2009 CLASS RESULTS FOR BLOOD PRESSURE LAB

Changes in Posture

The results presented for changes in posture are raw data that have NOT been corrected for body mass, gender, etc.

Raw Class Data for Changes in Posture:

	N	Mean BP	Std Error
PRONE	239	88.0677	1.0530
ST10SEC	239	92.7826	1.1124
ST5MIN	239	92.0126	1.1604
ST7MIN	238	91.4105	1.0933
ST9MIN	238	90.5560	1.3466

Note: N = sample size
Std Error = Standard Error of the mean = (standard deviation)/(n-1) = a measure of variation around the mean.

PRONE is significantly different from all other BP except ST9MIN. No other differences are statistically signficiant.

Responses to Exercise

A. Effect of Exercise and Recovery:
Before analyzing these data, I statistically removed the effects of GENDER, WEIGHT, AGE, CONDITION and LAB so that those variables are not confounding the results presented below.

The key for Exercise Level is:
0 = sitting on cycle before exercise
1 = moderate exercise
2 = heavy exercise
3 = recovery 2 min
4 = recovery 3 min
5 = recovery 4 min
6 = recovery 6 min
7 = recovery 8 min

Exercise Level	Mean BP	Std Error	N
.00	95.5	.934	220
1.00	108.7	1.08	218
2.00	114.6	1.21	217
3.00	99.5	.984	220
4.00	96.9	.884	220
5.00	95.5	.956	220
6.00	95.4	.871	220
7.00	94.0	.899	218

Blood pressure at Exercise Level 1 is statistically significantly different from all other levels

Blood pressure at Exercise Level 2 is statistically significantly different from all other levels.

Blood pressure at Exercise Level 3 is statistically significantly from Level 7.

All other differences are NOT statistically significant.

B. Effects of Gender on Blood Pressure during Exercise Ignoring Body Weight
Before analyzing these data, I statistically removed the effects of AGE, CONDITION and LAB so that those variables are not confounding the results presented below. (NOTE: GENDER = 0 = FEMALE; GENDER = 1 = MALE).

Sitting on the cycle prior to exercise:

GENDER	Mean	Std. Error of Mean	N
.00	99.9	1.031	165
1.00	100.1	1.940	55

Difference is NOT statistically significant

After 2 min moderate exercise:

GENDER	Mean	Std. Error of Mean	N
.00	98.3	1.171	164
1.00	105.1	2.365	54

Difference IS statistically significant

After 2 min heavy exercise:

GENDER	Mean	Std. Error of Mean	N
.00	98.6	1.361	164
1.00	104.3	2.379	53

Difference IS statistically significant

C. Effects of Gender on Blood Pressure during Exercise with WEIGHT statistically removed.

Before analyzing these data, I did a preanalysis in which I statistically removed the effects of WEIGHT, AGE, CONDITION and LAB so that those variables are not confounding the results presented below. WEIGHT had a highly statistically significant effect on BP for each exercise level in the preanalysis (increased weight = increased BP). (NOTE: GENDER = 0 = FEMALE; GENDER = 1 = MALE).

Sitting on the cycle prior to exercise:

GENDER	Mean	Std. Error of Mean	N
.00	100.5	1.023	165
1.00	98.3	1.906	55

Difference is NOT statistically significant

After 2 min moderate exercise:

GENDER	Mean	Std. Error of Mean	N
.00	99.5	1.149	164
1.00	101.3	2.309	54

Difference is NOT statistically significant

After 2 min heavy exercise:

GENDER	Mean	Std. Error of Mean	N
.00	99.8	1.332	164
1.00	100.5	2.352	53

Difference is NOT statistically significant

D. Effects of TA on Blood Pressure during Exercise

Before analyzing these data, I statistically removed the effects of WEIGHT, AGE, GENDER, and CONDITION so that those variables are not confounding the results presented below. TA 1 = Kirt, 2 = Sarah, 3 = Kristen, 4 = Matt, 5 = Scott.

Sitting on the cycle prior to exercise:

TA	Mean	Std. Error of Mean	N
1.00	97.7	2.088	41
2.00	101.6	2.014	42
3.00	102.0	3.084	29
4.00	96.7	1.168	59
5.00	103.1	2.382	49

Differences are NOT statistically significant

After 2 min moderate exercise:

TA	Mean	Std. Error of Mean	N
1.00	96.3	2.222	40
2.00	98.6	1.775	42
3.00	99.9	1.724	29
4.00	100.0	2.485	59
5.00	104.4	2.722	48

Differences are NOT statistically significant

After 2 min heavy exercise:

TA	Mean	Std. Error of Mean	N
1.00	95.9	3.391	40
2.00	98.7	2.672	42
3.00	99.9	2.238	28
4.00	96.8	1.960	59
5.00	108.6	3.122	48

Differences ARE statistically significant; TA 5 is significantly higher than TAs 1 and 4.