

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Radial Pulses	12	-- --	-- --	-- --	--
Femoral Pulses	12	2.43 (0.69,8.57)** 0.169**	3.48 (0.91,13.38)** 0.070**	4.52 (1.00,20.31)** 0.049**	0.141**
Popliteal Pulses	12	0.98 (0.37,2.62) 0.973	2.07 (0.80,5.35) 0.133	1.49 (0.41,5.45) 0.548	0.490
Dorsalis Pedis Pulses	12	1.17 (0.74,1.86) 0.500	1.62 (0.97,2.70) 0.066	1.72 (0.98,3.04) 0.061	0.146
Dorsalis Pedis Pulses ^d	12	1.17 (0.74,1.86) 0.498	1.65 (0.99,2.75) 0.056	1.86 (1.07,3.26) 0.029	0.087
Posterior Tibial Pulses	12	0.38 (0.11,1.34) 0.131	4.46 (2.02,9.82) <0.001	1.12 (0.25,5.14) 0.880	<0.001
Leg Pulses	12	1.06 (0.69,1.62) 0.798	1.92 (1.22,3.03) 0.005	1.71 (1.01,2.91) 0.047	0.020
Peripheral Pulses	12	1.01 (0.66,1.55) 0.963	1.87 (1.18,2.94) 0.007	1.76 (1.05,2.97) 0.033	0.017
All Pulses	12	1.03 (0.67,1.56) 0.904	1.84 (1.17,2.90) 0.008	1.75 (1.04,2.95) 0.035	0.021
Red Blood Cell Count	13	0.99 (0.49,1.99) 0.977	0.57 (0.20,1.66) 0.303	1.26 (0.50,3.16) 0.617	0.641

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Hematocrit	13	0.75 (0.27,2.06) 0.571	1.27 (0.46,3.53) 0.649	0.62 (0.14,2.76) 0.531	0.774
Mean Corpuscular Volume	13	0.77 (0.49,1.22) 0.267	1.77 (1.11,2.82) 0.017	1.12 (0.63,1.97) 0.702	0.034
Mean Corpuscular Hemoglobin	13	0.97 (0.59,1.62) 0.918	1.38 (0.78,2.45) 0.267	1.28 (0.68,2.40) 0.451	0.628
Platelet Count	13	2.04 (0.78,5.34) 0.145	2.26 (0.75,6.83) 0.147	2.85 (1.00,8.11) 0.050	0.181
Prothrombin Time	13	**** ****	**** ****	**** ****	****
Kidney Disease	14	1.10 (0.72,1.70) 0.660	0.91 (0.52,1.61) 0.748	1.23 (0.72,2.12) 0.450	0.820
Urinary Protein	14	0.87 (0.46,1.63) 0.654	0.80 (0.37,1.76) 0.585	0.88 (0.39,1.96) 0.748	0.930
Urinary Occult Blood	14	0.92 (0.56,1.50)** 0.738**	1.43 (0.84,2.41)** 0.184**	1.14 (0.64,2.03)** 0.659**	0.521**
Urinary White Blood Cell Count	14	0.83 (0.48,1.44) 0.506	1.04 (0.56,1.97) 0.893	1.30 (0.71,2.38) 0.387	0.668
Current Thyroid Function	15	1.15 (0.61,2.16) 0.670	0.93 (0.40,2.16) 0.872	0.85 (0.35,2.09) 0.724	0.931

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
History of Thyroid Disease	15	1.11 (0.63,1.95) 0.725	0.61 (0.26,1.47) 0.271	0.81 (0.35,1.87) 0.627	0.583
Thyroid Gland	15	0.93 (0.70,1.24) 0.620	1.12 (0.80,1.58) 0.506	0.81 (0.56,1.18) 0.276	0.530
Testes	15	0.75 (0.33,1.69) 0.486	0.76 (0.25,2.29) 0.627	3.80 (1.67,8.63) 0.001	0.010
T ₃ % Uptake	15	1.14 (0.60,2.14)** 0.693**	0.93 (0.40,2.15)** 0.863**	0.45 (0.13,1.49)** 0.188**	0.451**
TSH	15	1.45 (0.62,3.40) 0.387	0.86 (0.24,3.02) 0.810	2.15 (0.80,5.79) 0.130	0.430
Testosterone	15	0.72 (0.20,2.58)** 0.610**	0.89 (0.24,3.21)** 0.854**	1.30 (0.39,4.31)** 0.667**	0.899**
Fasting Glucose	15	0.66 (0.42,1.05) 0.081	1.18 (0.72,1.94) 0.510	2.95 (1.87,4.66) <0.001	<0.001
Composite Diabetes Indicator	15	0.82 (0.48,1.43)** 0.491**	1.01 (0.56,1.82)** 0.986**	2.51 (1.51,4.16)** <0.001**	0.003**
Composite Skin Test Diagnosis	16	1.52 (0.83,2.78) 0.176	1.81 (0.89,3.67) 0.099	1.33 (0.56,3.15) 0.519	0.332
Asthma	17	2.42 (1.07,5.47) 0.033	1.33 (0.43,4.18) 0.621	1.57 (0.54,4.58) 0.406	0.213

TABLE Q-15. (Continued)

Summary of Adjusted Results for Dichotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
Bronchitis	17	1.25 (0.87,1.80)** 0.227**	1.02 (0.64,1.63)** 0.927**	0.87 (0.52,1.44)** 0.579**	0.533**
Pleurisy	17	0.80 (0.39,1.61) 0.527	0.39 (0.12,1.30) 0.126	1.47 (0.67,3.20) 0.332	0.183
Pneumonia	17	0.86 (0.54,1.38) 0.542	0.81 (0.44,1.47) 0.486	0.78 (0.42,1.45) 0.433	0.782
Tuberculosis	17	1.09 (0.54,2.20) 0.801	0.64 (0.22,1.85) 0.408	0.50 (0.15,1.67) 0.260	0.486
Thorax and Lung Abnormalities	17	0.92 (0.52,1.62) 0.771	1.60 (0.87,2.94) 0.130	1.98 (1.04,3.78) 0.037	0.096
Hyperresonance	17	0.92 (0.44,1.95) 0.834	0.98 (0.39,2.48) 0.971	2.11 (0.90,4.97) 0.086	0.378
Dullness	17	-- --	-- --	-- --	--

^aAnalysis performed for model including occupation.

^bAnalysis performed for model excluding percent body fat and cholesterol.

^cAnalysis performed for model excluding percent body fat.

^dAnalysis performed for model excluding cholesterol.

**Categorized current dioxin-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction.

****Categorized current dioxin-by-covariate interaction ($p \leq 0.01$); adjusted relative risk, confidence interval, and p-value not presented.

Note: Background (Comparisons): Current Dioxin ≤ 10 ppt.

Unknown (Ranch Hands): Current Dioxin ≤ 10 ppt.

Low (Ranch Hands): 15 ppt < Current Dioxin ≤ 33.3 ppt.

High (Ranch Hands): Current Dioxin >33.3 ppt.

TABLE Q-16.

**Summary of Adjusted Results for Polychotomous Variables
Model 1: Ranch Hands - Initial Dioxin (Categorized)**

Clinical Parameter	Reference Chapter	Minimal Assumption			Maximal Assumption		
		Initial Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value	Initial Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value
White Blood Cell Count	13	Overall [†]		0.467	Overall [†]		0.295
		M vs. L ^a	0.76 (0.28,2.04)	0.588	M vs. L ^a	0.64 (0.29,1.40)	0.264
		H vs. L ^a	0.97 (0.33,2.89)	0.957	H vs. L ^a	0.97 (0.40,2.33)	0.941
		M vs. L ^b	0.70 (0.26,1.94)	0.497	M vs. L ^b	0.87 (0.40,1.88)	0.725
		H vs. L ^b	0.29 (0.06,1.28)	0.101	H vs. L ^b	0.31 (0.08,1.26)	0.101
Hemoglobin	13	Overall [†]		0.694	Overall [†]		0.896
		M vs. L ^a	1.02 (0.35,3.02)	0.968	M vs. L ^a	0.99 (0.44,2.22)	0.983
		H vs. L ^a	0.80 (0.22,2.98)	0.743	H vs. L ^a	0.93 (0.32,2.74)	0.900
		M vs. L ^b	--	--	M vs. L ^b	2.09 (0.46,9.47)	0.341
		H vs. L ^b	--	--	H vs. L ^b	2.04 (0.29,14.15)	0.472
FSH	15	Overall [†]		0.481	Overall [†]		0.982
		M vs. L ^a	--	--	M vs. L ^a	0.98 (0.30,3.22)	0.978
		H vs. L ^a	--	--	H vs. L ^a	0.91 (0.23,3.67)	0.898
		M vs. L ^b	0.83 (0.45,1.53)	0.550	M vs. L ^b	0.95 (0.58,1.54)	0.824
		H vs. L ^b	0.69 (0.32,1.49)	0.348	H vs. L ^b	0.81 (0.41,1.59)	0.536
2-Hour Postprandial Glucose	15	Overall [†]		0.229	Overall [†]		0.237
		M vs. L ^c	1.17 (0.65,2.10)	0.609	M vs. L ^c	1.39 (0.87,2.19)	0.164
		H vs. L ^c	0.93 (0.45,1.93)	0.319	H vs. L ^c	1.15 (0.61,2.15)	0.671
		M vs. L ^d	2.57 (0.40,16.44)	0.845	M vs. L ^d	1.28 (0.43,3.81)	0.657
		H vs. L ^d	5.95 (0.91,38.81)	0.062	H vs. L ^d	2.98 (0.97,9.14)	0.057
2-Hour Postprandial Glucose ^e	15	Overall [†]		0.147	Overall [†]		0.091
		M vs. L ^c	1.19 (0.67,2.14)	0.554	M vs. L ^c	1.45 (0.92,2.29)	0.107
		H vs. L ^c	1.05 (0.51,2.16)	0.894	H vs. L ^c	1.31 (0.70,2.43)	0.396
		M vs. L ^d	2.97 (0.41,21.43)	0.279	M vs. L ^d	1.40 (0.47,4.20)	0.543
		H vs. L ^d	7.99 (1.10,57.96)	0.040	H vs. L ^d	3.85 (1.28,11.57)	0.016
Loss of Vital Capacity	17	Overall [†]		0.052	Overall [†]		0.011
		M vs. L ^f	1.66 (0.76,3.62)	0.201	M vs. L ^f	1.83 (1.02,3.28)	0.043
		H vs. L ^f	2.28 (0.95,5.50)	0.067	H vs. L ^f	2.60 (1.29,5.25)	0.008
		M vs. L ^g	0.18 (0.03,1.20)	0.076	M vs. L ^g	0.33 (0.07,1.50)	0.150
		H vs. L ^g	1.34 (0.31,5.87)	0.699	H vs. L ^g	2.03 (0.59,7.00)	0.264

TABLE Q-16. (Continued)

**Summary of Adjusted Results for Polychotomous Variables
Model 1: Ranch Hands - Initial Dioxin (Categorized)**

Clinical Parameter	Reference Chapter	Minimal Assumption			Maximal Assumption		
		Initial Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value	Initial Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value
Obstructive Abnormality	17	Overall [†]		0.158	Overall [†]		0.212
		M vs. L ^f	0.94 (0.57,1.56)	0.804	M vs. L ^f	0.87 (0.59,1.30)	0.503
		H vs. L ^f	0.57 (0.30,1.10)	0.092	H vs. L ^f	0.54 (0.31,0.96)	0.035
		M vs. L ^g	2.38 (0.70,8.10)	0.167	M vs. L ^g	1.32 (0.62,2.83)	0.473
		H vs. L ^g	0.94 (0.17,5.17)	0.944	H vs. L ^g	0.68 (0.19,2.41)	0.549

^aAbnormal low contrasted with normal.

^bAbnormal high contrasted with normal.

^cImpaired contrasted with normal.

^dDiabetic contrasted with normal.

^eAnalysis performed for model excluding percent body fat.

^fMild contrasted with none.

^gModerate/severe contrasted with none.

[†]Overall test of independence of initial dioxin and clinical parameter.

--: Relative risk, confidence interval, and p-value not given due to the sparse number of abnormalities.

Note: Minimal--Low: 52-93 ppt; Medium: >93-292 ppt; High: >292 ppt.

Maximal--Low: 25-93 ppt; Medium: >93-292 ppt; High: >292 ppt.

M vs. L: Medium initial dioxin category versus low initial dioxin category.

H vs. L: High initial dioxin category versus low initial dioxin category.

TABLE Q-17.

**Summary of Adjusted Results for Polychotomous Variables
Model 2: Ranch Hands - Current Dioxin (Categorized) and Time**

Clinical Parameter	Reference Chapter	Time (Yrs.)	Minimal Assumption			Time (Yrs.)	Maximal Assumption		
			Current Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value		Current Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value
White Blood Cell Count	13	≤18.6	C-by-T*		0.184	≤18.6	C-by-T*		0.529
			Overall†		0.538		Overall†		0.676
			M vs. L ^a	1.16 (0.30,4.47)	0.830		M vs. L ^a	0.84 (0.31,2.31)	0.737
			H vs. L ^a	2.36 (0.56,9.95)	0.241		H vs. L ^a	2.09 (0.70,6.20)	0.184
			M vs. L ^b	2.04 (0.36,11.60)	0.421		M vs. L ^b	0.97 (0.34,2.77)	0.954
			H vs. L ^b	1.15 (0.13,10.48)	0.900		H vs. L ^a	0.43 (0.07,2.75)	0.375
		>18.6	Overall†		0.172	>18.6	Overall†		0.427
			M vs. L ^a	0.36 (0.09,1.43)	0.147		M vs. L ^a	0.46 (0.14,1.52)	0.201
			H vs. L ^a	0.31 (0.06,1.54)	0.151		H vs. L ^a	0.42 (0.10,1.85)	0.251
			M vs. L ^b	0.41 (0.12,1.36)	0.145		M vs. L ^b	0.92 (0.31,2.71)	0.880
			H vs. L ^b	0.20 (0.03,1.18)	0.076		H vs. L ^b	0.34 (0.05,2.19)	0.259
Hemoglobin	13	≤18.6	C-by-T*		0.334	≤18.6	C-by-T*		0.043
			Overall†		0.446		Overall†		0.116
			M vs. L ^a	--	--		M vs. L ^a	--	--
			H vs. L ^a	0.91 (0.16,5.20)	0.912		H vs. L ^a	0.72 (0.16,3.35)	0.679
			M vs. L ^b	--	--		M vs. L ^b	--	--
			H vs. L ^b	--	--		H vs. L ^a	--	--
		>18.6	Overall†		0.748	>18.6	Overall†		0.411
			M vs. L ^a	2.21 (0.53,9.17)	0.274		M vs. L ^a	2.79 (0.90,8.69)	0.076
			H vs. L ^a	1.93 (0.41,9.14)	0.410		H vs. L ^a	2.23 (0.61,8.14)	0.226
			M vs. L ^b	--	--		M vs. L ^b	1.14 (0.22,5.79)	0.877
			H vs. L ^b	--	--		H vs. L ^b	1.79 (0.30,10.78)	0.524

TABLE Q-17. (Continued)

**Summary of Adjusted Results for Polychotomous Variables
Model 2: Ranch Hands - Current Dioxin (Categorized) and Time**

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		Time (Yrs.)	Current Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value	Time (Yrs.)	Current Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value
FSH	15	≤18.6	C-by-T*		0.710	≤18.6	C-by-T*		0.047
			Overall†		0.583		Overall†		0.773
			M vs. L ^a	--	--		M vs. L ^a	0.97 (0.22,4.29)	0.973
			H vs. L ^a	--	--		H vs. L ^a	1.21 (0.23,6.54)	0.821
			M vs. L ^b	0.73 (0.30,1.78)	0.487		M vs. L ^b	0.61 (0.30,1.23)	0.167
			H vs. L ^b	0.52 (0.14,1.96)	0.332		H vs. L ^a	0.45 (0.13,1.49)	0.190
		>18.6	Overall†		0.768	>18.6	Overall†		0.176
			M vs. L ^a	--	--		M vs. L ^a	0.95 (0.14,6.41)	0.957
			H vs. L ^a	--	--		H vs. L ^a	0.67 (0.07,6.62)	0.733
			M vs. L ^b	1.61 (0.65,4.02)	0.303		M vs. L ^b	2.43 (1.16,5.06)	0.018
			H vs. L ^b	1.37 (0.48,3.90)	0.558		H vs. L ^b	2.10 (0.87,5.09)	0.099
2-Hour Postprandial Glucose	15	≤18.6	C-by-T*		0.358	≤18.6	C-by-T*		0.813
			Overall†		0.177		Overall†		0.102
			M vs. L ^c	1.51 (0.60,3.82)	0.387		M vs. L ^c	1.19 (0.61,2.34)	0.616
			H vs. L ^c	1.22 (0.37,4.02)	0.748		H vs. L ^c	0.99 (0.36,2.70)	0.988
			M vs. L ^d	1.14 (0.16,7.88)	0.895		M vs. L ^d	1.14 (0.23,5.62)	0.870
			H vs. L ^d	5.20 (0.82,32.91)	0.080		H vs. L ^d	5.33 (1.22,23.28)	0.026
		>18.6	Overall†		0.140	>18.6	Overall†		0.518
			M vs. L ^c	0.46 (0.21,0.97)	0.040		M vs. L ^c	0.97 (0.52,1.83)	0.933
			H vs. L ^c	0.53 (0.22,1.27)	0.154		H vs. L ^c	1.17 (0.55,2.49)	0.686
			M vs. L ^d	0.53 (0.08,3.71)	0.525		M vs. L ^d	0.51 (0.11,2.29)	0.381
			H vs. L ^d	1.95 (0.32,12.02)	0.471		H vs. L ^d	1.93 (0.52,7.22)	0.329

TABLE Q-17. (Continued)

**Summary of Adjusted Results for Polychotomous Variables
Model 2: Ranch Hands - Current Dioxin (Categorized) and Time**

Clinical Parameter	Reference Chapter	Minimal Assumption				Maximal Assumption			
		Time (Yrs.)	Current Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value	Time (Yrs.)	Current Dioxin Contrast	Adj. Relative Risk (95% C.I.)	p-Value
Loss of Vital Capacity	17	≤18.6	C-by-T*		0.356	≤18.6	C-by-T*		0.430
			Overall†		0.327		Overall†		0.019
			M vs. L ^e	1.43 (0.44,4.69)	0.555		M vs. L ^e	1.48 (0.61,3.62)	0.389
			H vs. L ^e	3.83 (1.05,13.94)	0.042		H vs. L ^e	4.44 (1.63,12.12)	0.004
			M vs. L ^f	0.46 (0.05,3.94)	0.481		M vs. L ^f	0.69 (0.14,3.52)	0.657
			H vs. L ^f	3.77 (0.52,27.25)	0.189		H vs. L ^f	4.52 (0.98,20.78)	0.052
		>18.6	Overall†		0.836	>18.6	Overall†		0.915
			M vs. L ^e	0.70 (0.29,1.71)	0.438		M vs. L ^e	1.10 (0.52,2.31)	0.811
			H vs. L ^e	0.80 (0.29,2.22)	0.664		H vs. L ^e	1.32 (0.55,3.19)	0.531
			M vs. L ^f	0.39 (0.04,4.35)	0.444		M vs. L ^f	0.63 (0.11,3.80)	0.617
			H vs. L ^f	1.00 (0.09,11.03)	0.999		H vs. L ^f	1.62 (0.27,9.72)	0.599
Obstructive Abnormality	17	≤18.6	C-by-T*		0.803	≤18.6	C-by-T*		0.963
			Overall†		0.417		Overall†		0.683
			M vs. L ^e	0.82 (0.40,1.65)	0.571		M vs. L ^e	0.75 (0.43,1.32)	0.322
			H vs. L ^e	0.65 (0.25,1.69)	0.375		H vs. L ^e	0.65 (0.29,1.49)	0.310
			M vs. L ^f	3.23 (0.49,21.25)	0.222		M vs. L ^f	1.37 (0.47,3.97)	0.564
			H vs. L ^f	2.38 (0.21,27.21)	0.486		H vs. L ^f	1.31 (0.27,6.48)	0.738
		>18.6	Overall†		0.103	>18.6	Overall†		0.513
			M vs. L ^e	0.75 (0.37,1.51)	0.414		M vs. L ^e	0.79 (0.45,1.37)	0.403
			H vs. L ^e	0.50 (0.21,1.19)	0.117		H vs. L ^e	0.57 (0.28,1.17)	0.125
			M vs. L ^f	0.99 (0.25,3.89)	0.990		M vs. L ^f	1.05 (0.38,2.89)	0.921
			H vs. L ^f	0.38 (0.05,2.94)	0.357		H vs. L ^f	0.59 (0.13,2.74)	0.501

TABLE Q-17. (Continued)

Summary of Adjusted Results for Polychotomous Variables
Model 2: Ranch Hands - Current Dioxin (Categorized) and Time

^aAbnormal low contrasted with normal.

^bAbnormal high contrasted with normal.

^cImpaired contrasted with normal.

^dDiabetic contrasted with normal.

^eMild contrasted with none.

^fModerate/severe contrasted with none.

*Test of significance of current dioxin-by-time interaction.

†Overall test of independence of current dioxin and the clinical parameter within time stratum.

--: Adjusted relative risk, confidence interval, and p-value not given due to the sparse number of abnormalities.

Note: Minimal--Low: >10-14.65 ppt; Medium: >14.65-45.75 ppt; High: >45.75 ppt.

Maximal--Low: >5-14.65 ppt; Medium: >14.65-45.75 ppt; High: >45.75 ppt.

M vs. L: Medium current dioxin category versus low current dioxin category.

H vs. L: High current dioxin category versus low current dioxin category.

TABLE Q-18.

**Summary of Adjusted Results for Polychotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category**

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
White Blood Cell Count	13	0.93 (0.56,1.54) ^a	0.58 (0.27,1.22) ^a	0.63 (0.31,1.30) ^a	0.215
		0.780 ^a	0.151 ^a	0.214 ^a	
		0.85 (0.48,1.50) ^b	0.62 (0.29,1.30) ^b	0.44 (0.19,1.05) ^b	
Hemoglobin	13	0.88 (0.45,1.72) ^a	1.11 (0.52,2.35) ^a	0.67 (0.27,1.70) ^a	0.703
		0.716 ^a	0.785 ^a	0.402 ^a	
		0.54 (0.13,2.24) ^b	1.81 (0.57,5.74) ^b	0.57 (0.10,3.42) ^b	
FSH	15	1.20 (0.49,2.96) ^a	1.14 (0.38,3.40) ^a	0.93 (0.31,2.79) ^a	0.826
		0.691 ^a	0.821 ^a	0.895 ^a	
		1.14 (0.77,1.71) ^b	1.38 (0.85,2.22) ^b	1.41 (0.82,2.40) ^b	
2-Hour Postprandial Glucose	15	1.03 (0.71,1.51) ^c	1.10 (0.70,1.73) ^c	1.41 (0.87,2.27) ^c	0.267
		0.872 ^c	0.685 ^c	0.160 ^c	
		0.88 (0.37,2.06) ^d	0.60 (0.19,1.89) ^d	2.35 (1.06,5.19) ^d	
		0.760 ^d	0.386 ^d	0.035 ^d	

TABLE Q-18. (Continued)

Summary of Adjusted Results for Polychotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category

Clinical Parameter	Reference Chapter	Adj. Relative Risk (95% C.I.)/p-Value			Overall p-Value
		Unknown vs. Background	Low vs. Background	High vs. Background	
2-Hour Postprandial Glucose ^e	15	0.96 (0.66,1.40) ^c	1.09 (0.69,1.72) ^c	1.45 (0.90,2.35) ^c	0.092
		0.835 ^c	0.702 ^c	0.126 ^c	
		0.66 (0.27,1.59) ^d	0.51 (0.15,1.81) ^d	2.60 (1.17,5.81) ^d	
Loss of Vital Capacity	17	0.357 ^d	0.299 ^d	0.019 ^d	0.052
		0.67 (0.39,1.14) ^f	1.17 (0.68,2.02) ^f	1.76 (1.04,3.00) ^f	
		0.142 ^f	0.576 ^f	0.036 ^f	
Obstructive Abnormality	17	2.23 (0.88,5.62) ^g	1.19 (0.33,4.34) ^g	2.42 (0.74,7.92) ^g	0.083
		0.090 ^g	0.792 ^g	0.143 ^g	
		1.45 (1.06,1.99) ^f	1.18 (0.79,1.75) ^f	0.75 (0.48,1.19) ^f	
		0.020 ^f	0.412 ^f	0.223 ^f	
		1.16 (0.63,2.12) ^g	1.45 (0.73,2.88) ^g	0.55 (0.19,1.51) ^g	
		0.636 ^g	0.293 ^g	0.263 ^g	

^aAbnormal low contrasted with normal.

^bAbnormal high contrasted with normal.

^cImpaired contrasted with normal.

^dDiabetic contrasted with normal.

^eAnalysis performed for model excluding percent body fat.

^fMild contrasted with none.

^gModerate/severe contrasted with none.

TABLE Q-18. (Continued)

**Summary of Adjusted Results for Polychotomous Variables
Model 3: Ranch Hands and Comparisons by Current Dioxin Category**

Note: Risk is relative to background current dioxin category.
Background (Comparisons): Current Dioxin ≤ 10 ppt.
Unknown (Ranch Hands): Current Dioxin ≤ 10 ppt.
Low (Ranch Hands): $15 \text{ ppt} < \text{Current Dioxin} \leq 33.3 \text{ ppt}$.
High (Ranch Hands): Current Dioxin $> 33.3 \text{ ppt}$.

Appendix R

Glossary of Abbreviations

-A-

A	adjusted analyses
Adj. Mean	adjusted mean
Adj. RR	adjusted relative risk
Adj. Slope	adjusted slope
AFB	Air Force base
AFHS	Air Force Health Study
AGE	age at Baseline (in 1982)
Ah	aryl hydrocarbon
ALC	current alcohol use
ALC85	alcohol use (1985)
ALT	alanine aminotransferase
AMDIPHEN	aminodiphenyl exposure

ANTH	anthracene exposure
ARS	arsenic exposure

ASB	asbestos exposure
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AST	asparatate aminotransferase
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-B-

BATCH	batch-to-batch variation among examination groups
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BENZ	benzene exposure
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BENZID	benzidene exposure
BLOOD	blood type
BMDP®-4F	BMDP log-linear program
BMDP®-LR	BMDP logistic regression program
BR	base rate
BUN	blood urea nitrogen
	-C-
C	continuous analysis only
CARCIN	composite carcinogen exposure
CDC	Centers for Disease Control
CHECO	contemporary historical evaluation and combat operations
CHLMETETH	chloromethyl ether exposure
CHOL	cholesterol
CHOL/HDL	cholesterol-HDL ratio
CHROM	chromate exposure
C.I.	confidence interval
CMI	Cornell Medical Index
CNF	cranial nerve function
CNS	central nervous system
COALTAR	coal tar exposure

COPD	chronic obstructive pulmonary disease
CONC	mitogen concentration
COV	covariate
cpm	counts per minute
CREOS	creosote exposure
CS	Chi-square contingency table test
CSMOK	current cigarette smoking
C*T	$\log_2$ (current dioxin)-by-time interaction hypothesis test
CURR	$\log_2$ (current dioxin)
CUTOIL	cutting oil exposure
-D-	
D	discrete analysis only
DAY	mitogen harvest day
DAY(BATCH)	blood draw day-to-day variation within batch
DC	degreasing chemical exposure
D/C	discrete and continuous analyses for dependent variables; appropriate form for analysis (either discrete or continuous) for covariates
DCH	delayed cutaneous hypersensitivity
DEP	dependent variable
DIAB	diabetic class

DIFCORT	differential cortisol response
DNA	deoxyribonucleic acid
DRKYR	lifetime alcohol history
DRKYR85	lifetime alcohol history (1985)
DXCAT	categorized current dioxin
BUN	-E-
ECG	electrocardiograph or electrocardiogram
EDUC	education
EEG	electroencephalograph
ESR	erythrocyte sedimentation rate
Est. RR	estimated relative risk
ETHBACK	ethnic background
EXC	exclusion
CHOL	eye color
EYE	
CHOL/HDL	-F-
CHROM	
FEFmax	maximum forced expiratory flow
FEV	forced expiratory volume
FEV ₁	forced expiratory volume in one second
FSH	follicle stimulating hormone
FT	Fisher's exact test

FVC	forced vital capacity
	-G-
G	good result
GGT/GGTP	gamma-glutamyl transpeptidase
GLM	general linear model
GML	good result, missing lipids
GND	good result, below limit of detection
GNQ	good result, below limit of quantitation
GRc	glucocorticoid
GSi	global severity index
	-H-
HAIR	hair color
HB _s Ag	hepatitis B surface antigen
HD	Hodgkin's Disease
HDL	high-density lipoprotein
HERB	herbicide exposure
HIV	human immunosuppressant virus
HPF	high-power field
HRB	Halstead-Reitan battery
HRTDIS	family history of heart disease

HRTDIS50	family history of heart disease before age 50
DNA	-I-
IC	industrial chemical exposure
IC85	industrial chemical exposure (1985)
ICD	International Classification of Disease
ICD-9	International Classification of Disease, 9th Revision
ICD-9-CM	International Classification of Disease, 9th Revision, Clinical Modification
IL	Interleukin
IL-2	Interleukin-2
INIT	log ₂ (initial dioxin)
INS	insecticide exposure
EXC	-L-
L	longitudinal analysis
LAB	1987 SCRF laboratory results/1987 SIRL laboratory results
LAB (1985)	1985 SCRF laboratory results
LAT	average lifetime residential latitude
LBBB	left bundle branch block
LDH	lactic dehydrogenase
LL	log-linear models analysis

LR	logistic regression analysis
LWINE	lifetime wine history
-M-	
MCH	mean corpuscular hemoglobin
MCHC	mean corpuscular hemoglobin concentration
MCFI	Millon Clinical Multiaxial Inventory
-R-	
MCV	mean corpuscular volume
MIL	Air Force military records
ML	malignant lymphoma
MLC	mixed lymphocyte culture
MMPI	Minnesota Multiphasic Personality Inventory
MUSTGAS	mustard gas exposure
-N-	
NAPTHYL	naphthylamine exposure
NHL	non-Hodgkin's lymphoma
NKCA	natural killer cell assay
NKCI	natural killer cell assay with Interleukin-2
NORC	National Opinion Research Center
NOS	not otherwise specified
NR	no result

NS	not significant
NS*	borderline or marginally significant
IC	-O-
OCC	occupation
OR	odds ratio
ICD-9	-P-
PACKYR	lifetime cigarette smoking history
ICD-9-CM	International Classification of Disease, 9th
PE	1987 SCRF physical examination
PE (1985)	1985 SCRF physical examination/1985 SCRF physical examination updated with 1987 SCRF information for new/rejoining participants
%BFAT	percent body fat
PERS	personality type
PHA	phytohemagglutinin
PMR	proportionate mortality ratio
ppm	parts per million
ppt	parts per trillion
LAB (1985)	1985 SCRF laboratory results
PSDI	positive symptom distress index
LAT	average lifetime residential latitude
PST	positive symptom total
LBBB	left bundle branch block
PTSD	post-traumatic stress disorder
LDH	lactic dehydrogenase
LL	-Q-
QA	quality assurance

QC	quality control
QRC	Quality Review Committee
Q-SR	1987 NORC questionnaire (self-reported)/1987 Family and Personal History questionnaire (self-reported)
Q-SR (1985)	1985 NORC questionnaire (self-reported)
Q-V	1987 NORC questionnaire (verified)
	-R-
RAD	ionizing radiation exposure
RACE	race
RBBB	right bundle branch block
RBC	red blood cell
RPM	revolutions per minute
RR	relative risk
	-S-
SAIC	Science Applications International Corporation
SAS®-GLM	SAS® general linear model
SCL-90-R	Symptom Check List-90-Revised
SCRIF	Scripps Clinic and Research Foundation
SCS	Selected Cancers Study
SEA	Southeast Asia
SEAACNE	presence of pre-SEA acne

SIRL	Scripps Immunology Reference Laboratory
SKIN	skin color
Std. Error	standard error
STS	soft tissue sarcoma
SUNREAC	sun-reaction index
SUNRPT	reaction of skin to sun after repeated exposure
SUN2HR	reaction of skin to sun after at least 2 hours after first exposure (assuming several preceding episodes)
PE	-T-
T ₃ %	triiodothyronine percent
T ₄	total thyroxine
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TIME	time since tour
TIMESEA	time reference of acne relative to SEA
TLC	total lymphocyte count
TRICHLETH	trichloroethylene exposure
TSH	thyroid stimulating hormone
U	-U-
U	unadjusted analyses
ULTLIGHT	ultraviolet light (not sun) exposure
USAF	United States Air Force

-V-

V	verified neoplastic conditions only
VA	Veterans Administration
VES	Vietnam Experience Study
VINCHL	vinyl chloride exposure
VS	verified and suspected neoplastic conditions combined

-W-

WBC	white blood cell
WINE	current wine use

-X-

XRAY	ionizing radiation
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