

Supplemental Material: 6-8 week old orexin null mice or wild-type littermates were individually housed and their food intake was monitored for three days. The mice were then allowed either free access to chow (ad lib) or given a food pellet equal to 60% of their average daily intake (calorie restriction) prior to lights off (1900) for ten days. **A.** Body weight change for female orexin null mice and wild-type littermates fed ad lib (n = 6 wild-type and 10 null) or calorie restricted (n = 5 wild-type and 6 null). Two way ANOVA reports a main effect of calorie restriction ($F_{1,24} = 224.28$, $p < 0.0001$) without a significant effect of gender ($F_{1,24} = 0.02$, $p = 0.90$) or interaction ($F_{1,24} = 0.31$, $p = 0.58$). Bonferroni posttest analysis reports a significant effect of diet in both wild-type and orexin null mice ($***p < 0.001$). **B.** Body weight change for male orexin null mice and wild-type littermates fed ad lib (n = 5 wild-type and 7 null) or calorie restricted (n = 5 wild-type and 5 null). Two way ANOVA reports a main effect of calorie restriction ($F_{1,24} = 153.5$, $p < 0.0001$) without a significant effect of gender ($F_{1,24} = 0.33$, $p = 0.58$) or interaction ($F_{1,24} = 0.50$, $p = 0.49$). Bonferroni posttest analysis reports a significant effect of diet in both wild-type and orexin null mice ($***p < 0.001$). **C.** Locomotor activity of orexin null and wild-type littermates from Supplemental A and B. No difference was observed in gender and pooled results are displayed. Two way ANOVA reports a significant effect for group ($F_{3,540} = 4.11$, $p = 0.007$) and time of day ($F_{14,540} = 7.65$, $p < 0.0001$) with a significant interaction ($F_{42,540} = 2.05$, $p = 0.002$). Bonferroni posttest analysis reports a significant difference only between wild-type ad lib and wild-type calorie restriction at 1500, 1600, and 1700 ($*p < 0.05$, $**p < 0.01$, $***p < 0.001$). **D.** Wild-type C57BL/6 mice were either fasted overnight or fed ad lib. Forced swim test results at 10 AM. No significant difference by Student's t-test for either latency to immobility or total time immobile ($p > 0.05$) All error bars presented as SEM.