Supplemental Digital Content 2. Hazard Ratios for 3 Class (0 vs. 1 vs. 2-4)a Change in Dyspnea Variable Between 1975-1981 for Mortality in Individuals.

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| --- | --- | --- | --- |
|  | **Age + sex adjusted** | **+ pack years****smoked 81 adj.** | **Fully** **adjusted b**  |
|  | **HR (95%CI)** | **HR (95%CI)** | **HR (95%CI)** |
| **All**  | **n = 21 076** | **n=20 463** | **n=19 876** |
|  Increase c | 1.47 (1.35-1.59) | 1.35 (1.24-1.47) | 1.26 (1.15-1.37) |
|  Decrease d  | 1.34 (1.23-1.45) | 1.22 (1.12-1.33) | 1.15 (1.06-1.26) |
|  Persistent mild dyspnea | 1.39 (1.27-1.51) | 1.25 (1.14-1.37) | 1.19 (1.06-1.31) |
|  Persistent severe dyspnea | 2.33 (2.08-2.60) | 2.07 (1.85-2.33) | 1.87 (1.65-2.12) |
| **No lung disease or cough 81 e** | **n=17 937** | **N=17 443** | **n=17 003** |
|  Increase  | 1.40 (1.26-1.54) | 1.32 (1.19-1.46) | 1.25 (1.13-1.40) |
|  Decrease  | 1.35 (1.23-1.49) | 1.25 (1.13-1.38) | 1.19 (1.08-1.32) |
|  Persistent mild dyspnea | 1.33 (1.20-1.47) | 1.22 (1.09-1.35) | 1.15 (1.03-1.29) |
|  Persistent severe dyspnea | 2.14 (1.83-2.50) | 2.05 (1.75-2.41) | 1.86 (1.57-2.20) |
| **Healthy f** | **n=14 375** | **n=14 033** | **n=13 771** |
|  Increase  | 1.43 (1.23-1.67) | 1.30 (1.10-1.52) | 1.17 (0.991-1.38) |
|  Decrease  | 1.31 (1.14-1.51) | 1.16 (1.00-1.35) | 1.10 (0.95-1.28) |
|  Persistent mild dyspnea | 1.55 (1.34-1.80) | 1.38 (1.18-1.60) | 1.25 (1.09-1.47) |
|  Persistent severe dyspnea | 2.75 (1.95-3.89) | 2.17 (1.44-3.27) | 1.99 (1.32-3.00) |
| **Men** | **n=10 063** | **n=9 759** | **n=9 516** |
|  Increase  | 1.61 (1.44-1.80) | 1.44 (1.29-1.62) | 1.34 (1.19-1.51) |
|  Decrease  | 1.47 (1.31-1.65) | 1.30 (1.15-1.47) | 1.22 (1.08-1.39) |
|  Persistent mild dyspnea | 1.54 (1.37-1.74) | 1.35 (1.19-1.53) | 1.27 (1.11-1.45) |
|  Persistent severe dyspnea | 2.93 (2.51-3.41) | 2.38 (2.01-2.81) | 2.08 (1.74-2.49) |
| **Women** | **n=11 013** | **n=10 704** | **n=10 360** |
|  Increase  | 1.32 (1.17-1.49) | 1.28 (1.14-1.45) | 1.20 (1.05-1.37) |
|  Decrease  | 1.18 (1.05-1.33) | 1.13 (0.995-1.28) | 1.08 (0.95-1.23) |
|  Persistent mild dyspnea | 1.23 (1.09-1.39) | 1.15 (1.01-1.31) | 1.12 (0.98-1.28) |
|  Persistent severe dyspnea | 1.80 (1.54-2.11) | 1.79 (1.53-2.09) | 1.68 (1.42-1.99) |

a Reference group had no dyspnea symptoms in 1975 or 1981 b Fully adjusted: adjusted for age, sex, pack years smoked in 1981, physical activity met index 1981, BMI 1981, social class 1975 and alcohol grams per day 1981
c Increase means no dyspnea symptoms or level 1 symptoms in 1975, but increased symptoms to level 1 or higher levels in 1981
d Decrease means dyspnea any level symptoms in 1975, but decreased symptoms to level 1 or to no symptoms in 1981
e No reported bronchitis, emphysema or asthma or persistent cough in 1981
f Did not report any illnesses in 1981, apparently healthy