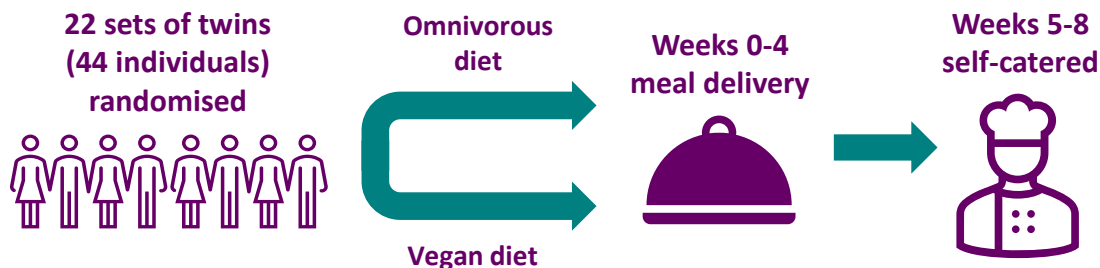


Vegan vs omnivorous diets – what are the health benefits?

Hannah Rice (Senior Researcher)

Comparing health benefits of specialised diets can be affected by confounding factors, So...

This study enrolled identical twins to eliminate confounding factors to assess biomarkers in vegan and omnivorous diets



Cardiometabolic Effects of Omnivorous vs Vegan Diets in Identical Twins, A Randomised Clinical Trial¹

Objective

❖ To compare the effects of a healthy vegan vs healthy omnivorous diet on **cardiometabolic measures**

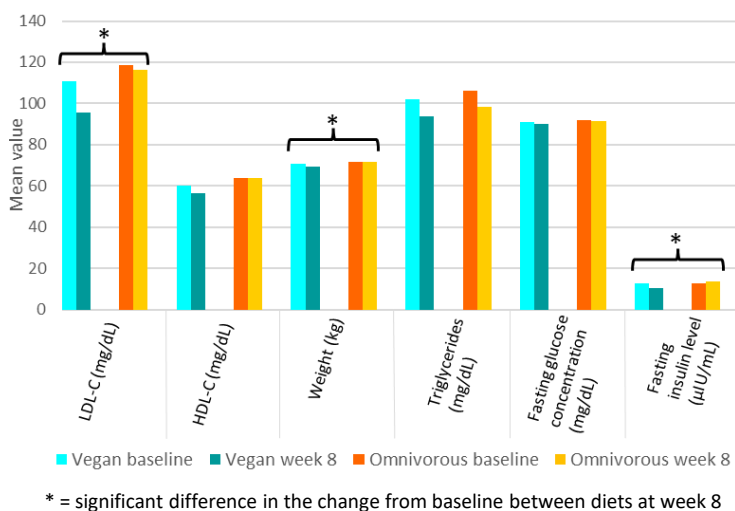
Methods

- 22 pairs (n = 44) of healthy twins were randomised to either a vegan or omnivorous diet
- Diets were catered for during weeks 0 to 4, then participants cooked their own meals from weeks 5 to 8
- Changes in **LDL levels and other cardiometabolic factors were measured**, along with adherence to diets, energy levels, and senses of well-being

Results

- ✓ After 8 weeks, compared with twins randomised to an omnivorous diet, the twins randomised to the vegan diet experienced **significant mean decreases in low-density lipoprotein cholesterol** (−13.9 mg/dL; 95% CI, −25.3 to −2.4 mg/dL), **fasting insulin level** (−2.9 μIU/mL; 95% CI, −5.3 to −0.4 μIU/mL), and **body weight** (−1.9 kg; 95% CI, −3.3 to −0.6 kg)

Cardiovascular health outcomes at baseline versus 8 weeks



Our thoughts:

- This study accounted well for any confounding due to **genetic factors** because the population were **identical twins**
- By incorporating both a delivery and self-catered period into the study design, the cardiometabolic effects in both a **more controlled and real-world setting** could be assessed

But...

- Participants were healthy at the beginning of the study, so any existing cardiometabolic risk factors were not accounted for. Consequently, the observed cardiometabolic changes throughout the study may not necessarily reflect an improvement in health
- Although genetic confounding was accounted for, overall **calorie intake was lower in the vegan diet**, which may have resulted in more weight loss in this group. **Exercise levels were not controlled or mentioned**

References

1. Landry MJ, Ward CP, Cunanan KM, et al. Cardiometabolic Effects of Omnivorous vs Vegan Diets in Identical Twins: A Randomized Clinical Trial. *JAMA Netw Open*. 2023;6(11):e2344457.