

# Insulin Resistance Improves More in Women than In Men in Association with a Weight Loss Intervention

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|                                       |           |           |
|---------------------------------------|-----------|-----------|
| 60-74                                 | 24 (30.4) | 7 (33.3)  |
| <b>Race/Ethnicity N (Percentage)</b>  |           |           |
| Non-Hispanic White                    | 59 (74.7) | 14 (66.7) |
| Minority                              | 20 (25.3) | 7 (33.3)  |
| <b>Body Mass Index N (Percentage)</b> |           |           |
| 27-29.99                              | 27 (34.2) | 5 (23.8)  |
| 30-34.99                              | 36 (45.6) | 12 (57.1) |
| 35-39.99                              | 16 (20.3) | 4 (19.1)  |

**Table 1:** Characteristics of participants at enrollment in a weight loss intervention.

The participants were primarily white non-Hispanic (73%). There were no significant differences in baseline characteristics between the male and female participants.

#### Weight, obesity, biological and physiological measures

Weight loss, obesity, and biological measures at baseline and at 6 months are shown in (Table 2).

| Parameters                     | Baseline    | 6 Months    | p Value |
|--------------------------------|-------------|-------------|---------|
| Weight (kg)                    | 91.0 (1.5)  | 82.3 (1.5)  | <0.0001 |
| (Percentage) Obese             | 68          | 44          | <0.0001 |
| Glucose mmol/l                 | 5.54 (0.05) | 5.34 (0.07) | 0.0004  |
| Insulin mU/mL                  | 15.4 (0.8)  | 9.8 (0.6)   | <0.0001 |
| HOMA-IR                        | 3.8 (0.2)   | 2.4 (0.2)   | <0.0001 |
| (Percentage) insulin Resistant | 64          | 23          | 0.01    |

73% non-Hispanic white subjects, while the Japanese study focused on a Japanese population. There are likely enough genetic differences across these study populations that could explain the different results, evidenced by the higher rate of diabetes in non-Hispanic white men than women aged 65-74 years, contrasted by the higher rate of diabetes in Asian women than Asian men in the same age group [11]. Also, the Japanese study did not involve a comprehensive lifestyle intervention, while the present study did. It is possible that men more readily acquire



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