

E-Appendix

Screening Procedure for Musculoskeletal Disorders

A person was considered to be positive in the screening for musculoskeletal disorders, and was invited to have a diagnostic examination, if he or she had one or more of the following.

1. Total or partial difficulty performing one or more of the ten joint function tests, which included walking on even ground, walking on tiptoe, climbing up two steps, crouching, abduction of the arm straight up, extension of the elbow, flexion of the elbow, extension of the wrist by pressing the palms together, flexion of the fingers to a fist, and flexion of the thumbs.
2. A report in the basic questionnaire of a chronic disorder, diagnosed by a physician, in the back, neck, joints, or muscles.
3. A report in the interview of musculoskeletal symptoms (lasting more than three months) of chronic pain or stiffness in the back, neck, or joints.
4. A previous diagnosis of a chronic musculoskeletal disorder found in the registry of disability pensions or in the national registry of diseases entitling individuals to specially reimbursed drugs.

TABLE E1. Odds ratios (OR) with 95% confidence intervals (CI) for risk factors of osteoarthritis (OA) of the carpometacarpal joint of the thumb (Kellgren grade 2, 3, or 4) according to age, gender, educational level, body mass index, history of smoking, and history of workload

	Thumb Carpometacarpal Joint Osteoarthritis			
Explanatory variable	No. of subjects examined	No. of subjects with OA	OR	95% CI
AGE (years) (unadjusted)				
30-44	986	4	1.00	
45-54	834	35	10.48	3.71-29.62
55-64	824	110	36.13	13.25-98.51
65-74	662	160	72.58	26.71-197.19
75-	289	289	115.67	41.92-319.14
SEX (adjusted for age)				
Men	1560	110	1.00	
Women	2035	299	1.99	1.54-2.54
EDUCATIONAL LEVEL (adjusted for age, gender, body mass index, smoking, and history of workload)				
<8 years	2654	329	1.00	
8-12 years	654	61	1.30	0.93-1.81
>12 years	287	19	1.31	0.73-2.37
BODY MASS INDEX (kg/m ²) (adjusted for age, gender, educational level, history of smoking, and history of workload)				
≤20.0	141	7	0.57	0.25-1.33
20.1-24.9	1315	104	1.00	
25.0-29.9	1483	183	1.37	1.03-1.82
30.0-34.9	544	92	1.46	1.04-2.03
≥35.0	112	23	2.19	1.24-3.84
ALCOHOL INTAKE (adjusted for age, gender, educational level, history of smoking, and history of workload)				
Not at all	1822	285	1.00	
1-49 grams per week	1410	109	1.03	0.78-1.38
50-249 grams per week	122	3	0.51	0.15-1.71
≥250 grams per week	241	12	1.31	0.66-2.65
HISTORY OF WORKLOAD (items of physical exposures) (adjusted for age, educational level, body mass index, and smoking)				
0	1047	119	1.00	
1	704	86	1.02	0.72-1.43
2	1085	148	0.84	0.62-1.13
3	504	41	0.77	0.50-1.18
4	200	14	0.78	0.41-1.48
5	55	1	0.13	0.02-0.99
HISTORY OF SMOKING, MEN (adjusted for age, educational level, body mass index, and workload)				
Never smoked	393	41	1.00	
Quit	605	42	0.53	0.33-0.85
Cigars, pipe, or <20 cigarettes/day	322	15	0.40	0.21-0.75
≥20 cigarettes/day	240	12	0.65	0.32-1.31
HISTORY OF SMOKING, WOMEN (adjusted for age, educational level, body mass index, and workload)				
Never smoked	1641	263	1.00	
Quit	187	13	0.73	0.39-1.35
Cigars, pipe, or <20 cigarettes/day	164	20	1.97	1.12-3.43
≥20 cigarettes/day	43	11	1.38	0.39-4.94