Supporting Information

S1 Table. Search Strategy for Studies Assessing Fructose Intake and Risk of Incident Gout and Hyperuricemia.

Database (# of hits)	Search Terms
EMBASE (1,483) & MEDLINE (688) & Cochrane (19)	1. fructose/ 2. fructose*.mp. 3. sucrose/ 4. sucrose*.mp. 5. sugar* 6. (honey or honeys).mp. 7. HFCS.mp. 8. 1 or 2 or 3 or 4 or 5 or 6 or 7 9. Gout/ 10. (gout or gouty).mp. 11. hyperuricemia/ 12. (hyperuricemia or hyperuricaemia).mp. 13. uric acid/ 14. uric*.mp. 15. 9 or 10 or 11 or 12 or 13 or 14 16. 8 and 15

For all databases, the original search date was October 5th, 2012; updated search was performed on: September 22nd, 2015.

S2 table. Newcastle-Ottawa Scale (NOS) for Assessing the Quality of Cohort Studies

Study	Selection[1]	Outcome[2]	Comparability[3]	Total[4]
Choi et al, 2008 Males [38]	2	2	2	6
Choi et al, 2010 Females [39]	2	2	2	6

[1]Maximum 4 stars awarded for cohort representativeness, selection of non-exposed cohort, exposure assessment, and demonstration outcome not present at baseline

[2]Maximum 3 stars awarded for follow-up length, adequacy of follow-up, and outcome assessment

[3]Maximum 2 stars awarded for controlling for main confounders

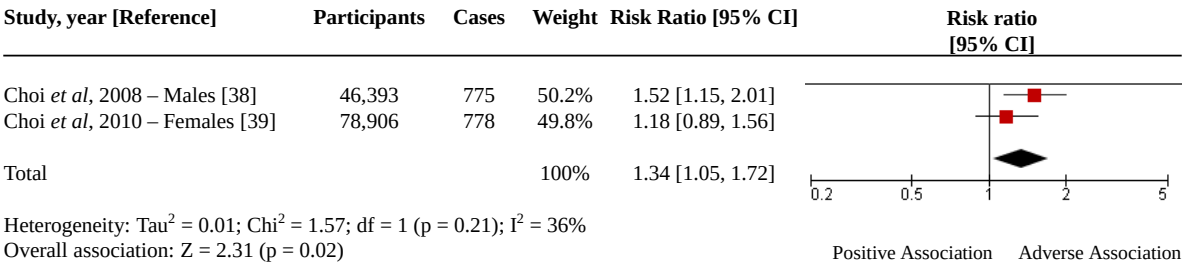
[4]Studies receiving ≥6 points were considered high quality; a maximum of 9 points could be awarded

S3 Table. GRADE Assessment.

Quality assessment							
Participants (studies) Follow up	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Publication bias**	**Other considerations**	**Overall Quality (Very Low ⊕; Low ⊕⊕; Moderate ⊕⊕⊕; High ⊕⊕⊕⊕)**
Total fructose intake on incident gout (follow-up median 17 years)							
125,299 (2 studies) 17 years	No serious risk of bias[1]	No serious inconsistency[2]	Serious[3]	No serious imprecision	Undetected[5]	Dose response gradient[6]	⊕⊕ **LOW**[1,2,3,4,5] due to indirectness, dose-response gradient

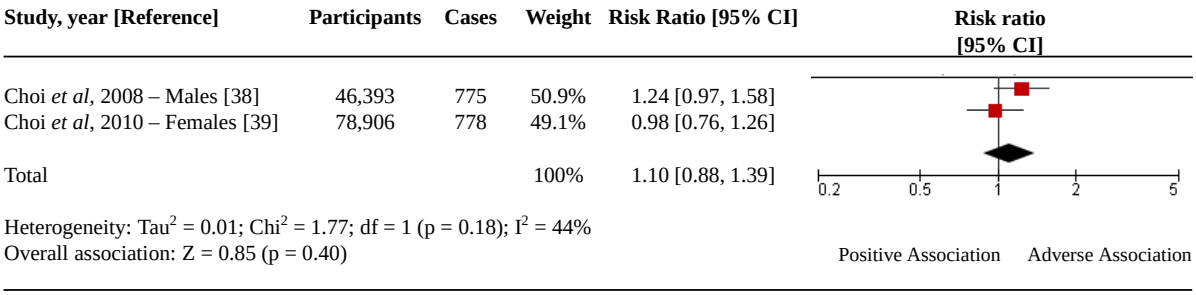
[1] No serious risk of bias as both studies included had NOS=6.
[2] No evidence of significant inter-study heterogeneity (I^2=0%, p=0.33).
[3] Serious indirectness as evidence is based on only 2 cohorts in predominantly white health professionals and may not be representative of different populations.
[4] Publication bias cannot be excluded since we were unable to test for funnel plot asymmetry due to lack of power (<10 studies).
[5] An approximate dose-response gradient was observed in both studies where most increasing quintiles of fructose consumption corresponded with an increased risk of gout.

S1 Figure. Fructose Intake and the Relative Risk of Gout in Multivariate Models Adjusted for Percentage of Energy from Non-Fructose Carbohydrates and Protein.



Forest plot of prospective cohort studies investigating the relationship between total fructose intake and incident gout. Estimates from most-adjusted multivariate models accounting for percentage of energy from non-fructose carbohydrates and protein were used. The diamond represents the pooled effect estimate. Inter-study heterogeneity was tested using Cochran's Q and quantified using the I^2 statistic ($I^2 \geq 50\%$ indicative of significant heterogeneity). All results are presented as risk ratios (RR) with 95% confidence intervals.

S2 Figure. Fructose Intake and Risk of Gout in Least-Adjusted Models.



Forest plot of prospective cohort studies investigating the relationship between total fructose intake and incident gout. Estimates from least-adjusted models were used. The diamond represents the pooled effect estimate. Inter-study heterogeneity was tested using Cochran's Q and quantified using the I^2 statistic ($I^2 \geq 50\%$ indicative of significant heterogeneity). All results are presented as risk ratios (RR) with 95% confidence intervals.