

The effect of gender on the development of anti-anthrax post-vaccination immunity and the duration of circulation of IgG to LF.

Statistical analysis was performed using a Two-way ANOVA with Tukey's multiple comparison (determination of significance and confidence intervals). The histograms show the mean and the confidence interval as an interval estimate of the general frame.

	Months after Vaccination				Nonvaccinated
	1-3	4-8	9-11	>12	
Titers in the group of men	200	100	200	0	50
	800	100	800	0	200
	100	200	100	0	50
	200	25	0	0	50
	800	25	100	25	100
	800	100	25	50	50
	400	25	200	25	0
	50	100	100	25	0
	400	25			0
	400	400			0
Titers in the group of women	400	1600	0	0	25
	400	400	400	0	25
	800	800	400	200	200
	800	400	200	0	0
	100	800	100	200	25
	400	25	0	50	0
		25	25	0	0
		100		0	100
		400		25	200
					100
					0

Two-Way ANOVA						
Table Analyzed	Gender vs. LF titers					
	Ordinary					
Alpha	0,05					
Source of Variation	% of total variation	P value	P value summary	Significant?		
Interaction	7,83	0,0449	*	Yes		
Row Factor	29,97	< 0,0001	****	Yes		
Column Factor	2,888	0,0555	ns	No		
ANOVA table	SS	DF	MS	F (DFn, DFd)	P value	
Interaction	538226	4	134557	F (4, 78) = 2,562	P = 0,0449	
Row Factor	2060000	4	515072	F (4, 78) = 9,807	P < 0,0001	
Column Factor	198525	1	198525	F (1, 78) = 3,780	P = 0,0555	
Residual	4097000	78	52522			
Number of missing values	22					

ANOVA Multiple Comparison								
Number of families	1							
Number of comparisons per family	10							
Alpha	0,05							
Tukey's multiple comparisons test	Mean Diff,	95% CI of diff,	Significant?	Summary				
<i>Men</i>								
1-3 vs. 4-8	305	18,78 to 591,2	Yes	*				
1-3 vs. 9-12	224,4	-79,21 to 528,0	No	ns				
1-3 vs. >12	399,4	95,79 to 703,0	Yes	**				
1-3 vs. Nonvaccinated	365	78,78 to 651,2	Yes	**				
4-8 vs. 9-12	-80,63	-384,2 to 223,0	No	ns				
4-8 vs. >12	94,38	-209,2 to 398,0	No	ns				
4-8 vs. Nonvaccinated	60	-226,2 to 346,2	No	ns				
9-12 vs. >12	175	-145,0 to 495,0	No	ns				
9-12 vs. Nonvaccinated	140,6	-163,0 to 444,2	No	ns				
>12 vs. Nonvaccinated	-34,38	-338,0 to 269,2	No	ns				
<i>Women</i>								
1-3 vs. 4-8	-22,22	-359,5 to 315,1	No	ns				
1-3 vs. 9-12	322,6	-33,45 to 678,7	No	ns				
1-3 vs. >12	430,6	93,24 to 767,9	Yes	**				
1-3 vs. Nonvaccinated	422	97,16 to 746,8	Yes	**				
4-8 vs. 9-12	344,8	22,31 to 667,4	Yes	*				
4-8 vs. >12	452,8	151,1 to 754,5	Yes	***				
4-8 vs. Nonvaccinated	444,2	156,5 to 731,9	Yes	***				
9-12 vs. >12	107,9	-214,6 to 430,5	No	ns				
9-12 vs. Nonvaccinated	99,35	-210,1 to 408,8	No	ns				
>12 vs. Nonvaccinated	-8,586	-296,2 to 279,1	No	ns				
Test details	Mean 1	Mean 2	Mean Diff,	SE of diff,	N1	N2	q	DF
<i>Men</i>								
1-3 vs. 4-8	415	110	305	102,5	10	10	4,209	78
1-3 vs. 9-11	415	190,6	224,4	108,7	10	8	2,919	78
1-3 vs. >12	415	15,63	399,4	108,7	10	8	5,196	78
1-3 vs. Nonvaccinated	415	50	365	102,5	10	10	5,036	78
4-8 vs. 9-11	110	190,6	-80,63	108,7	10	8	1,049	78
4-8 vs. >12	110	15,63	94,38	108,7	10	8	1,228	78
4-8 vs. Nonvaccinated	110	50	60	102,5	10	10	0,8279	78
9-11 vs. >12	190,6	15,63	175	114,6	8	8	2,16	78

9-11 vs. Nonvaccinated	190,6	50	140,6	108,7	8	10	1,829	78
>12 vs. Nonvaccinated	15,63	50	-34,38	108,7	8	10	0,4472	78
<i>Women</i>								
1-3 vs. 4-8	483,3	505,6	-22,22	120,8	6	9	0,2602	78
1-3 vs. 9-11	483,3	160,7	322,6	127,5	6	7	3,578	78
1-3 vs. >12	483,3	52,78	430,6	120,8	6	9	5,041	78
1-3 vs. Nonvaccinated	483,3	61,36	422	116,3	6	11	5,131	78
4-8 vs. 9-11	505,6	160,7	344,8	115,5	9	7	4,223	78
4-8 vs. >12	505,6	52,78	452,8	108	9	9	5,927	78
4-8 vs. Nonvaccinated	505,6	61,36	444,2	103	9	11	6,098	78
9-11 vs. >12	160,7	52,78	107,9	115,5	7	9	1,322	78
9-11 vs. Nonvaccinated	160,7	61,36	99,35	110,8	7	11	1,268	78
>12 vs. Nonvaccinated	52,78	61,36	-8,586	103	9	11	0,1179	78

