3/27/24 Additional information from the research authors:
Thank you for your interest in the findings from this poster. Use of this poster without permission is prohibited. Please keep in mind that these findings are preliminary and have not been peer reviewed. Interpreting or reporting these findings should be extremely careful. There are certain limitations from this observational study. The average of 2-day dietary recalls may not accurately estimate usual eating duration. Self-reported data are prone to measurement errors. Residual confounding cannot be ruled out. Importantly, the link between 8-hour eating duration and cardiovascular mortality is an association, not a causal relationship, and this positive link still needs replication in other studies. We recommend that you wait on reporting until the peer reviewed paper is published.

Association of 8-Hour Time-Restricted Eating with All-Cause and Cause-Specific Mortality

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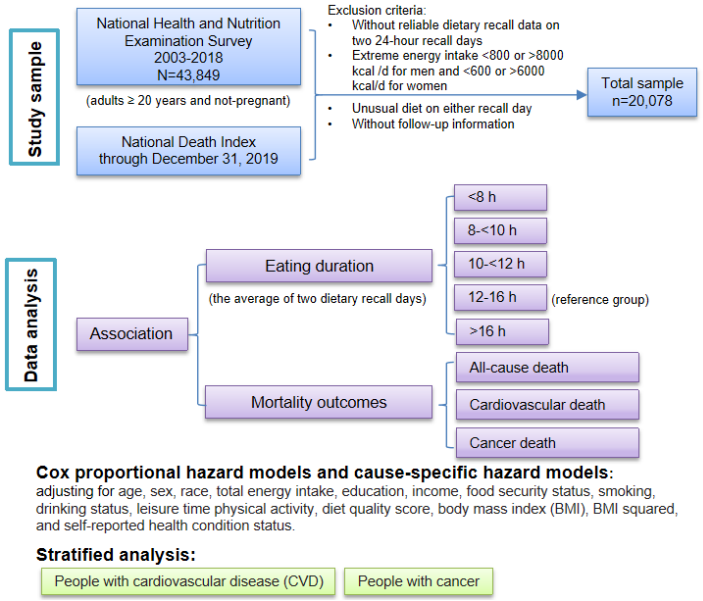
Introduction

- Time-restricted eating (TRE) has gained popularity as a dietary intervention that limits daily food consumption to a 4- to 12-hour window.
- Most short-term randomized controlled trials reported that 8-hour TRE improved cardiometabolic risk profiles. However, whether 8-hour TRE is associated with long-term hard endpoints remains unknown.

Hypothesis

- Eight-hour TRE is associated with lower risk of all-cause and cause-specific mortality.

Methods



Cox proportional hazard models and cause-specific hazard models: adjusting for age, sex, race, total energy intake, education, income, food security status, smoking, drinking status, leisure time physical activity, diet quality score, body mass index (BMI), BMI squared, and self-reported health condition status.

Stratified analysis:

People with cardiovascular disease (CVD) | People with cancer

Results

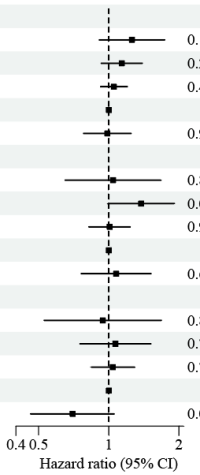
Baseline characteristics of study participants

	Overall	Eating duration, hours				
		<8	8-<10	10-<12	12-16	>16
Sample size, n	20,078	414	1492	4832	11,831	1509
Age, mean (SE), y	48.5 (0.3)	41.3 (1.6)	44.8 (0.7)	47.8 (0.4)	49.5 (0.3)	47.4 (0.6)
Men, %	50.0	54.8	49.0	44.4	50.9	59.0
White, %	73.3	50.2	60.2	69.3	76.3	75.4
Black, %	8.0	23.2	14.7	9.3	6.6	7.7
Current smoking, %	17.9	27.1	20.9	16.6	16.9	24.7
Current drinking, %	73.3	65.9	67.3	70.7	74.7	75.7
BMI, mean (SE), kg/m^2	28.7 (0.1)	29.9 (0.6)	29.4 (0.3)	28.8 (0.1)	28.5 (0.1)	29.3 (0.3)
CVD, %	8.2	8.6	10.1	9.1	7.7	7.4
Cancer, %	11.0	7.3	7.5	11.7	11.1	12.1

Eating duration and mortality outcomes

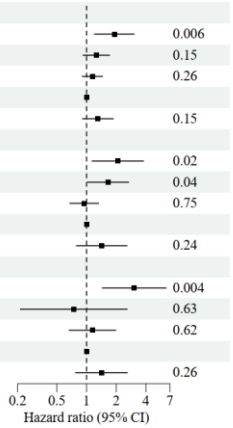
(A) All-cause mortality

Eating duration	Event/N	Hazard ratio (95% CI)	P value
Overall sample			
<8 h	85/414	1.26 (0.91-1.74)	0.16
8-<10 h	280/1492	1.14 (0.93-1.39)	0.21
10-<12 h	791/4832	1.05 (0.92-1.20)	0.44
12-16 h	1480/11831	Reference	
>16 h	161/1509	0.99 (0.78-1.25)	0.91
People with CVD			
<8 h	28/45	1.04 (0.65-1.67)	0.86
8-<10 h	105/191	1.38 (0.99-1.91)	0.06
10-<12 h	265/572	1.01 (0.82-1.23)	0.94
12-16 h	485/1207	Reference	
>16 h	52/146	1.08 (0.76-1.52)	0.67
People with cancer			
<8 h	13/30	0.94 (0.53-1.68)	0.84
8-<10 h	66/146	1.07 (0.75-1.51)	0.71
10-<12 h	207/552	1.04 (0.84-1.29)	0.72
12-16 h	377/1308	Reference	
>16 h	38/166	0.70 (0.46-1.05)	0.09



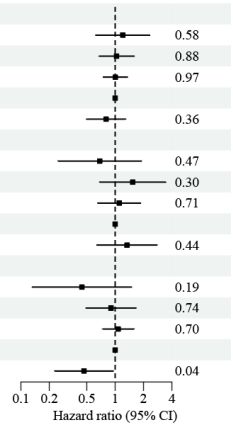
(B) Cardiovascular mortality

Eating duration	Event/N	Hazard ratio (95% CI)	P value
Overall sample			
<8 h	31/414	1.91 (1.20-3.03)	0.006
8-<10 h	82/1492	1.25 (0.92-1.71)	0.15
10-<12 h	252/4832	1.15 (0.90-1.46)	0.26
12-16 h	423/11831	Reference	
>16 h	52/1509	1.30 (0.91-1.87)	0.15
People with CVD			
<8 h	17/45	2.07 (1.14-3.78)	0.02
8-<10 h	42/191	1.66 (1.03-2.67)	0.04
10-<12 h	99/572	0.95 (0.68-1.33)	0.75
12-16 h	186/1207	Reference	
>16 h	24/146	1.42 (0.79-2.57)	0.24
People with cancer			
<8 h	5/30	3.04 (1.44-6.41)	0.004
8-<10 h	11/146	0.74 (0.21-2.58)	0.63
10-<12 h	52/552	1.15 (0.66-1.98)	0.62
12-16 h	97/1308	Reference	
>16 h	14/166	1.42 (0.77-2.59)	0.26



(C) Cancer mortality

Eating duration	Event/N	Hazard ratio (95% CI)	P value
Overall sample			
<8 h	19/414	1.20 (0.62-2.32)	0.58
8-<10 h	57/1492	1.03 (0.67-1.59)	0.88
10-<12 h	169/4832	1.00 (0.75-1.35)	0.97
12-16 h	357/11831	Reference	
>16 h	41/1509	0.80 (0.50-1.29)	0.36
People with CVD			
<8 h	4/45	0.69 (0.25-1.90)	0.47
8-<10 h	14/191	1.53 (0.68-3.44)	0.30
10-<12 h	44/572	1.10 (0.66-1.86)	0.71
12-16 h	86/1207	Reference	
>16 h	12/146	1.33 (0.64-2.78)	0.44
People with cancer			
<8 h	3/30	0.44 (0.13-1.49)	0.19
8-<10 h	24/146	0.90 (0.49-1.66)	0.74
10-<12 h	65/552	1.08 (0.73-1.59)	0.70
12-16 h	114/1308	Reference	
>16 h	14/166	0.47 (0.23-0.95)	0.04



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- **Disclosure:** None.

Summary of conclusions

- Eight-hour TRE was not associated with all-cause or cancer mortality, compared with eating duration of 12-16 hours.
- Eight-hour TRE was significantly associated with higher risk of cardiovascular mortality in the general population as well as in people with CVD or cancer.
- An eating duration of >16 hours per day was associated with lower risk of cancer mortality in people with cancer.
- These findings require replication but do not support long-term use of 8-hour TRE for prevention of cardiovascular death nor for improving longevity.