**Online Supplementary Materials**

**Figure S1.** Directed acyclic graph depicting the association of dietary taurine intake with MASLD and the variables considered for adjustment. Lifestyle factors include smoking status, alcohol drinking status, physical activity, sedentary time, and dietary supplement use. Abbreviations: BMI, body mass index; MASLD, metabolic dysfunction-associated steatotic liver disease; SES, socioeconomic status (including education level, monthly household income, and occupation).
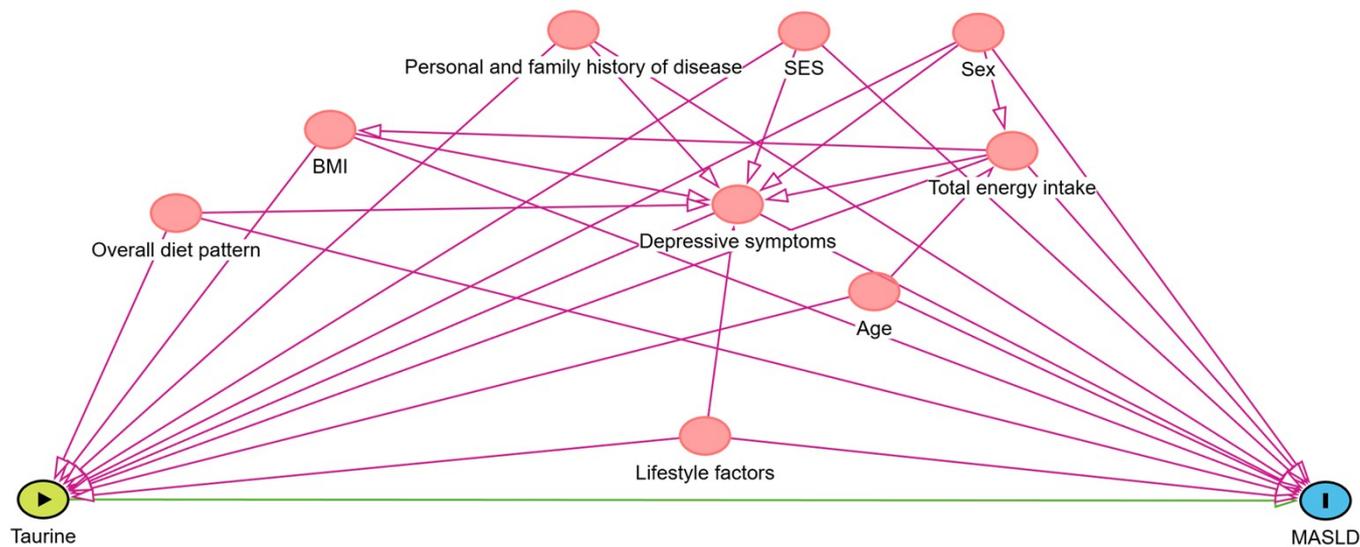
**Table S1.** Association between energy-adjusted taurine intake (using the nutrient density model) and risk of MASLD (n=16,699) [1]

| | Sex-specific quartiles | | | | *P* for trend [2] | Per 100 mg/1000 kcal per day |
| --- | --- | --- | --- | --- | --- | --- |
| | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | | |
| Number of participants | 4,176 | 4,174 | 4,173 | 4,176 | - | - |
| Number of MASLD events | 866 | 788 | 784 | 804 | - | - |
| Person-years | 14,389 | 14,486 | 14,545 | 14,548 | - | - |
| Incidence per 1000 person-years | 60 | 54 | 54 | 55 | - | - |
| Model 1 | 1.00 (reference) | 1.00 (0.90, 1.10) | 1.01 (0.92, 1.12) | 1.05 (0.96, 1.16) | 0.28 | 1.01 (0.95, 1.09) |
| Model 2 | 1.00 (reference) | 1.00 (0.90, 1.10) | 1.01 (0.91, 1.11) | 1.04 (0.94, 1.15) | 0.40 | 1.00 (0.93, 1.08) |
| Model 3 | 1.00 (reference) | 1.01 (0.91, 1.11) | 1.03 (0.93, 1.14) | 1.08 (0.97, 1.21) | 0.14 | 1.04 (0.96, 1.12) |

Abbreviation: MASLD, metabolic dysfunction-associated steatotic liver disease.
[1] Values are hazard ratios (95% confidence interval) unless otherwise indicated.
[2] Test for trend based on variable containing median value for each quartile.
Model 1 adjusted for age, sex, and baseline body mass index.
Model 2 further adjusted for education level, monthly household income, occupation, smoking status, alcohol drinking status, physical activity, sedentary time, dietary supplement use, depressive symptoms, hypertension, hyperlipidemia, diabetes, family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes), and total energy intake.
Model 3 additionally adjusted for overall dietary pattern scores.

**Table S2.** Association between energy-adjusted taurine intake (using the residual model) and risk of MASLD (n=16,699) [1]

| | Sex-specific quartiles | | | | P for trend [2] | Per 100 mg/day |
|---|---|---|---|---|---|---|
| | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | | |
| Number of participants | 4,176 | 4,174 | 4,173 | 4,176 | - | - |
| Number of MASLD events | 868 | 781 | 785 | 808 | - | - |
| Person-years | 14,397 | 14,490 | 14,573 | 14,508 | - | - |
| Incidence per 1000 person-years | 60 | 54 | 54 | 56 | - | - |
| Model 1 | 1.00 (reference) | 0.99 (0.90, 1.09) | 1.01 (0.91, 1.11) | 1.06 (0.96, 1.17) | 0.23 | 1.01 (0.98, 1.04) |
| Model 2 | 1.00 (reference) | 0.99 (0.90, 1.09) | 1.01 (0.91, 1.11) | 1.04 (0.94, 1.15) | 0.38 | 1.00 (0.97, 1.03) |
| Model 3 | 1.00 (reference) | 1.00 (0.91, 1.10) | 1.03 (0.93, 1.14) | 1.09 (0.97, 1.21) | 0.13 | 1.02 (0.98, 1.05) |

Abbreviation: MASLD, metabolic dysfunction-associated steatotic liver disease.

[1] Values are hazard ratios (95% confidence interval) unless otherwise indicated.

[2] Test for trend based on variable containing median value for each quartile.

Model 1 adjusted for age, sex, and baseline body mass index.

Model 2 further adjusted for education level, monthly household income, occupation, smoking status, alcohol drinking status, physical activity, sedentary time, dietary supplement use, depressive symptoms, hypertension, hyperlipidemia, diabetes, family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes), and total energy intake.

Model 3 additionally adjusted for overall dietary pattern scores.

**Table S3.** Association between weight-adjusted taurine intake and risk of MASLD (n=16,699) [1]

| | Sex-specific quartiles | | | | *P* for trend [2] | Per 10 mg/day/kg |
|---|---|---|---|---|---|---|
| | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | | |
| Number of participants | 4,176 | 4,174 | 4,173 | 4,176 | - | - |
| Number of MASLD events | 1,003 | 827 | 760 | 652 | - | - |
| Person-years | 13,910 | 14,541 | 14,564 | 14,952 | - | - |
| Incidence per 1000 person-years | 72 | 57 | 52 | 44 | - | - |
| Model 1 | 1.00 (reference) | 0.95 (0.87, 1.04) | 0.97 (0.88, 1.07) | 0.93 (0.84, 1.03) | 0.26 | 0.91 (0.78, 1.07) |
| Model 2 | 1.00 (reference) | 0.95 (0.87, 1.05) | 0.98 (0.89, 1.09) | 0.95 (0.85, 1.07) | 0.55 | 0.94 (0.78, 1.13) |
| Model 3 | 1.00 (reference) | 0.96 (0.87, 1.05) | 1.00 (0.90, 1.11) | 0.98 (0.86, 1.12) | 0.91 | 1.03 (0.81, 1.31) |

Abbreviation: MASLD, metabolic dysfunction-associated steatotic liver disease.

[1] Values are hazard ratios (95% confidence interval) unless otherwise indicated.

[2] Test for trend based on variable containing median value for each quartile.

Model 1 adjusted for age, sex, and baseline body mass index.

Model 2 further adjusted for education level, monthly household income, occupation, smoking status, alcohol drinking status, physical activity, sedentary time, dietary supplement use, depressive symptoms, hypertension, hyperlipidemia, diabetes, family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes), and total energy intake.

Model 3 additionally adjusted for overall dietary pattern scores.

**Table S4.** Association between absolute taurine intake and risk of MASLD, adjusting for waist circumference or body mass index changes (n=16,699) [1]

| | Sex-specific quartiles | | | | *P* for trend [2] | Per 100 mg/day |
| --- | --- | --- | --- | --- | --- | --- |
| | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | | |
| Multivariable model 1 | 1.00 (reference) | 0.99 (0.90, 1.10) | 1.00 (0.90, 1.11) | 0.98 (0.87, 1.11) | 0.86 | 1.01 (0.97, 1.04) |
| Multivariable model 2 | 1.00 (reference) | 1.00 (0.90, 1.10) | 0.99 (0.89, 1.10) | 1.01 (0.89, 1.14) | 0.97 | 1.01 (0.98, 1.05) |

Abbreviation: MASLD, metabolic dysfunction-associated steatotic liver disease.

[1] Values are hazard ratios (95% confidence interval) unless otherwise indicated.

[2] Test for trend based on variable containing median value for each quartile.

Multivariable model 1 adjusted for age, sex, baseline waist circumference, education level, monthly household income, occupation, smoking status, alcohol drinking status, physical activity, sedentary time, dietary supplement use, depressive symptoms, hypertension, hyperlipidemia, diabetes, family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes), total energy intake, and overall dietary pattern scores.

Multivariable model 2 adjusted for age, sex, body mass index change, education level, monthly household income, occupation, smoking status, alcohol drinking status, physical activity, sedentary time, dietary supplement use, depressive symptoms, hypertension, hyperlipidemia, diabetes, family history of disease (including cardiovascular disease, hypertension, hyperlipidemia, and diabetes), total energy intake, and overall dietary pattern scores.