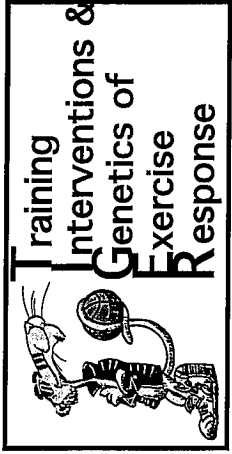
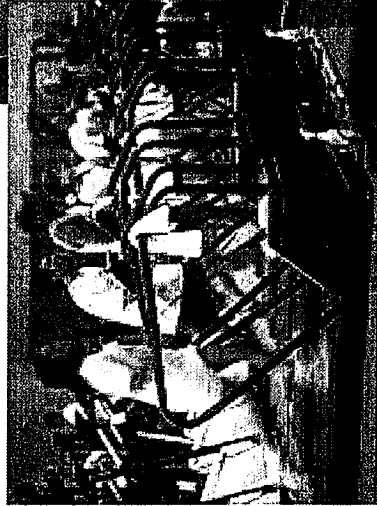
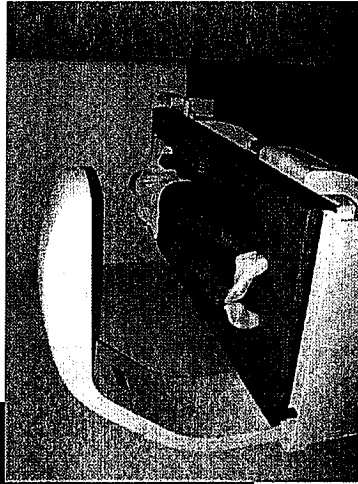


Contact Information

For further information regarding the TIGER Study, please visit our web site at www.uh.edu/tigerstudy. You can also come by our office in GAR-105P (Garrison Gym) or call 713-743-9935.

Study Researchers:

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USDA/ARS Children's Nutrition Research Center, Baylor College of Medicine, Department of Health and Human Performance, University of Houston.



Preliminary results from The TIGER Study

Fall 2003 – Spring 2006

In the midst of the obesity epidemic, there has been a renewed interest in attention towards weight gain during the college years. Recent research has provided evidence that, not only is the "Freshman 15" a real phenomenon but that *Freshmen continue to gain weight throughout their tenure as university students.*

The TIGER Study is designed to afford new insight into the genetic underpinnings of exercise response, while providing an exercise program that enables students to incorporate regular physical activity into their daily routine and prevent or reverse weight gain.

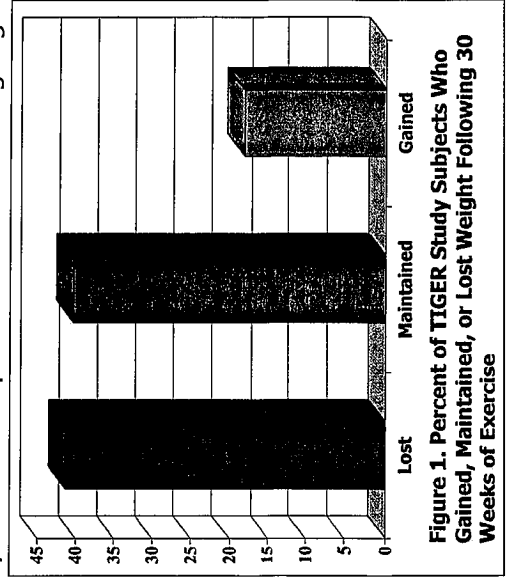


Figure 1. Percent of TIGER Study Subjects Who Gained, Maintained, or Lost Weight Following 30 Weeks of Exercise

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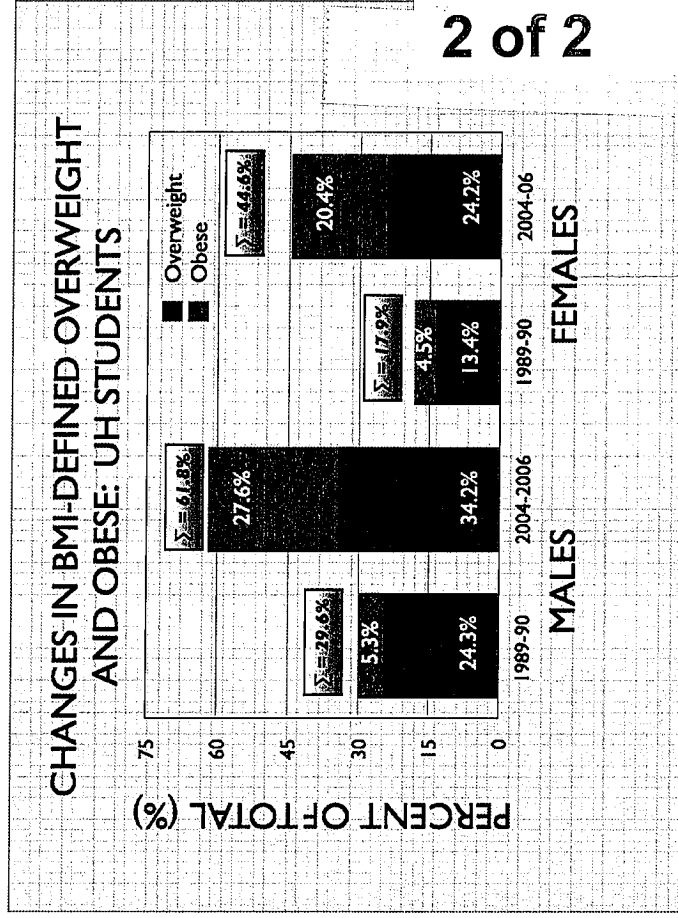
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Summary of TIGER Study Protocol

- The TIGER Study is a 5-year study of genetic factors related to response to exercise in:
 - Body composition
 - Blood plasma analytes
 - Heart rate and blood pressure
 - Exercise adherence
- The TIGER Study began in 2003, and three cohorts have been collected to date. Genetic analysis of candidate genes will begin upon completion of the target cohort.
- Since 2004, students have had the opportunity to complete their social sciences core requirement while participating in the TIGER Study by taking KIN 1304, which includes both a cognitive and exercise component.
- Heart rate monitors set between 65 and 85% of each person's age- and gender-specific predicted maximum heart rate are used to record and document the intensity and duration of every exercise session.
- Each exercise session lasts a minimum of 40 minutes (5-min warm-up, 30-min workout, 5-min cool-down) and includes a choice of aerobic exercise (e.g., stationary cycling, treadmill running/walking, group step aerobics, elliptical stepping, rowing, stair stepping, track running/walking, and arm ergometry).
- Subjects document exercise performed outside of class using an online program from CSI, Inc. that includes an exercise log and an estimation of caloric expenditure for each activity.
- Substantial variability in changes in body weight, body composition, glucose, cholesterol, and blood pressure has been observed.
- Retention rates within a semester are excellent, ranging from 65-82%, but overall attrition has ranged from 22-50% per cohort.
- Results from the TIGER Study to date suggest that a semester-based exercise intervention is an excellent mechanism for introducing/maintaining exercise behaviors in young adults.

Obesity at the University of Houston Changes in Body Composition of UH Students 1989-90 vs 2004-06

- Body Mass Index (BMI) World Health Organization Criterion for Normal, Overweight and Obese
- BMI = Weight in Kilograms/Height in Meters²
 - **NORMAL** ≤ 25 kg/m²
 - **OVERWEIGHT** 25 TO 29.9 kg/m²
 - **Obese** ≥ 30 kg/m²



- Between 1989-90 and 2004-06:
 - Overweight and Obesity more than doubled
 - level of obesity increased by nearly 5 times
- Percent body fat increased 6.2% for men (14.6 to 20.8%) and 5.1 % for women (25.0 to 30.2%)