

	DR NL	DR LL
10wk chow		
Body weight	339+5	335+10
Body weight gain		
TFP%BW	3.36+0.20	3.42+0.18
Leptin (ng/ml)	4.6+0.2	4.4+0.2
Insulin (ng/ml)	2.1+0.3	2.0+0.2
Glucose OGTT AUC (mg/dl/120min)	11,300+1010	11,150+950
5wk HE diet		
Body weight	491+18	472+14
Body weight gain	152+8	130+8
FI on HE (kcal)		
Total fat pad/body weight (%)	7.50+0.49	7.63+0.60
Leptin (ng/ml)	6.76+0.7	6.51+0.6
Insulin (ng/ml)	2.3+0.2	2.3+0.2
Glucose OGTT AUC (mg/dl/120min)	12,100+1,150	12,050+1,00

**Table 1:** Five groups of DR male neonates were placed in NL (10 pups/dam) or LL (16 pups/dam) at P2 and fed chow from weaning to 10 wk of age and then fed HE diet for 5 wk. During the last weeks on chow and HE diet, they underwent an oral glucose tolerance test (OGTT) for measurement of glucose responses. Total fat pad/ body weight (%) = total weight of 4 fat pads (retroperitoneal, perirenal, mesenteric, epididymal) as a percent of body weight).

## Supplemental1 Figure Legends

**Figure 1.** Plasma insulin levels at dark (D) and light (L) onset on days P3, 8 and 14 in groups (n=4/group) of DIO pups reared in NL and LL. \*P=0.05 or less for differences between NL and LL plasma leptin levels

**Figure 2.** Effect of leptin intragastric gavage on plasma leptin levels in DIO pups reared in large litters (LL). Baseline leptin levels were obtained in groups (n=4/group) of P4 pups raised in normal litters (NL; 10 pups/dam) and LL (16 pups/dam) at dark onset (time=0 Hours) and the 2 and 4 h later after the LL pups had been gavaged with 100 ng leptin in 0.2 ml leptin. \*P=0.05 or less for differences between NL and LL plasma leptin levels.

SUPPLEMENTARY FIGURES

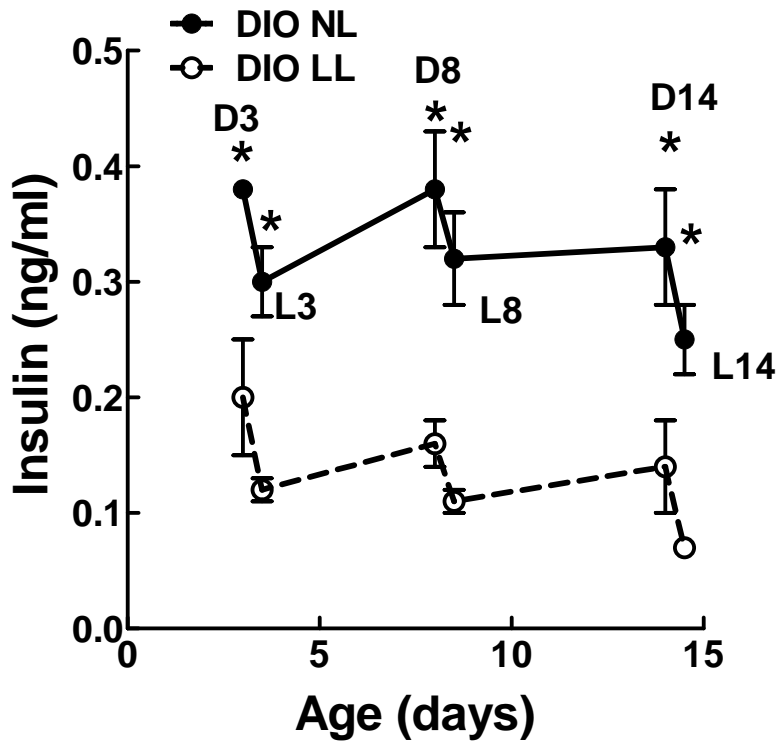


Figure 1

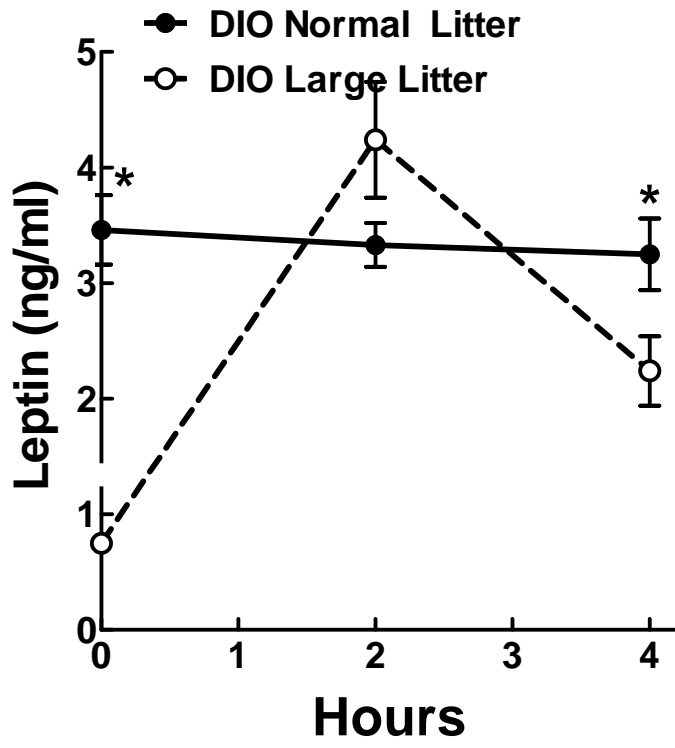


Figure 2