

## EDITORIAL



# JHH young investigator award 2020: interview with the winner Jelena Meinilä

© The Author(s), under exclusive licence to Springer Nature Limited 2021

*Journal of Human Hypertension* (2023) 37:425; <https://doi.org/10.1038/s41371-021-00615-3>

## Could you tell us something about yourself and your unit?

I work as a postdoctoral researcher in the Department of Food and Nutrition at the University of Helsinki. At the time of conducting the study published in the *Journal of Human Hypertension*, I worked at Folkhälsan Research Center in Helsinki. I have a degree of MSc in nutrition and I completed my Ph.D. at the Faculty of Medicine at the University of Helsinki in 2017 under the supervision of Professor Johan Eriksson and University Lecturer Maijaliisa Erkkola. My Ph.D. focused on dietary risk factors of gestational diabetes. After finishing my Ph.D. I worked in Johan Eriksson's research team and analyzed data from the Helsinki Birth Cohort Study which I also utilized in the study in question.

## Why did you undertake this research?

Individuals born with low birth weight are at increased risk of several chronic diseases including hypertension, which is a leading cause for cardiovascular diseases. One of the significant modifiable risk factors of hypertension, i.e., high blood pressure, is poor diet. Accumulating evidence suggest that the associations between health behaviors and blood pressure are not the same among all but are stronger among individuals born with low birth weight. For example, some evidence suggest that the association between adult BMI and blood pressure is stronger in individuals born with low birth weight than in individuals born with higher birth weights. In a previous study from the Helsinki Birth Cohort Study, lower salt intake was associated with lower systolic blood pressure only among those with low birth weight. We wanted to investigate further, whether the association between whole diet and blood pressure differs by body size at birth.

## What did you learn from this research?

We learnt that the associations of a healthy Nordic diet with systolic blood pressure and with pulse pressure were strongest among those born with low birth weight in comparison to those born with higher birth weights. These findings add to the accumulating evidence on the importance of body size at birth in the association between health behaviors and blood pressure. However, this was the first study to investigate the association between whole diet and blood pressure by birth

weight and therefore more research is necessary to ascertain the results.

## Could you expand on the significance of your findings?

Our results suggest that benefits on systolic blood pressure and pulse pressure of a healthy Nordic diet, independent of salt intake, may be the largest among those born small. Therefore, the adverse effects low birth weight has on blood pressure is not fixed but potentially reversible by a healthy diet. Yet, as already mentioned, confirming the finding requires more research in different populations. Understanding the potential mechanisms underlying such effects also requires further investigation.

## Can you tell us about any research you currently undertaking that is related to the paper?

We recently published a study on the associations of mother's and child's early life factors with child's cardiac programming. We found that adiposity in early childhood was independently associated with increased left atrial volume. The implications of this finding for long-term cardiovascular health are yet to be uncovered. Now as the ecological crisis intensifies, I am concentrating on research examining the synergies and trade-offs between health and ecological impacts of diets. Fortunately, a diet favorable for the nature is usually favorable also for blood pressure.

Jelena Meinilä <sup>1,2</sup>

<sup>1</sup>Department of Food and Nutrition, University of Helsinki, Helsinki, Finland. <sup>2</sup>Folkhälsan Research Center, Helsinki, Finland.  
email: [Jelena.meinila@helsinki.fi](mailto:Jelena.meinila@helsinki.fi)

## COMPETING INTERESTS

The author declares no competing interests.

## ADDITIONAL INFORMATION

**Correspondence** and requests for materials should be addressed to Jelena Meinilä.

**Reprints and permission information** is available at <http://www.nature.com/reprints>

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.