



## FIT Heart

### A Novel Family-based Intervention Trial to Improve Heart Health

**BACKGROUND:** Family members of pts with CVD may be at increased due to shared genes and lifestyle. Hospitalization for CVD may represent a “motivational moment” for family members to take preventive action. **PURPOSE:** To test the effectiveness of a novel systems approach to screen and educate family members about lifestyle at the time of hospitalization for CVD to improve adhere to prevention goals. **DESIGN:** Randomized, controlled trial of 501 family members (66% female, mean age of 48 yrs) of patients hospitalized with atherosclerotic CVD randomized to: specific intervention (n= 250) (SI) or a control intervention (n = 251) (CI). Median follow-up = 1 year.

Within-group  $\Delta$  at 1-year Compared to Baseline

Risk factor	SI, Mean $\Delta$	CI, Mean $\Delta$
LDL-c, mg/dL	-4.4*	-4.5**
Saturated fat intake % kcals/day	-0.70***	-0.39*
Trans fat intake %kcal/day	-0.24**	-0.12
Diet cholesterol mg/day	-48.79***	-30.1***
Physical activity Days/wk	0.59***	0.35**

\*: p < 0.05, \*\*: p < 0.01, \*\*\*: p , 0.001

#### Primary Endpoint:

Mean % changes in LDL-c

#### Secondary Endpoint:

Mean % changes in other lipids, MEDFICTS diet score, saturated fat intake, Physical activity, BMI, waist size, and hsCRP.

#### Results

#### Primary Outcome

Mean changes in LDL-c: -1.0% (SI) vs. - 2.0% (CI), p = 0.64.

#### MEDFICTS Score

Mean change: -18.4% (SI) vs. -5.0 (CI), P=0.04.

#### HDL-C

Mean change: 0.3% (SI) vs. -3.2% (CI), p = 0.01.

**Within-group changes in risk factor levels** (see table on left)

**Conclusion:** A timely, targeted, low cost educational intervention was successful in improving lifestyle and HDL-c beyond several lifestyle improvements made in controls. Hospitalization of a family members with CVD is unique motivation and opportunity to lower individual CV risk