

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

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	200	400	100	200
	1600	400	800	200	0
	400	400	400	400	50
	800	800	0	200	100
	1600	100	25	200	800
	800	100	100	400	400
	800	50	200	200	50
	400	400	400	0	50
	400	200			60
	3200	400			25
Titers in the group of women	200	1600	0	200	100
	1600	800	200	200	0
	3200	1600	100	1600	200
	1600	3200	200	200	50
	800	200	200	800	0
	1600	200	50	400	0
		400	100	0	100
		200		200	25
		800		0	0
					100
					0

Two-Way ANOVA						
Table Analyzed	Gender vs. Spores titers					
	Ordinary					
Alpha	0,05					
Source of Variation	% of total variation	P value	P value summary	Significant?		
Interaction	6,108	0,1011	ns	No		
Row Factor	34,61	< 0,0001	****	Yes		
Column Factor	2,401	0,0792	ns	No		
ANOVA table	SS	DF	MS	F (DFn, DFd)	P value	
Interaction	2,498e+006	4	624388	F (4, 78) = 2,011	P = 0,1011	
Row Factor	1,415e+007	4	3,538e+006	F (4, 78) = 11,40	P < 0,0001	
Column Factor	981953	1	981953	F (1, 78) = 3,163	P = 0,0792	
Residual	2,422e+007	78	310479			
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	715,0	19,11 to 1411	Yes	*				
1-3 vs. 9-12	729,4	-8,730 to 1467	No	ns				
1-3 vs. >12	807,5	69,39 to 1546	Yes	*				
1-3 vs. Nonvaccinated	847,5	151,6 to 1543	Yes	**				
4-8 vs. 9-12	14,38	-723,7 to 752,5	No	ns				
4-8 vs. >12	92,50	-645,6 to 830,6	No	ns				
4-8 vs. Nonvaccinated	132,5	-563,4 to 828,4	No	ns				
9-12 vs. >12	78,13	-699,9 to 856,2	No	ns				
9-12 vs. Nonvaccinated	118,1	-620,0 to 856,2	No	ns				
>12 vs. Nonvaccinated	40,00	-698,1 to 778,1	No	ns				
<i>Woman</i>								
1-3 vs. 4-8	500,0	-320,1 to 1320	No	ns				
1-3 vs. 9-12	1379	512,9 to 2244	Yes	***				
1-3 vs. >12	1100	279,9 to 1920	Yes	**				
1-3 vs. Nonvaccinated	1448	658,0 to 2237	Yes	****				
4-8 vs. 9-12	878,6	94,39 to 1663	Yes	*				
4-8 vs. >12	600,0	-133,5 to 1334	No	ns				
4-8 vs. Nonvaccinated	947,7	248,3 to 1647	Yes	**				
9-12 vs. >12	-278,6	-1063 to 505,6	No	ns				
9-12 vs. Nonvaccinated	69,16	-683,2 to 821,5	No	ns				
>12 vs. Nonvaccinated	347,7	-351,7 to 1047	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	1020	305,0	715,0	249,2	10	10	4,058	78
1-3 vs. 9-11	1020	290,6	729,4	264,3	10	8	3,903	78
1-3 vs. >12	1020	212,5	807,5	264,3	10	8	4,321	78
1-3 vs. Nonvaccinated	1020	172,5	847,5	249,2	10	10	4,810	78
4-8 vs. 9-11	305,0	290,6	14,38	264,3	10	8	0,07692	78
4-8 vs. >12	305,0	212,5	92,50	264,3	10	8	0,4949	78
4-8 vs. Nonvaccinated	305,0	172,5	132,5	249,2	10	10	0,7520	78
9-11 vs. >12	290,6	212,5	78,13	278,6	8	8	0,3966	78

9-11 vs. Nonvaccinated	290,6	172,5	118,1	264,3	8	10	0,6320	78
>12 vs. Nonvaccinated	212,5	172,5	40,00	264,3	8	10	0,2140	78
<i>Woman</i>								
1-3 vs. 4-8	1500	1000	500,0	293,7	6	9	2,408	78
1-3 vs. 9-11	1500	121,4	1379	310,0	6	7	6,289	78
1-3 vs. >12	1500	400,0	1100	293,7	6	9	5,297	78
1-3 vs. Nonvaccinated	1500	52,27	1448	282,8	6	11	7,240	78
4-8 vs. 9-11	1000	121,4	878,6	280,8	9	7	4,425	78
4-8 vs. >12	1000	400,0	600,0	262,7	9	9	3,230	78
4-8 vs. Nonvaccinated	1000	52,27	947,7	250,4	9	11	5,352	78
9-11 vs. >12	121,4	400,0	-278,6	280,8	7	9	1,403	78
9-11 vs. Nonvaccinated	121,4	52,27	69,16	269,4	7	11	0,3630	78
>12 vs. Nonvaccinated	400,0	52,27	347,7	250,4	9	11	1,964	78

