Author’s response to reviews

Title: A randomised controlled crossover trial investigating the short-term effects of different types of vegetables on vascular and metabolic function in middle-aged and older adults with mildly elevated blood pressure: the VEgetableS for vaScular hEaLth (VESSEL) study protocol

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Reviewer reports:

Reviewer #2: The revised study protocol reserved blood pressure as the primary outcome as suggested by reviewer, clarified the provision of standardize background diets and extended the intervention period. The present study provided a thorough dietary assessment including both questionnaire based assessment and objective biomarkers. It is encouraging to learn that the author included S-methyl cysteine as a bio-marker measuring compliance of cruciferous vegetables as well as measuring carotenoids for overall intake of fruits and vegetables. I look forward to the results from this trial.

We thank the reviewer for taking the time to review our manuscript.

Reviewer #3: Thank you for all changes made to the manuscript. Substantial information was added to the method section, which has significantly improved the manuscript. However, to further improve the readability of this section, it is advised to reorder the paragraphs. I highly recommend to use the sequence that the events occur in. Mainly subheadings under "participants, interventions, and outcomes" seem to still be disjointed. I would suggest revising the method section as follows:

1. Objectives
2. Research hypotheses
3. Trial design
4. Participants, interventions, outcomes (study setting, eligibility criteria, recruitment, sample size, assignment of interventions, dietary interventions, participant timeline, outcomes)
5. Data collection, management, and analyses

I would also recommend including the macronutrient content of the soups.

We thank the reviewer for taking the time to review the amendments to our manuscript. We have now revised the manuscript to use the sequence of subheadings that has been recommended. Please see changes highlighted in yellow in the manuscript. Furthermore, we have now included the macronutrient content of the soups in the manuscript (please see amended section below).

Lines 257-261: Both active and control soups will be matched for energy (~600kJ per serving). A small amount of potato starch will be added to the CRV soup to approximately match the carbohydrate content with the OCV soup. There will be small differences in macronutrient content per serving: protein (CRV ~10g, OCV ~5g), fat (CRV ~0.6g, OCV ~0.3g), carbohydrate (CRV ~19g, OCV ~27g), and fibre (CRV ~9g, OCV ~6g).