

**Elevated serum uric acid is associated with infertility in women living in America**

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## **Supplementary material**

**Supplementary Table 1.** The association between uric acid and infertility in the complete case

**Supplementary Table 2.** Stratified analysis of complete cases

**Supplementary Table 1.** The association between uric acid and infertility in the complete case

	Infertility	Control	Unadjusted OR (95%CI)	P-value	Adjusted OR (95%CI) <sup>a</sup>	P-value	Adjusted OR (95%CI) <sup>b</sup>	P-value
Uric acid (continuous variable)	295	1902	<b>1.24 (1.11, 1.37)</b>	<b>&lt; 0.001</b>	<b>1.22 (1.1, 1.36)</b>	<b>&lt; 0.001</b>	1.17 (0.97, 1.42)	0.102
Uric acid (categorical variable)								
2.4-5.7	249	1654	1.00 (1.00, 1.00)	1	1.00 (1.00, 1.00)	1	1.00 (1.00, 1.00)	1
<2.4	1	16	0.42 (0.05, 3.14)	0.395	0.38 (0.05, 2.9)	0.35	-	0.984
>5.7	45	232	1.29 (0.91, 1.82)	0.151	1.2 (0.84, 1.71)	0.319	0.82 (0.45, 1.5)	0.512
Uric acid (quartile)								
Q1 (1.6-3.7)	52	508	1.00 (1.00, 1.00)	1	1.00 (1.00, 1.00)	1	1.00 (1.00, 1.00)	1
Q2 (3.7-4.4)	67	503	1.3 (0.89, 1.91)	0.177	1.29 (0.88, 1.9)	0.198	1.18 (0.63, 2.2)	0.614
Q3 (4.4-5.1)	84	443	<b>1.85 (1.28, 2.68)</b>	<b>0.001</b>	<b>1.85 (1.27, 2.68)</b>	<b>0.001</b>	<b>2.1 (1.15, 3.84)</b>	<b>0.015</b>
Q4 (5.1-18.0)	92	448	<b>2.01 (1.4, 2.88)</b>	<b>&lt; 0.001</b>	<b>1.98 (1.37, 2.88)</b>	<b>&lt; 0.001</b>	<b>1.95 (1.02, 3.72)</b>	<b>0.045</b>

<sup>a</sup>Adjusted for age, race, marital status, smoking, alcohol, history of pregnancy, history of diabetes, history of hypertension.

<sup>b</sup>Adjusted for age, race, marital status, smoking, alcohol, history of pregnancy, history of diabetes, history of hypertension, fasting glucose, total cholesterol, creatinine-refrigerated serum, LDL-cholesterol, direct HDL-cholesterol, glycohemoglobin, BMI.

**Supplementary Table 2.** Stratified analysis of complete cases

Stratified factor	N	Q1	Q2 OR (95%CI)	P	Q3 OR (95%CI)	P	Q4 OR (95%CI)	P
<b>Age (years)</b>								
≤35	1135	ref	1.48 (0.52, 4.18)	0.463	<b>2.83 (1.02, 7.79)</b>	<b>0.045</b>	2.38 (0.83, 6.84)	0.108
>35	1062	ref	0.96 (0.42, 2.18)	0.921	1.62 (0.73, 3.61)	0.234	1.58 (0.65, 3.81)	0.313
<b>Marital status</b>								
Married/Living with Partner	1431	ref	1.09 (0.53, 2.28)	0.808	<b>2.32 (1.15, 4.65)</b>	<b>0.018</b>	1.73 (0.81, 3.7)	0.159
Widowed/Divorced/Separated	278	ref	2.02 (0.32, 12.6)	0.453	1.4 (0.22, 8.86)	0.721	1.69 (0.18, 16.1)	0.648
Never married	488	ref	2.14 (0.27, 16.74)	0.47	2.55 (0.3, 21.61)	0.39	<b>8.97 (1.01, 80.02)</b>	<b>0.049</b>
<b>BMI</b>								
<18.5	42	ref	-	-	-	-	-	-
18.5-24.9	614	ref	0.97 (0.31, 2.98)	0.951	<b>3.42 (1.15, 10.13)</b>	<b>0.026</b>	0.84 (0.14, 5.02)	0.846
25-29.9	548	ref	0.65 (0.12, 3.51)	0.619	2.55 (0.59, 11.06)	0.211	3.45 (0.76, 15.76)	0.11
≥30	979	ref	1.91 (0.63, 5.81)	0.255	2.15 (0.74, 6.23)	0.159	2.21 (0.77, 6.33)	0.139
<b>Database year</b>								
2013-2016	1266	ref	1.29 (0.52, 3.22)	0.584	1.89 (0.77, 4.62)	0.166	2 (0.77, 5.21)	0.154
2017-March 2020 pre-pandemic	931	ref	0.99 (0.39, 2.51)	0.987	2.27 (0.95, 5.44)	0.065	2.07 (0.79, 5.41)	0.139

BMI: body mass index.