SUPPLEMENTARY DATA

Methods

Statistical modelling strategy

The proportional hazards assumption was examined using time varying covariates, calculating interactions of predictor variables and a function of survival time and including them in the models. Examination of time-varying covariates indicated some violation of the proportionality assumption in the sample because of the least active group. Analyses were repeated using Weibull models (data not presented), results were not materially different, so only the results from Cox models are presented.

The HRs for each category of PA compared with the least active group were estimated and the overall association between PA and diabetes was adjusted for age (continuous variable) and region of residence. Models were then adjusted for covariates associated with both diabetes risk and PA, first established socio-demographic and behavioural confoundersas categorical variables: alcohol intake (none/occasional, light [1-15 units/week], moderate [>16 units/week]), cigarette smoking (none, ex-, current), social class (I and II, III non-manual, III manual, IV and V manual and armed forces), consumption of caffeinated coffee (0, 1-3, >4 cups/day), consumption of fizzy drinks or non-diet squashes (1-3 days/week, 4-7 days/week, monthly and rarely/never).Dietary intake and biological risk factors were added as continuous variables: total dietary fibre (g/day), protein (g/day), carbohydrates (g/day) and total kilocalories/day, total and high-density lipoprotein cholesterol and natural log triglycerides. Finally adjustments for BMI and waist circumference and serum insulin were made separately, as these were expected to be on the causal pathway.

All hypothesis tests were two sided and significance levels are reported.

We investigated interactions between PA and adiposity (to indicate men at high risk of diabetes). We used BMI, categorized as <28 and ≥28 kg/$m^{2,}$ as has been done previously in the cohort(17); there was insufficient power to categorise BMI as <25, 25-29.9, >30 Kg/m^2. Interactions were evaluated using likelihood ratio (LR) tests.