

## Association between plasma levels of branched-chain amino acids and dyslipidemia in the Japanese population without diabetes mellitus



## STUDY QUESTION

Are BCAAs associated with dyslipidemia, such as metabolic dyslipidemia and elevated LDL-C, in a population without diabetes?



Metabolic Dyslipidemia (MD)

TG ↑ or HDL-C ↓

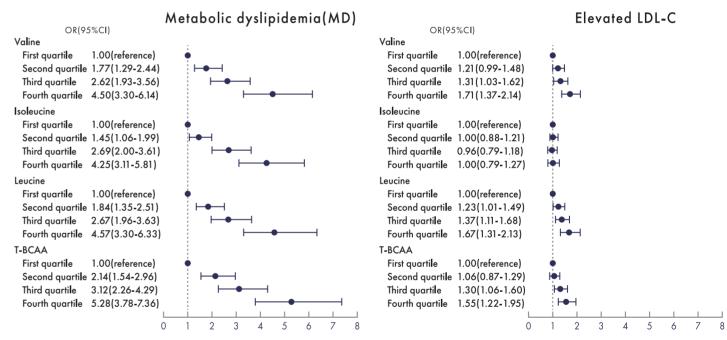


- Metabolic syndrome
- Insulin resistance
- Diabetes



## **4,952** participants without diabetes from the Tsuruoka Metabolomics Cohort Study





Similar trends were observed after stratification by median fasting blood glucose levels.



Elevated blood BCAAs may play an important role in lipid metabolism and dyslipidemia in a population without diabetes. Particularly, BCAAs had a stronger positive relationship with MD than elevated LDL-C.

**Elevated LDL-C** 

LDL-C ↑

LDL-C is a risk factor

metabolic syndrome.

for atherosclerosis independent of