

The effect of gender on the development of anti-anthrax post-vaccination immunity and TNA.

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	
TNA in the group of men Viability, %	32	21	26	40	23
	41	27	79	31	12
	49	66	44	12	17
	51	20	14	48	14
	73	35	51	21	21
	70	37	41	5	12
	30	34	42	30	10
	23	19	57	26	16
	44	33			9
	54	43			17
TNA in the group of women Viability, %	39	39	12	28	14
	60	40	39	29	8
	51	45	40	25	12
	44	42	37	26	9
	28	30	17	58	7
	37	23	37	26	14
		53	29	14	7
		17		43	12
		51		70	12
					11
					9

Two-Way ANOVA						
Table Analyzed	Gender vs. TNA					
	Ordinary					
Alpha	0,05					
Source of Variation	% of total variation	P value	P value summary	Significant?		
Interaction	4,649	0,1461	ns	No		
Row Factor	41,52	< 0,0001	****	Yes		
Column Factor	0,2352	0,5528	ns	No		
ANOVA table	SS	DF	MS	F (DFn, DFd)	P value	
Interaction	1224	4	306,0	F (4, 78) = 1,757	P = 0,1461	
Row Factor	10931	4	2733	F (4, 78) = 15,69	P < 0,0001	
Column Factor	61,91	1	61,91	F (1, 78) = 0,3554	P = 0,5528	
Residual	13588	78	174,2			
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	13,12	-3,359 to 29,61	No	ns				
1-3 vs. 9-12	2,533	-14,95 to 20,02	No	ns				
1-3 vs. >12	20,04	2,555 to 37,52	Yes	*				
1-3 vs. Nonvaccinated	31,67	15,19 to 48,16	Yes	****				
4-8 vs. 9-12	-10,59	-28,07 to 6,892	No	ns				
4-8 vs. >12	6,914	-10,57 to 24,40	No	ns				
4-8 vs. Nonvaccinated	18,55	2,065 to 35,03	Yes	*				
9-12 vs. >12	17,51	-0,9238 to 35,93	No	ns				
9-12 vs. Nonvaccinated	29,14	11,66 to 46,62	Yes	***				
>12 vs. Nonvaccinated	11,63	-5,849 to 29,12	No	ns				
<i>Woman</i>								
1-3 vs. 4-8	5,540	-13,89 to 24,97	No	ns				
1-3 vs. 9-12	12,95	-7,560 to 33,45	No	ns				
1-3 vs. >12	7,931	-11,49 to 27,36	No	ns				
1-3 vs. Nonvaccinated	32,87	14,16 to 51,57	Yes	****				
4-8 vs. 9-12	7,406	-11,17 to 25,98	No	ns				
4-8 vs. >12	2,391	-14,98 to 19,77	No	ns				
4-8 vs. Nonvaccinated	27,33	10,76 to 43,89	Yes	***				
9-12 vs. >12	-5,015	-23,59 to 13,56	No	ns				
9-12 vs. Nonvaccinated	19,92	2,101 to 37,74	Yes	*				
>12 vs. Nonvaccinated	24,94	8,370 to 41,50	Yes	***				
Test details	Mean 1	Mean 2	Mean Diff,	SE of diff,	N1	N2	q	DF
<i>Men</i>								
1-3 vs. 4-8	46,60	33,47	13,12	5,903	10	10	3,145	78
1-3 vs. 9-11	46,60	44,06	2,533	6,261	10	8	0,5723	78
1-3 vs. >12	46,60	26,56	20,04	6,261	10	8	4,527	78
1-3 vs. Nonvaccinated	46,60	14,92	31,67	5,903	10	10	7,589	78
4-8 vs. 9-11	33,47	44,06	-10,59	6,261	10	8	2,392	78
4-8 vs. >12	33,47	26,56	6,914	6,261	10	8	1,562	78
4-8 vs. Nonvaccinated	33,47	14,92	18,55	5,903	10	10	4,444	78
9-11 vs. >12	44,06	26,56	17,51	6,599	8	8	3,751	78

9-11 vs. Nonvaccinated	44,06	14,92	29,14	6,261	8	10	6,583	78
>12 vs. Nonvaccinated	26,56	14,92	11,63	6,261	8	10	2,628	78
<i>Woman</i>								
1-3 vs. 4-8	43,28	37,74	5,540	6,956	6	9	1,126	78
1-3 vs. 9-11	43,28	30,33	12,95	7,343	6	7	2,493	78
1-3 vs. >12	43,28	35,34	7,931	6,956	6	9	1,612	78
1-3 vs. Nonvaccinated	43,28	10,41	32,87	6,698	6	11	6,939	78
4-8 vs. 9-11	37,74	30,33	7,406	6,651	9	7	1,575	78
4-8 vs. >12	37,74	35,34	2,391	6,222	9	9	0,5435	78
4-8 vs. Nonvaccinated	37,74	10,41	27,33	5,932	9	11	6,515	78
9-11 vs. >12	30,33	35,34	-5,015	6,651	7	9	1,066	78
9-11 vs. Nonvaccinated	30,33	10,41	19,92	6,381	7	11	4,415	78
>12 vs. Nonvaccinated	35,34	10,41	24,94	5,932	9	11	5,945	78

