

# Does Initial Short-Term Weight Loss Influence Success in a 24-Month Behavioral Weight Loss Program

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# Weight Loss Interventions

- Wide range of variability in weight loss during behavioral weight loss interventions
- Important to identify those who are struggling early during an intervention
- Evidence that a greater initial weight loss will result in a better outcome
  - ▣ Greater weight loss
  - ▣ Better weight maintenance

# Purpose

- To examine the influence of initial weight loss achieved in the first 5 weeks of a behavioral weight loss program on weight loss achieved at 6 and 24 months in overweight and obese women.

# Subject Characteristics

- 164 sedentary women
  - ▣ Age Range: 21-45 years
    - Mean: 38.3 years
  - ▣ Baseline Weight: 87.5 kg
  - ▣ Baseline BMI Range: 27-40 kg/m<sup>2</sup>
    - Mean: 32.7 kg/m<sup>2</sup>
- Weight was measured at 5 weeks and months 6 and 24

# Behavioral Intervention Design

- 24 month behavioral intervention
  - ▣ Months 1-6: Weekly group meetings
  - ▣ Months 7-12: Bimonthly group meetings and bimonthly phone calls
  - ▣ Months 13-18: One group meeting and one phone call per month
  - ▣ Months 19-24: Two phone calls per month
- Caloric intake: 1200-1500 kcal/day
  - ▣ Based on baseline weight
- Dietary fat intake: 20-30% of total calories

# Study Randomization

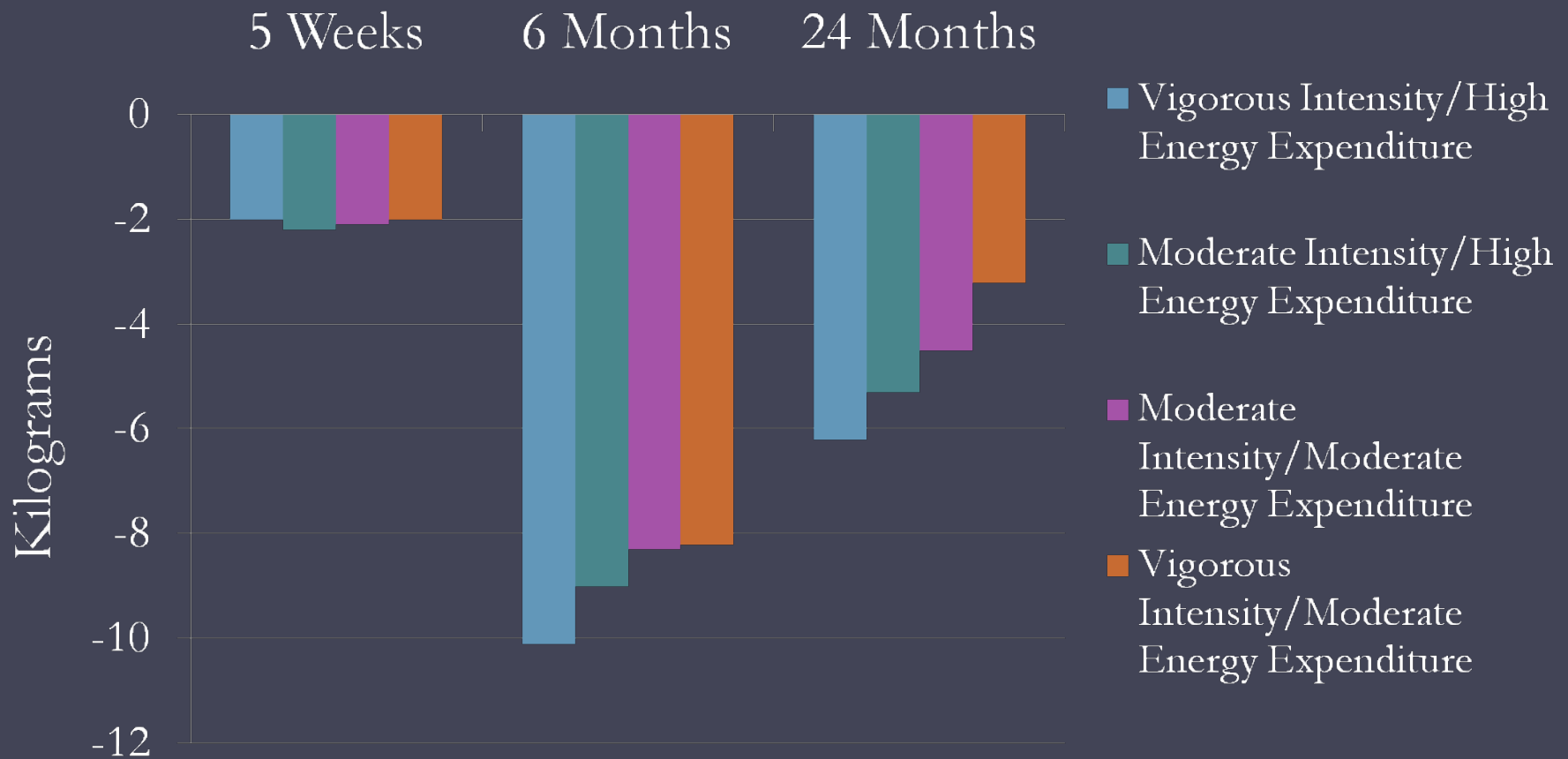
Randomized to 1 of 4 groups:

- Vigorous intensity/High energy expenditure (2000 kcal/wk)
- Moderate intensity/High energy expenditure (2000 kcal/wk)
- Vigorous intensity/Moderate energy expenditure (1000 kcal/wk)
- Moderate intensity/Moderate energy expenditure (1000 kcal/wk)

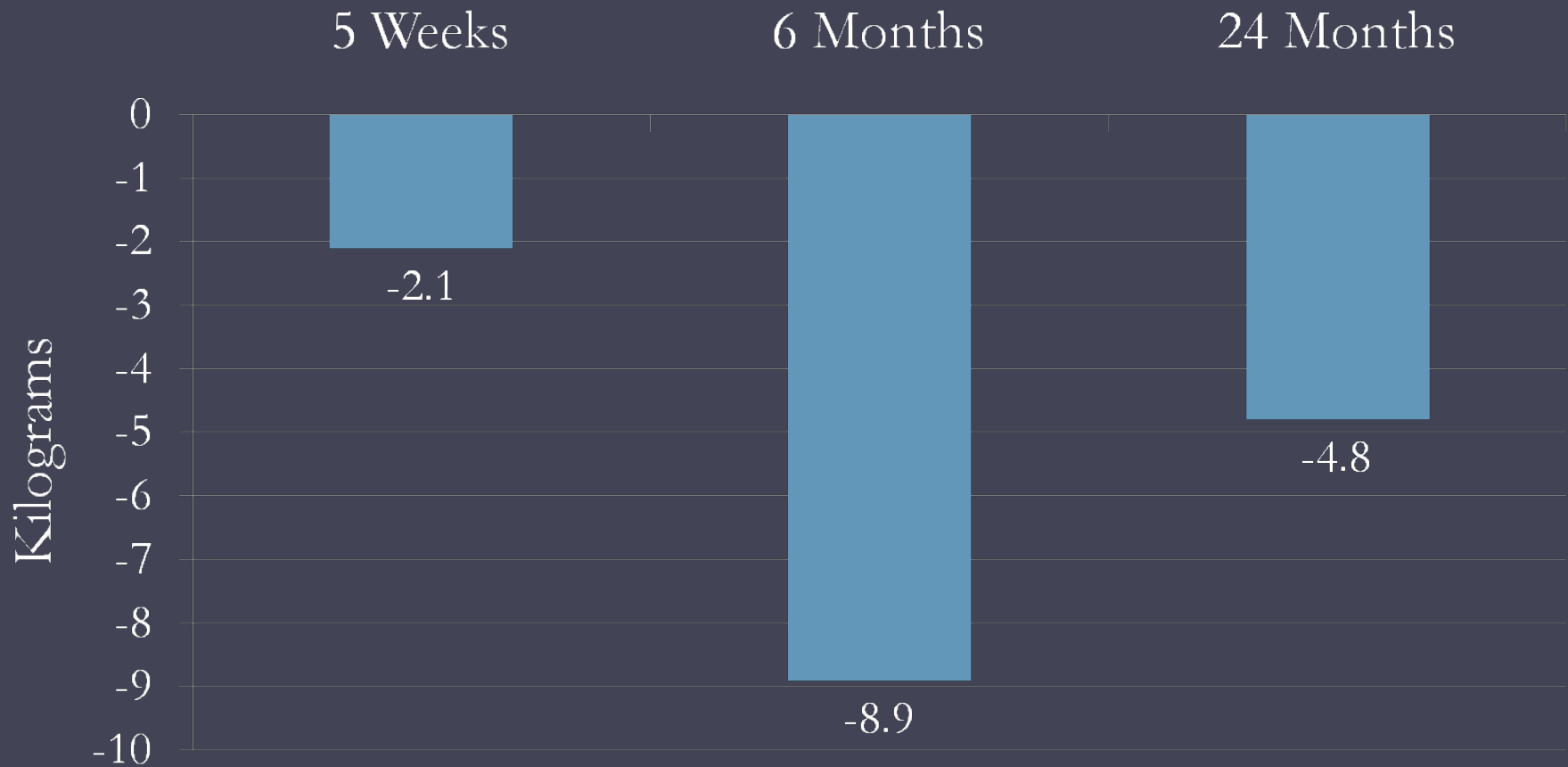
# Statistical Analyses

- Pearson Correlations
  - Weight change and percent weight change at week 5 and months 6 and 24
  - Subjects grouped based on median split of percent weight loss at 5 weeks
    - $< 2.3\%$  (LOW) or  $\geq 2.3\%$  (HIGH)
- Independent samples t-tests
  - Difference between LOW and HIGH groups at 6 and 24 months

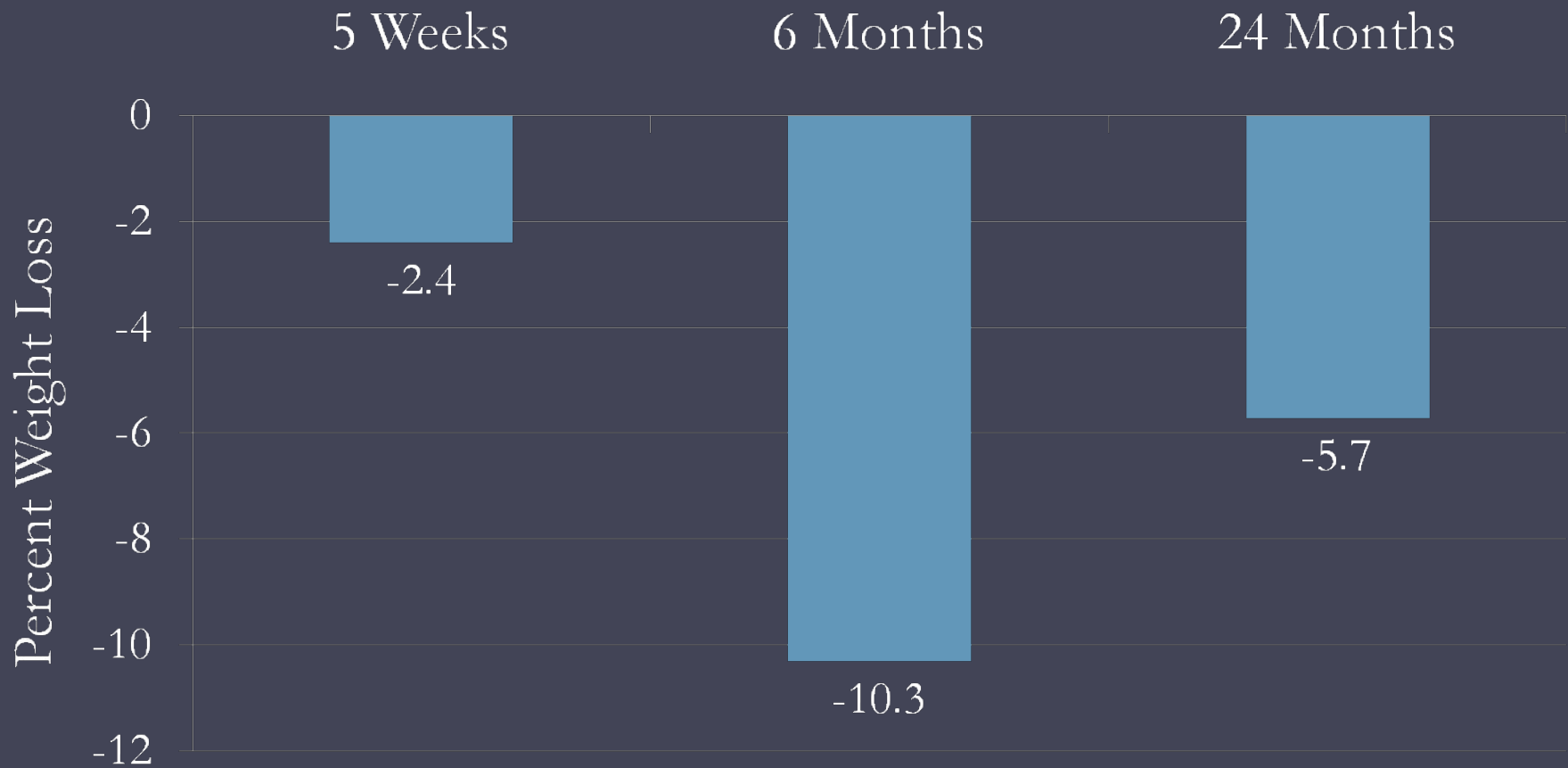
# Difference in Wt. Loss Between Groups



# Change in Body Weight



# Percent Change in Body Weight

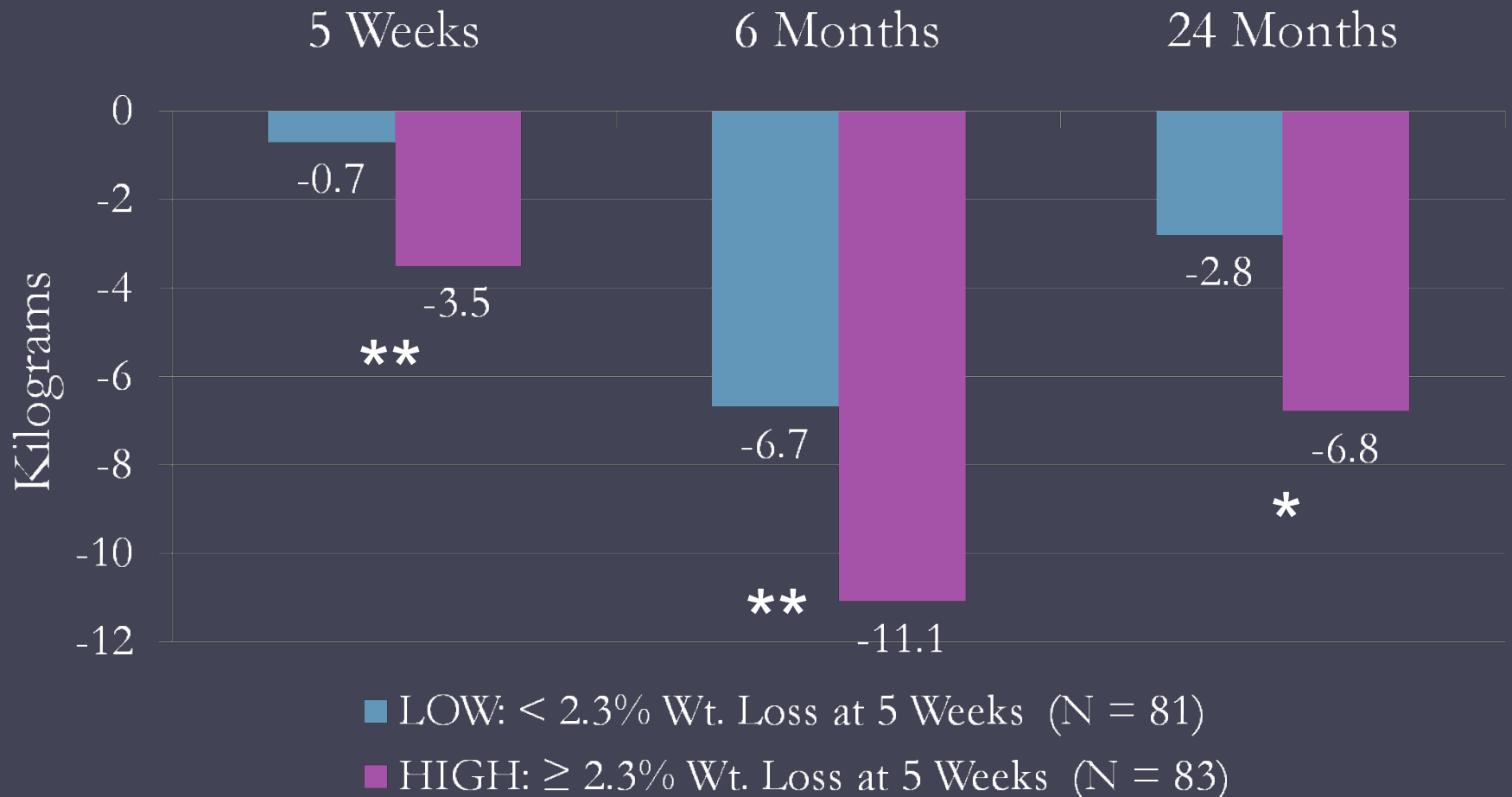


# Pearson Correlations

	<b>WEIGHT CHANGE 5 WEEKS</b>	<b>% WEIGHT CHANGE 5 WEEKS</b>
Weight Change 6 Months	0.60**	
% Weight Change 6 Months		0.58**
Weight Change 24 Months	0.27**	
% Weight Change 24 Months		0.30**

\*\* p < 0.001

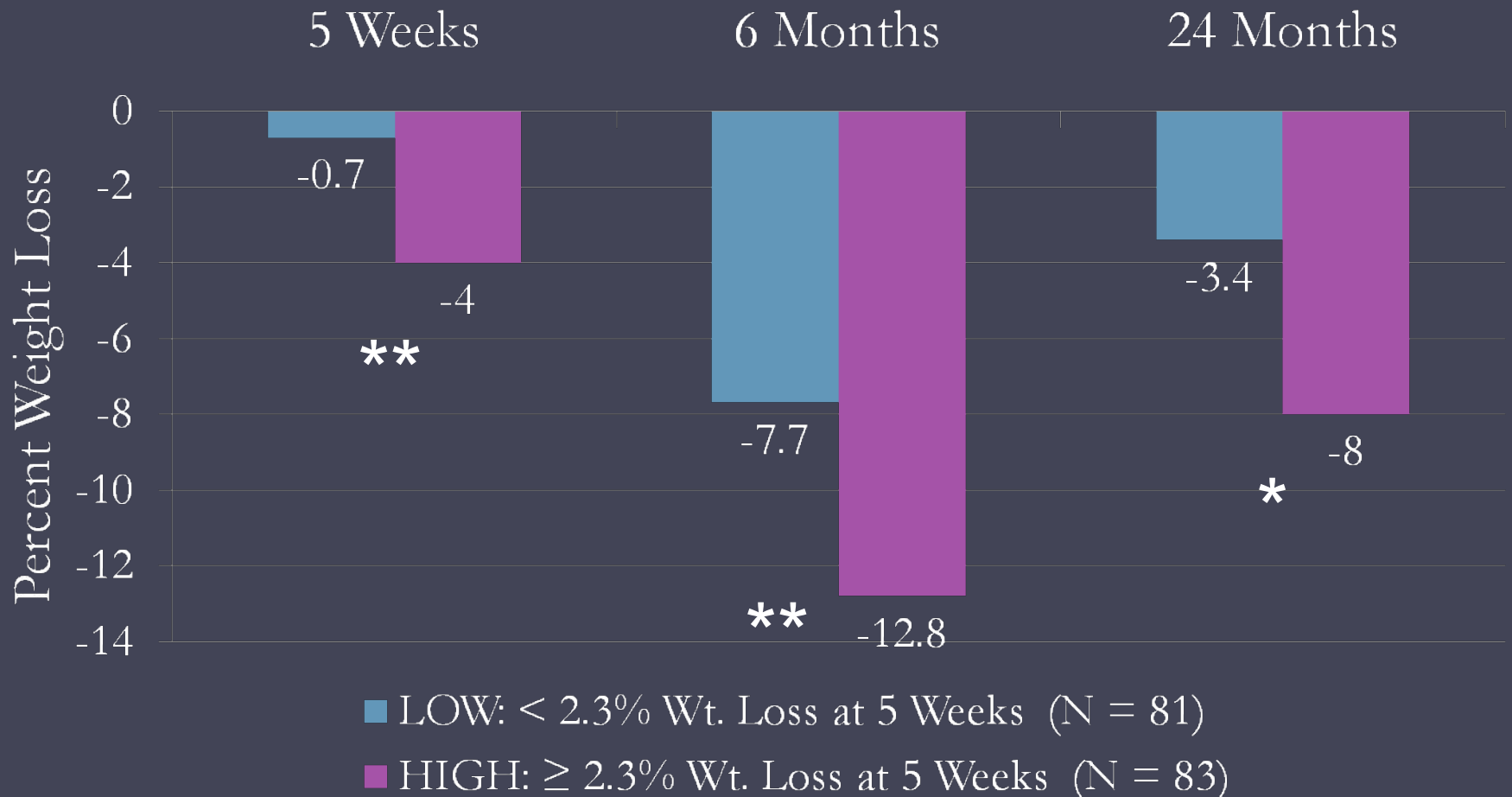
# Influence of 5 Week Wt. Loss on Long-Term Wt. Loss



\* p = 0.001

\*\* p < 0.001

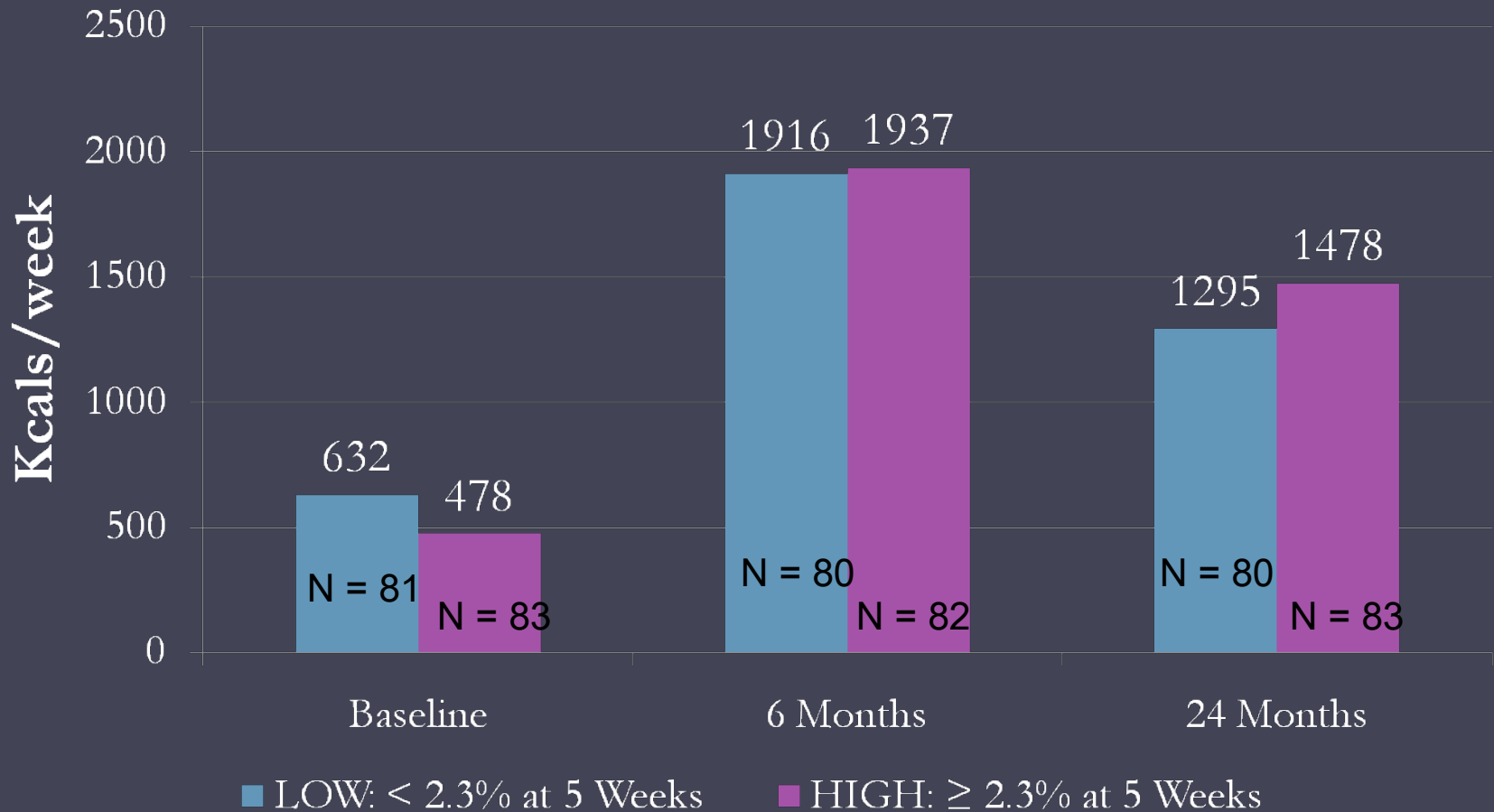
# Influence of 5 Week Wt. Loss on Long-Term Percent Wt. Loss



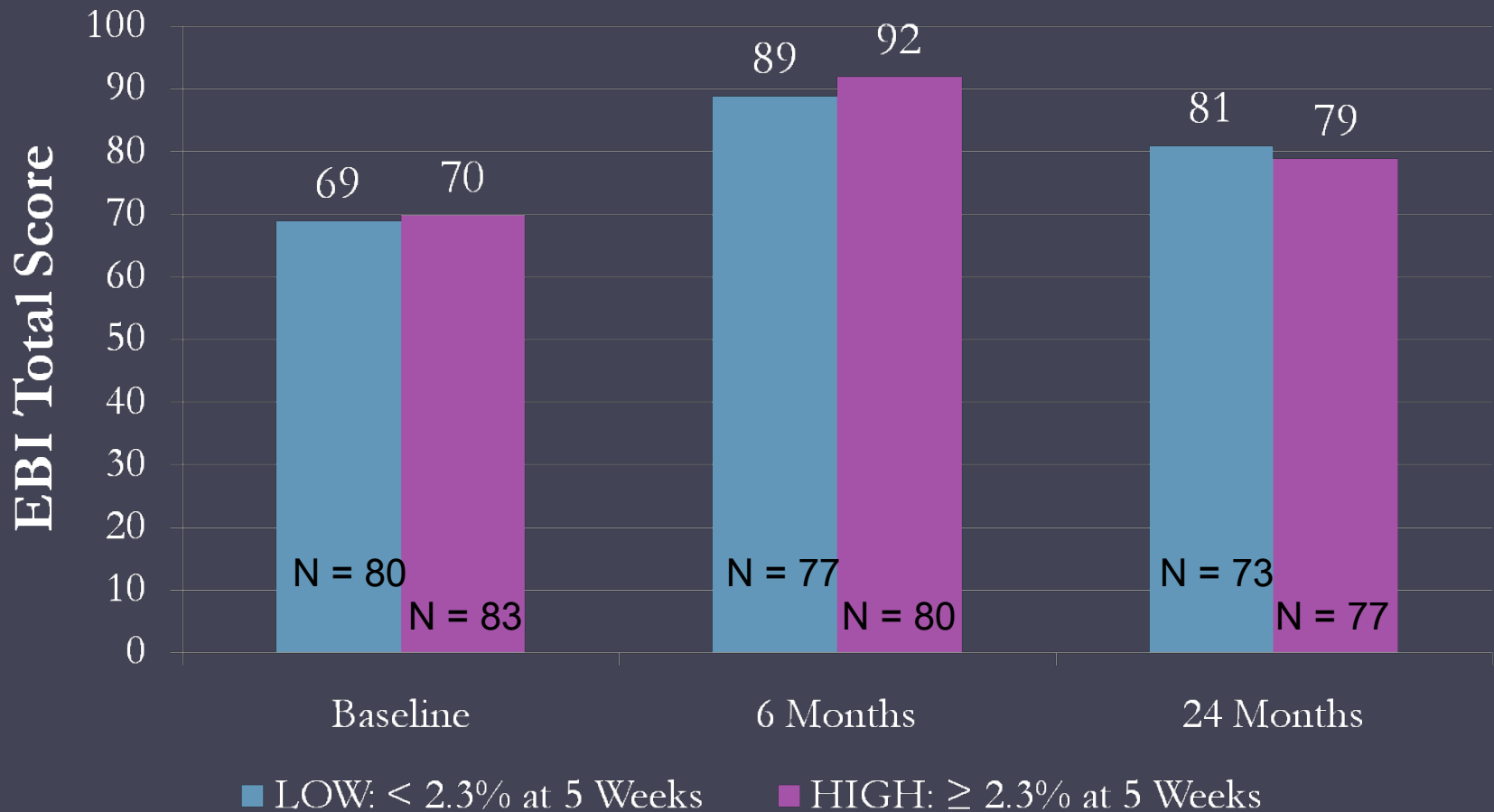
\* p = 0.001

\*\* p < 0.001

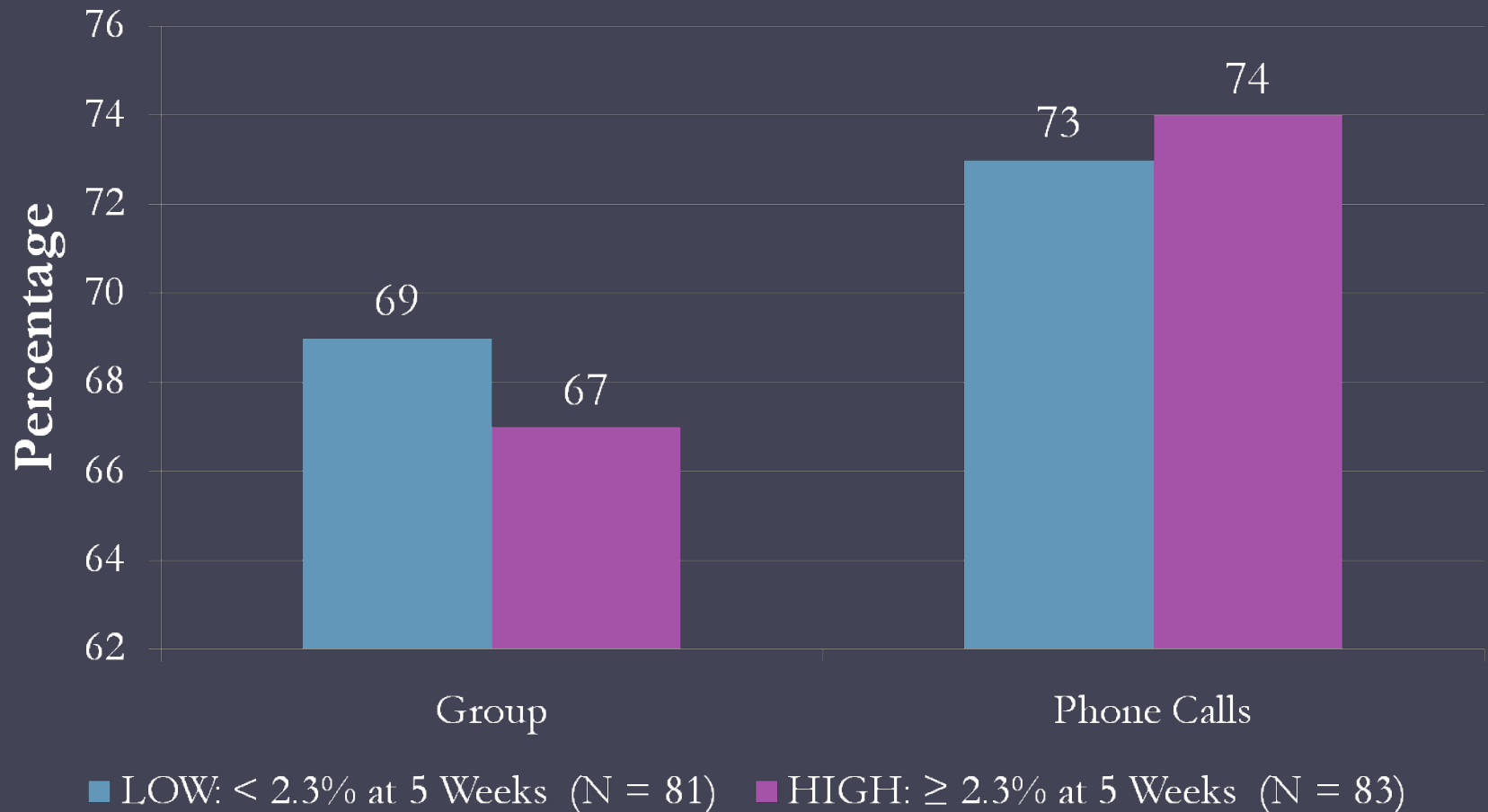
# Physical Activity Levels Among HIGH and LOW Groups



# Eating Behavior Among HIGH and LOW Groups



# % of Group Sessions Attended and Calls Completed



# Conclusions

- During a behavioral weight loss intervention, weight loss at 5 weeks is associated with weight loss at 6 and 24 months in overweight and obese women.
- Those who lost more weight early on have more long-term weight loss and maintenance success than those who were not as successful at the beginning.
- Physical activity, eating behaviors, and contact time do not account for the differences in weight loss among the early vs. non-early responders.

# Future Research

- Identify those who struggle with weight loss early on during an intervention
  - ▣ Tailor intervention accordingly
  - ▣ Add more contact time or resources
- How much contact time and resources are necessary for those with early success?
- Identify possible variables accounting for weight loss differences
  - ▣ Self-report vs. objective measures
  - ▣ Psychosocial variables

Questions?