Age-dependent sex differences in cardiometabolic risk factors
Supplementary Figure 1. The effect of calcium supplementation on serum calcium levels in women.

GAM-based fitted lines are plotted for men (blue) and women (red) not taking calcium supplementation and for women taking calcium supplementation (yellow). Confidence intervals (+/- 1.96 SE) are depicted around the lines in a more transparent hue.
Supplementary Figure 2. Age-dependent sex differences after adjusting for major CVD risk factors

For each phenotype, GAM-based fitted lines are plotted for men (blue) and women (red) after adjusting for the major CVD risk factors: BMI, glucose levels, total cholesterol, HDL-cholesterol, systolic blood pressure, current smoking and type 2 diabetes. Covariates correlated to the phenotype of interest were excluded from the model. Confidence intervals (+/- 1.96 SE) are depicted around the lines in a more transparent hue. Plots are given for all phenotypes without multiple testing correction.
Supplementary Figure 3. The effect of hormone therapy on age-dependent sex differences in 51 phenotypes.

For each phenotype, GAM-based fitted lines are plotted for men (blue) and women not taking hormone medications (red) and for women taking hormone medications (yellow). Confidence intervals (+/- 1.96 SE) are depicted around the lines in a more transparent hue. Plots are given for all phenotypes without multiple testing correction.
Supplementary Figure 4. Age-dependent sex differences in CVDs.

For each phenotype, the plot shows bars representing phenotype frequency for each 3 years of age and fitted lines obtained using GAM plotted: men (blue) and women (red). Confidence intervals (+/- 1.96 SE) around the lines are depicted in a more transparent hue. Cohen’s $f^2$ reflects the effect size of the age x sex interaction. GAM interaction P represents the significance of the age by sex interaction term. Plots are given for all phenotypes without multiple testing correction.
Supplementary Figure 5. The effect of antihypertensive medication usage on the age-dependent sex differences in CMD risk factors

For each CMD-related phenotype, GAM-based fitted lines are plotted for men not taking antihypertensive medication (blue), men taking antihypertensive medication (cyan), women not taking antihypertensive medications (red) and women taking antihypertensive medications (yellow). Confidence intervals (+/- 1.96 SE) are depicted around the lines in a more transparent hue.
Supplementary Figure 6. The effect of statin medication usage on age-dependent sex differences in CMD risk factors

For each CMD-related phenotype, GAM-based fitted lines are plotted for men not taking statins (blue), men taking statins (cyan), women not taking statins (red) and women taking statins (yellow). Confidence intervals (+/- 1.96 SE) are depicted around the lines in a more transparent hue.
Supplementary Figure 7. Age-dependent sex differences in new CVD cases within 10 years after baseline visit. The plot shows bars representing new CVD occurrence frequency for each 3 years of age at baseline and fitted lines obtained using GAM: men (blue) and women (red). Confidence intervals (+/- 1.96 SE) around the lines are depicted in a more transparent hue. Cohen’s $f^2$ reflects the effect size of the age x sex interaction. GAM interaction P represents the significance of the age by sex interaction term.
Supplementary Figure 8. Age-dependent sex differences for NMR-based lipid and lipoprotein levels.

For each metabolite, plots show scaled values per individual and fitted lines obtained using GAM: men (blue) and women (red). Confidence intervals (+/- 1.96 SE) around the lines are depicted using a more transparent hue. F^2 (Cohen’s f^2) reflects the effect size of the age by sex interaction. GAM interaction p indicates the significance of the age by sex interaction term. Only results with a significant age by sex interaction after Bonferroni correction are plotted.