

Physical activity Questionnaire in EPIC, table and questionnaire were adapted from Wareham et al(1)

Interpretation of the physical activity index groups.
EPIC physical activity questions

Label	Description
Very inactive	Sedentary job and no recreational activity
Moderately inactive	Sedentary job with <0.5 h recreational activity per day or standing job with no recreational activity per day
Moderately active	Sedentary job with 0.5–1.0 h recreational activity per day or standing job with 0.5 h recreational activity per day or physical job with no recreational activity per day
Very active	Sedentary job with >1.0 h recreational activity per day or standing job with >0.5 h recreational activity per day or physical job with at least some recreational activity or heavy manual job

1. We would like to know the type and amount of physical activity involved in your work. Please tick what best corresponds to your present activities from the following four possibilities:

- Sedentary occupation _____
You spend most of your time sitting (such as in an office)
or Standing occupation _____
You spend most of your time standing or walking. However, your work does not require intense physical effort (e.g. shop assistant, hairdresser, guard, etc.)
or Physical work _____
This involves some physical effort including handling of heavy objects and use of tools (e.g. plumber, cleaner, nurse, sports instructor, electrician, carpenter, etc.)
or Heavy manual work _____
This involves very vigorous physical activity including handling of very heavy objects (e.g. docker, miner, bricklayer, construction worker, etc.)

2. In a typical week during the past 12 months, how many hours did you spend on each of the following activities? (Put '0' if none)

- Walking, including walking to work, shopping and leisure
in summer _____ hours per week
in winter _____ hours per week
Cycling, including cycling to work and during leisure time
in summer _____ hours per week
in winter _____ hours per week
Gardening

in summer _____ hours per week
in winter _____ hours per week
Housework such as cleaning, washing, cooking, childcare
_____ hours per week
Do-it-yourself
_____ hours per week
Other physical exercise such as keep fit, aerobics, swimming, jogging
in summer _____ hours per week
in winter _____ hours per week

3. In a typical week during the past year did you practise any of these activities vigorously enough to cause sweating or a faster heartbeat?

- Yes _____ No _____ Don't know _____
If yes, for how many hours per week in total did you practise such vigorous physical activity? (Put '0' if none)
_____ hours per week

4. In a typical day during the past 12 months, how many floors of stairs did you climb up? (Put '0' if none)

- _____ floors per day

1. Wareham NJ, Jakes RW, Rennie KL, Schuit J, Mitchell J, Hennings S, et al. Validity and repeatability of a simple index derived from the short physical activity questionnaire used in the European Prospective Investigation into Cancer and Nutrition (EPIC) study. *Public health nutrition*. 2003;6(4):407-13.

Supplementary Table 1a. Risk of coronary heart disease events in EPIC-Norfolk participants.

Physical Activity		inactive	moderately inactive	moderately active	active	Total
Number (%)		7316 (29.9)	7070 (28.9)	5594 (22.8)	4522 (18.5)	24,502
Events		1746	1169	862	673	4450
Event rate (per 1000 py)		16.1	10.2	9.2	8.8	11.5
Attributable risk fraction*		0.45	0.14	0.04		
Model 1	Hazard ratio	1.00 (ref)	0.62	0.56	0.53	
	95% CI		(0.58-0.67)	(0.52-0.61)	(0.49-0.58)	
	p-value		<0.001	<0.001	<0.001	
Model 2	Hazard ratio	1.00 (ref)	0.86	0.80	0.78	
	95% CI		(0.80-0.93)	(0.74-0.87)	(0.71-0.86)	
	p-value		<0.001	<0.001	<0.001	
Model 3	Hazard ratio	1.00 (ref)	0.88	0.87	0.84	
	95% CI		(0.81-0.96)	(0.79-0.95)	(0.76-0.93)	
	p-value		0.003	0.002	<0.001	
Age < 55						
Number (%)		1,877 (19.8)	2,803 (29.6)	2,526 (26.7)	2,262 (23.9)	9,468
Events		177	213	170	196	756
Event rate (per 1000 py)		5.2	4.2	3.7	4.7	4.4
Attributable risk fraction*		0.01	-0.12	-0.27		
Model 1	Hazard ratio	1.00 (ref)	0.79	0.69	0.90	
	95% CI		(0.64-0.96)	(0.56-0.85)	(0.73-1.10)	
	p-value		0.02	0.001	0.28	
Model 2	Hazard ratio	1.00 (ref)	1.00	0.76	0.88	

	95% CI		(0.81-1.22)	(0.62-0.94)	(0.72-1.09)	
	p-value		0.97	0.01	0.25	
Model 3	Hazard ratio	1.00 (ref)	0.99	0.78	0.95	
	95% CI		(0.79-1.23)	(0.62-0.99)	(0.76-1.20)	
	p-value		0.90	0.04	0.67	
Age 55-65						
Number (%)		2,033 (26.9)	2,159 (28.5)	1,878 (24.8)	1,497 (19.8)	7,567
Events		439	353	342	242	1,376
Event rate (per 1000 py)		12.7	9.3	10.3	9.1	10.4
Attributable risk fraction*		0.28	0.02	0.12		
Model 1	Hazard ratio	1.00 (ref)	0.72	0.80	0.70	
	95% CI		(0.62-0.82)	(0.70-0.93)	(0.60-0.82)	
	p-value		<0.001	0.002	<0.001	
Model 2	Hazard ratio	1.00 (ref)	0.83	0.84	0.70	
	95% CI		(0.72-0.96)	(0.72-0.97)	(0.59-0.82)	
	p-value		0.01	0.02	<0.001	
Model 3	Hazard ratio	1.00 (ref)	0.87	0.94	0.78	
	95% CI		(0.75-1.02)	(0.81-1.10)	(0.66-0.93)	
	p-value		0.09	0.46	0.006	
Age > 65						
Number (%)		3,406 (45.6)	2,108 (28.2)	1,190 (15.9)	763 (10.2)	7,467
Events		1130	603	350	235	2,318
Event rate (per 1000 py)		24.1	19.0	19.3	20.3	21.5
Attributable risk fraction*		0.16	-0.07	-0.05		
Model 1	Hazard ratio	1.00 (ref)	0.78	0.79	0.83	

	95% CI		(0.71-0.86)	(0.70-0.89)	(0.73-0.96)
	p-value		<0.001	<0.001	0.01
Model 2	Hazard ratio	1.00 (ref)	0.84	0.80	0.80
	95% CI		(0.76-0.93)	(0.71-0.90)	(0.70-0.93)
	p-value		0.001	<0.001	0.003
Model 3	Hazard ratio	1.00 (ref)	0.86	0.85	0.84
	95% CI		(0.77-0.96)	(0.74-0.97)	(0.72-0.98)
	p-value		0.006	0.01	0.02

Model 1 unadjusted;

Model 2 adjusted for socio-economic status, age, sex and smoking status;

Model 3 adjusted for socio-economic status, age, sex, smoking status, systolic blood pressure, diabetes, BMI, LDL cholesterol and HDL cholesterol;

CI indicates confidence interval, py indicates person years, BMI indicates body mass index, LDL indicates low density lipoprotein and HDL indicates high density lipoprotein.

Attributable risk fraction* indicates event rate (per 1000 py) per physical activity level.

Supplementary Table 1b. Risk of cardiovascular disease events in EPIC-Norfolk participants.

Total person-years follow-up=412,954.

Physical Activity		inactive	moderately inactive	moderately active	active	Total
Number (%)		7316 (29.9)	7070 (28.9)	5594 (22.8)	4522 (18.5)	24502
Events		2028	1380	1034	798	5240
Event rate (per 1000 py)		18.7	12.0	11.1	10.4	13.5
Model 1	Hazard ratio	1.00 (ref)	0.62	0.57	0.54	
	95% CI		(0.58-0.67)	(0.53-0.62)	(0.50-0.59)	
	p-value		<0.001	<0.001	<0.001	
Model 2*	Hazard ratio	1.00 (ref)	0.88	0.91	0.89	
	95% CI		(0.81-0.94)	(0.84-0.99)	(0.81-0.97)	
	p-value		0.001	0.02	0.01	
Age < 55						
Number (%)		1877 (19.8)	2803 (29.6)	2526 (26.7)	2262 (23.9)	9468
Events		198	252	204	220	874
Event rate (per 1000 py)		5.9	4.9	4.4	5.3	5.1
Model 1	Hazard ratio	1.00 (ref)	0.83	0.74	0.90	
	95% CI		(0.69 - 1.00)	(0.61 - 0.90)	(0.74 - 1.09)	
	p-value		0.05	0.02	0.27	
Model 2	Hazard ratio	1.00 (ref)	0.95	0.86	0.99	
	95% CI		(0.78 - 1.17)	(0.70 - 1.07)	(0.81 - 1.22)	
	p-value		0.65	0.17	0.91	
Age 55-65						
Number (%)		2033 (26.9)	2159 (28.5)	1878 (24.8)	1497 (19.8)	7567
Events		512	422	417	299	1650
Event rate (per 1000 py)		14.8	11.2	12.6	11.3	12.5
Model 1	Hazard ratio	1.00 (ref)	0.73	0.84	0.74	
	95% CI		(0.64-0.83)	(0.74 - 0.95)	(0.64 - 0.86)	
	p-value		<0.001	0.007	<0.001	
Model 2	Hazard ratio	1.00 (ref)	0.83	0.93	0.80	
	95% CI		(0.72 - 0.95)	(0.81 - 1.07)	(0.69 - 0.94)	

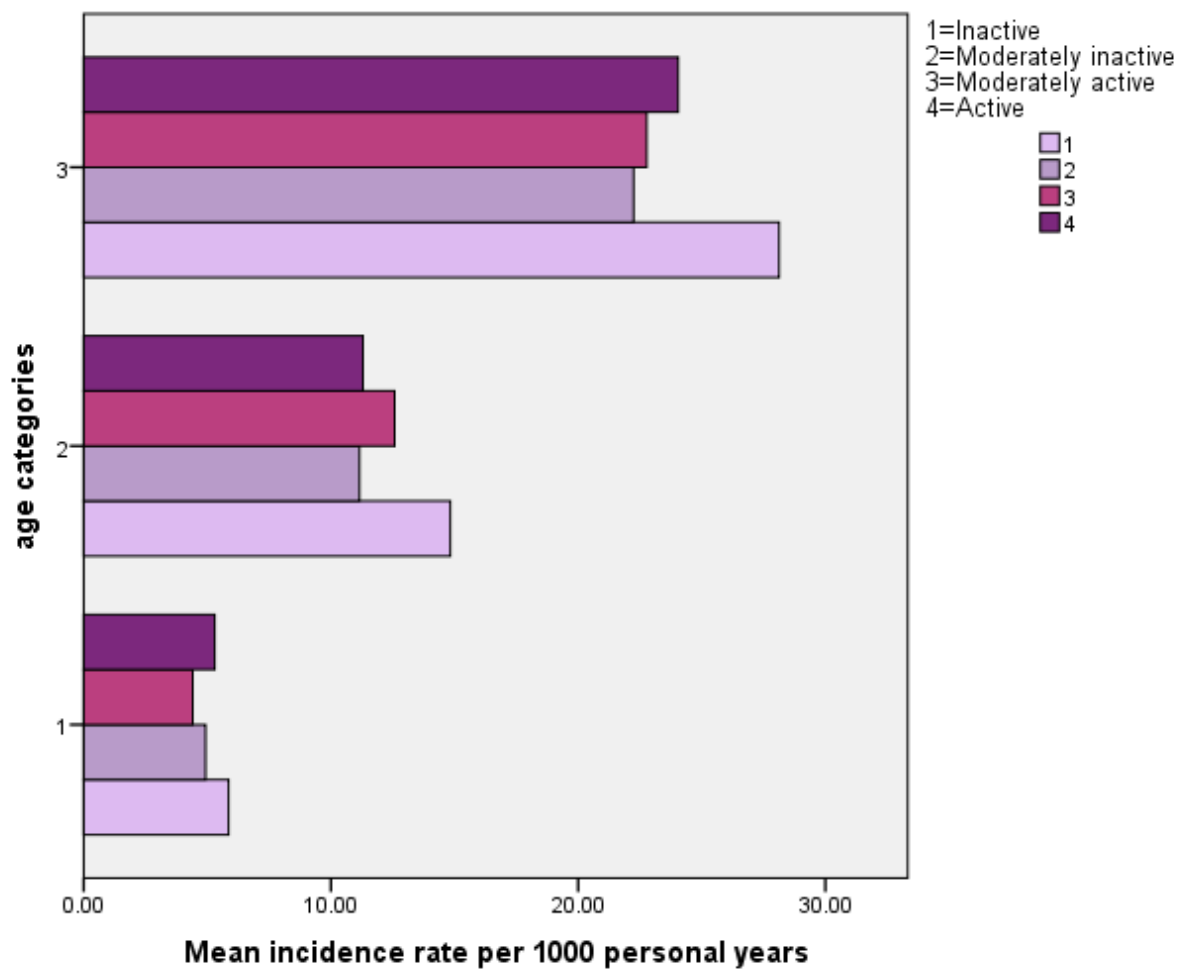
		p-value	0.009	0.32	0.005	
Age > 65						
Number (%)		3406 (45.6)	2108 (28.2)	1190 (15.9)	763 (10.2)	7467
Events		1318	706	413	279	2716
Event rate (per 1000 py)		28.1	22.2	22.8	24.0	25.2
Model 1	Hazard ratio	1.00 (ref)	0.78	0.80	0.84	
	95% CI		(0.71 - 0.86)	(0.71 - 0.89)	(0.74 - 0.96)	
	p-value		<0.001	<0.001	0.01	
Model 2	Hazard ratio	1.00 (ref)	0.82	0.83	0.85	
	95% CI		(0.74 - 0.90)	(0.74 - 0.93)	(0.75 - 0.98)	
	p-value		<0.001	0.002	0.02	

Model 1 unadjusted; Model 2 adjusted for sex, BMI, systolic blood pressure, total cholesterol, HDL cholesterol, diabetes mellitus and smoking status.

Model 2* adjusted for sex, BMI, systolic blood pressure, total cholesterol, HDL cholesterol, diabetes mellitus and smoking status and age.

CI indicates confidence interval, py indicates person years, BMI indicates body mass index, LDL indicates low density lipoprotein and HDL indicates high density lipoprotein

Supplementary figure 1 Incidence rate of cardiovascular disease in all age categories in EPIC-Norfolk participants



Age categories 1, 2 and 3 indicate age < 55, age 55-65 and age > 65 years, respectively