

Combating the Fructose Epidemic

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Combating the Fructose Epidemic

Fruitful or Fruitless?

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Maastricht, 2023

1. Fructose is causally associated with a higher risk of non-alcoholic fatty liver disease, type 2 diabetes, hypertension, myocardial infarction, and colorectal cancer (*this thesis*).
2. The relationship between fructose intake and intrahepatic lipid content depends on the source of fructose (*this thesis*).
3. Accurate and precise measurement of fructose in serum and urine is necessary to properly study fructose in relation to health and disease (*this thesis*).
4. Glucokinase regulatory protein and carbohydrate response element binding protein do not contribute to fructose-mediated intrahepatic lipid accumulation in aldolase B deficiency (*this thesis*).
5. Inborn errors of fructose metabolism can be used as “models” to better understand fructose-mediated non-alcoholic fatty liver disease.
6. Although “human knockout” models can partly replace research animals (in keeping with the four R’s principle), other models are needed to elucidate the underlying mechanisms of fructose-mediated intrahepatic lipid accumulation.
7. The triangulation approach strengthens causal inferences.
8. Societal measures should be employed to reduce the intake of fructose at the population level (*impact paragraph*).
9. “The whole is greater than the sum of the parts” (*Aristotle*).