

33807284	2021	RCT			Nutrients	20	Overweight	8-hour TRE	Unrestricted eating	Bone turnover and bone mineral density (type I collagen (P1NP), cross-linked N-telopeptide of type I collagen (NTX), and parathyroid hormone (PTH) levels, DXA scan	3 months	P1NP decreased significantly with a greater decrease in the non-TRE group; bone mineral density increased in the TRE group and decreased in the non-TRE group; change in P1NP was inversely correlated with the change in weight
38886740	2024	RCT			Nutr J	74	Stage 1 primary HTN	DASH diet + 8-hour TRE	DASH diet	Blood pressure	6 weeks	DASH+TRE had a greater decrease in SBP and DBP; improved BP diurnal rhythm
36930148	2023	RCT	TREATY-FLD		JAMA	88	Obesity and NAFLD	8-hour TRE (8a-4p)	Calorie restriction w/ habitual meal timing	Change in intrahepatic triglyceride content	12 months	Significant reduction in intrahepatic triglyceride content in both groups compared to baseline but no difference between groups
38068729	2023	RCT			Nutrients	32	NAFLD	8-hour TRE	Standard care	Hepatic steatosis	3 months	TRE resulted in a significant decrease in hepatic steatosis, weight, waist circumference, and BMI compared to standard of care
36518093	2023	RCT			Obesity	20	Adults overweight or obese and without diabetes	8-hour TRE	Unrestricted eating	Glucose tolerance test-derived measures of insulin sensitivity, insulin secretion, and β -cell function	3 months	No difference between TRE and non-TRE groups
35194047	2022	RCT			Nature	90	Normal weight	(1) eTRE (2) mid-day TRE	Standard of care	Change in insulin resistance	5 weeks	eTRE, but not mTRE, improved fasting glucose, reduced total body mass and adiposity, ameliorated inflammation, and increased gut microbial diversity
36198291	2022	RCT	Healthy Heroes Trial		Cell	137	24-hour shift workers (firefighters)	10-hour TRE	Standard of care	Feasibility, glucose homeostasis	3 months	Significantly decreased eating window with no adverse effects and improved QOL; significantly decreased VLDL particle size; in participants with elevated cardiometabolic factors at baseline, there were significant reductions in A1c and DBP in the TRE group
37024596	2023	RCT	DIRECT		Nature	209	At risk for T2DM	(1) 30% energy requirement eTRE on 3 days per week (2) calorie restriction (70% energy requirements)	Standard of care	Glucose area under the curve with glucose tolerance test	18 months	Improved glucose tolerance in iTRE compared with CR at month 6, lost at month 18
36198292	2022	RCT			Cell	131	Women with overweight/obesity	(1) TRE ($\leq$ 10-h daily eating window) (2) HIIT (3) TRE + HIIT	Non-intervention group	Glucose area under the curve with glucose tolerance test	7 weeks	No statistically significant effects after isolated TRE, HIIT, or a combination on glucose area under the curve; TRE + HIIT improved HbA1c and induced superior reductions in total and visceral fat mass compared with TRE and HIIT alone
29754952	2018	RCT (controlled feeding trial)			Cell	8	Overweight and prediabetes	6-hour eTRE (dinner before 3p)	12-hour eating window	Glucose tolerance, postprandial insulin, and insulin sensitivity	5 weeks	No change in fasting glucose, but did improve postprandial insulin and insulin sensitivity compared to the control
37836517	2023	RCT			Nutrients	72	Adults with impaired fasting glucose	TRE + behavioral economic intervention	Usual care	Mean fasting plasma glucose, A1c, and other cardiometabolic risk factors	4 weeks	Mean body weight, FPG, HbA1c, fasting insulin, and lipid profiles did not significantly differ among the three groups; When considering only patients who were able to comply with the TRE protocol, the TRE group showed significantly lower mean FPG, HbA1c, and fasting insulin levels compared to the usual care group
31151228	2019	RCT			Nutrients	11	Overweight	8-hour eTRE (8a-4p)	12-hour eating window (8a-8p)	Mean glucose and glucose excursions	4 days	eTRE decreased mean 24-hour glucose levels and glycemic excursions compared to control
39203878	2024	RCT			Nutrients	75	T2DM	(1) 8-hour TRE (12p-8p) (2) calorie restriction (25% energy restriction daily)	Unrestricted eating	Sleep quality, duration, insomnia severity, or risk of obstructive sleep apnea	6 months	Neither group demonstrated an effect compared to control