

Supplementary File 2
Statistical analysis

ANOVA Figure 1A

ANOVA

Cases	Sum of Squares	df	Mean Square	F	p
V1	21.66	1	21.66	1.958	0.234
Residual	44.24	4	11.06		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 1w	ND 1w	3.800	2.715	1.399	0.234

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 2w	ND 2w	8.867	2.122	4.179	0.014 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 3w	ND 3w	9.967	1.368	7.286	0.002 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 4w	ND 4w	10.00	1.365	7.326	0.002 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 5w	ND 5w	11.50	1.617	7.114	0.002 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 6w	ND 6w	13.07	1.619	8.071	0.001 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 7w	ND 7w	12.97	1.790	7.244	0.002 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 8w	ND 8w	13.93	1.384	10.07	< .001 ***

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 9w	ND 9w	12.73	0.784	16.24	< .001 ***

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD 10w	ND 10w	13.50	1.552	8.696	< .001 ***

ANOVA Figure 1B

ANOVA - Glucose

Cases	Sum of Squares	df	Mean Square	F	p
V1	25090.7	1	25090.7	118.5	< .001
Residual	846.7	4	211.7		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons - V1

		Mean Difference	SE	t	ptukey
HFD	ND	129.3	11.88	10.89	< .001 ***

ANOVA Figure 2A - BM

ANOVA - CCK-8

Cases	Sum of Squares	df	Mean Square	F	p
ND;0	202.8	1	202.8	1.202	0.353
Residual	506.0	3	168.7		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons - ND

		Mean Difference	SE	t	ptukey
HFD24h	ND24h	-13.00	11.86	-1.097	0.353

Post Hoc Comparisons - ND;

		Mean Difference	SE	t	ptukey
HFD48h	ND48h	2.333	3.677	0.635	0.571

Post Hoc Comparisons - ND

		Mean Difference	SE	t	ptukey
HFD72h	ND72h	-8.333	3.361	-2.479	0.089

Post Hoc Comparisons - ND;0 ▼

		Mean Difference	SE	t	ptukey
HFD96h	ND96h	-30.33	4.238	-7.157	0.006 **

ANOVA Figure 2A sWAT

ANOVA – CCK-8

Cases	Sum of Squares	df	Mean Square	F	p
ND;0	13.33	1	13.33	0.375	0.584
Residual	106.67	3	35.56		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons – ND

		Mean Difference	SE	t	ptukey
HFD,24h	ND,24h	3.333	5.443	0.612	0.584

Post Hoc Comparisons – ND

		Mean Difference	SE	t	ptukey
HFD,48h	ND,48h	-6.167	5.557	-1.110	0.348

Post Hoc Comparisons – ND

		Mean Difference	SE	t	ptukey
HFD,72h	ND,72h	14.67	8.735	1.679	0.192

Post Hoc Comparisons – ND

		Mean Difference	SE	t	ptukey
HFD,96h	ND,96h	0.017	0.026	0.651	0.551

ANOVA Figura 2A vWAT

ANOVA - CCK-8

Cases	Sum of Squares	df	Mean Square	F	p
V1	4.167e -4	1	4.167e -4	0.962	0.382
Residual	0.002	4	4.333e -4		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons - V1

		Mean Difference	SE	t	ptukey
HFD24h	ND 24h	-0.017	0.017	-0.981	0.382

Post Hoc Comparisons - V1

		Mean Difference	SE	t	ptukey
HFD48h	ND 48h	-0.053	0.011	-5.060	0.007 **

Post Hoc Comparisons - V1

		Mean Difference	SE	t	ptukey
HFD72h	ND72h	-0.037	0.012	-2.940	0.042 **

Post Hoc Comparisons - V1

		Mean Difference	SE	t	ptukey
HFD96h	ND96h	-0.317	0.040	-7.862	0.001 **

ANOVA Figure 2B - BM

ANOVA - cell cycle

Cases	Sum of Squares	df	Mean Square	F	p
V1	214.8	1	214.80	3.708	0.126
Residual	231.7	4	57.93		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons -

		Mean Difference	SE	t	ptukey
HFD G1	ND G1	11.97	6.215	1.926	0.126

Post Hoc Comparisons - V1 ▼

		Mean Difference	SE	t	ptukey
HFD S	ND S	-5.800	0.904	-6.418	0.003 **

Post Hoc Comparisons - V1

		Mean Difference	SE	t	ptukey
HFDG2/M	NDG2/M	-10.80	2.378	-4.542	0.010 *

ANOVA Figure 2B - sWAT

ANOVA - cell cycle

Cases	Sum of Squares	df	Mean Square	F	p
V1	0.144	1	0.144	0.006	0.942
Residual	97.745	4	24.436		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD G1	ND G1	-0.310	4.036	-0.077	0.942

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD S	ND S	-0.500	0.572	-0.875	0.431

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD G2/M	ND G2/M	1.600	1.678	0.953	0.394

ANOVA Figure 2B - vWAT

ANOVA – cell cycle

Cases	Sum of Squares	df	Mean Square	F	p
V1	10.94	1	10.94	0.280	0.625
Residual	156.34	4	39.09		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD G1	ND G1	2.700	5.105	0.529	0.625

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD S	NDS	-0.500	0.739	-0.676	0.536

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFDG2/M	NDG2/M	-4.400	2.462	-1.787	0.148

ANOVA Figure 3A

ANOVA – Annexin

Cases	Sum of Squares	df	Mean Square	F	p
V1	0.042	1	0.042	0.305	0.610
Residual	0.547	4	0.137		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD BM	ND BM	-0.167	0.302	-0.552	0.610

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD sWAT	ND sWAT	0.667	0.397	1.678	0.169

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD vWAT	ND vWAT	2.833	1.175	2.411	0.073

ANOVA Figure 3B

ANOVA - Beta Gal

Cases	Sum of Squares	df	Mean Square	F	p
V1	45.375	1	45.375	109.3	< .001
Residual	1.660	4	0.415		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD BM	ND BM	5.500	0.526	10.46	< .001 ***

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD sWAT	ND sWAT	2.300	0.327	7.042	0.002 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD wWAT	ND wWAT	5.500	0.526	10.46	< .001 ***

ANOVA Figure 3C

ANOVA – DCF–DA

Cases	Sum of Squares	df	Mean Square	F	p
V1	71.415	1	71.415	61.65	0.001
Residual	4.633	4	1.158		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFDBM	NDBM	6.900	0.879	7.852	0.001 **

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFDSWAT	NDSWAT	0.800	0.309	2.588	0.061

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFDSWAT	NDVWAT	4.333	0.464	9.333	< .001 ***

ANOVA Figure 3D - BM

ANOVA - WB

Cases	Sum of Squares	df	Mean Square	F	p
V1	252150	1	252150	2.865	0.166
Residual	352065	4	88016		

Note. Type III Sum of Squares

Post Hoc Tests ▼

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD Rb	NDRb	410.0	242.2	1.693	0.166

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p53	ND p53	1078	313.5	3.437	0.041 ★

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p21	ND p21	443.0	159.0	2.785	0.050

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p16	ND p16	261.7	65.69	3.983	0.016 ★

ANOVA Figure 3D -sWAT

ANOVA - WB

Cases	Sum of Squares	df	Mean Square	F	p
V1	36038	1	36038	2.567	0.184
Residual	56161	4	14040		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD Rb	NDR b	155.0	96.75	1.602	0.184

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p53	ND p53	-85.33	151.4	-0.564	0.603

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p21	ND p21	195.3	61.80	3.161	0.034 *

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p16	ND p16	161.0	54.02	2.980	0.041 *

ANOVA Figure 3D - vWAT

ANOVA - WB

Cases	Sum of Squares	df	Mean Square	F	p
V1	165668	1	165668	9.495	0.037
Residual	69789	4	17447		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD Rb	ND Rb	332.3	107.8	3.081	0.037 *

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p53	ND p53	-29.33	331.6	-0.088	0.934

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p21	ND p21	385.3	84.70	4.549	0.010 *

Post Hoc Comparisons

		Mean Difference	SE	t	ptukey
HFD p16	ND p16	321.3	97.45	3.297	0.030 *

ANOVA Figure 4 - BM

ANOVA - H2AX

Cases	Sum of Squares	df	Mean Square	F	p
V1	14.680	7	2.097	109.4	< .001
Residual	0.307	16	0.019		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons

		Mean Difference	SE	t	Ptukey
HFD 0h	HFD 1h	-0.800	0.113	-7.077	< .001 ###
	HFD 48h	-0.033	0.113	-0.295	1.000
	HFD 6h	-2.300	0.113	-20.347	< .001 ###
	ND 0h	0.233	0.113	2.064	0.474
	ND 1h	-0.033	0.113	-0.295	1.000
	ND 48h	0.133	0.113	1.180	0.927
	ND 6h	-0.300	0.113	-2.654	0.207
HFD 1h	HFD 48h	0.767	0.113	6.782	< .001
	HFD 6h	-1.500	0.113	-13.270	< .001
	ND 0h	1.033	0.113	9.141	< .001
	ND 1h	0.767	0.113	6.782	< .001 ***
	ND 48h	0.933	0.113	8.257	< .001
	ND 6h	0.500	0.113	4.423	0.008
HFD 48h	HFD 6h	-2.267	0.113	-20.052	< .001
	ND 0h	0.267	0.113	2.359	0.323
	ND 1h	-3.331e-16	0.113	-2.946e-15	1.000
	ND 48h	0.167	0.113	1.474	0.810
	ND 6h	-0.267	0.113	-2.359	0.322
HFD 6h	ND 0h	2.533	0.113	22.411	< .001
	ND 1h	2.267	0.113	20.052	< .001
	ND 48h	2.433	0.113	21.527	< .001
	ND 6h	2.000	0.113	17.693	< .001 ***
ND 0h	ND 1h	-0.267	0.113	-2.359	0.322
	ND 48h	-0.100	0.113	-0.885	0.983
	ND 6h	-0.533	0.113	-4.718	0.004 ##
ND 1h	ND 48h	0.167	0.113	1.474	0.810
	ND 6h	-0.267	0.113	-2.359	0.322
ND 48h	ND 6h	-0.433	0.113	-3.833	0.025

ANOVA Figure 4 - sWAT

ANOVA – H2AX

Cases	Sum of Squares	df	Mean Square	F	p
V1	80.385	7	11.484	357.9	< .001
Residual	0.513	16	0.032		

Note. Type III Sum of Squares

Post Hoc Tests ▼

Post Hoc Comparisons – V1 ▼

		Mean Difference	SE	t	Ptukey
HFD 0h	HFD 1h	-0.067	0.146	-0.456	1.000
	HFD 48h	-3.700	0.146	-25.299	< .001 ###
	HFD 6h	-3.667	0.146	-25.071	< .001 ###
	ND 0h	0.233	0.146	1.595	0.746
	ND 1h	0.233	0.146	1.595	0.747
	ND 48h	-3.467	0.146	-23.704	< .001
HFD 1h	ND 6h	-3.367	0.146	-23.020	< .001
	HFD 48h	-3.633	0.146	-24.843	< .001
	HFD 6h	-3.600	0.146	-24.615	< .001
	ND 0h	0.300	0.146	2.051	0.481
	ND 1h	0.300	0.146	2.051	0.481
	ND 48h	-3.400	0.146	-23.248	< .001
HFD 48h	ND 6h	-3.300	0.146	-22.564	< .001
	HFD 6h	0.033	0.146	0.228	1.000
	ND 0h	3.933	0.146	26.895	< .001
	ND 1h	3.933	0.146	26.895	< .001
	ND 48h	0.233	0.146	1.595	0.746
	ND 6h	0.333	0.146	2.279	0.360
HFD 6h	ND 0h	3.900	0.146	26.667	< .001
	ND 1h	3.900	0.146	26.667	< .001
	ND 48h	0.200	0.146	1.368	0.859
	ND 6h	0.300	0.146	2.051	0.482
ND 0h	ND 1h	2.442e -15	0.146	1.670e -14	1.000
	ND 48h	-3.700	0.146	-25.299	< .001 ###
	ND 6h	-3.600	0.146	-24.615	< .001 ###
ND 1h	ND 48h	-3.700	0.146	-25.299	< .001
	ND 6h	-3.600	0.146	-24.615	< .001
ND 48h	ND 6h	0.100	0.146	0.684	0.996

ANOVA Figure 4 -vWAT

ANOVA - H2AX

Cases	Sum of Squares	df	Mean Square	F	p
V1	228.040	7	32.577	309.0	< .001
Residual	1.687	16	0.105		

Note. Type III Sum of Squares

Post Hoc Tests

Post Hoc Comparisons - V1

		Mean Difference	SE	t	Ptukey
HFD 0h	HFD 1h	-0.200	0.265	-0.754	0.993
	HFD 48h	-3.467	0.265	-13.077	< .001***
	HFD 6h	-9.367	0.265	-35.333	< .001***
	ND 0h	0.033	0.265	0.126	1.000
	ND 1h	-0.033	0.265	-0.126	1.000
	ND 48h	-1.533	0.265	-5.784	< .001
	ND 6h	-4.267	0.265	-16.095	< .001
HFD 1h	HFD 48h	-3.267	0.265	-12.322	< .001
	HFD 6h	-9.167	0.265	-34.578	< .001
	ND 0h	0.233	0.265	0.880	0.984
	ND 1h	0.167	0.265	0.629	0.998
	ND 48h	-1.333	0.265	-5.030	0.002
	ND 6h	-4.067	0.265	-15.340	< .001
HFD 48h	HFD 6h	-5.900	0.265	-22.256	< .001
	ND 0h	3.500	0.265	13.203	< .001
	ND 1h	3.433	0.265	12.951	< .001
	ND 48h	1.933	0.265	7.293	< .001***
	ND 6h	-0.800	0.265	-3.018	0.112
HFD 6h	ND 0h	9.400	0.265	35.458	< .001
	ND 1h	9.333	0.265	35.207	< .001
	ND 48h	7.833	0.265	29.549	< .001
	ND 6h	5.100	0.265	19.238	< .001***
ND 0h	ND 1h	-0.067	0.265	-0.251	1.000
	ND 48h	-1.567	0.265	-5.910	< .001***
	ND 6h	-4.300	0.265	-16.220	< .001***
ND 1h	ND 48h	-1.500	0.265	-5.658	< .001
	ND 6h	-4.233	0.265	-15.969	< .001
ND 48h	ND 6h	-2.733	0.265	-10.311	< .001