	7.158
3C-Siri	MFBIA-S	19	10	1.60E-04	0.005	**	12.574	7.644
3C-Siri	MFBIA-IB	19	55	1.10E-01	0.21	ns	3.146	2.252
3C-Siri	SFBIA	19	57	1.30E-01	0.235	ns	2.9	2.089
3C-Siri	3DO-SS	19	35	1.40E-02	0.049	*	6.158	4.351
3C-Siri	3DO-F3D	19	34	1.20E-02	0.045	*	6.381	4.474
3C-Siri	3DO-STY	19	39	2.30E-02	0.065	ns	5.442	3.943
3C-Siri	DoD	19	39	2.30E-02	0.065	ns	5.442	3.943
3C-Loh	DXA-R	19	98	9.20E-01	0.943	ns	0.117	0.085
3C-Loh	ADP	19	18	9.70E-04	0.008	**	10.017	6.966
3C-Loh	BIS	19	160	7.00E-03	0.032	*	7.158	4.966
3C-Loh	MFBIA-S	19	62	2.00E-01	0.302	ns	2.351	1.727
3C-Loh	MFBIA-IB	19	104	7.40E-01	0.809	ns	0.438	0.306
3C-Loh	SFBIA	19	107	6.50E-01	0.731	ns	0.619	0.452
3C-Loh	3DO-SS	19	67	2.80E-01	0.397	ns	1.862	1.333
3C-Loh	3DO-F3D	19	71	3.50E-01	0.471	ns	1.506	1.086
3C-Loh	3DO-STY	19	82	6.20E-01	0.718	ns	0.683	0.478
3C-Loh	DoD	19	58	1.40E-01	0.244	ns	2.786	2.035
DXA-R	ADP	19	61	1.80E-01	0.286	ns	2.458	1.806
DXA-R	BIS	19	174	6.40E-04	0.007	**	10.598	7.158
DXA-R	MFBIA-S	19	53	9.60E-02	0.201	ns	3.381	2.315
DXA-R	MFBIA-IB	19	124	2.60E-01	0.385	ns	1.955	1.377
DXA-R	SFBIA	19	123	2.80E-01	0.397	ns	1.862	1.333
DXA-R	3DO-SS	19	70	3.30E-01	0.451	ns	1.591	1.149
DXA-R	3DO-F3D	19	70	3.30E-01	0.451	ns	1.591	1.149
DXA-R	3DO-STY	19	91	8.90E-01	0.932	ns	0.167	0.102
DXA-R	DoD	19	70	3.30E-01	0.451	ns	1.591	1.149
ADP	BIS	19	175	5.20E-04	0.007	**	10.901	7.158
ADP	MFBIA-S	19	93	9.50E-01	0.953	ns	0.069	0.069
ADP	MFBIA-IB	19	143	5.50E-02	0.142	ns	4.184	2.816
ADP	SFBIA	19	140	7.30E-02	0.162	ns	3.776	2.626
ADP	3DO-SS	19	106	6.80E-01	0.754	ns	0.559	0.407
ADP	3DO-F3D	19	99	8.90E-01	0.932	ns	0.167	0.102
ADP	3DO-STY	19	136	1.00E-01	0.201	ns	3.265	2.315
ADP	DoD	19	76	4.70E-01	0.55	ns	1.105	0.862
BIS	MFBIA-S	19	7	7.30E-05	0.005	**	13.752	7.644
BIS	MFBIA-IB	19	19	1.00E-03	0.008	**	9.966	6.966

BIS	SFBIA	19	18	9.70E-04	0.008	**	10.017	6.966
BIS	3DO-SS	19	19	1.00E-03	0.008	**	9.966	6.966
BIS	3DO-F3D	19	20	1.00E-03	0.008	**	9.966	6.966
BIS	3DO-STY	19	21	2.00E-03	0.009	**	8.966	6.796
BIS	DoD	19	22	2.00E-03	0.01	*	8.966	6.644
MFBIA-S	MFBIA-IB	19	163	5.00E-03	0.022	*	7.644	5.506
MFBIA-S	SFBIA	19	171	1.00E-03	0.008	**	9.966	6.966
MFBIA-S	3DO-SS	19	120	3.30E-01	0.451	ns	1.591	1.149
MFBIA-S	3DO-F3D	19	107	6.50E-01	0.731	ns	0.619	0.452
MFBIA-S	3DO-STY	19	136	1.00E-01	0.201	ns	3.265	2.315
MFBIA-S	DoD	19	76	4.70E-01	0.55	ns	1.105	0.862
MFBIA-IB	SFBIA	19	93	9.50E-01	0.953	ns	0.069	0.069
MFBIA-IB	3DO-SS	19	48	6.00E-02	0.148	ns	4.059	2.756
MFBIA-IB	3DO-F3D	19	57	1.30E-01	0.235	ns	2.9	2.089
MFBIA-IB	3DO-STY	19	75	4.40E-01	0.55	ns	1.181	0.862
MFBIA-IB	DoD	19	54	1.00E-01	0.201	ns	3.265	2.315
SFBIA	3DO-SS	19	54	1.00E-01	0.201	ns	3.265	2.315
SFBIA	3DO-F3D	19	59	1.60E-01	0.254	ns	2.68	1.977
SFBIA	3DO-STY	19	64	2.30E-01	0.341	ns	2.152	1.552
SFBIA	DoD	19	55	1.10E-01	0.21	ns	3.146	2.252
3DO-SS	3DO-F3D	19	100	8.60E-01	0.921	ns	0.218	0.119
3DO-SS	3DO-STY	19	118	3.70E-01	0.493	ns	1.419	1.02
3DO-SS	DoD	19	75	4.40E-01	0.55	ns	1.181	0.862
3DO-F3D	3DO-STY	19	115	4.40E-01	0.55	ns	1.181	0.862
3DO-F3D	DoD	19	76	4.70E-01	0.55	ns	1.105	0.862
3DO-STY	DoD	19	59	1.60E-01	0.254	ns	2.68	1.977

Supplementary Table 10. Pairwise Comparisons for Standardized Body Fat Percentage Changes

method1	method2	n	test_statistic	p	p.adj	p.adj.signif	S	S.adj
4C	4C-DXA	19	59	1.60E-01	0.29	ns	2.68	1.786
4C	3C-Siri	19	129	1.80E-01	0.325	ns	2.458	1.621
4C	3C-Loh	19	31	8.00E-03	0.034	*	6.966	4.878
4C	DXA-R	19	44	4.00E-02	0.114	ns	4.644	3.133
4C	ADP	19	15	5.20E-04	0.005	**	10.901	7.644
4C	BIS	19	174	6.40E-04	0.005	**	10.598	7.644
4C	MFBIA-S	19	15	5.20E-04	0.005	**	10.901	7.644
4C	MFBIA-IB	19	60	1.70E-01	0.308	ns	2.565	1.699
4C	SFBIA	19	47	5.50E-02	0.146	ns	4.184	2.776
4C	3DO-SS	19	42	3.20E-02	0.101	ns	4.966	3.308
4C	3DO-F3D	19	43	3.60E-02	0.106	ns	4.796	3.238
4C	3DO-STY	19	53	9.60E-02	0.212	ns	3.381	2.238
4C	DoD	19	48	6.00E-02	0.152	ns	4.059	2.718
4C-DXA	3C-Siri	19	137	9.60E-02	0.212	ns	3.381	2.238
4C-DXA	3C-Loh	19	62	2.00E-01	0.334	ns	2.351	1.582
4C-DXA	DXA-R	19	55	1.10E-01	0.234	ns	3.146	2.095
4C-DXA	ADP	19	48	6.00E-02	0.152	ns	4.059	2.718
4C-DXA	BIS	19	178	2.70E-04	0.005	**	11.871	7.644
4C-DXA	MFBIA-S	19	26	4.00E-03	0.021	*	7.966	5.573
4C-DXA	MFBIA-IB	19	77	4.90E-01	0.619	ns	1.029	0.692
4C-DXA	SFBIA	19	65	2.40E-01	0.372	ns	2.053	1.427
4C-DXA	3DO-SS	19	51	8.00E-02	0.191	ns	3.644	2.388
4C-DXA	3DO-F3D	19	58	1.40E-01	0.281	ns	2.786	1.831
4C-DXA	3DO-STY	19	77	4.90E-01	0.619	ns	1.029	0.692
4C-DXA	DoD	19	64	2.30E-01	0.359	ns	2.152	1.478
3C-Siri	3C-Loh	19	34	1.20E-02	0.049	*	6.381	4.351
3C-Siri	DXA-R	19	38	2.00E-02	0.071	ns	5.644	3.816
3C-Siri	ADP	19	15	5.20E-04	0.005	**	10.901	7.644
3C-Siri	BIS	19	174	6.40E-04	0.005	**	10.598	7.644
3C-Siri	MFBIA-S	19	12	2.70E-04	0.005	**	11.871	7.644
3C-Siri	MFBIA-IB	19	51	8.00E-02	0.191	ns	3.644	2.388
3C-Siri	SFBIA	19	41	2.90E-02	0.094	ns	5.108	3.411
3C-Siri	3DO-SS	19	37	1.80E-02	0.068	ns	5.796	3.878
3C-Siri	3DO-F3D	19	40	2.60E-02	0.087	ns	5.265	3.523
3C-Siri	3DO-STY	19	53	9.60E-02	0.212	ns	3.381	2.238
3C-Siri	DoD	19	47	5.50E-02	0.146	ns	4.184	2.776
3C-Loh	DXA-R	19	117	4.00E-01	0.529	ns	1.34	0.919
3C-Loh	ADP	19	28	5.00E-03	0.024	*	7.644	5.381
3C-Loh	BIS	19	168	2.00E-03	0.012	*	8.966	6.381
3C-Loh	MFBIA-S	19	65	2.40E-01	0.372	ns	2.053	1.427
3C-Loh	MFBIA-IB	19	111	5.40E-01	0.665	ns	0.886	0.589
3C-Loh	SFBIA	19	108	6.20E-01	0.727	ns	0.683	0.46
3C-Loh	3DO-SS	19	75	4.40E-01	0.582	ns	1.181	0.781
3C-Loh	3DO-F3D	19	87	7.70E-01	0.813	ns	0.381	0.299
3C-Loh	3DO-STY	19	101	8.30E-01	0.848	ns	0.271	0.238
3C-Loh	DoD	19	72	3.70E-01	0.516	ns	1.419	0.955
DXA-R	ADP	19	48	1.10E-01	0.232	ns	3.224	2.108
DXA-R	BIS	19	173	7.90E-04	0.006	**	10.306	7.381
DXA-R	MFBIA-S	19	36	1.90E-02	0.068	ns	5.718	3.878
DXA-R	MFBIA-IB	19	105	7.10E-01	0.777	ns	0.496	0.364
DXA-R	SFBIA	19	94	9.80E-01	0.984	ns	0.023	0.023
DXA-R	3DO-SS	19	59	1.60E-01	0.29	ns	2.68	1.786
DXA-R	3DO-F3D	19	73	3.90E-01	0.526	ns	1.37	0.927
DXA-R	3DO-STY	19	87	7.70E-01	0.813	ns	0.381	0.299
DXA-R	DoD	19	76	4.70E-01	0.605	ns	1.105	0.725
ADP	BIS	19	175	5.20E-04	0.005	**	10.901	7.644
ADP	MFBIA-S	19	88	8.00E-01	0.835	ns	0.326	0.26
ADP	MFBIA-IB	19	135	1.10E-01	0.234	ns	3.146	2.095
ADP	SFBIA	19	127	2.10E-01	0.347	ns	2.252	1.527
ADP	3DO-SS	19	105	7.10E-01	0.777	ns	0.496	0.364
ADP	3DO-F3D	19	97	6.30E-01	0.728	ns	0.662	0.458
ADP	3DO-STY	19	122	1.20E-01	0.237	ns	3.095	2.077
ADP	DoD	19	87	7.70E-01	0.813	ns	0.381	0.299
BIS	MFBIA-S	19	7	7.30E-05	0.005	**	13.752	7.644
BIS	MFBIA-IB	19	16	6.40E-04	0.005	**	10.598	7.644

BIS	SFBIA	19	12	2.70E-04	0.005	**	11.871	7.644
BIS	3DO-SS	19	22	2.00E-03	0.012	*	8.966	6.381
BIS	3DO-F3D	19	23	2.00E-03	0.014	*	8.966	6.158
BIS	3DO-STY	19	31	8.00E-03	0.034	*	6.966	4.878
BIS	DoD	19	28	5.00E-03	0.024	*	7.644	5.381
MFBIA-S	MFBIA-IB	19	162	5.00E-03	0.024	*	7.644	5.381
MFBIA-S	SFBIA	19	171	1.00E-03	0.008	**	9.966	6.966
MFBIA-S	3DO-SS	19	128	2.00E-01	0.334	ns	2.336	1.582
MFBIA-S	3DO-F3D	19	122	2.90E-01	0.437	ns	1.771	1.194
MFBIA-S	3DO-STY	19	147	3.60E-02	0.106	ns	4.796	3.238
MFBIA-S	DoD	19	93	9.50E-01	0.964	ns	0.069	0.053
MFBIA-IB	SFBIA	19	83	6.50E-01	0.741	ns	0.619	0.432
MFBIA-IB	3DO-SS	19	56	1.20E-01	0.243	ns	3.023	2.041
MFBIA-IB	3DO-F3D	19	72	3.50E-01	0.497	ns	1.494	1.009
MFBIA-IB	3DO-STY	19	82	6.10E-01	0.727	ns	0.701	0.46
MFBIA-IB	DoD	19	62	2.00E-01	0.334	ns	2.351	1.582
SFBIA	3DO-SS	19	70	3.30E-01	0.48	ns	1.591	1.059
SFBIA	3DO-F3D	19	78	5.20E-01	0.642	ns	0.957	0.639
SFBIA	3DO-STY	19	89	8.30E-01	0.848	ns	0.271	0.238
SFBIA	DoD	19	71	3.50E-01	0.497	ns	1.506	1.009
3DO-SS	3DO-F3D	19	110	5.70E-01	0.686	ns	0.803	0.544
3DO-SS	3DO-STY	19	124	2.60E-01	0.391	ns	1.955	1.355
3DO-SS	DoD	19	84	6.80E-01	0.763	ns	0.559	0.39
3DO-F3D	3DO-STY	19	120	3.30E-01	0.48	ns	1.591	1.059
3DO-F3D	DoD	19	80	5.70E-01	0.686	ns	0.816	0.544
3DO-STY	DoD	19	64	2.30E-01	0.359	ns	2.152	1.478