

Abstract

The Big Poo Review: A ZOE Health Study Deep Dive into the UK's Bowel Habits [†]

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[†] Presented at the 14th European Nutrition Conference FENS 2023, Belgrade, Serbia, 14–17 November 2023.

Abstract: Background: Bowel habits remain under-studied despite their associations with chronic diseases and their impact on quality of life. We aimed to elucidate the pattern of bowel habits in the UK and investigate gender differences and dietary associations. Methods: A UK population-based survey, "The Big Poo Review," involving 142,765 participants, was conducted in the ZOE Health Study (LRS/DP-20/21-25809). Respondents completed a 37-item bowel habit questionnaire. Diarrhoea was defined as evacuation >3 times/day or passing Bristol Stool scale (BSS) type 6 or 7 > 25% and constipation was defined as evacuation <3 times/wk or passing BSS type 1 or 2 > 25%. Participants (n = 26,703) who completed a food frequency questionnaire within 5 months of the study were included in the subgroup dietary analysis. Results: Participants were predominantly female (77%) with a mean age of 57.8 years (IQR: 50–67). The most frequently reported bowel pattern was a single daily bowel movement (54%) after breakfast (60%) and BSS type 4 (40%). The mean defecation frequency was 1.7 times/day (SD 0.9), but 0.4% of participants defecated <1 time/wk and 1.4% defecated >4 times/day. Constipation was reported in 21.0% (women 23.3%, men 13.0%; $p < 0.001$) and diarrhoea in 15.3% (men 17.5%, women 14.7%; $p < 0.001$). Those with diarrhoea or constipation consumed significantly fewer legumes, nuts, and seeds (12 g and 7 g/day less, respectively), fruits (14 g and 18 g/day less, respectively), and vegetables (14 g and 30 g/day less, respectively) than those without ($p < 0.01$ for all comparisons). Dairy intake was different between all three groups (constipation 276 g/day; diarrhoea 256 g/day; regular stools 267 g/day; $p < 0.001$ for all comparisons). Discussion: This survey is the largest study of UK bowel habits to date, highlighting gender and dietary differences in habits. The high prevalence of constipation and diarrhoea underscores the need for focused public health efforts and potential nutrition interventions.



Citation: Linenberg, I.; Bermingham, K.; Pushilal, A.; Spector, T.; Wolf, J.; Berry, S.; Bulsiewicz, W. The Big Poo Review: A ZOE Health Study Deep Dive into the UK's Bowel Habits. *Proceedings* **2023**, *91*, 86. <https://doi.org/10.3390/proceedings2023091086>

Academic Editors: Sladjana Sobajic and Philip Calder

Published: 24 November 2023



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Keywords: bowel habits; diarrhoea; constipation

Author Contributions: Conceptualization, S.B., J.W., T.S. and W.B.; methodology, W.B. and I.L.; formal analysis, A.P.; data curation, A.P. and W.B.; writing—original draft preparation, K.B.; writing—review and editing, S.B., T.S. and W.B.; All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by ZOE Ltd.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Research Ethics Committee of King's College London (protocol no.: LRS/DP-20/21-25809, date of approval: 20 August 2021).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Not available.

Conflicts of Interest: All the authors have associations with ZOE Ltd.

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