

2021

## About the article: Intermittent fasting scheme and reduction of anthropometric measurements, lipid profile, blood pressure and cardiovascular risk

Jamee Guerra Valencia

*Universidad Científica del Sur, Lima-Perú, jguerrav@cientifica.edu.pe*

Geremi A. Gonzales Matta

Jenyfer M. Fuentes Mendoza

Cielo A. Estela Fernandez

Follow this and additional works at: <https://inicib.urp.edu.pe/rfmh>

---

### Recommended Citation

Guerra Valencia, Jamee; Gonzales Matta, Geremi A.; Fuentes Mendoza, Jenyfer M.; and Estela Fernandez, Cielo A. (2021) "About the article: Intermittent fasting scheme and reduction of anthropometric measurements, lipid profile, blood pressure and cardiovascular risk," *Revista de la Facultad de Medicina Humana*: Vol. 22: Iss. 2, Article 30.

DOI: <https://doi.org/10.25176/RFMH.v22i2.4794>

Available at: <https://inicib.urp.edu.pe/rfmh/vol22/iss2/30>

This Letter to the Editor is brought to you for free and open access by INICIB-URP. It has been accepted for inclusion in Revista de la Facultad de Medicina Humana by an authorized editor of INICIB-URP.



# PROPER TESTING STRATEGIES AND UNAMBIGUOUS COMMUNICATION IS THE BEST STRATEGY TO PROTECT OIL-SPILL AFFECTED POPULATIONS

MONITOREO ADECUADO Y COMUNICACIÓN INEQUÍVOCA, SON LA MEJOR ESTRATEGIA PARA PROTEGER A LAS POBLACIONES AFECTADAS POR DERRAMES DE PETRÓLEO.

Jamee Guerra Valencia<sup>1</sup>, Geremi Alexander Gonzales Matta<sup>1</sup>, Jenyfer María Fuentes Mendoza<sup>1</sup>, Cielo Amelia Estela Fernandez<sup>1</sup>,

## Dear Editor:

We have read with great interest the article "Intermittent fasting scheme and reduction of anthropometric measurements, lipid profile, blood pressure and cardiovascular risk" published by Dr Javier Wong-González et al<sup>(1)</sup>, in number 1, volume 22 of your magazine; where the purpose of the research focuses on the assessment of the efficacy of intermittent fasting as a strategy for the modification of anthropometric parameters and cardiovascular risk variables; We would like to contribute the importance of defining the times of the day in which the periods of food intake and abstinence are framed during intermittent fasting, since the induced metabolic effects are highly dependent on circadian fluctuations<sup>(2)</sup>.

Intermittent fasting is a dietary approach that implements periods of energy restriction, ranging from 12 hours to days on a regular basis<sup>(3)</sup>. Of the different types of methodologies for conducting intermittent fasting, time-restricted eating is the one that has gained the most popularity in recent years, which consists of limiting the daily eating window<sup>(4)</sup>. This feature makes the strategy highly dependent on circadian cycles and their impact on energy and nutrient metabolism. In favor of this argument, there are both studies in animals that have shown that food intake serves as a regulator of peripheral clocks such as those of the liver, brain, adipose tissue and muscle<sup>(2)</sup>, as well as those carried out in humans that show that Circadian disruptions due to shift work and the systemic nocturnal feeding pattern generate metabolic alterations<sup>(4,5)</sup>.

A 16/8 intermittent fasting scheme like the one designed in the research could have notable differences in both anthropometric (weight, BMI, waist circumference) and metabolic results depending on the time at which fasting begins. For example, eating dinner at 10 PM has been shown to produce a postprandial response with higher plasma glucose, delayed triglyceride peaks, and less oxidation of dietary fatty acids and FFA, compared to dinner patterns. earliest<sup>(6)</sup>. Likewise, in patients with one or more cardiovascular risk factors, it has been found that systemic patterns of nocturnal feeding and nocturnal overeating are associated with subclinical vascular damage<sup>(5)</sup>. In contrast, limiting intake to the morning hours has been shown to lead to better responses in insulin sensitivity, pancreatic beta function, blood pressure, inflammation, and oxidative stress<sup>(4)</sup>.

On the other hand, not having had a comparison group that was subject to daily calorie restriction limits the interpretation of the results, which were favorable. In support of the above, a recently published meta-

<sup>1</sup> Universidad Científica del Sur, Lima, Perú.

Cite as: Jamee Guerra Valencia, Geremi Alexander Gonzales Matta, Jenyfer María Fuentes Mendoza, Cielo Amelia Estela Fernandez. About the article: Intermittent fasting scheme and reduction of anthropometric measurements, lipid profile, blood pressure and cardiovascular risk. Rev. Fac. Med. Hum. 2022; 22(2):522-523. DOI: 10.25176/RFMH.v22i2.4794





analysis comparing the short-term (<3 months), medium-term (3-12 months) and long-term (>12 months) effects of intermittent fasting with daily caloric restriction, found that there are no differences regarding BMI, waist circumference, or blood pressure between both dietary approaches, in the medium term. Likewise, although weight loss was greater for intermittent fasting compared to caloric restriction, it did not become clinically significant<sup>(7)</sup>. Considering that according to what was reported by the study published in this journal, 62.5% of the volunteers were in a hypocaloric regimen while performing the intermittent fasting scheme<sup>(1)</sup>, it is difficult to analyze the impact of time-restricted feeding

and that of the hypocaloric effect.

With all of the above, this letter aims to encourage the development of research taking into account the points described above, where the development of intermittent fasting protocols contemplates that the times of the day in which the intake is circumscribed have a direct impact on the rhythms circadian, with the consequent modification of the metabolic state and control of body weight. Likewise, the usefulness of including control groups in studies on time-restricted feeding will allow elucidating the independent effects that each of these dietary approaches generate.

**Authorship contributions:** Jamee Guerra Valencia: Ideation and critical review of the article-letter to the editor. Geremi Alexander Gonzales Matta: style review. All authors contributed equally to the writing of the article.

**Funding sources:** Self financed

**Conflicts of interest:** We declare not to present conflicts of interest.

**Received:** 11 February, 2022

**Approved:** 08 March, 2022

**Correspondence:** Jamee Guerra Valencia

**Address:** Panamericana Sur Km 19, Lima 42.

**Telephone number:** +51 951 295676

**E-mail:** [jguerrav@cientifica.edu.pe](mailto:jguerrav@cientifica.edu.pe)

## REFERENCES

1. Wong-Gonzales J, Quispe-Palacios JA, Espinoza-Vargas JR. Scheme of intermittent fasting and reduction of anthropometric measures, lipid profile, blood pressure and cardiovascular risk Revista de la Facultad de Medicina Humana. 2021;22(1):139-46.
2. Patterson RE, Sears DD. Metabolic Effects of Intermittent Fasting. Annual Review of Nutrition. 2017;37(1):371-93.
3. Anton SD, Moehl K, Donahoo WT, Marosi K, Lee SA, Mainous Iii AG, et al. Flipping the Metabolic Switch: Understanding and Applying the Health Benefits of Fasting. Obesity. 2018;26(2):254-68.
4. Schuppelius B, Peters B, Ottawa A, Pivovarova-Ramich O. Time Restricted Eating: A Dietary Strategy to Prevent and Treat Metabolic Disturbances. Frontiers in Endocrinology. 2021;12.
5. Basdeki ED, Koumi K, Tsirimiagkou C, Argyris A, Chrysostomou S, Sfikakis PP, et al. Late-Night Overeating or Low-Quality Food Choices Late at Night Are Associated with Subclinical Vascular Damage in Patients at Increased Cardiovascular Risk. Nutrients. 2022;14<sup>(9)</sup>.
6. Gu C, Brereton N, Schweitzer A, Cotter M, Duan D, Børshiem E, et al. Metabolic Effects of Late Dinner in Healthy Volunteers-A Randomized Crossover Clinical Trial. J Clin Endocrinol Metab. 2020;105<sup>(8)</sup>:2789-802.
7. Allaf M, Elghazaly H, Mohamed OG, Fareen MF, Zaman S, Salmasi AM, et al. Intermittent fasting for the prevention of cardiovascular disease. Cochrane Database of Systematic Reviews. 2021<sup>(1)</sup>.

