

Supplementary Table 1. The association between serum uric acid reduced renal function with unadjusted odd ratio

Variable	Total participants			Men			Women		
	Unadjusted			Unadjusted			Unadjusted		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Age	1.135	1.130~1.140	<0.001	1.116	1.109~1.123	<0.001	1.148	1.141~1.154	<0.001
Women	0.745	0.697~0.795	<0.001						
Medical history									
Hypertension	4.553	4.265~4.859	<0.001	4.295	3.877~4.758	<0.001	4.63	4.254~5.039	<0.001
Diabetes mellitus	4.029	3.718~4.367	<0.001	3.394	3.012~3.824	<0.001	4.443	3.983~4.956	<0.001
Myocardial infarction	4.202	3.745~4.716	<0.001	3.736	3.174~4.398	<0.001	4.399	3.734~5.181	<0.001
Cerebrovascular accident	4.427	3.789~5.172	<0.001	3.992	3.218~4.951	<0.001	4.545	3.626~5.697	<0.001
Thyroid disease	1.043	0.897~1.212	0.587	1.235	0.827~1.846	0.302	1.118	0.949~1.317	0.182
Malignancy	1.488	1.271~1.743	<0.001	2.483	1.967~3.136	<0.001	1.136	0.915~1.411	0.248
Family history									
Hypertension	1.016	0.946~1.092	0.656	1.094	0.974~1.229	0.131	1.013	0.925~1.109	0.788
Diabetes mellitus	0.996	0.915~1.084	0.924	1.013	0.882~1.164	0.854	1.011	0.908~1.125	0.842
Alcohol									
No		Reference			Reference			Reference	
Past	1.624	1.430~1.844	<0.001	1.325	1.124~1.562	0.001	1.001	0.768~1.304	0.995
Current	0.624	0.582~0.669	<0.001	0.512	0.456~0.575	<0.001	0.469	0.420~0.524	<0.001
Smoking									
No		Reference			Reference			Reference	
Past	1.455	1.341~1.580	<0.001	1.014	0.903~1.140	0.81	1.31	0.947~1.813	0.103
Current	0.786	0.702~0.879	<0.001	0.551	0.478~0.636	<0.001	0.742	0.539~1.021	0.067
Exercise	1.031	0.966~1,100	0.358	1.113	1.003~1.234	0.043	0.953	0.876~1.037	0.263
Phycal findings									
Systolic blood pressure	1.021	1.019~1.023	<0.001	1.012	1.009~1.015	<0.001	1.026	1.023~1.028	<0.001
Diastolic blood pressure	1.02	1.017~1.023	<0.001	1.001	0.996~1.006	0.629	1.029	1.025~1.033	<0.001
Body mass index	1.108	1.097~1.120	<0.001	1.084	1.065~1.104	<0.001	1.116	1.102~1.130	<0.001
Waist circumference	1.051	1.048~1.055	<0.001	1.046	1.039~1.053	<0.001	1.056	1.051~1.061	<0.001
Medication history									
Hypertension	2.774	2.171~3.545	<0.001	3.988	2.688~5.917	<0.001	2.123	1.552~2.903	<0.001
Diabetes mellitus	3.009	2.195~4.125	<0.001	3.401	2.131~5.431	<0.001	2.689	1.754~4.124	<0.001
Lab results									
Fasting serum glucose	1.01	1.009~1.011	<0.001	1.006	1.005~1.008	<0.001	1.012	1.011~1.013	<0.001
Serum total cholesterol	1	0.999~1.001	0.607	0.997	0.996~0.999	<0.001	1.002	1.001~1.003	0.002
Serum HDL	0.969	0.966~0.971	<0.001	0.968	0.964~0.973	<0.001	0.97	0.967~0.974	<0.001
Serum TG	1.002	1.002~1.002	<0.001	1.001	1.000~1.001	<0.001	1.003	1.003~1.003	<0.001
Serum BUN	1.282	1.273~1.290	<0.001	1.283	1.269~1.297	<0.001	1.282	1.270~1.293	<0.001
Serum total bilirubin	0.381	0.300~0.484	<0.001	0.311	0.225~0.430	<0.001	0.242	0.165~0.357	<0.001
Serum direct bilirubin	0.209	0.109~0.400	<0.001	0.113	0.046~0.276	<0.001	0.053	0.019~0.154	<0.001
Serum r-GT	1.001	1.000~1.001	0.002	0.998	0.997~1.000	0.009	1.003	1.002~1.004	<0.001
Serum AST	1.001	1.000~1.002	0.016	0.998	0.994~1.002	0.371	1.001	1.000~1.003	0.031
Serum ALT	1	0.999~1.002	0.448	0.994	0.990~0.997	<0.001	1.001	1.000~1.002	0.08
Serum uric acid	1.92	1.881~1.959	<0.001	1.98	1.912~2.050	<0.001	2.852	2.752~2.957	<0.001
Proteinuria	5.981	5.384~6.644	<0.001	6.473	5.559~7.537	<0.001	5.397	4.661~6.248	<0.001
Glycosuria	3.45	2.868~4.150	<0.001	2.404	1.853~3.118	<0.001	4.776	3.668~6.218	<0.001
Uric acid level category (mg/dL)									
4.1~5.0		Reference			Reference			Reference	
≤2.0	1.444	0.830~2.512	0.193	5.505	1.703~17.798	0.004	1.111	0.592~2.086	0.743
2.1~3.0	0.37	0.278~0.492	<0.001	1.985	1.113~3.542	0.02	0.27	0.194~0.375	<0.001
3.1~4.0	0.575	0.505~0.656	<0.001	1.283	0.909~1.811	0.156	0.497	0.432~0.573	<0.001
5.1~6.0	2.082	1.883~2.301	<0.001	1.595	1.279~1.989	<0.001	3.097	2.762~3.474	<0.001
6.1~7.0	3.596	3.237~3.995	<0.001	3.121	2.524~3.859	<0.001	9.467	8.268~10.841	<0.001
>7.0	10.573	9.577~11.673	<0.001	11.616	9.507~14.191	<0.001	36.646	31.272~42.944	<0.001

OR: odds ratio, CI: confidence interval, BP: blood pressure, BUN: blood urea nitrogen, HDL: high density lipoprotein, eGFR: estimated glomerular filtration rate, r-GT: gamma-glutamyl transferase, AST: aspartate transaminase, ALT: alanine transaminase.