

A metabolically healthy lifestyle

Citation for published version (APA):

Andriessen, C. (2023). *A metabolically healthy lifestyle: A matter of timing?* [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20230706ca>

Document status and date:

Published: 01/01/2023

DOI:

[10.26481/dis.20230706ca](https://doi.org/10.26481/dis.20230706ca)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

PROPOSITIONS

Belonging to the thesis

A metabolically healthy lifestyle:

A matter of timing?

1. We are all astonishingly capable of messing up our lives, whatever prestige of our university degrees, and are never beyond making a sincere contribution, however unorthodox our qualifications (*Alain the Botton, THE SCHOOL OF LIFE, 2019*)
2. When combined with calorie restriction and weight loss, increases in physical activity and fitness are an important contributor to type 2 diabetes mellitus remission (*Magkos, Hjorth & Astrup, Nat Rev End, 2020*)
3. Restoring the natural, human day-night rhythm by altering the timing of eating and physical activity can improve metabolic health (*Chapter 2, this thesis*)
4. In the general population, the time-of-day at which most moderate-to-vigorous physical activity is performed is not associated with sleep quality (*Chapter 3, this thesis*)
5. The metabolic aberrations that lead to diabetes, diabetic complications and other related diseases are chronic in nature and need long-term, if not lifelong, interventions (*Adapted from: Blond et al., Diabetologia, 2023*)
6. “They always say time changes things, but you actually have to change them yourself” – Andy Warhol
7. Disruption of the internal hormonal rhythms due to stress, aging, or conditions affecting circadian rhythms such as shiftwork, jet lag, and mistimed eating alters circadian gene expression and metabolic processes and predisposes individuals to develop metabolic syndrome (*Adapted from: Deota & Panda, JCEM, 2021*)
8. Eliciting a more pronounced fasted state by either prolonging fasting duration or by use of SGLT2 inhibition can improve nocturnal fat oxidation in healthy and metabolically compromised individuals without type 2 diabetes (*Chapters 4, 5 and 6, this thesis*)
9. In healthy lean males, the day-night rhythm in energy expenditure is independent of food intake, whereas the day-night rhythm in substrate oxidation is mainly driven by food intake (*Chapter 7, this thesis*)
10. A 24-hour approach, with standardized fasting time, can provide a more comprehensive investigation of metabolic health, both in the research- as well as the clinical setting, as compared to measurements performed at one time-point only (*Impact paragraph, this thesis*)