

INTRODUCTION

The OPT is the gold standard diagnostic tool for nut allergies, despite constraints related to safety, preparation and storage of whole fruit-based formulations.

Innovative solution : de-oiled flours

- Improved safety and reproducibility
- Easier handling
- Preserved diagnostic reliability



OBJECTIVE: To propose a new, adapted, reliable and reproducible formulation for nut-based OPT that meets the requirements of clinical protocols while ensuring patient safety.

MATERIALS AND METHODS

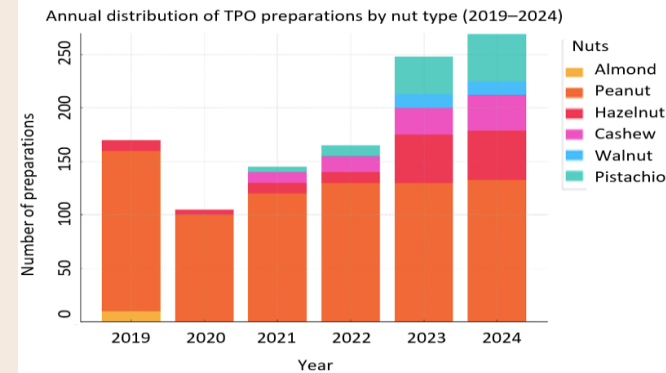
Census of
extemporaneous
preparations used for
OPT (2019-2024)

Bibliographic research on
the protein composition of
each nut and peanut and
the corresponding flours

Analysis of flour
manufacturing processes

RESULTS

- Survey: There is considerable variability in the dosages used for OPTs, ranging from 1 to 10,000 mg depending on the nut. For each nut, the number of annual preparations was recorded for the period 2019-2024 based on data extracted from the establishment's annual register of extemporaneous preparations.



- Composition: protein content of de-oiled flours = 2 x higher than that of whole fruits (average ratio ≈ 0.5), with the exception of cashews (ratio ≈ 1).

Nuts and peanuts	Average protein content (g) per 100g of nuts	Average protein content (g) per 100g of nut flour	Nut to flour ratio
Almonds	21,6 (σ : 0,52)	51 (σ : 4,13)	0,42
Peanuts	26 (σ : 2,03)	45 (σ : 0)	0,58
Hazelnuts	15,9 (σ : 1,19)	40 (σ : 4,5)	0,4
Cashew	19,7 (σ : 1,44)	18,1 (σ : 0,1)	1,09
Nuts	15,1 (σ : 0,93)	41,3 (σ : 1,33)	0,37
Pistachios	21,6 (σ : 1,16)	40,5 (σ : 2,86)	0,53

- Manufacturing processes: cooking, pressing and grinding stages, which may alter the protein structure.

DISCUSSION / CONCLUSION

The use of flours appears to be a promising solution for improving the safety and standardisation of OPTs. However, limitations remain, particularly in terms of availability, control of manufacturing processes and protein variability. Standardisation of practices and the development of industrial specialities would be necessary.