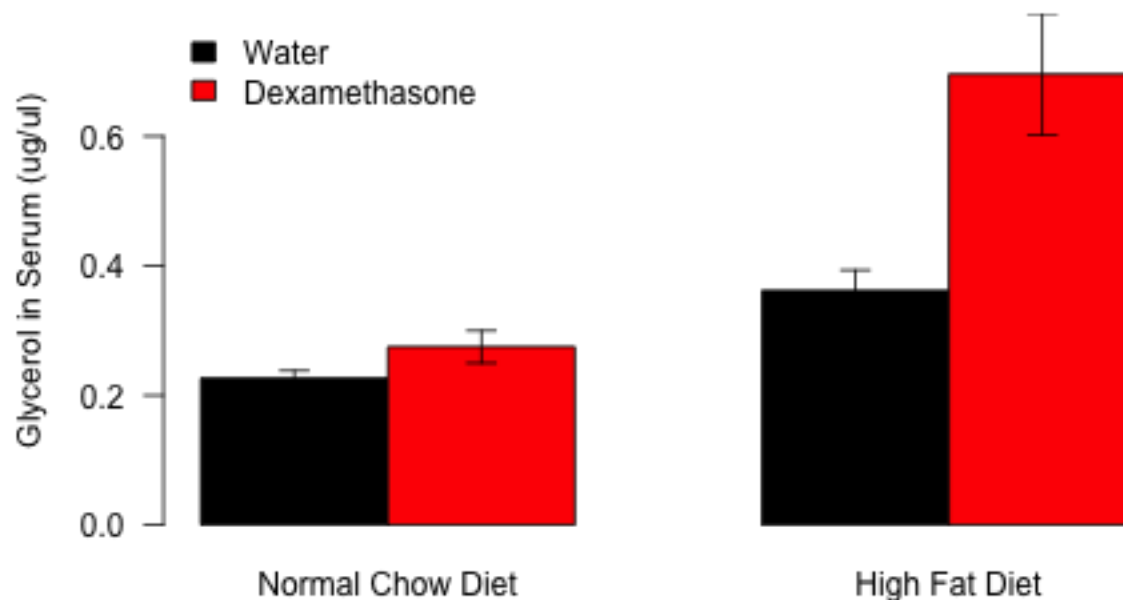# Combined Analysis of HFD/NCD Dexamethasone Serum Glycerol Levels

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This script uses the files in 2015-09-17 TG assay HFD v older chow .xlsx and used the worksheet Exported. These data are located in /Users/iharvey/Desktop/CushingAcromegalyStudy/scripts/scripts-obesity and this script was most recently run on Thu Sep 15 15:21:34 2016.

Statistics

From a two-way ANOVA with an interaction, the interaction term was significant (p=0.017327).

Table 1: ANOVA for Glycerol Levels

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Diet	1	0.69	0.69	23.87	0.00003
Treatment	1	0.39	0.39	13.41	0.00089
Diet:Treatment	1	0.18	0.18	6.30	0.01733
Residuals	32	0.92	0.03	NA	NA

Tukey's tests (pairwise comparasons are):

Table 2: Tukey's HSD tests for Serum Glycerol Levels

	diff	lwr	upr	p adj
High Fat Diet:Water-Normal Chow Diet:Water	0.14	-0.08	0.35	0.3503976715
Normal Chow Diet:Dexamethasone-Normal Chow Diet:Water	0.05	-0.18	0.28	0.9400647778
High Fat Diet:Dexamethasone-Normal Chow Diet:Water	0.47	0.25	0.69	0.0000102022
Normal Chow Diet:Dexamethasone-High Fat Diet:Water	-0.09	-0.30	0.13	0.7048243574
High Fat Diet:Dexamethasone-High Fat Diet:Water	0.33	0.13	0.54	0.0006169112
High Fat Diet:Dexamethasone-Normal Chow Diet:Dexamethasone	0.42	0.20	0.64	0.0000579862

Session Information

```
## R version 3.3.1 (2016-06-21)
## Platform: x86_64-apple-darwin13.4.0 (64-bit)
## Running under: OS X 10.11.6 (El Capitan)
##
## locale:
## [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
## [1] tidyr_0.6.0    dplyr_0.5.0    xlsx_0.5.7    xlsxjars_0.6.1
## [5] rJava_0.9-8    knitr_1.14
##
## loaded via a namespace (and not attached):
##  [1] Rcpp_0.12.7    digest_0.6.10   assertthat_0.1  R6_2.1.3
##  [5] DBI_0.5-1      formatR_1.4     magrittr_1.5    evaluate_0.9
##  [9] highr_0.6      stringi_1.1.1   lazyeval_0.2.0  rmarkdown_1.0
## [13] tools_3.3.1    stringr_1.1.0   yaml_2.1.13     htmltools_0.3.5
## [17] tibble_1.2
```