**Appendix B. Assessment of lifestyle factors**

**Tobacco use**

Tobacco use was assessed by self-reported smoking in the VIP questionnaire and classified as daily smokers, ex- smokers (former daily smokers) or never smokers (including occasional smokers and former occasional smokers).

**Physical activity**

Physical activity was measured using the Cambridge Physical Activity Index, a validated index based on two questions related to physical activity at work and in leisure time[1,2]. Participants were categorised into four groups ranging from inactive to active as in Appendix Table B.1. Where a value was missing in one of the two included variables, the missing value was replaced by the lowest level of activity for that variable. This approach was chosen as the majority of those with missing data are participants who do not work and therefore do not report occupational physical activity.

| **Category** | **Description** |
|---|---|
| Inactive | Sedentary job and no recreational activity |
| Moderately inactive | Sedentary job with <0.5 hour recreational activity per day or Standing job with no recreational activity |
| Moderately active | Sedentary job with 0.5 to 1 hour recreational activity per day or Standing job with 0.5 hour recreational activity per day or Physical job with no recreational activity |
| Active | Sedentary job with >1 hour recreational activity per day or Standing job with >0.5 hour recreational activity per day or Physical job with at least some recreational activity or Heavy Manual Job |

Appendix Table B.1. Categorisation of physical activity according to the Cambridge Physical Activity Index

**Body mass index (BMI)**

BMI was calculated from height and weight measurements in light clothing at the health assessments. Values were set to missing for those with values <15 and >70.

**Dietary fibre, alcohol intake, red and processed meat consumption, and fruit and vegetable consumption**

Dietary fibre, alcohol intake, red and processed meat consumption, and fruit and vegetable consumption were assessed using a modified version of the validated Northern Sweden Food Group

Frequency Questionnaire (FFQ) with 64–84 items[3]. Fruit and vegetables included berries, apple, pear, peach, orange, mandarin, grapefruit, banana, white cabbage, root vegetables, carrot, tomato, cucumber, lettuce, cabbage, spinach, broccoli and mixed frozen vegetables. Red and processed meat included minced meat, meat stew, steak, bacon, sausage, hamburger, sausage on bread and meat on bread. Intake frequency had nine fixed alternatives (never, occasionally, 1–3 times/month, 1 time/week, 2–3 times/week, 4–6times/ week, 1 time/day, 2–3 times/day, ≥4 times/day). Reported frequencies of consumption were converted to number of intakes per day and multiplied by a portion size to derive grams (g)/day or g/week. As in previous studies[4,5], for these dietary variables and alcohol, we excluded participants from the complete case analyses who had food intake levels (calculated by dividing reported total caloric intake with estimated basal metabolic rate) below the 1$^{st}$ percentile or above the 99$^{th}$ percentile calculated separately by sex, missing body weight so that food intake levels could not be calculated, and where >10% of food frequencies were missing and/or portion size indications not complete. These values were set to missing and subsequently imputed in the imputed analyses.

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