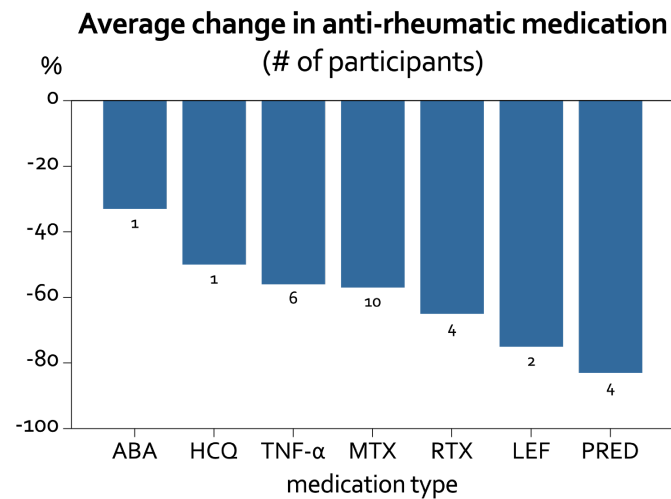


Supplementary table 1. Anti-rheumatic medication use at start of intervention

	n (%)
Synthetic DMARD	50 (63)
Methotrexate	32 (41)
Hydroxychloroquine	7 (9)
Sulfasalazine	7 (9)
Leflunomide	4 (5)
Biological DMARD	30 (38)
TNF- α inhibitors	17 (21)
Rituximab	5 (6)
Tocilizumab	3 (4)
Abatacept	2 (3)
Targeted synthetic DMARD	3 (4)
Baricitinib	3 (4)
Other	16 (21)
Prednisone	13 (16)
No medication	17 (22)

DMARD = Disease modifying anti-rheumatic agent. TNF- α inhibitors (Tumor Necrosis Factor alpha) include adalimumab, etanercept, golimumab. Medications shown as part of mono- or combination therapy.



Supplementary Figure 1. Changes in anti-rheumatic medication for participants with rheumatoid arthritis at the end of the one year extension study as compared to the start of the intervention including the average percentage change in dosage for each type of anti-rheumatic medication. RA = anti-rheumatic medication, ABA = abatacept, HCQ = hydroxychloroquine, TNF- α = Tumor Necrosis Factor alpha (including adalimumab (n = 2) and etanercept (n = 4)), MTX = methotrexate, RTX = rituximab, LEF = leflunomide, PRED = prednisone.

Supplementary Table 2. Primary and secondary outcomes for rheumatoid arthritis participants of the Plants for Joints one-year extension study

	Intervention			Extension study		Within group difference (95% CI)	p-value
	Start	Halfway	End	6 months	12 months		
DAS28 in RA subgroups							
Seropositive (n = 57)	3.88 (0.92)	3.10 (1.07)	3.26 (1.29)	2.87 (1.02)	2.93 (1.11)	-0.9 (-1.2 to -0.6)	<0.0001
Seronegative (n = 20)	3.76 (0.67)	2.69 (1.04)	2.62 (0.87)	2.60 (0.95)	2.60 (0.98)	-1.1 (-1.4 to -0.7)	<0.0001
Rheumatoid arthritis-specific antibodies, n							
Rheumatoid factor (kU/l)	21.0 [1.2 - 69.0]	16.0 [1.2 - 60.0]	14.0 [1.5 - 59.5]	12.0 [1.1 - 38.5]	13.5 [1.3 - 39.5]	-0.3 (-6.0 to 3.1)†	0.8
ACPA (kU/l)	48 [2 - 470]	41 [2 - 690]	47 [2 - 605]	38 [1 - 705]	73 [2 - 585]	-1 (-34 to 7)†	0.3
Body composition (DEXA)‡, n							
Total body mass (kg)	72	63	63	51	38		
	74.6 (13.6)		71.0 (13.0)		70.4 (11.8)	-1.3 (-2.1 to -0.5)	0.002
Fat mass (kg)	29.6 (9.2)		26.9 (9.1)		26.1 (7.3)	-1.1 (-1.8 to -0.4)	0.002
Fat percentage (%)	40.0 (6.5)		37.2 (6.9)		36.7 (5.9)	-0.8 (-1.4 to -0.1)	0.02
Lean mass (kg)	42.7 (6.6)		41.7 (6.2)		41.8 (6.8)	-0.4 (-0.8 to 0.0)	0.06
ASMM (kg)	19.0 (3.6)		18.4 (3.3)		18.4 (3.5)	-0.1 (-0.4 to 0.1)	0.2
Bone density (g/cm ²)	1.12 (0.12)		1.12 (0.13)		1.12 (0.14)	-0.01 (-0.02 to 0.00)	0.1
T-score	0.35 (1.17)		0.33 (1.25)		0.35 (1.35)	-0.03 (-0.16 to 0.11)	0.7
Patient-reported outcomes (PROMIS®), n							
Depression	71	59	67	51	38		
	52 (7)	50 (8)	51 (6)	50 (7)	50 (7)	-1 (-2 to 1)	0.5
Fatigue	53 [51 - 60]	52 [47 - 57]	51 [48 - 57]	52 [48 - 60]	51 [47 - 57]	-1 (-4 to 1)	0.4
Pain interference	57 (7)	55 (7)	56 (7)	55 (7)	53 (6)	-3 (-5 to -1)	0.001
Physical function	44 (5)	46 (6)	46 (7)	46 (7)	46 (5)	2 (0.0 to 3.0)	0.06

Outcomes at start and end of the 4-month intervention period as well as during the 1-year extension study (6 and 12 months after completing the intervention). Continuous variables reported as mean (SD) when normally distributed or as median [IQR] when skewed. Within-group difference shown between start of the lifestyle intervention and end of the 12-month follow-up determined using the linear-mixed model when model assumptions were met. For variables in which model assumptions were not met (†) a linear-mixed model was performed after log transformation and within group differences were reported as median difference of complete paired values determined using a Wilcoxon test (p-values from the linear mixed model are shown, all were similar to the Wilcoxon test). ASMM = appendicular skeletal muscle mass. ‡41 participants (63%) underwent a DEXA scan one year after the end of the intervention of which 11 were taken up to six months later due to problems with scheduling, and COVID-19 restrictions.

Supplementary Table 3. Primary and secondary outcomes for osteoarthritis participants of the Plants for Joints one-year extension study

	Intervention			Extension study		Within group difference (95% CI)	p-value
	Start	Halfway	End	6 months	12 months		
Body composition‡, n	62		53		42		
Total body mass (kg)	94.5 (15.5)		90.5 (14.4)		93.3 (14.5)	-3.4 (-4.6 to -2.3)	<0.001
Fat mass (kg)	41.9 (10.8)		38.8 (9.8)		40.8 (10.4)	-2.5 (-3.9 to -1.2)	<0.001
Fat percentage (%)	44.0 (6.3)		42.6 (6.3)		43.4 (6.7)	-1.1 (-2.0 to -0.2)	0.02
Lean mass (kg)	49.9 (8.4)		49.1 (8.5)		50.0 (7.8)	-0.8 (-1.3 to -0.4)	<0.001
ASMM (kg)	22.9 (4.2)		22.4 (4.5)		22.9 (4.1)	-0.7 (-1.0 to -0.4)	<0.001
Bone density (g/cm ²)	1.21 (0.15)		1.19 (0.14)		1.19 (0.16)	-0.02 (-0.03 to -0.01)	0.003
T-score	1.09 (1.36)		0.97 (1.24)		0.92 (1.45)	-0.18 (-0.32 to -0.03)	0.02
Patient-reported outcomes (PROMIS®), n	58	50	50	38	25		
Depression	50 [48 - 58]	49 [43 - 56]	48 [45 - 55]	49 [47 - 53]	49 [45 - 52]	-1 (-4 to 1)	0.4
Fatigue	53 [51 - 55]	51 [47 - 57]	52 [47 - 58]	51 [44 - 57]	49 [47 - 57]	-3 (-5 to -1)	0.01
Pain interference	61 [56 - 64]	56 [52 - 61]	57 [52 - 61]	56 [52 - 60]	56 [51 - 58]	-6 (-8 to -3)	<0.001
Physical function	40 [39 - 44]	43 [39 - 48]	43 [39 - 48]	44 [48 - 49]	44 [43 - 49]	3 (2 to 5)	<0.001

Outcomes at start and end of the 4-month intervention period as well as during the 1-year extension study (6 and 12 months after completing the intervention). Continuous variables reported as mean (SD) when normally distributed or as median [IQR] when skewed. Within-group difference shown between start of the lifestyle intervention and end of the 12-month follow-up determined using the linear-mixed model. ASMM = appendicular skeletal muscle mass. ‡42 participants (86%) underwent a DEXA scan at the end of the one-year extension study of which ten were taken up to six months after the planned measurement due to problems with scheduling, and COVID-19 restrictions. These missing values could help explain the discrepancy found between the within group differences from the linear mixed models and descriptive data.

Supplementary Table 4. Medication changes for rheumatoid arthritis and osteoarthritis participants after the one-year Plants for Joints extension study

Change within medication groups	Rheumatoid Arthritis, <i>n</i> (%)	Osteoarthritis, <i>n</i> (%)
Anti-rheumatic	56 (86)	N/A
Medication increase	13 (23)	
Increase dosage	0 (0)	
Added medication	6 (11)	
Switch (disease activity)	3 (5)	
≥1 corticosteroid injection	4 (7)	
Stable medication	15 (27)	
No change	13 (23)	
Switch (side-effects)	2 (4)	
Medication decrease	28 (50)	
Decrease dosage	18 (32)	
Stop medication	10 (18)	
Pain	25 (39)	18 (37)
Medication increase	6 (24)	4 (22)
Increase dosage	0 (0)	0 (0)
Added medication	5 (20)	3 (17)
Switch (disease activity)	1 (4)	1 (6)
Stable medication	5 (20)	2 (11)
No change	5 (20)	2 (11)
Switch (side-effects)	0 (0)	0 (0)
Medication decrease	14 (56)	12 (67)
Decrease dosage	2 (8)	1 (6)
Stop medication	12 (48)	11 (61)
Cholesterol-lowering	7 (11)	18 (37)
Medication increase	0 (0)	1 (6)
Increase dosage	0 (0)	0 (0)
Added medication	0 (0)	1 (6)
Switch (disease activity)	0 (0)	0 (0)
Stable medication	6 (86)	9 (50)
No change	6 (86)	8 (44)
Switch (side-effects)	0 (0)	1 (6)
Medication decrease	1 (14)	8 (44)
Decrease dosage	1 (14)	2 (11)
Stop medication	0 (0)	6 (33)
Antihypertensive	14 (22)	30 (61)
Medication increase	6 (43)	4 (13)
Increase dosage	0 (0)	1 (3)
Added medication	5 (36)	1 (3)
Switch (disease activity)	1 (7)	2 (7)
Stable medication	5 (36)	21 (70)
No change	5 (36)	21 (70)
Switch (side-effects)	0 (0)	0 (0)
Medication decrease	3 (21)	5 (17)
Decrease dosage	0 (0)	2 (7)
Stop medication	3 (21)	3 (10)
Glucose-lowering	2 (3)	9 (18)
Medication increase	0 (0)	1 (11)
Increase dosage	0 (0)	1 (11)
Added medication	0 (0)	0 (0)
Switch (disease activity)	0 (0)	0 (0)
Stable medication	1 (50)	5 (56)
No change	1 (50)	5 (56)
Switch (side-effects)	0 (0)	0 (0)
Medication decrease	1 (50)	3 (33)
Decrease dosage	0 (0)	2 (22)
Stop medication	1 (50)	1 (11)

Supplementary Table 5. Increased and decreased anti-rheumatic medication use for rheumatoid arthritis participants at the end of the one-year Plants for Joints extension study**Increase****Switch medication (disease activity)**

Etanercept 50 mg/week switch to Tocilizumab (s.c.) 162 mg/week, Sulfasalazine 3000 mg/day to 2000 mg/day
 Etanercept 50 mg/week switch to Adalimumab 40 mg/2 weeks and switch to Tocilizumab (s.c.) 162 mg/2 weeks, Prednisone 15 mg/day stopped, Methotrexate 7.5 mg/week started
 Etanercept 50 mg/week switch to Adalimumab 40 mg/2 weeks and switch to Abatacept (s.c.) 125 mg/week and stopped, Prednisone 5 mg/day start, Glucocorticoid injection (i.a.)

Added medication

Hydroxychloroquine 200 mg started
 Hydroxychloroquine 200 mg/day started, Sulfasalazine 2000 mg/day to 1500 mg/day, Glucocorticoid injection (i.a.)
 Leflunomide 10 mg/day started
 Methotrexate 10 mg/week started
 Methotrexate 15 mg/week started
 Methotrexate 20 mg/week start, hydroxychloroquine 200 mg/day start, Glucocorticoid injection (i.m.), Prednisone 5 mg/day start, Etanercept 50 mg/week start

≥ 1 Glucocorticoid injection

Glucocorticoid injection (i.a.)
 Glucocorticoid injection (i.m.)
 Glucocorticoid injection (i.m.)
 Glucocorticoid injection (i.m.), Prednisone 5 mg/day stopped

Decrease**Decrease dosage / increase interval**

Abatacept (i.v.) 750 mg/4 weeks to 500 mg/4 weeks
 Etanercept 50 mg/week to 25 mg/week
 Etanercept 50 mg/week to 50 mg/10 days
 Etanercept 50 mg/week to 50 mg/2 weeks
 Etanercept 50 mg/week to 50 mg/4 weeks
 Hydroxychloroquine 400 mg/day to 200 mg/day
 Leflunomide 20 mg/day to 10 mg/day
 Methotrexate 15 mg/week to 10 mg/week
 Methotrexate 15 mg/week to 10 mg/week
 Methotrexate 20 mg/week to 15 mg/week
 Methotrexate 20 mg/week to 15 mg/week
 Methotrexate 22.5 mg/week to 5 mg/week
 Methotrexate 25 mg/week to 15 mg/week
 Methotrexate 25mg/week to 15 mg/week
 Prednisone 7.5 mg/day to 5 mg/day
 Rituximab 1000 mg/6 months to 1000 mg/12 months
 Rituximab 1000 mg/6 months to 1000 mg/12 months
 Rituximab 500 mg/6 months to 200 mg/6 months

Stopped one medication

Methotrexate 17.5 mg/week to 10 mg/week, hydroxychloroquine 200 mg/day stopped
 Prednisone 10 mg/day stopped
 Prednisone 2.5 mg/day stopped
 Rituximab 1000 mg/6 months stopped
 Sulfasalazine 1500 mg/day stopped, adalimumab 40 mg/2 weeks to 40 mg/3 weeks

Stopped all anti-rheumatic medication

Adalimumab 20 mg/week stopped
 Leflunomide 20 mg/day stopped
 Methotrexate 30 mg/week stopped
 Methotrexate 7.5 mg/week stopped
 Prednisone 7.5 mg/day stopped

Changes shown between start of the intervention and at the end of the one-year extension study. i.m. = intra muscular injection, i.a. = intra-articular injection, s.c. = subcutaneous injection.

Supplementary Table 6. Lifestyle descriptives for rheumatoid arthritis participants in the Plants for Joints one-year extension study

	Intervention			Extension study	
	Start	Halfway	End	6 months	12 months
Diet characteristics, n	65	56	49	44	49
Energy, kcal	1737 (324)	1686 (342)	1706 (332)	1798 (281)	1833 (282)
Fat, g	71.7 [62.3 - 81.0]	73.1 [56.9 - 80.4]	71.0 [59.6 - 81.4]	75.4 [63.8 - 88.3]	81.5 [64.8 - 91.4]
Fat, energy%	37.2 (5.9)	38.0 (7.0)	36.6 (5.5)	37.5 (5.7)	38.5 (5.6)
Saturated fat, g	23.0 [16.4 - 28.3]	13.9 [11.3 - 17.1]	14.0 [10.5 - 18.6]	17.0 [13.0 - 22.3]	18.5 [14.9 - 24.2]
Saturated fat, energy%	11.8 [9.7 - 14.1]	7.3 [6.2 - 8.9]	7.7 [6.3 - 9.4]	8.7 [6.8 - 10.7]	9.1 [7.4 - 11.3]
Carbohydrate, g	186.3 (42.4)	186.8 (40.3)	186.4 (45.3)	189.1 (43.4)	193.9 (38.1)
Carbohydrate, energy%	43.0 [39.0 - 47.0]	44.0 [41.0 - 48.0]	45.0 [41.0 - 47.0]	43.0 [40.0 - 47.3]	44.0 [39.0 - 46.0]
Protein, g	66.8 [55.3 - 76.3]	55.4 [46.0 - 67.5]	58.1 [49.1 - 64.4]	62.2 [55.5 - 68.6]	62.1 [52.8 - 67.7]
Protein, g/kg body weight*	0.88 [0.74 - 1.11]	0.81 [0.69 - 0.92]	0.85 [0.71 - 1.01]	0.87 [0.78 - 1.08]	0.87 [0.79 - 1.02]
Fiber, g	24.5 (7.8)	36.8 (9.9)	36.1 (9.9)	34.9 (10.7)	34.1 (10.9)
Fiber, g/1000 kcal	14.2 (4.0)	21.9 (4.6)	21.3 (4.7)	19.5 (5.6)	18.7 (5.2)
Physical activity, n	76	72	72	64	57
min/wk	158 [94 - 255]	193 [123 - 298]	193 [120 - 269]	158 [109 - 290]	188 [105 - 305]
Stress reducing activities, n	75	74	73	63	58
min/wk	22 [10 - 55]	33 [20 - 59]	36 [10 - 55]	25 [11 - 66]	35 [20 - 63]
Lifestyle Index adherence score, n			72	64	58
Total score**			1.05 [0.86 - 1.21]	0.95 [0.80 - 1.21]	0.99 [0.78 - 1.22]
Adherence meetings			0.90 [0.90 - 1.00]	-	-
Adherence exercise			1.34 [1.03 - 1.58]	1.23 [0.78 - 1.54]	1.21 [0.63 - 1.69]
Adherence stress			0.67 [0.17 - 0.93]	0.53 [0.19 - 1.05]	0.70 [0.33 - 1.00]
Adherence diet			1.43 (0.32)	1.32 (0.32)	1.25 (0.33)

Lifestyle descriptives at start and end of the 4-month intervention period as well as during the 1-year extension study (6 and 12 months after completing the intervention).

Continuous variables reported as mean (SD) when normally distributed or as median [IQR] when skewed. kcal = kilocalories, energy% = percentage of total energy in kilocalories.

*Adjustment of body weight for participants with a BMI \geq 30 to match a BMI of 27.5. **Lifestyle index adherence score based on four components: meeting attendance, exercise activity, stress relieving activity, diet.

Supplementary Table 7. Lifestyle descriptives for osteoarthritis participants in the Plants for Joints one-year extension study

	Intervention		End	Extension study	
	Start	Halfway		6 months	12 months
Diet characteristics, n	56	41	47	34	41
Energy, kcal	1803 (447)	1699 (270)	1691 (301)	1781 (275)	1682 (273)
Fat, g	74.3 [57.7 - 94.2]	66.5 [60.5 - 76.3]	69.8 [58.7 - 81.7]	70.8 [61.1 - 82.7]	68.2 [61.7 - 82.7]
Fat, energy%	38.0 [33.8 - 41.3]	37.6 [32.5 - 40.6]	37.8 [34.2 - 40.6]	35.9 [32.3 - 40.6]	37.3 [35.3 - 41.2]
Saturated fat, g	24.5 [16.5 - 31.2]	12.7 [10.2 - 16.9]	13.0 [11.1 - 16.1]	14.7 [10.7 - 21.2]	14.3 [11.4 - 22.5]
Saturated fat, energy%	12.6 [9.3 - 14.5]	6.9 [6.2 - 8.6]	7.5 [6.2 - 8.8]	7.6 [6.2 - 9.7]	7.6 [6.7 - 10.5]
Carbohydrate, g	178.0 (41.4)	184.9 (33.8)	174.4 (46.0)	186.5 (53.9)	170.0 (44.9)
Carbohydrate, energy%	39.8 [35.6 - 44.6]	42.7 [39.0 - 47.0]	41.9 [38.9 - 46.1]	42.6 [39.6 - 47.2]	42.9 [38.7 - 45.9]
Protein, g	69.6 [59.5 - 83.7]	56.5 [53.0 - 65.0]	61.3 [52.3 - 69.2]	65.7 [56.6 - 74.3]	58.6 [52.8 - 69.5]
Protein, g/kg body weight*	0.90 [0.76 - 1.07]	0.74 [0.65 - 0.85]	0.79 [0.67 - 0.86]	0.79 [0.73 - 0.95]	0.78 [0.67 - 0.93]
Fiber, g	22.9 [19.2 - 32.2]	36.1 [31.8 - 42.2]	33.1 [29.5 - 42.3]	34.2 [27.1 - 41.8]	33.2 [25.3 - 40.0]
Fiber, g/1000 kcal	12.9 [11.3 - 17.2]	21.4 [19.0 - 24.8]	20.5 [17.3 - 23.9]	21.3 [15.8 - 24.2]	21.1 [15.6 - 23.5]
Physical activity, n	62	58	58	49	47
min/wk	190 [101 - 279]	181 [122 - 287]	189 [111 - 303]	228 [123 - 333]	195 [144 - 333]
Stress reducing activities, n	61	57	56	50	47
min/wk	33 [0 - 55]	44 [15 - 60]	33 [9 - 62]	33 [10 - 70]	35 [8 - 66]
Lifestyle Index adherence score, n			58	50	47
Total score**			1.02 [0.82 - 1.23]	1.04 [0.82 - 1.12]	1.08 [0.88 - 1.27]
Adherence meetings			0.90 [0.90 - 1.00]	-	-
Adherence exercise			1.19 [0.88 - 1.69]	1.45 [0.85 - 1.81]	1.34 [1.01 - 1.81]
Adherence stress			0.59 [0.16 - 1.01]	0.55 [0.27 - 1.17]	0.67 [0.15 - 1.05]
Adherence diet			1.47 [1.22 - 1.62]	1.45 [1.10 - 1.63]	1.50 [1.06 - 1.62]

Lifestyle descriptives at start and end of the 4-month intervention period as well as during the 1-year extension study (6 and 12 months after completing the intervention). Continuous variables reported as mean (SD) when normally distributed or as median [IQR] when skewed. kcal = kilocalories, energy% = percentage of total energy in kilocalories. *Adjustment of body weight for participants with a BMI \geq 30 to match a BMI of 27.5. **Lifestyle index adherence score based on four components: meeting attendance, exercise activity, stress relieving activity, diet.

Supplementary Table 8. Effect of adherence on DAS28 for participants with rheumatoid arthritis and total WOMAC score for participants with osteoarthritis

	Rheumatoid arthritis			Osteoarthritis		
	DAS28 within group			WOMAC within group		
	<i>n</i> =	difference (95% CI)	<i>p</i> -value	<i>n</i> =	difference (95% CI)	<i>p</i> -value
Lifestyle Index Adherence Score						
Low	19	-0.7 (-1.2 to -0.3)	<0.001	16	-4.8 (-10.9 to 1.4)	0.1
Moderate	18	-1.1 (-1.5 to -0.6)	<0.001	15	-8.5 (-14.8 to -2.1)	<0.01
High	21	-1.2 (-1.6 to -0.7)	<0.001	16	-11.6 (-17.7 to -5.5)	<0.001
Saturated fat, energy%						
Low	16	-1.0 (-1.4 to -0.5)	<0.001	14	-19.4 (-26.0 to -12.9)	<0.001
Moderate	16	-1.3 (-1.8 to -0.8)	<0.001	13	-5.4 (-12.2 to 1.4)*	0.1
High	17	-0.7 (-1.2 to 0.3)	0.002	14	-2.0 (-8.5 to 4.5)*	0.6
Fiber, g/1000kcal						
Low	16	-1.1 (-1.6 to 0.6)	<0.001	14	-2.9 (-9.7 to 3.9)	0.4
Moderate	16	-0.9 (-1.4 to -0.4)	<0.001	13	-10.2 (-17.3 to -3.2)	0.01
High	17	-1.0 (-1.5 to -0.6)	<0.001	14	-14.0 (-20.8 to -7.2)*	<0.001
Physical activity, min/wk						
Low	19	-0.7 (-1.2 to -0.3)	0.001	16	-8.7 (-15.3 to -2.1)	0.01
Moderate	19	-1.1 (-1.6 to -0.7)	<0.001	15	-8.4 (-14.8 to -2.0)	0.01
High	19	-1.1 (-1.6 to -0.7)	<0.001	19	-6.9 (-12.5 to -1.2)	0.02
Stress-relieving activities, min/wk						
Low	17	-1.0 (-1.4 to -0.5)	<0.001	16	-1.1 (-7.8 to 5.5)	0.7
Moderate	20	-1.0 (-1.4 to -0.6)	<0.001	16	-11.6 (-17.8 to -5.4)*	<0.001
High	21	-1.0 (-1.4 to -0.5)	<0.001	18	-9.7 (-15.5 to -3.8)*	0.001

A linear mixed model between DAS28 (rheumatoid arthritis participants) or WOMAC score (osteoarthritis participants) at start intervention to end of the one-year extension study with tertiles of the adherence score or its components as interaction terms was used. A *p*-value <0.1 was considered statistically significant. Significant differences between tertiles are indicated as * with low as the reference, there were no significant differences found with high as the reference. Tertile cut-off points for rheumatoid arthritis (RA): Lifestyle Index Adherence Score lower: 0.83, upper: 1.13; saturated fat: lower: 7.89%, upper: 10.67%; fiber: lower: 17.55, upper: 20.61; physical activity: lower: 127.5, upper: 270.7; stress-relieving activities: lower: 22, upper: 50. Tertile cut-off points for osteoarthritis (MSOA): Lifestyle Index Adherence Score: lower: 0.93, upper: 1.20; saturated fat: lower: 6.98%, upper: 9.27%; fiber: lower: 17.01, upper: 22.91; physical activity: lower: 157.5, upper: 262.5; stress-relieving activities: lower: 11, upper: 44.

Supplementary Table 9. Adverse events for participants with rheumatoid arthritis or osteoarthritis during the one-year extension study of the Plants for joints study

Type	Time point	Description	Serious AE	Severity	Related to the intervention
Rheumatoid arthritis					
Infection	Halfway semicross control	Fever and sore muscles	No	Mild	No
Other	Halfway semicross control	Granuloma annulare	No	Mild	No
Abnormal blood result	Halfway semicross control	Leukopenia	No	Mild	No
Other	Halfway semicross control	Migraine	No	Mild	No
Infection	Halfway semicross control	Viral gastroenteritis	No	Mild	No
Abdominal complaints	Halfway semicross control	Flatulence	No	Mild	Possible
Abdominal complaints	Halfway semicross control	Light constipation	No	Mild	Unlikely
Other	Halfway semicross control	Migraine	No	Mild	Unlikely
Other	Halfway semicross control	Esophagus spasms	No	Mild	Unknown
Other	Halfway semicross control	Thirst	No	Mild	Unlikely
Abdominal complaints	Halfway semicross control	Flatulence and bloating	No	Mild	Possible
Other	Halfway semicross control	Dizziness	No	Mild	Unknown
Abdominal complaints	Halfway semicross control	Diarrhea	No	Mild	Possible
Abdominal complaints	Halfway semicross control	Diarrhea	No	Mild	Possible
Abdominal complaints	Halfway semicross control	Flatulence	No	Mild	Possible
Abdominal complaints	Halfway semicross control	Headache	No	Mild	Unlikely
Other	Halfway semicross control	Low blood pressure	No	Mild	Possible
Abdominal complaints	Halfway semicross control	Flatulence	No	Mild	Possible
Other	End semicross control	Breast cancer diagnosis	No	Moderate	No
Other	End semicross control	Nerve pinchment (back)	No	Moderate	No
Other	End semicross control	Erythema nodosum	No	Mild	No
Abdominal complaints	End semicross control	Bloating and eructation	No	Mild	Possible
Other	End semicross control	Irregular menstrual cycles	No	Mild	Unknown
Abdominal complaints	End semicross control	Diarrhea	No	Mild	Possible
Abdominal complaints	End semicross control	Gastric reflux	No	Mild	Unlikely
Other	End semicross control	Perceived loss of muscle and physical fitness	No	Mild	Possible
Infection	Extension study 6 m	COVID-19 infection	No	Mild	No
Other	Extension study 6 m	Cardiac arrhythmia	Yes	Moderate	No
Infection	Extension study 6 m	COVID-19 infection	No	Mild	No
Other	Extension study 6 m	Pale stool	No	Mild	No
Abnormal blood result	Extension study 6 m	Abnormal liver enzymes	No	Mild	No
Infection	Extension study 6 m	Urinary tract infection	No	Mild	No
Infection	Extension study 6 m	Pneumonia	Yes	Moderate	No
Other	Extension study 6 m	Diagnosis lung cancer	Yes	Moderate	No
Infection	Extension study 6 m	Herpes Zoster infection	No	Mild	No
Infection	Extension study 6 m	Urinary tract infection	No	Mild	No
Other	Extension study 6 m	Hair thinning	No	Mild	Unknown
Other	Extension study 6 m	Muscle loss	No	Mild	Possible
Abdominal complaints	Extension study 6 m	Gastric reflux	No	Mild	Unlikely
Other	Extension study 6 m	Forgetfulness	No	Mild	Unlikely
Other	Extension study 6 m	Unwanted weightloss	No	Mild	Possible
Abdominal complaints	Extension study 6 m	Bloating	No	Mild	Possible
Abdominal complaints	Extension study 6 m	Abdominal cramps	No	Mild	Possible
Abdominal complaints	Extension study 6 m	Flatulence	No	Mild	Possible
Abdominal complaints	Extension study 6 m	Flatulence	No	Mild	Possible
Other	Extension study 6 m	Dizziness	No	Mild	Unknown
Abdominal complaints	Extension study 6 m	Gastric reflux	No	Mild	Unlikely
Infection	Extension study 12 m	Urinary tract infection	No	Mild	No
Infection	Extension study 12 m	Urinary tract infection	No	Mild	No
Other	Extension study 12 m	Diagnosis familial hypertension	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Other	Extension study 12 m	Neuritis vestibularis	No	Mild	No
Infection	Extension study 12 m	Shingles	No	Mild	No
Other	Extension study 12 m	Hypertensive crisis	Yes	Moderate	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Other	Extension study 12 m	Hairloss	No	Mild	Unlikely
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Other	Extension study 12 m	Viral gastroenteritis	No	Mild	No
Other	Extension study 12 m	Herpes zoster	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Abdominal complaints	Extension study 12 m	Carpal tunnel syndrome	No	Mild	No
Infection	Extension study 12 m	Flu	No	Mild	No
Abdominal complaints	Extension study 12 m	Stomach pain	No	Mild	No
Other	Extension study 12 m	Pale stool	No	Mild	No
Infection	Extension study 12 m	Eye infection	No	Mild	No
Other	Extension study 12 m	Hemorrhoids (neck)	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Abdominal complaints	Extension study 12 m	Bloating	No	Mild	Possible
Other	Extension study 12 m	Frozen shoulder	No	Mild	No
Other	Extension study 12 m	Hearing loss	No	Mild	No
Abdominal complaints	Extension study 12 m	Constipation	No	Mild	Unlikely
Abdominal complaints	Extension study 12 m	Bloating and flatulence	No	Mild	Possible
Other	Extension study 12 m	Tear in biceps tendon	No	Mild	No
Osteoarthritis					
Abdominal complaints	Halfway semicross control	Constipation	No	Mild	Unlikely
Abdominal complaints	Halfway semicross control	Diarrhea	No	Mild	Unknown
Other	Halfway semicross control	Headache	No	Mild	Unlikely
Abdominal complaints	End semicross control	Gallstones	No	Mild	Unlikely
Infection	End semicross control	Urinary tract infection	No	Mild	No
Other	End semicross control	Torn shoulder muscle	No	Mild	No
Other	End semicross control	Torn muscle from horseback riding	No	Mild	No
Abdominal complaints	End semicross control	Gastric reflux	No	Mild	Unlikely
Infection	Extension study 6 m	Pneumonia	No	Mild	No
Infection	Extension study 6 m	Herpes infection eye	No	Mild	No
Infection	Extension study 6 m	Urinary tract infection	No	Mild	No
Infection	Extension study 6 m	Flu	No	Mild	No
Other	Extension study 6 m	COVID-19 infection	No	Mild	No
Other	Extension study 6 m	Hemorrhoids and colon polyps	No	Mild	No
Other	Extension study 6 m	Bursitis (hip)	No	Mild	No
Other	Extension study 6 m	Diagnosis skin cancer (nose)	No	Mild	No
Other	Extension study 6 m	Diagnosis atypical migraine	No	Mild	Unlikely
Other	Extension study 6 m	Diagnosis melanoma	No	Mild	No
Abdominal complaints	Extension study 6 m	General abdominal complaints	No	Mild	Possible
Abdominal complaints	Extension study 6 m	Flatulence and abdominal cramps	No	Mild	Possible
Other	Extension study 6 m	Nausea	No	Mild	Unlikely
Other	Extension study 6 m	Dizziness and headache	No	Mild	Unknown
Other	Extension study 6 m	Rash (abdomen)	No	Mild	Unlikely
Other	Extension study 6 m	Tinnitus and poor hearing	No	Mild	No
Other	Extension study 6 m	Headache	No	Mild	Unlikely
Other	Extension study 6 m	Hair thinning	No	Mild	Unknown
Other	Extension study 12 m	Hemorrhoids	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Infection	Extension study 12 m	Infected jaw implant	No	Mild	No
Infection	Extension study 12 m	Upper urinary tract infection	No	Mild	No
Other	Extension study 12 m	Broken hand due to fall	No	Mild	Unlikely
Infection	Extension study 12 m	COVID-19 infection	Yes	Severe	No
Infection	Extension study 12 m	Diagnosis breast cancer	Yes	Moderate	No
Infection	Extension study 12 m	Helicobacter Pylori gastritis	No	Mild	No
Other	Extension study 12 m	Cardiac arrhythmia	Yes	Moderate	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Other	Extension study 12 m	Colon polyps	No	Mild	No
Infection	Extension study 12 m	Urinary tract infection	Yes	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Infection	Extension study 12 m	Infection jaw	No	Mild	No
Infection	Extension study 12 m	Vaginal yeast infection	No	Mild	No
Infection	Extension study 12 m	Eye infection	Yes	Mild	No
Other	Extension study 12 m	Bursitis (hip)	No	Mild	No
Infection	Extension study 12 m	Urinary tract infection	No	Mild	No
Other	Extension study 12 m	Broken wrist after fall	No	Moderate	Unlikely
Abnormal blood result	Extension study 12 m	Iron deficiency anemia	No	Mild	Possible
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Other	Extension study 12 m	Infected nail	No	Mild	No
Infection	Extension study 12 m	COVID-19 infection	No	Mild	No
Abdominal complaints	Extension study 12 m	Diarrhea after antibiotic use	No	Mild	No
Other	Extension study 12 m	Dry mouth	No	Mild	Unlikely
Other	Extension study 12 m	Rash (hands)	No	Mild	Unlikely
Other	Extension study 12 m	Tendinitis	No	Mild	No
Abdominal complaints	Extension study 12 m	Gastric reflux	No	Mild	Unlikely
Other	Extension study 12 m	Burnout	No	Mild	Unlikely