

Dietary intakes in community-dwelling older adults during the COVID-19 outbreak

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The need for social distancing and self-isolation during the COVID-19 pandemic imposed a new set of challenges to maintain a healthy diet, especially for older adults⁽¹⁾. Social isolation, loneliness as well as reduced food availability may unavoidably lead to changes in food quality and quantity in the older-person's diet and increase the risk of poor nutritional status⁽²⁾. The present study investigated dietary intake in community-dwelling older adults over 65 years, living in Dorset, UK during the lockdown period for COVID-19.

A 4-day food record was used to collect intake data from 15 older adults (13 women and 2 men) prior to (January to March 2020) and after the period of lockdown (July to September 2020). The median age of the participants was 77 (range 66–84) years; body weight median 68.7 (range 49.6–81.2) kg and Body Mass Index (BMI) median 24.9 (range 18.9–31.0) kg/m². Analysis of dietary intake data was conducted using Nutritics© (Nutritics, 2019) based on McCance and Widdowson's The Composition of Foods⁽³⁾.

Pre-lockdown, apart from the dietary fibre intake (median 23 g/d, range 17–41 g/d), median dietary intakes for energy 7707 kJ/d (range 6694–8482 kJ/d), total carbohydrate 174 g/d (range 44–354 g/d) total fat 94 g/d (range 41–116 g/d), saturated fat 34 g/d (14–161 g/d), vitamin C 108 mg/d (range 40–244 mg/d), iron 8.7 mg/d (range 4.6–11.7 mg/d), and calcium 669 mg/d (range 320–1039 mg/d) met the current dietary reference values (DRV). However median protein intake was 70 g/d (range 36–92 g/d) with only 33% of participants meeting protein recommendations of at least 1.0 g/kg body weight/day⁽⁴⁾. After lockdown, BMI did not change (median 24.6 kg/m²; range 18.7–30.1 kg/m²). Whilst the median protein intake was not significantly different to pre-lockdown (65 g/d; range 37–69 g/d), only 13% of participants were meeting protein recommendations. Median dietary intakes for energy 6971 kJ/d (range 6694–8482 kJ/d), total carbohydrate 190 g/d (range 71–259 g/d), total fat 73 g/d (range 40–108 g/d), saturated fat 27.8 g/d (range 16–49 g/d), fibre 18.9 g/d (range 15–41 g/d), calcium 662 mg/d (range 210–1222 mg/d), and iron 8.6 mg/d (range 4.8–11.9 mg/d) remained unchanged (NS). There was a statistically significant reduction in vitamin C intake post-lockdown to 91 mg/d (range 10.9–215 mg/d) ($p < 0.05$) though still exceeded the DRV.

Overall, the results highlight ongoing concerns for older adults to consume sufficient dietary protein and fibre. In this small group, there were some individuals who were not meeting the DRV for energy and nutrients which could be attributed to reduced food availability and limited access to food during lockdown. Further research needs to explore these observations in larger cohorts to investigate whether older adults are able to access a diet that meets their nutritional needs.

References

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