

Supplement Table S1. Baseline characteristics of the participants with and without rheumatoid arthritis in group with age < 40 years

	Men (<i>n</i> = 2399)					Women (<i>n</i> = 3239)				
	RA (<i>n</i> = 1)		Non-RA (<i>n</i> = 2398)		<i>p</i>	RA (<i>n</i> = 11)		Non-RA (<i>n</i> = 3228)		<i>p</i>
	n	%	n	%		n	%	n	%	
Age (in years)	32		30.91 ± 5.855		0.852	31.64 ± 5.870		30.84 ± 5.898		0.654
Obesity					0.187					0.720
Underweight	0	0	90	3.8		1	9.1	367	11.4	
Normal weight	0	0	1469	61.3		9	81.8	2319	71.8	
Overweight	1	100.0	839	35.0		1	9.1	542	16.8	
Menopause					-					0.869
Yes	-	-	-	-		0	0	8	0.2	
No	-	-	-	-		11	100	3220	99.8	
Hypertension					0.111					0.142
Normal	0	0	1179	49.2		11	100	2697	83.6	
Pre-hypertension	0	0	838	34.9		0	0	431	13.4	
Hypertension	1	100.0	381	15.9		0	0	100	3.1	
Diabetes mellitus					0.686					0.889
Normal	1	100.0	2061	85.9		10	90.9	2952	91.4	
Impaired fasting glucose	0	0	293	12.2		0	0	227	7.0	
Diabetes mellitus	0	0	44	1.8		1	9.1	49	1.5	
Dyslipidemia					0.377					0.226
Normal	0	0	1052	43.9		3	27.3	1468	45.5	
Dyslipidemia	1	100.0	1346	56.1		8	72.7	1760	54.5	
Alcohol consumption					0.138					0.208
None	0	0	435	18.1		3	27.3	1527	47.3	
Moderate	0	0	1387	57.8		7	63.6	1470	45.5	
Heavy	1	100.0	576	24.0		1	9.1	49	7.2	
Smoking status					0.594					0.421
Never	0	0	600	25.0		10	90.9	2659	82.4	
Past	1	100.0	528	22.0		1	9.1	295	9.1	
Current	0	0	1270	53.0		0	0	274	8.5	

Household income					0.289	0.777			
Lowest	0	0	190	7.9	1	9.1	240	7.4	
Lower middle	1	100.0	617	25.7	3	27.3	849	26.3	
Upper middle	0	0	854	35.6	4	36.4	1135	35.2	
Highest	0	0	737	30.7	3	27.3	1004	31.1	
Education					0.322	0.694			
Primary school or lower	0	0	16	0.7	0	0	23	0.7	
Middle school	0	0	48	2.0	0	0	67	2.1	
High school	0	0	1140	47.5	5	45.5	1531	47.4	
University or higher	1	100.0	1194	49.8	6	54.5	1607	49.8	
Sarcopenia					0.153	0.713			
Absent	0	0	2031	84.7	10	90.9	2743	85.0	
Present	1	100.0	367	15.3	1	9.1	485	15.0	

RA = rheumatoid arthritis.

Data are given as mean \pm standard deviation or the number with percentage.

Supplement Table S2. Baseline characteristics of the participants with and without rheumatoid arthritis in group with $40 \leq \text{age} < 59$ years

	Men (<i>n</i> = 2802)					Women (<i>n</i> = 3760)				
	RA (<i>n</i> = 4)		Non-RA (<i>n</i> = 2798)		<i>p</i>	RA (<i>n</i> = 31)		Non-RA (<i>n</i> = 3729)		<i>p</i>
	n	%	n	%		n	%	n	%	
Age (in years)	52.50 ± 2.646		49.08 ± 5.811		0.239	52.06 ± 4.434		49.12 ± 5.645		0.004
Obesity					0.162					0.191
Underweight	0	0	51	1.8		2	6.5	85	2.3	
Normal weight	1	25.0	1610	57.5		22	71.0	2485	66.6	
Overweight	3	75.0	1137	40.6		7	22.6	1159	31.1	
Menopause					-					< 0.001
Yes	-	-	-	-		25	80.6	1535	41.2	
No	-	-	-	-		6	19.4	2194	58.8	
Hypertension					0.274					0.009
Normal	1	25.0	900	32.2		7	22.6	1880	50.4	
Pre-hypertension	0	0	843	30.1		14	45.2	949	25.4	
Hypertension	3	75.0	1055	37.7		10	32.3	900	24.1	
Diabetes mellitus					0.571					0.215
Normal	2	50.0	1683	60.2		27	87.1	2833	76.0	
Impaired fasting glucose	1	25.0	787	28.1		1	3.2	663	17.8	
Diabetes mellitus	1	25.0	328	11.7		3	9.7	233	6.2	
Dyslipidemia					0.925					0.922
Normal	1	25.0	758	27.1		7	22.6	870	23.3	
Dyslipidemia	3	75.0	2040	72.9		24	77.4	2859	76.7	
Alcohol consumption					0.418					0.127
None	2	50.0	615	22.0		22	71.0	2180	58.5	
Moderate	1	25.0	1467	52.4		9	29.0	1390	37.3	
Heavy	1	25.0	716	25.6		0	0	159	4.3	
Smoking status					0.407					0.054
Never	1	25.0	451	16.1		26	83.9	3469	93.0	
Past	2	50.0	1074	38.4		3	9.7	94	2.5	
Current	1	25.0	1273	45.5		2	6.5	166	4.5	

Household income					0.245					0.036
Lowest	0	0	246	8.8		6	19.4	433	23.0	
Lower middle	1	25.0	610	21.8		9	29.0	913	18.7	
Upper middle	0	0	900	32.2		11	35.5	1115	39.5	
Highest	3	75.0	1042	37.2		5	16.1	1268	34.0	
Education					0.390					< 0.001
Primary school or lower	1	25.0	322	11.9		14	45.2	856	23.0	
Middle school	1	25.0	422	15.1		10	32.3	697	18.7	
High school	1	25.0	1041	37.2		5	16.1	1474	39.5	
University or higher	1	25.0	1003	35.8		2	6.5	702	18.8	
Sarcopenia					0.849					0.039
Absent	3	75.0	2207	78.9		18	58.1	2772	74.3	
Present	1	25.0	591	21.1		13	41.9	957	25.7	

RA = rheumatoid arthritis.

Data are given as mean \pm standard deviation or the number with percentage.

Supplement Table S3. Baseline characteristics of the participants with and without rheumatoid arthritis in group with age ≥ 60 years

	Men (<i>n</i> = 2188)					Women (<i>n</i> = 2799)				
	RA (<i>n</i> = 21)		Non-RA (<i>n</i> = 2167)		<i>p</i>	RA (<i>n</i> = 88)		Non-RA (<i>n</i> = 2711)		<i>p</i>
	n	%	n	%		n	%	n	%	
Age (in years)	72.10 \pm 7.569		68.75 \pm 6.088		0.013	69.17 \pm 6.837		69.10 \pm 6.289		0.914
Obesity					0.097					0.022
Underweight	0	0	100	4.6		4	4.5	82	3.0	
Normal weight	12	57.1	1455	67.1		60	68.2	1571	57.9	
Overweight	9	42.9	612	28.2		24	27.3	1058	39.0	
Menopause					-					0.184
Yes	-	-	-	-		80	90.9	2566	94.3	
No	-	-	-	-		8	9.1	155	5.7	
Hypertension					0.392					0.866
Normal	7	33.3	405	18.7		14	15.9	452	16.7	
Pre-hypertension	3	14.3	539	24.9		21	23.9	587	21.7	
Hypertension	11	52.4	1223	56.4		53	60.2	1672	61.7	
Diabetes mellitus					0.709					0.709
Normal	12	57.1	1123	51.8		53	60.2	1601	59.1	
Impaired fasting glucose	1	4.8	603	27.8		20	22.7	574	21.2	
Diabetes mellitus	8	38.1	441	20.4		15	17.0	536	19.8	
Dyslipidemia					0.233					0.020
Normal	9	42.9	667	30.8		15	17.0	259	9.6	
Dyslipidemia	12	57.1	1500	69.2		73	83.0	2452	90.4	
Alcohol consumption					0.004					0.145
None	14	66.7	807	37.2		76	86.4	2174	80.2	
Moderate	7	33.3	1127	52.0		12	13.6	518	19.1	
Heavy	0	0	233	10.8		0	0	19	0.7	
Smoking status					0.609					0.255
Never	3	14.3	355	16.4		77	87.5	2464	90.9	
Past	11	52.4	1201	55.4		4	4.5	129	4.8	
Current	7	33.3	611	28.2		7	8.0	118	4.4	

Household income					0.008					0.271
Lowest	15	71.4	846	39.0		50	56.8	1347	49.7	
Lower middle	3	14.3	621	28.7		18	20.5	244	25.4	
Upper middle	1	4.8	387	17.9		11	12.5	233	14.1	
Highest	2	9.5	313	14.4		9	10.2	62	10.8	
Education					0.145					0.182
Primary school or lower	12	57.1	967	44.6		75	85.2	2172	80.1	
Middle school	4	19.0	443	20.4		9	10.2	244	9.0	
High school	5	23.8	477	22.0		3	3.4	233	8.6	
University or higher	0	0	280	12.9		1	1.1	62	2.3	
Sarcopenia					0.001					0.462
Absent	7	33.3	1445	66.7		60	68.2	1745	64.4	
Present	14	66.7	722	33.3		28	31.8	966	35.6	

RA = rheumatoid arthritis.

Data are given as mean \pm standard deviation or the number with percentage.
