Table S1. Modelled estimates of differences in body composition, and metabolic markers hypothetically related to body composition, between intervention and control diet periods among patients with RA in the ADIRA trial [1.]

	All Participants (n = 42)			
	Intervention	Control	Difference between Periods	
	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)	P [2]
Measures of body composition				
Weight (kg)	-0.282 (-0.833, 0.269)	0.136 (-0.414, 0.687)	-0.419 (-1.198, 0.361)	0.288
BMI (kg/m^2)	-0.090 (-0.286, 0.106)	0.033 (-0.162, 0.229)	-0.123 (-0.400, 0.154)	0.379
FFM (kg)	0.935 (0.278, 1.591)	0.778 (0.123, 1.434)	0.156 (-0.677, 0.989)	0.706
FFMI (kg/m^2)	0.324 (0.102, 0.545)	0.258 (0.037, 0.479)	0.066 (-0.212, 0.343)	0.635
FM (kg)	-0.995 (-1.889, -0.101)	-0.786 (-1.680, 0.107)	-0.208 (-1.474, 1.057)	0.744
FMI (kg/m^2)	-0.346 (-0.642, -0.050)	-0.251 (-0.547, 0.044)	-0.094 (-0.514, 0.325)	0.655
FM (%)	-1.364 (-2.251, -0.476)	-1.219 (-2.105, -0.333)	-0.144 (-1.401, 1.112)	0.820
Biomarkers				
BCAA [3] (mmol/L)	-0.016 (-0.034, 0.001)	0.005 (-0.013, 0.022)	**-0.021 (-0.041, -0.001)**	**0.042**
IGF-1 (μg/L)	-0.642 (-6.951, 5.667)	4.388 (-1.913, 10.689)	-5.030 (-13.954, 3.894)	0.265

BCAA, Branched chain amino acids; BMI, Body mass index; FFM, Fat free mass; FFMI, Fat free mass index; FM, Fat mass; FMI, Fat mass index; IGF-1, Insulin-like growth factor 1.

[1] Participants completing at least one diet period and where measurement of body composition was possible (n = 42). RA, Rheumatoid Arthritis; ADIRA, Anti-inflammatory Diet In Rheumatoid Arthritis. Analysed by use of a linear mixed model with period, treatment, sex and baseline value as fixed effects and subject as random effect.

[2] Intervention – Control values.

[3] Leucine, isoleucine and valine combined.

Table S2. Baseline data of participants who completed at least one diet period, stratified by employment status.

	Not Employed (n = 15)	Employed (n = 27)	P
	Median (IQR)	**Median (IQR)**	
Age (year)	70.8 (69.5, 72.6)	58.7 (45.9, 62.6)	**< 0.001 [a]**
Disease duration (year)	21 (16.3, 29.9)	17.7 (9.7, 20.6)	0.105 [a]
Weight (kg)	75.5 (66.8, 85.35)	77.75 (65.7, 82.8)	0.810 [a]
BMI (kg/m^2)	29.9 (24.8, 32.3)	25.1 (22.9, 27.7)	0.093 [a]
FFMI (kg/m^2)	17.6 (15.1, 18.8)	17.5 (15.3, 18.4)	0.917 [a]
FMI (kg/m^2)	11.4 (9.2, 13.2)	7.9 (6.3, 10.9)	**0.013 [a]**
FM (%)	39.5 (37.0, 43.0)	34.0 (27.6, 40.1)	**0.011 [a]**
Waist-Hip ratio	0.83 (0.80, 0.88)	0.85 (0.79, 0.92)	0.736 [a]
DAS28	3.71 (3.11, 4.66)	3.37 (3.01, 4.65)	0.697 [a]
Erythrocyte Sedimentation Rate (mm/h)	20 (11, 29)	16 (9, 24)	0.352 [a]
C-reactive Protein (mg/L)	4 (2, 6)	2 (1, 4)	0.070 [a]
HAQ	0.88 (0.38, 1.25)	0.38 (0.13, 1.13)	0.104 [a]
Albumin (g/L)	37 (36, 39)	39 (38, 42)	0.063 [a]
IGF-1 (µg/L)	98 (80, 135)	121 (88, 160)	0.152 [a]
Dietary intake			
NRF11.3	7.1 (6.2, 8.5)	6.0 (4.7, 7.4)	**0.008 [a]**
Dietary Quality Index	7 (6, 8)	6 (5, 7)	0.169 [a]
Energy (kcal)	1660 (1200, 2010)	1930 (1540, 2240)	0.174 [a]
Protein (E%)	15.5 (14.8, 19.8)	15.4 (13.6, 16.5)	0.420 [a]
Carbohydrate (E%) (including fiber)	44.1 (40.9, 51.7)	42.2 (38.0, 47.7)	0.362 [a]
Alcohol (E%)	0.00 (0.00, 0.78)	2.09 (0.00, 5.25)	0.117 [a]
Fat (E%)	35.5 (33.0, 37.0)	37.4 (31.7, 41.7)	0.285 [a]
Saturated fatty acids (E%)	13.7 (12.7, 15.0)	15.7 (12.5, 17.2)	0.310 [a]
Monounsaturated fatty acids (E%)	11.7 (11.0, 13.4)	13.0 (11.2, 16.5)	0.136 [a]
Polyunsaturated fatty acids (E%)	5.4 (5.2, 7.8)	5.0 (4.1, 7.4)	0.262 [a]
Marine omega-3 fatty acids [1] (E%)	0.32 (0.09, 0.96)	0.09 (0.06, 0.48)	**0.042 [a]**
Protein (g/kg bodyweight/day)	0.88 (0.66, 1.09)	0.9 (0.82, 1.2)	0.499 [a]
Protein (g/day)	66 (54, 74)	70 (56, 84)	0.402 [a]
Fiber (g/day)	18 (15, 21)	18 (14, 21)	0.626 [a]
Meal frequency (meals per day > 25 kcal)	5.0 (4.0, 5.3)	5.0 (4.0, 5.3)	0.891 [a]
	n (%)	**n (%)**	
Medication			
bDMARD usage	5 (33.3)	12 (44)	0.531 [b]
csDMARD usage	8 (53.5)	24 (89)	**0.020 [b]**
Measures of rheumatoid cachexia			
Engvall [2]	2 (13)	5 (19)	1.000 [b]
Elkan [3]	2 (13)	10 (37)	0.158 [b]
High FMI [4]	9 (60)	14 (52)	0.750 [b]
Low FFMI [5]	4 (27)	11 (41)	0.506 [b]
Low FFMI & high FMI [6]	1 (7)	8 (30)	0.123 [b]
Sex			
Female	15 (100)	19 (70)	**0.035 [b]**
Parental origin			0.439 [b]
Europe	13 (87)	26 (96)	
Africa	1 (7)	0 (0)	
Asia	1 (7)	1 (4)	
Smokers	0 (0)	2 (7)	0.530 [b]
Educational level			0.432 [b]
Junior high school	3 (20)	2 (7)	
2 year senior high school	4 (27)	4 (15)	
≥3 year senior high school	2 (13)	4 (15)	
College or university	6 (40)	17 (63)	
Physical activity during everyday life			0.519 [b]
Light	1 (7)	4 (15)	
Light but partly active	6 (40)	8 (30)	
Light and active	6 (40)	7 (26)	
Sometimes physically heavy	2 (13)	8 (30)	
Physically heavy most of the time	0 (0)	0 (0)	
Intentional physical exercise			0.890 [b]
Never	3 (20)	3 (11)	
Now and then, not regularly	5 (33)	8 (30)	
1-2 times/week	2 (13)	7 (26)	
2-3 times/week	3 (20)	5 (19)	
>3 times/week	2 (13)	4 (15)	

bDMARD, biological disease modifying anti-rheumatic drug; BMI, Body mass index; csDMARD, conventional synthetic disease modifying anti-rheumatic drug; DAS28, Disease Activity Score 28 joints;

FFMI, Fat free mass index; FM, Fat mass; FMI, Fat mass index; HAQ, Health assessment questionnaire disability index; Insulin-like growth factor 1, IGF-1; NRF11.3, Nutrient Rich Foods index 11.3.

[1] docosahexaenoic, docosapentaenoic and eicosapentaenoic acid combined.
[2] Defined as FFMI <10th percentile and FMI >25th percentile as proposed by Engvall et al. [19].
[3] Defined as FFMI <25th percentile and FMI >50th percentile as proposed by Elkan et al. [20].
[4] Defined as FMI >75th percentile.
[5] Defined as FFMI <25th percentile.
[6] Defined as FFMI <25th and FMI >75th percentile.
Reference for body composition ranges is taken from Schutz et al. [21].

[a] Mann-Whitney Test using the exact *p*-value.
[b] Fisher's exact test.