

DIET AND LONGEVITY STUDY

5. Describing the Lifetimes

SPSS produces the following tables of descriptive statistics for the lifetimes of mice in the six treatment groups.

MEASURES OF	STATISTICS	DIET		
		NP	N/N85	LOPRO
CENTER	MEAN	27.4020	32.6912	39.6857
	MEDIAN	28.9000	33.1000	41.0500
	5% TRIM MEAN	27.9883	33.0096	39.9877
	95% CI FOR MEAN	(25.640, 29.164)	(31.331, 34.052)	(37.813, 41.558)
SPREAD	STANDARD DEV.	6.1337	5.1253	6.9917
	STD ERROR	0.8762	0.6789	0.9343
	VARIANCE	37.6223	26.2687	48.8838
	IQR	6.6500	5.2500	11.7500
	MINIMUM	6.4000	17.9000	23.4000
	MAXIMUM	35.5000	42.3000	49.7000
	RANGE	29.1000	24.4000	26.3000
SHAPE	SKEWNESS	-1.5499	-1.0961	-0.4638
	ST. ERROR SKEW	0.3398	0.3163	0.3190
	KURTOSIS	3.0443	1.4194	-0.7289
	ST. ERROR KURT	0.6681	0.6231	0.6283
COUNT		49	57	56

MEASURES OF	STATISTICS	DIET		
		N/R50	R/R50	N/R40
CENTER	MEAN	42.2972	42.8857	45.1167
	MEDIAN	43.9000	43.9500	46.0500
	5% TRIM MEAN	42.8568	43.4008	45.6407
	95% CI FOR MEAN	(40.458, 44.136)	(41.096, 44.676)	(43.385, 46.849)
SPREAD	STANDARD DEV.	7.7682	6.6832	6.7034
	STD ERROR	0.9219	0.8931	0.8654
	VARIANCE	60.3448	44.6645	44.9356
	IQR	10.6000	9.4000	8.2250
	MINIMUM	18.6000	24.2000	19.6000
	MAXIMUM	51.9000	50.7000	54.6000
	RANGE	33.3000	26.5000	35.0000
SHAPE	SKEWNESS	-1.0243	-0.9509	-1.2367
	ST. ERROR SKEW	0.2848	0.3190	0.3087
	KURTOSIS	0.4624	0.3965	2.5549
	ST. ERROR KURT	0.5625	0.6283	0.6085
COUNT		71	56	60

Mean life span was shortest for NP mice (~27 months), longer for N/N85 mice (~33 months), even longer for N/R50 lopro mice (~40 months) and longest for the three other restricted groups (42-43 for N/R50 and R/R50, ~45 for N/R40). The longest-lived individual mouse was from group N/R40 and lived 54.6 months.

It looks that appropriate dietary restriction of mice can increase mean and maximum life span. We can conclude that as the severity of dietary restriction increased, so did longevity. By comparing the descriptive statistics for N/R50 and R/R50 we conclude that food intake limited prior to weaning did not further increase longevity for mice subjected to postweaning dietary restrictions.

The groups N/R50 and N/R50 lopro differ in the protein content levels after weaning. Comparing the means for the two groups indicates that mice restricted in both calorie and protein intake exhibited shorter mean life span than did mice fed the same number of calories of a high protein diet.