

Composition of the diet

After acclimatization for 1 week, 13 week old mice were fed *ad libitum* with a control (D12489B; Protein-16.4 gm%, Carbohydrate-70.8 gm%, Fat-4.6 gm%, 3.9 kcal/gm) or high fat pellet diet (Western Diet D12079B; Protein-20 gm%, Carbohydrate-50 gm%, Fat-21 gm%, 4.7 kcal/gm) supplemented with *ad libitum* access to sucrose (20 %; 200 gm sucrose dissolved in 1 L of water; 0.8 kcal/ml) solution. Diets were purchased from Research Diets (New Brunswick, NJ, USA). The sucrose solution was supplemented with vitamins (Vitamin Mix V10001, 10 gm/ 4000 kcal) and minerals (Mineral Mix S10001, 35 gm/ 4000 kcal).

Calculation of dietary intake

In calculating the caloric values, the factors of 4 calories per gram (for carbohydrate, sucrose and protein) and 9 calories per gram (fat) were used.

Body composition analysis

The body composition analysis (qMRI/DEXA) was performed before mating to measure the pre-pregnancy body composition. Intra-scan coefficient of variation was 0.7 % and interscan coefficients of variation was 5.4%. The coefficients of variation are in agreement with studies examining the precision and accuracy of the PIXImus densitometer (Nagy and Clair, 2000).

Calculation of AUC in Glucose tolerance test:

The area of the blood glucose response profile curve corresponding to each animal was calculated by the trapezoid method, using as reference each individual baseline blood glucose measurement prior to glucose administration ($t = 0$) or the lowest point of the curve. The sum of the trapezoidal areas between the 0, 15, 30, 60, 90-minute time points corresponding to each animal were summed to obtain the area under the curve (AUC).

Sucrose and vitamin consumption

On average, HF/HS animals consumed 1.65 ± 0.05 g (n=15) sucrose (corresponding to 6.62 ± 0.19 kilo calories; n=15) per day. The amount of vitamin and mineral mix consumed from the sucrose solution was 0.016 ± 0.0005 g and 0.058 ± 0.002 g, respectively, per day.

Supplement Table 1. Assay imprecision

Analysis	Intra assay coefficient of variation %	Inter assay coefficient of variation %
Leptin	2.6	4.5
Insulin	2.0	5.7
Adiponectin	4.9	6.8
HMW Adiponectin	3.0	2.7
Glucose	5.5	6.0
Cholesterol	1.5	2.3
Triglycerides	5.9	5.6
NEFA	0.68	2.8
Phospholipids	0.39	1.5

Reference:

Nagy TR1, Clair AL. Precision and accuracy of dual-energy X-ray absorptiometry for determining in vivo body composition of mice. *Obes Res.* 2000 Aug;8(5):392-8.