PART II - APPENDIX
FINAL REPORT

A STUDY OF POST-RECUMBENCY ORTHOSTATISM AND PROPHYLACTIC MEASURES FOR PREVENTION OF THIS PHENOMENON

Contract No: T-28565-G

GPO PRICE $ _____

CFSTI PRICE(S) $ _____

Hard copy (HC) 3.00

Microfiche (MF) .65

ff 653 July 65

N68-27784
(ACCESSION NUMBER)
(THRU)
17
(PAGES)
1
(CODE)
CR-92178
(NASA CR OR TMX OR AD NUMBER)
04
(CATEGORY)

FACILITY FORM 602

NASA-CR-92178

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A STUDY OF POST-RECUMBENCY ORTHOSTATISM AND PROPHYLACTIC MEASURES FOR PREVENTION OF THIS PHENOMENON

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NASA Contract No: T-28565-G

Issued by: NASA - M.S.C.

General Research Procurement Branch
Houston, Texas 77058

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GENERAL DATA

Subject	Height (Inches)	Drug Therapy	Average BP Amb.	Average BP B.R.	Duration of Bedrest (days)
A	71 1/4	0	112/62	114/60	14
B	73	9-α	136/64	146/68	13
C	72	9-α	116/68	126/70	14
1	68 1/2	0	120/72	134/78	14
2	71	9-α	120/72	122/72	13
3	67	0	118/74	122/68	13
4	70	0	118/66	122/68	14
5	65 1/2	9-α	122/60	116/60	14
6	71	0	118/64	120/66	14
7	68	9-α	126/68	120/68	14
8	66	0	116/66	114/68	14
9	71	9-α	108/66	120/64	14
10	67 1/4	0	110/64	110/64	18
11	68 1/2	9-α	118/68	118/70	14
12	72	0	132/74	134/74	14
13	68 1/2	0	108/70	114/72	18
14	72	9-α	130/74	136/76	14

TABLE 1 (Cont'd)
Page 2

GENERAL DATA

Subject	Height (Inches)	Drug Therapy	Average BP Amb.	Average BP B.R.	Duration of Bedrest (days)
15	66 1/4	0	122/84	122/84	14
16	73 1/4	9-α	122/68	130/68	15
17	64 1/2	9-α	120/64	126/70	14
18	63 1/2	9-α	116/68	118/66	14
19	74	0	110/58	118/68	14
20	72	9-α	116/66	118/68	14
X	72	0			
Y	73 3/4	0			
Z	73	0			

TABLE 2

WEIGHT
(kg)

CONTROL GROUP

Subject	Ambulant Day 1	Bedrest Day 1	Δ	Bedrest Day 15	Δ
1	67.75	67.60	-0.15	66.47	-1.13
3	55.86	56.31	+0.45	56.23	-0.08
4	62.71	62.33	-0.38	61.76	-0.57
6	74.65	73.54	-1.11	72.66	-0.88
8	69.44	69.06	-0.38	67.43	-1.63
10	72.16	72.16	0	71.06	-1.10
12	81.13	80.49	-0.64	79.03	-1.46
13	77.84	77.11	-0.73	76.27	-0.84
15	65.91	65.57	-0.34	64.83	-0.74
19	70.20	70.87	+0.67	70.97	+0.10
Mean Change			-0.26		-0.83

9-α-FLUOROHYDROCORTISONE GROUP

Subject	Ambulant Day 1	Bedrest Day 1	Δ	Bedrest Day 15	Δ
2	75.05	74.68	-0.37	74.50	-0.18
5	60.25	59.93	-0.32	59.80	-0.13
7	67.85	67.16	-0.69	66.40	-0.76
9	88.92	88.63	-0.29	88.38	-0.25
11	68.25	67.65	-0.60	68.13	+0.45
14	86.55	85.99	-0.56	86.16	+0.17
16	70.31	70.95	+0.64	71.43	+0.48
17	64.71	64.77	+0.06	64.84	+0.07
18	62.59	62.48	-0.11	62.32	-0.16
20	70.46	70.56	+0.10	71.34	+0.78
Mean Change			-0.21		+0.05

TABLE 3
Page 1
GENERAL DATA

Subject	Comments and Complications
A	Broke bedrest by leg elevation x1; constipation, nausea, gas pains, backache during bedrest.
B	Frequently unable to void for urine close-out, required urethral catheterization x1, constipation, backache during bedrest, atrial fibrillation occurred on second cardiac catheterization.
C	Chronic hepatitis - developed renal calculus (calcium-oxylate) post recumbency.
1	Phlebitis of arm, mild after catheterization. Headache and backache during bedrest.
2	Mild phlebitis after catheterization, nausea early in bedrest.
3	None
4	Headache during bedrest.
5	None
6	Mild phlebitis of arm post-catheterization. Startled by firecracker Day 4 of bedrest and briefly assumed a sitting position.
7	Epigastric burning, nausea, gas pains, constipation and backache during bedrest.
8	Phlebitis of arm post-catheterization, mild nausea and headache during bedrest.
9	Difficulty keeping arms down. Mild phlebitis and headache during bedrest.
10	Acute cystitis and hematuria during late bedrest (Temp. 102°).
11	Constipation and headache during bedrest.
12	Acute tonsilitis (Temp Max 100°), backache and headache during bedrest.
13	Acute pharyagitis (Temp Max 102.6°), headache, backache; gas pains during bedrest.
14	Painful hemmorrhoids during bedrest.

TABLE 3 (Cont'd)
Page 2
GENERAL DATA

Subject	Comments and Complications
15	Mild pharyagitis and U R I, difficulty keeping arms down during bedrest.
16	Dysuria, epigastric burning, backache during B.R.
17	None
18	None
19	Unable to void for close-out of urine, on one occasion during B.R. Constipation during bedrest.
20	Constipation
X	Instrument failure and heart block during pre-recumbency catheterization - Study cancelled.
Y	Broke bedrest on 9th day, study cancelled.
Z	Study cancelled due to evidence of excessive apprehension during initial catheterization.

TABLE 4

70° TILT TOLERANCE
(Minutes)

Control Group			9-α-Fluorohydrocortisone Group		
Subject #	Before Bedrest	After Bedrest	Subject #	Before Bedrest	After Bedrest
1	13.0	18.0	2	9.5	20.0
3	10.0	12.5	5	10.5	20.0
4	20.0	2.5	7	20.0	20.0
6	20.0	19.5	9	12.5	20.0
8	20.0	20.0	11	15.5	11.5
10	8.5	20.0	14	20.0	20.0
12	6.0	8.0	16	20.0	14.0
13	20.0	20.0	17	20.0	13.0
15	8.0	20.0	18	20.0	16.0
19	20.0	20.0	20	4.0	6.0
Vasodepressor Syncope Incidence	50%	50%		50%	50%
Average Tolerance(min)	14.5	16.1		15.2	16.2

TABLE 5

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Hemodynamic Alterations Resultant from 70° Passive Tilt

Control Group

Case No.	State min. after tilt	Pressures (mm Hg) B.A. Before	B.A. After	P.A. Before	P.A. After	Heart Rate beats/min. Before	Heart Rate After	Cardiac Output L/min. Before	Cardiac Output After
1	Control	132/76	142/86	20/8	26/10	82	105	5.65	6.47
	1	-	132/104	-	29/10	99	116		
	2	130/90		-	28/10	100	122		
	5	116/78	130/92	-	28/9	105	133	4.97	5.52
	10	93/61	131/98	-	22/8	84	145		
	15	-	123/87		26/10		140		
	18	-	106/65		20/10		138		
	Terminal	100/59	104/63	19/8		80	140		
	Duration of Tilt (min)	13	18						
3	Control	108/63	138/83	23/9	26/9	92	87	6.94	5.84
	1	122/84	163/111	22/8	26/8	103	118		
	2	120/84	160/113	26/9	27/8	107	103		
	5	119/81	164/111	25/9	31/7	114	140	5.91	5.61
	10		138/112		30/9		142		
	15								
	18								
	Terminal	78/66	69/46	26/8	20/8	126	123		
	Duration of Tilt (min)	10	12.5						
4	Control	119/65	123/69	27/9	23/7	66	67	8.34	8.11
	1	129/80	137/90	12/4	7/0	83	124		
	2	129/84	93/57	9/4	6/-1	96	120		
	5	116/86		13/5		95		6.30	
	10	128/87		11/3		98			
	15	116/79		10/4		105			
	18	117/82		13/4		109		6.29	
	Terminal	115/82	57/27	9/3	9/2	109	49		
	Duration of Tilt (min)	20	2.5						
6	Control	106/60	117/74	22/6	17/4	68	80	5.91	5.54
	1	131/83	150/96	21/9	20/7	85	126		
	2	132/85	137/95	21/9	17/7	97	126		
	5	117/81	133/93	21/9	19/3	101	124	5.60	3.98
	10	115/79	114/85	-	16/3	99	129		
	15	120/81	115/88	-	16/3	110	136		
	18	102/75	103/77	-	15/3	112	146	8.41	3.91
	Terminal	75/55	60/38	-	11/-4	125	102		
	Duration of Tilt (min)	20	19.5						

TABLE 5

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Hemodynamic Alterations Resultant from 70° Passive Tilt

Control Group

Case No.	Stroke Volume ml.		C.B.V. ml.		D.F.P. sec/min.		Resistances (dynes sec.cm.$^{-5}$) Peripheral		Pulmonary	
	Before	After	Before	After	Before	After	Before	After	Before	After
1	64	60	1250	1219		34.80	1391	1299	198	210
						34.48				
						33.16				
	60	40	1052	985		30.74	1366	1768	-	203
						28.10				
						29.20				
						29.64				
						-				
3	64	72	1250	1260	35.16	33.90	936	1451	184	214
					36.46	39.40				
	42	38	977	1250	39.48	34.80	1327	1882	190	228
						34.44				
					39.84	37.86				
4	124	103	2000	1710	38.22	38.15	806	895	135	119
						32.72				
					26.96	36.00				
	72	-	1310		36.24		1371		102	
					36.48					
					36.90					
	58	-	1572		-		1336		89	
					37.34					
6	89	76	1152	1100	40.28	34.40	1062	1324	163	144
					37.90	34.80				
					33.81	34.80				
	56	32	1060	790	35.76	34.38	1500	2312	186	241
					37.23	32.91				
					36.08	31.44				
	65	30	1629	748	34.24	30.80	828	1698	105	205

TABLE 5

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Hemodynamic Alterations Resultant from 70° Passive Tilt

Control Group

Case No.	State min. after tilt	Pressures (mm Hg) B.A. Before	B.A. After	P.A. Before	P.A. After	Heart Rate beats/min. Before	After	Cardiac Output L/min. Before	After
8	Control	122/72	132/75	26/14	11/4	60	81	3.93	6.39
	1	147/96	152/96	26/13	17/8	68	99		
	2	149/97	147/95	26/13	16/6	66	101		
	5	152/104	142/95	27/13	12/5	67	119	3.65	4.26
	10	146/102	142/93	28/12	16/6	73	125		
	15	146/102	133/94	28/13	15/4	76	119		
	18	147/105	130/95	27/12	15/4	75	123	4.07	8.02
	Terminal	144/102	135/94	28/11	14/4	78	120		
	Duration of Tilt (min)	20	20						
10	Control	108/60	105/62	15/7	13/5	60	83	3.57	4.57
	1	129/86	125/88	17/9	23/8	76	143		
	2	119/82	120/85	17/9	20/8	82	141		
	5	113/77	125/87	17/10	20/7	81	147	5.04	4.01
	10	-	120/83	-	22/8		151		3.59
	15	-	115/80	-	18/9		144		
	18	-	122/87	-	-		141		3.39
	Terminal	53/40	117/85	19/11	18/8	49	146		
	Duration of Tilt (min)	8.5	20						
12	Control	118/70	120/70	21/9	16/8	64	87	7.49	8.15
	1	135/87	137/92	22/9	17/12	94	118		
	2	125/80	126/87	23/8	17/11	95	125		
	5	70/46	107/75	18/7	16/12	105	138		5.54
	10								
	15								
	18								
	Terminal	52/31	77/53	17/6	14/9	105	133		
	Duration of Tilt (min)	6	8						
13	Control	118/72	115/76	20/9	5*	65	77	6.68	5.66
	1	139/96	139/106	20/13	7	84	105		
	2	140/94	141/102	-	7	89	109		
	5	144/102	140/103	23/12	6	92	113	5.82	4.33
	10	141/102	133/99	24/12	-	98	122	5.86	4.34
	15	138/101	136/105	23/12	6	100	136		
	18	138/100	132/99	23/11	4	102	142	5.21	3.68
	Terminal	144/103	136/107	23/12	7	106	143		
	Duration of Tilt (min)	20	20						

*Right atrial mean pressure.

TABLE 5

Page 2b

Hemodynamic Alterations Resultant from 70° Passive Tilt

Control Group

Case No.	Stroke Volume ml.		C.B.V. ml.		D.F.P. sec/min.		Resistances (dynes sec.cm.$^{-5}$) Peripheral		Pulmonary	
	Before	After	Before	After	Before	After	Before	After	Before	After
8	76	88	1026	1387	41.40	36.51	1837	1234	398	107
					38.22	35.25				
					39.60	34.75				
	54	39	894	881	37.89	30.25	2586	2009	416	150
					37.92	30.00				
					37.28	31.44				
	56	81	913	2078	37.50	30.48	2461	1087	357	90
					-	31.40				
10	60	55	979	1089	38.11	35.93	1748	1378	150	979
					36.44	-				
					34.58	33.21				
	62	27	750	863	35.70	35.01	1429	2135	222	239
		24		880		32.82		2139		290
						35.52				
		24		791		34.62		2359		329
					35.25	35.18				
12	104	95	1678	1564	41.44	36.51	918	874	160	128
						32.86				
					36.25	30.00				
		43		1200	32.70	32.40		1242		202
13	105	73	1482	1468	39.85	38.44	1090	1300	168	
					36.48	36.90				
					36.86	36.02				
	62	37	1246	1023	37.92	38.53	1553	2143	220	
	61	34	1234	1104	35.50	38.04	1570	2028	218	
					38.00	36.88				
	49	26	1210	880	35.52	35.86	1658	2435	246	
					38.80	-				

TABLE 5

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Hemodynamic Alterations Resultant from 70° Passive Tilt

Control Group

Case No.	State min. after tilt	Pressures (mm Hg) B.A. Before	B.A. After	P.A. Before	P.A. After	Heart Rate beats/min. Before	Heart Rate After	Cardiac Output L/min. Before	Cardiac Output After
15	Control	122/73	118/75	15/6	*3	60	66	6.20	4.26
	1	117/84	108/75	12/4	1	85	100		
	2	117/83	115/78	-	1	88	112		
	5	109/80	110/77	10/4	2	94	117	3.41	3.42
	10		114/83		2		122		2.91
	15		111/78		2		133		
	18		103/74		2		144		2.12
	Terminal	63/43	108/80	10/6	-	106	142		
	Duration of Tilt (min)	8	20						
19	Control	123/70	122/67	17/9	17/7	89	73	8.09	6.48
	1	128/79	122/75	12/6	15/8	117	114		
	2	128/78	122/74	11/6	15/8	121	126		
	5	115/81	115/78	12/6	14/7	121	134	5.66	4.87
	10	118/75	97/63	13/6	10/4	122	141	5.50	4.67
	15	103/72	103/69	15/6	17/6	130	141		
	18	111/76	94/65	13/5	14/4	127	147	5.33	3.83
	Terminal	107/74	102/68	-	16/7	135	148		
	Duration of Tilt (min)	20	20						

*Right atrial mean pressure.

TABLE 5

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Hemodynamic Alterations Resultant from 70° Passive Tilt

Control Group

Case No.	Stroke Volume ml.		C.B.V. ml.		D.F.P. sec/min.		Resistances (dynes sec.cm.$^{-5}$) Peripheral		Pulmonary	
	Before	After	Before	After	Before	After	Before	After	Before	After
15	89	63	1401	1214	41.40	39.54	1161	1728	116	
					41.30	39.00				
					40.64	36.48				
	34	29	881	969	40.26	37.77	2205	1918	164	
		23		849		36.82		2529		
						38.72				
		14		640		35.52		3208		
					36.68	35.86				
19	90	86	1624	1314	29.74	36.64	880	1086	128	136
					33.09	32.64				
					30.96	33.54				
	48	42	1123	1015	33.38	30.52	1399	1544	127	181
	47	34	1165	770	34.38	31.80	1338	1268	131	120
					30.10	30.39				
	41	27	1118	855	33.30	29.13	1321	1608	135	167
						28.92				

TABLE 6

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Hemodynamic Alterations Resultant from 70° Passive Tilt

9-α-Fluorohydrocortisone Group

Case No.	State min. after tilt	Pressures (mm Hg) B.A. Before	B.A. After	P.A. Before	P.A. After	Heart Rate beats/min. Before	After	Cardiac Output L/min. Before	After
2	Control	112/72	115/69	18/9	15/6	79	89	4.12	5.34
	1	128/91	131/86	14/6	15/8	116	124		
	2	114/81	124/79	15/7	14/9	93	124		
	5	92/70	137/93	12/9	-	109	124	3.94	3.76
	10		113/85		23/11		134		
	15		119/80		16/7		128		
	18		110/75		17/7		134		3.97
	Terminal	81/68	115/83	10/4	18/9	134	132		
	Duration of Tilt (min)	9.5	20						
5	Control	135/71	126/66	17/4	24/5	69	63	6.05	4.10
	1	141/91	184/127	19/10	33/15	79	106		
	2	145/91	188/127	18/11	34/16	81	99		
	5	131/84	184/129	17/11	33/14	87	108	4.52	5.25
	10	95/67	162/122	16/9	29/13	87	111		
	15		167/125		29/13		112		
	18		158/125		28/13		125		2.96
	Terminal	70/45	158/129	17/10	27/12	65	125		
	Duration of Tilt (min)	10.5	20						
7	Control	122/71	146/83	20/8	24/11	54	82	3.87	4.57
	1	-	165/98	22/10	28/11	66	112		
	2	136/85	158/98	20/11	22/8	72	97		
	5	125/83	154/99	20/11	23/7	84	106	3.20	4.28
	10	120/84	137/92	19/11	24/7	78	110		
	15	119/85	138/96	20/12	22/5	80	112		
	18	127/87	139/96	21/12	23/7	80	108	3.22	5.41
	Terminal	125/86	130/89	21/13	21/7	75	115		
	Duration of Tilt (min)	20	20						
9	Control	140/85	123/70	20/11	13/4	71	82	6.00	6.06
	1	142/91	135/91	22/12	19/10	95	108		
	2	140/90	130/87	25/14	13/5	98	124		
	5	132/90	137/91	22/13	-	104	138	5.18	5.05
	10	120/82	125/90	21/13	-	118	136		4.85
	15	-	113/85	-	-	-	147		
	18	-	124/87	-	-	-	141		4.41
	Terminal	91/66	127/92	17/13	-	133	138		
	Duration of Tilt (min)	12.5	20						

TABLE 6

Page 1b

Hemodynamic Alterations Resultant from 70° Passive Tilt

9-α-Fluorohydrocortisone Group

Case No.	Stroke Volume ml.		C.B.V. ml.		D.F.P. sec/min.		Resistances (dynes sec.cm.$^{-5}$) Peripheral		Pulmonary	
	Before	After	Before	After	Before	After	Before	After	Before	After
2	57	63	827	1010	33.2	37.1	1708	1328	253	121
					31.3	-				
					32.3	37.7				
	33	29	757	762	32.2	34.7	1990	2043	264	319
						32.6				
						32.4				
		30		926		32.1		1854		282
					23.7	32.4				
5	115	71	1309	845	35.2	39.8	1186	1668	196	225
					38.3	34.0				
					37.8	35.8				
	53	49	987	1015	36.7	35.0	1823	2377	248	290
					37.6	35.0				
						35.0				
		25		621		34.2		3892		324
					37.9	34.2				
7	68	72	896	1007	39.0	34.9	1923	1727	304	237
					39.5	30.9				
					37.7	32.8				
	41	39	715	904	35.3	31.9	2450	2094	375	318
					37.4	29.2				
					37.6	30.9				
	43	50	622	971	37.6	29.8	2584	1597	398	222
					38.2	28.9				
9	86	85	1392	1157	37.3	35.3	1247	1156	181	120
					38.7	33.6				
					36.2	31.4				
	49	37	1071	1095	35.0	31.8	1637	1632	263	111
		36		1155	31.6	30.5		1765		116
						30.1				
		32		1176		31.3		1850		127
					28.9	31.9				

TABLE 6

Page 2a

Hemodynamic Alterations Resultant from 70° Passive Tilt

9-α-Fluorohydrocortisone Group

Case No.	State min. after tilt	Pressures (mm Hg) B.A. Before	B.A. After	P.A. Before	P.A. After	Heart Rate beats/min. Before	Heart Rate After	Cardiac Output L/min. Before	Cardiac Output After
11	Control	132/71	140/80	29/12	5	76	75	6.42	5.50
	1	152/95	132/80	33/11	-	87	111		
	2	145/94	124/74	30/10	-	88	116		
	5	142/100	110/74	27/15	1	92	124	4.59	3.79
	10	135/85	110/65	23/15	1	97	123	5.55	-
	15	114/76	-	19/13		91			
	18								
	Terminal	70/40	80/48	18/12	1	84	120		
	Duration of Tilt (min)	15.5	11.5						
14	Control	127/75	135/84	33/16	27/8	55	63	6.52	6.47
	1	150/96	148/100	27/12	28/13	70	93		
	2	147/97	157/102	30/14	26/13	72	96		
	5	147/95	162/106	31/14	27/13	72	98	7.04	6.14
	10	148/97	154/101	27/13	24/12	77	102	6.89	4.45
	15	143/94	153/104	33/13	25/12	77	110		
	18	148/96	149/107	35/14	25/12	73	115	7.25	4.50
	Terminal	147/94	151/100	37/16	27/10	78	117		
	Duration of Tilt (min)	20	20						
16	Control	128/76	127/67	22/11	19/9	56	51	4.96	5.96
	1	136/87	127/82	17/6	18/8	82	86		
	2	132/85	120/75	16/7	17/8	88	89		
	5	123/77	115/73	18/6	17/8	90	100	-	4.72
	10	122/81	105/68	18/7	17/7	93	108	3.67	3.51
	15	118/78		18/7		93			
	18	119/77		16/6		92		4.58	
	Terminal	108/70	83/52	15/5	18/8	102	122		
	Duration of Tilt (min)	20	14						
17	Control	117/68	123/65	21/11	5	55	56	3.77	4.26
	1	128/82	138/82	19/11	3	63	68		
	2	123/80	127/78	19/10	0	64	69		
	5	113/80	125/84	18/10	-3	70	79	4.21	3.23
	10	117/74	118/72	16/10	-3	72	86	3.03	3.41
	15	123/77		17/10		70			
	18	123/78		16/10		70		-	
	Terminal	124/81	90/53	16/10	-4	73	65		
	Duration of Tilt (min)	20	13						

TABLE 6

Page 2b

Hemodynamic Alterations Resultant from 70° Passive Tilt

9-α-Fluorohydrocortisone Group

Case No.	Stroke Volume ml.		C.B.V. ml.		D.F.P. sec/min.		Resistances (dynes sec.cm.$^{-5}$) Peripheral		Pulmonary	
	Before	After	Before	After	Before	After	Before	After	Before	After
11	84	78	1155	1429	38.6	38.5	1198	1346	236	-
					39.1	38.9				
					39.8	37.0				
	53	31	1155	979	37.9	35.2	2004	1794	278	-
	58		1331	-	38.7	34.2	1470		216	-
					38.4					
					38.4	31.2				
14	102	101	1292	1362	41.8	40.2	1184	1276	245	161
					39.0	35.6				
					39.1	37.9				
	88	55	1255	1064	38.5	38.4	1329	1590	170	156
	82	41	1125	838	40.0	38.6	1347	2157	174	252
					39.2	38.6				
	86	39	1208	833	38.7	38.9	1368	2151	188	231
					38.7	39.5				
16	83	102	1403	1382	40.8	42.9	1492	1308	170	102
					40.3	40.2				
					38.9	42.2				
	-	47	-	1113	39.3	40.5	-	1508	-	119
	40	32	906	766	37.7	40.0	1962	1983	87	160
					37.7					
	48		1195		36.4		1520		70	
					36.4	24.4				
17	68	78	1000	1137	42.7	41.6	1902	1721	245	-
					43.0	41.6				
					42.7	41.4				
	60	40	918	1000	43.6	41.8	1805	2381	152	-
	42	39	878	812	42.7	40.2	2376	2205	211	-
					42.5					
					41.1					
					41.1	42.4				

TABLE 6

Page 3a

Hemodynamic Alterations Resultant from 70° Passive Tilt

9-α-Fluorohydrocortisone Group

Case No.	State min. after tilt	Pressures (mm Hg) B.A. Before	B.A. After	P.A. Before	P.A. After	Heart Rate beats/min. Before	After	Cardiac Output L/min. Before	After
18	Control	121/64	130/66	24/12	16/5	58	62	4.66	5.74
	1	120/75	142/87	18/10	16/8	79	92		
	2	110/75	136/88	17/10	20/8	75	91		
	5	114/75	137/90	17/10	21/13	83	98	4.39	-
	10	115/71	120/84	18/12	17/8	80	104	-	4.50
	15	107/64	86/53	17/11	12/8	91	110		
	18	110/71		16/8		96		3.80	
	Terminal	107/67	78/50	16/8	15/8	87	88		
	Duration of Tilt (min)	20	16						
20	Control	112/66	122/69	17/8	20/12	70	62	5.50	4.83
	1	111/75	136/80	13/5	-	97	80		
	2	115/75	129/84	13/7	15/9	109	109		
	5		125/82		17/10		105		3.66
	10								
	15								
	18								
	Terminal	69/35	**	11/5	**	78	79		
	Duration of Tilt (min)	4	6						

**No pressure recorded. Loss of vision and dizziness during cardiac output.

TABLE 6

Page 3b

Hemodynamic Alterations Resultant from 70° Passive Tilt

9-α-Fluorohydrocortisone Group

Case No.	Stroke Volume ml.		C.B.V. ml.		D.F.P. sec/min.		Resistances (dynes sec.cm.$^{-5}$) Peripheral		Pulmonary	
	Before	After	Before	After	Before	After	Before	After	Before	After
18	94	88	1123	1222	40.9	34.3	1426	1254	165	40
					40.4	36.1				
					40.5	38.2				
	53	-	893	-	39.7	33.5	1622	-	164	-
	-	45	-	818	42.4	33.0	-	1831	-	124
					40.0	-				
	35		918		40.6		1768		148	
					40.9	-				
20	85	77	1346	1180	35.2	38.9	1222	1573	116	182
					35.7	37.6				
					32.7	36.0				
		46		823		34.8		2230		197

TABLE 7

BRACHIAL ARTERY PULSE PRESSURE

CONTROL GROUP

Subject #		Supine Rest	70° Tilt Duration (min) 1	2	5	10	15	18	Terminal
1	Pre	56	--	40	38	32			41*
	Post	56	28		38	33	36	41	41*
3	Pre	45	38	36	38				12*
	Post	55	52	47	53	26			23*
4	Pre	54	49	45	30	41	37	35	33
	Post	54	47	36					30*
6	Pre	46	48	47	36	36	39	27	20
	Post	43	54	42	40	29	27	26	22*
8	Pre	50	51	52	48	44	44	42	42
	Post	57	56	52	47	49	39	35	41
10	Pre	48	43	37	36				13*
	Post	43	37	35	38	37	35	35	32
12	Pre	48	48	45	24				21*
	Post	50	42	39	32				24*
13	Pre	46	43	46	42	39	37	38	41
	Post	39	33	39	37	34	31	33	20
15	Pre	49	33	34	29				20*
	Post	43	33	37	33	31	33	29	28
19	Pre	53	49	50	34	43	31	35	33
	Post	55	47	48	37	34	34	29	34

* Became hypotensive before 20 minutes.

TABLE 8

BRACHIAL ARTERY PULSE PRESSURE

9-α-FLUOROHYDROCORTISONE GROUP

Subject #		Supine Rest	70° Tilt Duration (min) 1	2	5	10	15	18	Termina
2	Pre	40	37	33	22				13*
	Post	46	45	45	44	28	39	35	32
5	Pre	64	50	54	47	28			25*
	Post	60	57	61	55	40	42	33	29
7	Pre	51	--	51	39	36	34	40	39
	Post	63	67	60	55	45	42	43	41
9	Pre	55	51	50	42	38			25*
	Post	53	44	43	46	35	28	37	35
11	Pre	61	57	51	42	50	38		30*
	Post	60	52	50	36	45			32*
14	Pre	52	54	50	52	51	49	52	53
	Post	51	48	55	56	53	49	42	51
16	Pre	52	49	47	46	41	40	42	38
	Post	60	45	45	42	37			31*
17	Pre	49	46	43	33	43	46	45	43
	Post	58	56	49	41	46			37*
18	Pre	57	45	35	39	49	43	39	40
	Post	64	55	48	47	36	33		28*
20	Pre	46	36	40					34*
	Post	53	56	45	43				**

* Became hypotensive before 20 minutes.

** No pressure recorded. Loss of vision and dizziness during cardiac output measurement.

TABLE 9
Page 1

HEMODYNAMIC RESPONSE TO 70° TILT

Control vs 9-α-Fluorohydrocortisone Group

			No. Studies	Supine Rest	Tilt	Δ
CARDIAC INDEX ($L/min/M^2$)	Pre-	Control	8	3.21	2.93	-0.28
		9-α	7	2.80	2.48	-0.32
		P		0.4		0.95
	Post-	Control	8	2.89	2.47	-0.42
		9-α	7	2.76	2.40	-0.36
		P		0.7		0.995
CENTRAL BLOOD VOLUME (ml)	Pre-	Control	8	1270	998	-272
		9-α	7	1124	980	-144
		P		0.1		0.2
	Post-	Control	8	1256	972	-284
		9-α	7	1135	974	-161
		P		0.2		0.5
STROKE VOLUME (ml)	Pre-	Control	8	80	52	-36
		9-α	7	83	54	-29
		P		0.7		0.99
	Post-	Control	8	72	36	-36
		9-α	7	78	40	-38
		P		0.4		0.7

TABLE 9
Page 2

HEMODYNAMIC RESPONSE TO 70° TILT

Control vs 9-α-Fluorohydrocortisone Group

			No. Studies	Supine Rest	Tilt	Δ
		Control	9	71	97	+26
	Pre-	9-α	9	63	88	+25
HEART		P		0.2		0.7
RATE		Control	9	83	129	+46
	Post-	9-α	9	70	108	+38
		P		0.1		0.3
		Control	8	1263	1671	+408
PERIPHERAL VASCULAR RESISTANCE (dynes-sec-cm^{-5})	Pre-	9-α	7	1478	1862	+384
		P		0.4		0.95
		Control	8	1350	1963	+617
	Post-	9-α	7	1460	1987	+527
		P		0.4		0.5
		Control	6	216	204	-12
PULMONARY VASCULAR RESISTANCE (dynes-sec-cm^{-5})	Pre-	9-α	5	226	264	+38
		P		0.9		0.8
		Control	6	160	207	+47
	Post	9-α	5	173	239	+66
		P		0.7		0.6

TABLE 10
Page 1

HEMODYNAMIC RESPONSE TO 70° TILT
COMBINED DATA OF ALL SUBJECTS

	Time		No. Studies	Supine	Tilt	Δ	P
CARDIAC INDEX ($L/min/M^2$)	5 min.	Pre-	15	3.02	2.72	-0.30	0.3
		Post	15	2.83	2.44	-0.39	<0.05
		P		0.4	0.2		
	10 min.	Pre-	5	3.09	2.56	-0.53	0.3
		Post	5	2.99	2.12	-0.87	<0.005
		P		0.8	0.3		
	18 min.	Pre-	6	3.03	2.89	-0.14	0.8
		Post	6	3.08	2.75	-0.33	0.6
		P		0.9	0.9		
CENTRAL BLOOD VOLUME (ml)	5 min.	Pre-	15	1202	989	-213	≤0.01
		Post	15	1200	973	-227	<0.001
		P		0.98	0.8		
	10 min.	Pre-	5	1361	1062	-299	<0.05
		Post	5	1333	858	-475	<0.001
		P		0.9	0.1		
	18 min.	Pre-	6	1245	1117	-128	<0.5
		Post	6	1240	1061	-179	<0.5
		P		<0.98	<0.9		
STROKE VOLUME (ml)	5 min.	Pre-	15	81	53	-28	<0.001
		Post	15	75	38	-37	<0.001
		P		<0.3	<0.01		
	10 min.	Pre-	5	90	54	-36	<0.01
		Post	5	88	36	-52	<0.001
		P		<0.9	<0.1		
	18 min.	Pre-	6	88	57	-31	<0.01
		Post	6	83	42	-41	<0.005
		P		<0.6	<0.3		

TABLE 10
Page 2

HEMODYNAMIC RESPONSE TO 70° TILT
COMBINED DATA OF ALL SUBJECTS

	Time		No. Studies	Supine	Tilt	Δ	P
HEART RATE	5 min.	Pre-	18	67	93	+26	<0.001
		Post	18	76	119	+43	<0.001
		P		<0.1	<0.001		
	10 min.	Pre-	13	66	90	+24	<0.001
		Post	13	73	119	+46	<0.001
		P		<0.2	<0.001		
	18 min.	Pre-	6	65	95	+30	<0.02
		Post	6	76	130	+54	<0.001
		P		<0.1	<0.02		
PERIPHERAL VASCULAR RESISTANCE (dynes-sec-cm^{-5})	5 min.	Pre-	15	1364	1760	+396	<0.01
		Post	15	1402	1974	+572	<0.01
		P		<0.9	<0.3		
	10 min.	Pre-	5	1310	1668	+358	<0.3
		Post	5	1389	1884	+495	<0.2
		P		<0.7	<0.6		
	18 min.	Pre-	6	1329	1703	+374	<0.3
		Post	6	1325	1763	+438	<0.1
		P		<0.99	<0.9		
PULMONARY VASCULAR RESISTANCE (dynes-sec-cm^{-5})	5 min.	Pre-	11	220	231	+11	<0.5
		Post	11	167	221	+54	<0.05
		P		<0.1	<0.9		
	10 min.	Pre-	3	181	131	-50	<0.4
		Post	3	133	177	+44	<0.4
		P		<0.3	<0.4		
	18 min.	Pre-	5	248	237	-11	<0.5
		Post	5	157	183	+26	<0.5
		P		<0.2	<0.4		

TABLE 11

CARDIAC OUTPUT RESPONSE TO 70° TILT
(L/min)

Control Group

	Pre-Recumbency							Post-Recumbency						
	Supine	70° Tilt						Supine	70° Tilt					
Subject	Control	5 min	Δ	10 min	Δ	18 min	Δ	Control	5 min	Δ	10 min	Δ	18 min	Δ
1	5.65	4.97	-0.68					6.47	5.52	-0.95				
3	6.94	5.91	-1.03					5.84	5.61	-0.23				
4	8.34	6.30	-2.04			6.29	-2.05	8.11						
6	5.91	5.60	-0.31			8.41	+2.50	5.54	3.98	-1.56			3.91	-1.63
8	3.93	3.65	-0.28			4.07	+0.14	6.39	4.26	-2.13			8.02	+1.63
10	3.57	5.04	+1.47					4.57	4.01	-0.56	3.59	-0.98	3.39	-1.18
12	7.49							8.15	5.54	-2.61				
13	6.68	5.82	-0.86	5.86	-0.82	5.21	-1.47	5.66	4.33	-1.33	4.34	-1.32	3.68	-1.98
15	6.20	3.41	-2.79					4.26	3.42	-0.84	2.91	-1.35	2.12	-2.14
19	8.09	5.66	-2.43	5.50	-2.59	5.33	-2.76	6.48	4.87	-1.61	4.67	-1.81	3.83	-2.65

TABLE 12

CARDIAC OUTPUT RESPONSE TO 70° TILT
(L/min)

9-α-Fluorohydrocortisone Group

		Pre-Recumbency						Post-Recumbency					
	Supine	70° Tilt						Supine	70° Tilt				
Subject	Control	5 min	Δ	10 min	Δ	18 min	Δ	Control	5 min	Δ	10 min	Δ	18 min	Δ
2	4.12	3.94	-0.18					5.34	3.76	-1.58			3.97	-1.37
5	6.05	4.52	-1.53					4.10	5.25	+1.15			2.96	-1.14
7	3.87	3.20	-0.67			3.22	-0.65	4.57	4.28	-0.29			5.41	+0.84
9	6.00	5.18	-0.82					6.06	5.05	-1.01	4.85	-1.21	4.41	-1.65
11	6.42	4.59	-1.83	5.55	-0.87			5.50	3.79	-1.71	-			
14	6.52	7.04	+0.52	6.89	+0.37	7.25	+0.73	6.47	6.14	-0.33	4.45	-2.02	4.50	-1.97
16	4.96	-		3.67	-1.29	4.58	-0.38	5.96	4.72	-1.24	3.51	-2.45		
17	3.77	4.21	+0.44	3.03	-0.74			4.26	3.23	-1.03	3.41	-0.85		
18	4.66	4.39	-0.27	-		3.80	-0.86	5.74	-		4.50	-1.24		
20	5.50							4.83	3.66	-1.17				

TABLE 13

COMPARISON OF CARDIAC OUTPUT AND
CENTRAL BLOOD VOLUME CHANGES
DURING 70° TILT*

		5 Min.	10 Min.	18 Min.
Pre-Recumbency	C.O.	-670	-1,010	-250
	C.B.V.	-213	- 299	-128
Post-Recumbency	C.O.	-930	-1,690	-960
	C.B.V.	-227	- 475	-179

*Mean results based on subjects with paired data from pre- and post-recumbency tilt studies.

TABLE 14

PERCENTAGE OF SUBJECTS DEMONSTRATING VASOMOTOR WAVE ACTIVITY

		Supine	70° Tilt	Tilt Termination
Pre-Recumbency	Stable	29%	100%	89%
	Hypotensive	0.5%	89%	44%
Post-Recumbency	Stable	70%	89%	89%
	Hypotensive	50%	100%	56%

TABLE 15

FREQUENCY OF VASOMOTOR WAVE ACTIVITY
(Waves/Min)

STABLE vs HYPOTENSIVE SUBJECTS

			Supine		70° Tilt					
				P***	2-4 Min.	P***	8-10 Min.	P***	Terminal 2 Min.	P***
STABLE	Pre-Recumbency	Range	0-5		0-5		1-5		0-6	
		Mean	1.1		2.9		3.4		3.0	
		S.E.*	±1.8		±0.9		±0.7		±1.0	
	Post-Recumbency	Range	0-4		0-5		0-6		0-6	
		Mean	2.0		2.6		3.6		3.2	
		S.E.*	±1.4		±1.0		±0.9		±1.2	
		P**	0.4		0.6		0.8		0.7	
HYPOTENSIVE	Pre-Recumbency	Range	0-0		0-6		0-3		0-5	
		Mean	0	0.2	2.6	0.6	1.3	<0.005	1.1	<0.01
		S.E.*	0		±1.0		±1.6		±0.9	
	Post-Recumbency	Range	0-2		0-6		2-7		0-3	
		Mean	1.0	0.2	3.6	0.1	3.9	0.6	0.8	<0.001
		S.E.*	±1.1		±1.0		±1.3		±0.6	
		P**	0.1		0.2		0.2		0.6	

* 95 % Confidence Limits
** Comparison with Intragroup Pre-Recumbency Data
*** Comparison with Stable Subjects

TABLE 16

AMPLITUDE OF BRACHIAL ARTERY PRESSURE VARIATION
DUE TO VASOMOTOR WAVE ACTIVITY
(mm Hg)
STABLE vs HYPOTENSIVE SUBJECTS

			Supine		70° Tilt					
				P***	2-4 Min.	P***	8-10 Min.	P***	Terminal 2 Min.	P***
STABLE	Pre-Recumbency	Range	0-11		0-25		0-22		0-29	
		Mean	5.6		10.7		12.5		14.2	
		S.E.*	±2.9		±1.5		±1.4		±1.6	
	Post-Recumbency	Range	0-19		0-44		0-30		0-28	
		Mean	7.3		17.2		14.8		14.3	
		S.E.*	±2.3		±3.2		±1.5		±1.7	
		P**	0.35		<0.001		<0.025		0.90	
HYPOTENSIVE	Pre-Recumbency	Range	0-0		0-35		0-25		0-20	
		Mean	0	<0.02	15.0	<0.005	11.9	0.80	6.9	<0.001
		S.E.*			±2.3		±8.0		±3.5	
	Post-Recumbency	Range	0-16		0-33		0-30		0-33	
		Mean	5.1	0.40	17.7	0.80	16.1	0.25	8.6	<0.005
		S.E.*	±5.1		±2.0		±1.5		±4.3	
		P**	0.10		0.10		0.10		0.50	

* 95 % Confidence Limits
** Comparison with Intragroup Pre-Recumbency Data
*** Comparison with Stable Group Data

TABLE 17

HEART RATE VARIATION DUE TO VASOMOTOR WAVE ACTIVITY
(Beats/Min)

STABLE vs HYPOTENSIVE SUBJECTS

			Supine		70° Tilt					
				P***	2-4 Min.	P***	8-10 Min.	P***	Terminal 2 Min.	P***
STABLE	Pre-Recumbency	Range	0-12		0-25		0-28		0-34	
		Mean	4.5		11.5		13.9		13.0	
		S.E.*	±3.1		±1.3		±1.6		±2.0	
	Post-Recumbency	Range	0-15		0-25		0-30		0-19	
		Mean	8.6		11.6		9.1		5.3	
		S.E.*	±2.6		±1.9		±1.6		±1.6	
		P**	<0.05		0.95		<0.001		<0.001	
HYPOTENSIVE	Pre-Recumbency	Range	0-0		0-34		14-30		0-25	
		Mean	0	0.15	14.6	<0.025	22.0	<0.005	7.4	<0.005
		S.E.*	0		±2.6		±7.2		±2.7	
	Post-Recumbency	Range	0-17		0-32		5-37		0-34	
		Mean	8.3	0.90	14.6	<0.025	14.3	<0.001	8.0	0.10
		S.E.*	±5.1		±1.7		±2.6		±4.0	
		P**	0.10		0.99		<0.05		0.80	

* 95 % Confidence Limits
** Comparison with Intragroup Pre-Recumbency Data
*** Comparison with Stable Subjects

TABLE 18

HEMODYNAMIC RESPONSE TO 50W EXERCISE
Control Group

Subject		Cardiac Index ($L/min/M^2$)		Central Blood Volume (ml)		Stroke Volume (ml)		Heart Rate		Peripheral Vascular Resistance ($dynes\text{-}sec\text{-}cm^{-5}$)		Pulmonary Vascular Resistance ($dynes\text{-}sec\text{-}cm^{-5}$)	
		0	50W	0	50W	0	50W	0	50W	0	50W	0	50W
4	Pre-	4.68	-	2000	-	124	-	66	112	866	-	135	-
	Post	4.58	6.08	1710	1698	103	71	66	150	895	669	119	97
6	Pre-	3.06	5.85	1152	1734	89	104	68	112	1062	729	163	99
	Post	2.89	3.76	1100	1270	76	56	80	127	1324	1272	144	155
8	Pre-	2.21	4.45	1026	1491	76	88	60	84	1837	1131	398	202
	Post	3.63	8.41	1387	2715	88	130	81	114	1234	562	107	54
10	Pre-	1.94	4.98	979	1945	60	100	60	95	1748	854	223	131
	Post	2.50	4.59	1089	-	55	69	83	128	1378	857	150	95
12	Pre-	3.69	7.05	1678	3600	104	137	70	108	918	528	160	72
	Post	4.02	6.24	1564	2122	95	111	85	115	874	579	128	75
13	Pre-	3.48	5.79	1482	1871	105	105	72	103	1090	726	168	85
	Post	2.96	4.82	1468	1639	73	73	83	130	1300	-	-	-
15	Pre-	3.54	5.60	1401	1862	89	84	64	119	1161	816	116	73
	Post	2.23	4.60	1214	1853	63	67	79	123	1728	-	-	-
19	Pre-	4.13	6.59	1624	2173	90	103	98	124	880	688	128	87
	Post	3.34	5.07	1314	1672	86	88	88	132	1086	765	136	81

TABLE 19

HEMODYNAMIC RESPONSE TO 50W EXERCISE
9-α-Fluorohydrocortisone Group

Subject	Cardiac Index (L/min/M2)		Central Blood Volume (ml)		Stroke Volume (ml)		Heart Rate		Peripheral Vascular Resistance (dynes-sec-cm^{-5})		Pulmonary Vascular Resistance (dynes-sec-cm^{-5})	
	0	50W	0	50W	0	50W	0	50W	0	50W	0	50W
5 Pre-	3.62	5.83	1309	1623	115	96	51	98	1186	862	146	107
Post	2.46	4.04	845	1112	71	56	66	127	1668	1377	225	202
7 Pre-	2.16	3.66	896	1160	68	73	55	92	1923	1268	304	183
Post	2.55	4.47	1007	1253	72	58	70	114	1727	1130	237	170
8 Pre-	2.87	5.09	1392	1722	86	111	68	106	1247	774	181	98
Post	2.90	5.23	1157	1628	85	93	74	116	1156	812	120	51
11 Pre-	3.55	6.65	1155	1765	84	137	75	110	1198	751	236	126
Post	3.04	6.58	1429	2580	78	113	71	108	1346	669	-	-
14 Pre-	3.12	6.79	1292	1986	102	145	64	95	1184	661	245	204
Post	3.11	5.28	1362	1847	101	108	75	102	1272	828	161	113
16 Pre-	2.54	5.94	1403	2118	83	128	59	97	1492	659	170	82
Post	3.06	4.43	1382	1536	102	93	52	84	1308	811	102	100
17 Pre-	2.20	5.42	1000	1595	68	100	55	85	1902	824	245	113
Post	2.48	4.30	1137	1632	78	90	55	86	1721	1094	-	-
18 Pre-	2.81	5.11	1123	1334	74	78	59	109	1426	873	165	95
Post	3.46	5.30	1222	1319	88	78	75	120	1254	956	40	83
20 Pre-	2.86	6.69	1346	2141	85	124	67	114	1222	592	116	95
Post	2.52	5.08	1180	1767	77	97	60	115	1573	784	182	79

TABLE 20
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HEMODYNAMIC RESPONSE TO 50 W EXERCISE

9-α-Fluorohydrocortisone vs Control Group

			No. Studies	Supine Rest	50 W	Δ
		Control	7	3.15	5.76	+2.61
	Pre-	9-α	9	2.75	5.69	+2.94
CARDIAC		P		0.9		0.4
INDEX		Control	7	3.08	5.36	+2.28
($L/min/M^2$)	Post-	9-α	9	2.84	4.97	+2.13
		P		0.4		0.8
		Control	6	1394	2122	+728
CENTRAL	Pre-	9-α	9	1213	1716	+503
BLOOD		P		0.2		0.4
VOLUME (ml)		Control	6	1341	1878	+537
	Post-	9-α	9	1191	1630	+439
		P		0.2		0.7
		Control	7	88	103	+15
	Pre-	9-α	9	85	110	+25
STROKE		P		0.8		0.6
VOLUME		Control	7	76	85	+9
(ml)	Post-	9-α	9	84	87	+3
		P		0.3		0.7

TABLE 20
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HEMODYNAMIC RESPONSE TO 50 W EXERCISE

9-α-Fluorohydrocortisone vs Control Group

			No. Studies	Supine Rest	50 W	Δ
HEART RATE	Pre-	Control	8	70	107	+37
		9-α	9	61	101	+40
		P		0.1		0.7
	Post-	Control	8	81	127	+46
		9-α	9	66	108	+42
		P		<0.005		0.4
PERIPHERAL VASCULAR RESISTANCE (dynes-sec-cm^{-5})	Pre-	Control	5	1289	786	-503
		9-α	9	1420	807	-613
		P		0.6		0.5
	Post-	Control	5	1179	807	-372
		9-α	9	1447	940	-507
		P		0.5		0.3
PULMONARY VASCULAR RESISTANCE (dynes-sec-cm^{-5})	Pre-	Control	5	214	118	-96
		9-α	7	190	123	-67
		P		0.7		0.4
	Post-	Control	5	133	92	-41
		9-α	7	152	114	-38
		P		0.6		0.9

TABLE 21

HEMODYNAMIC RESPONSE TO 50 W EXERCISE

COMBINED DATA OF ALL SUBJECTS

		No. Studies	Supine Rest	50 W	Δ	P
CARDIAC INDEX ($L/min/M^2$)	Pre-	16	2.93	5.72	+2.79	<0.001
	Post-	16	2.95	5.14	+2.19	<0.001
	P		0.95	<0.001		
CENTRAL BLOOD VOLUME (ml)	Pre-	15	1285	1878	+593	<0.001
	Post-	15	1251	1729	+478	<0.001
	P		0.70	0.50		
STROKE VOLUME (ml)	Pre-	16	86	107	+21	<0.005
	Post-	16	81	86	+ 5	0.5
	P		0.4	<0.02		
HEART RATE	Pre-	17	65	102	+37	<0.001
	Post-	17	73	117	+44	<0.001
	P		<0.02	<0.001		
PERIPHERAL VASCULAR RESISTANCE ($dynes\text{-}sec\text{-}cm^{-5}$)	Pre-	14	1373	800	-573	<0.005
	Post-	14	1351	893	-458	<0.001
	P		0.9	0.2		
PULMONARY VASCULAR RESISTANCE ($dynes\text{-}sec\text{-}cm^{-5}$)	Pre-	12	200	121	-79	<0.01
	Post-	12	144	105	-39	0.1
	P		0.1	0.4		

TABLE 22

LEFT VENTRICULAR WORK
(Kgm/min)

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Before Bedrest 0	Before Bedrest 50 W	After Bedrest 0	After Bedrest 50 W	Subject	Before Bedrest 0	Before Bedrest 50 W	After Bedrest 0	After Bedrest 50 W
4*	10.56	-	9.04	13.17	5	7.80	13.91	5.58	10.43
6	7.23	15.83	7.68	11.31	7	5.09	9.19	6.20	12.29
8	5.81	12.06	8.34	20.93	9	8.08	14.92	8.06	16.50
10	9.22	12.24	5.09	10.81	11	8.02	18.50	6.51	17.42
12	9.17	18.96	9.98	16.27	14	10.46	23.71	10.02	17.98
13	8.90	15.90	7.30	13.28	16	6.13	15.53	7.77	10.63
15	8.01	13.33	5.39	11.42	17	4.91	11.91	5.50	9.94
19	10.47	19.49	8.65	12.83	18	5.32	10.55	7.33	12.31
					20	6.28	17.29	6.11	13.33
Group Average	7.69	15.40	7.49	13.83		6.90	15.06	7.01	13.45
					P**	0.5	0.98	0.8	0.9

Combined Group

	Before Bedrest 0	Before Bedrest 50 W	Before Bedrest P	After Bedrest 0	After Bedrest 50 W	After Bedrest P
Mean	7.25	15.21	<0.001	7.22	13.62	<0.001
P***				0.95	0.3	

*Results not included in averages
**Comparison with Control Group data
***Comparison with prerecumbency data

TABLE 23

OXYGEN CONSUMPTION
(ml/min)

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Before Bedrest		After Bedrest		Subject	Before Bedrest		After Bedrest	
	0	50 W	0	50 W		0	50 W	0	50 W
4	250	1035	254	1020	5	230	1019	216	969
6	269	976	251	977	7	239	927	254	935
8	245	977	224	941	9	269	1020	277	969
10	213	904	208	896	11	257	961	228	974
12	294	910	275	871	14	246	969	232	965
13	244	933	221	967	16	198	929	251	721
15	202	940	196	880	17	216	862	217	844
19	260	978	323	913	18	213	885	215	851
					20	230	940	233	924
Group Average	247	957	244	933		233	946	236	906
					P*	<0.3	<0.7	<0.5	<0.5

Combined Group

	Before Bedrest			After Bedrest		
	0	50 W	P	0	50 W	P
Mean	240	951	<0.001	240	919	<0.001
P**				1.0	0.2	

*Comparison with control data
**Comparison with prerecumbency data

TABLE 24

OXYGEN CONSUMPTION
(ml/min)

CONTROL GROUP									9-α-FLUOROHYDROCORTISONE GROUP								
Subject	Before Bedrest				After Bedrest				Subject	Before Bedrest				After Bedrest			
	0	50W	75W	100W	0	50W	75W	100W		0	50W	75W	100W	0	50W	75W	100W
12	294	910	1115	1465	275	871	1127	1514	14	246	969	1089	1518	232	965	1214	1595
13	244	933	1132	1519	221	967	1133	1630	16	198	929	1056		251	721	1250	
15	202	940	1238	1548	196	880	1120	1456	17	216	862	1147	1556	217	844	1140	1664
19	260	978	1280	1670	323	913	1128	1524	18	213	885	1091	1502	215	851	1117	1434
									20	230	940	1284	1637	233	924	1228	1633
Group Average	250	940	1191	1551	254	908	1127	1531		221	917	1133	1533	230	861	1190	1582

TABLE 25

VENTILATORY EQUIVALENT
(L/100 ml O_2)

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Before Bedrest 0	Before Bedrest 50 W	After Bedrest 0	After Bedrest 50 W	Subject	Before Bedrest 0	Before Bedrest 50 W	After Bedrest 0	After Bedrest 50 W
4	2.40	2.03	2.18	2.21	5	2.20	1.57	2.22	1.89
6	2.08	1.85	1.92	2.20	7	2.23	1.90	2.37	2.15
8	2.37	2.00	2.59	2.29	9	2.27	2.08	1.96	2.05
10	1.98	1.83	2.07	2.10	11	2.28	1.68	2.57	1.71
12	2.08	2.03	2.14	1.87	14	2.26	1.98	2.12	2.06
13	1.89	1.93	2.21	2.03	16	2.28	2.17	2.11	2.02
15	2.09	1.89	2.31	2.12	17	2.60	1.94	2.69	2.11
19	2.26	2.35	3.06	2.43	18	1.88	1.86	2.02	2.30
					20	2.75	2.21	2.53	2.16
Group Average	2.14	1.99	2.31	2.16		2.30	1.93	2.29	2.05
					P*	0.2	0.6	0.9	0.3

Combined Group

	Before Bedrest 0	Before Bedrest 50 W	Before Bedrest P	After Bedrest 0	After Bedrest 50 W	After Bedrest P
Mean	2.22	1.96	<0.02	2.30	2.10	<0.025
P**				0.4	0.05	

*Comparison with Control Data
**Comparison with before bedrest data

TABLE 26

EXERCISE FACTOR

(Δ C.O./100 ml O_2)

CONTROL GROUP			9-α-FLUOROHYDROCORTISONE GROUP		
Subject	Before Bedrest	After Bedrest	Subject	Before Bedrest	After Bedrest
4*	-	0.34	5	0.47	0.35
6	0.76	0.23	7	0.40	0.50
8	0.55	1.17	9	0.62	0.70
10	0.81	0.56	11	0.80	0.90
12	1.14	0.79	14	1.11	0.66
13	0.68	0.50	16	0.93	0.60
15	0.49	0.55	17	0.84	0.49
19	0.67	0.58	18	0.56	0.47
			20	1.07	0.75
Group Average	0.73	0.63		0.76	0.60
			P**	0.5	0.8

Combined Group

	Before Bedrest	After Bedrest
Mean	0.75	0.61
P***		0.1

*Results not included in group average
**Comparison with control data
***Comparison with before bedrest data

TABLE 27

TYRAMINE STIMULATION TEST

MAXIMUM RISE IN ARTERIAL SYSTOLIC PRESSURE

(mm Hg)

Control Group			9-α-Fluorohydrocortisone Group		
SUBJECT NO.	PRE-	POST-	SUBJECT NO.	PRE-	POST-
3	17	36	2	7	13
4	17	16	5	13	5
6	19	20	7	39	16
8	13	10	9	13	6
10	19	19	11	16	19
12	14	10	14	14	23
13	6	6	16	15	19
15	16	17	17	25	11
19	10	5	20	24	14
Mean	15	15		18	14
			P*	0.5	0.8

COMBINED GROUP

Pre-Recumbency Mean	16.5	Post-Recumbency Mean	14.5
		P**	0.5

* Comparison with Control Group data

**Comparison with Pre-Recumbency data

TABLE 28

TOTAL BLOOD VOLUME

Control Group
(ml)

	Ambulant Day		Bedrest Day				
Subject	1	7	1	2	6	11	15
A	5877	6008	5720	5463	5862	5273	5684
1	5371	4931	5470	4370	4774	5123	-
2	-	3990	3990	3629	4473	4032	3420
4	4893	5301	4845	4655	4655	-	4617
6	6018	6294	5201	5676	5985	5819	6033
8	5567	5225	4988	4703	5149	5463	5006
10	6013	5443	5396	4845	4911	4679	5225
12	6228	5995	6073	-	5658	5751	5945
13	5198	5498	4969	4999	4103	5232	4860
15	4796	4884	4746	4476	4612	4076	4004
19	6063	5318	5788	5531	5227	-	6167
Mean	5602	5353	5199	4835	5037	5050	5096
S.E.*	±369	±425	±390	±437	±403	±493	±649
Composite Mean			5378		4941		5074
S.E.*			±203		±271		±374
P**					<0.01		0.1

*95 % Confidence Limits
**Comparison with ambulant values

TABLE 29

TOTAL BLOOD VOLUME

9-α-Fluorohydrocortisone Group
(ml)

	Ambulant Day		Bedrest Day				
Subject	1	7	1	2	6	11	15
B	5662	5795	5890	5558	5510	5558	5254
3	5272	5890	6194	5700	5035	4940	4465
5	4341	4750	4209	4133	4204	4489	-
7	5491	4608	4845	4608	4798	4988	5177
9	5918	5985	5956	5386	6602	6241	5710
11	5814	5254	5178	5866	5092	-	4608
14	5045	-	-	5338	5738	5520	5337
16	5200	5385	5958	5372	4992	5234	4824
17	4131	3886	3939	3943	4179	3913	3792
18	4063	4151	3906	4106	4096	3716	4429
20	5504	4951	5228	5048	4935	4895	4761
Mean	5131	5066	5130	5005	5016	4949	4836
S.E.*	±448	±520	±629	±463	±501	±547	±396
Composite Mean			5110		5010		4892
S.E.*			±268		±327		±322
p**					0.7		0.3

*95 % Confidence Limits
**Comparison with ambulant values

TABLE 30

PLASMA VOLUME

Control Group
(ml)

	Ambulant Day		Bedrest Day				
Subject	1	7	1	2	6	11	15
A	3462	3539	3511	3234	3453	3186	3488
1	3339	3213	3620	2889	3020	3193	----
2	----	2600	2675	2365	2914	2589	2284
4	3095	3354	3203	3077	2989	----	2921
6	3750	3949	3312	3591	3730	3571	3759
8	3364	3256	3155	2975	3095	3456	3189
10	3463	3392	3414	2836	2968	2778	3207
12	3881	3793	3900	----	3395	3421	3703
13	3636	3397	3212	3068	2501	3310	3075
15	2761	2905	2823	2601	2656	2313	2440
19	3480	3170	3531	3522	3257	----	3784
Mean	3423	3324	3305	3016	3089	3091	3185
S.E.*	±229	±254	±236	±269	±238	±332	±378
Composite Mean			3348		3054		3140
S.E.*			±123		±159		±227
P**					<0.001		<0.1 >0.05

*95 % Confidence Limits
**Comparison with ambulant values

TABLE 31

PLASMA VOLUME

9-α-Fluorohydrocortisone Group
(ml)

	Ambulant Day		Bedrest Day				
Subject	1	7	1	2	6	11	15
B	3260	3447	3593	3411	3381	3411	3174
3	2966	3559	3977	3552	3090	3031	2740
5	2582	2960	2702	2614	2637	2840	----
7	3422	2959	3157	3002	3081	3176	3275
9	3383	3616	3599	3204	3927	3712	3504
11	3403	3274	3226	3544	3028	----	2828
14	2979	----	----	3428	3576	3411	3225
16	3241	3457	3883	3472	3132	3212	3006
17	2496	2384	2587	2532	2622	2476	2435
18	2455	2604	2545	2636	2630	2200	2886
20	3639	3346	3555	3289	3242	3190	3077
Mean	3076	3161	3282	3153	3123	3066	3015
S.E.*	±272	±296	±378	±265	±272	±323	±219
Composite Mean			3170		3138		3041
S.E.*			±159		±173		±176
p**					<0.9		<0.3

*95 % Confidence Limits
**Comparison with ambulant values

TABLE 32

RED CELL VOLUME

Control Group
(ml)

	Ambulant Day		Bedrest Day				
Subject	1	7	1	2	6	11	15
A	2415	2469	2209	2229	2409	2087	2196
1	2032	1718	1850	1481	1754	1930	-
2	-	1390	1315	1264	1559	1443	1136
4	1798	1947	1642	1578	1666	-	1696
6	2268	2345	1889	2085	2255	2248	2274
8	2203	1969	1833	1728	2054	2007	1817
10	2550	2051	1982	2009	1943	1901	2018
12	2347	2202	2173	-	2263	2330	2239
13	1562	2101	1757	1931	1602	1922	1785
15	2035	1979	1923	1875	1956	1763	1564
19	2583	2148	2257	2009	1970	-	2383
Mean	2179	2029	1894	1819	1948	1959	1911
S.E.*	±234	±197	±183	±215	±191	±202	±277
Composite Mean			2029		1887		1934
S.E.*			±104		±130		±156
P**					<0.1>0.05		0.3

*95 % Confidence Limits
**Comparison with ambulant values

TABLE 33

RED CELL VOLUME

9-α-Fluorohydrocortisone Group
(ml)

	Ambulant Day		Bedrest Day				
Subject	1	7	1	2	6	11	15
B	2402	2348	2297	2147	2129	2147	2080
2	2306	2331	2217	2148	1945	1909	1725
5	1759	1790	1507	1519	1567	1649	-
7	2069	1649	1688	1606	1717	1812	1902
9	2535	2369	2357	2182	2675	2529	2206
11	2411	1980	1952	2322	2064	-	1780
14	2066	-	-	1910	2162	2109	2112
16	1959	1928	2075	1900	1860	2022	1818
17	1635	1502	1352	1411	1557	1437	1357
18	1608	1547	1361	1470	1466	1516	1543
20	1865	1605	1673	1759	1693	1705	1684
Mean	2056	1905	1848	1852	1894	1884	1821
S.E.*	±218	±245	±273	±216	±237	±236	±189
Composite Mean			1940		1873		1852
S.E.*			±124		±146		±136
P**					0.5		0.4

*95 % Confidence Limits
**Comparison with ambulant values

TABLE 34
Page 1

FLUID BALANCE DATA
(ml)

Control Group

	SUBJECT 1			SUBJECT 3		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	3290	2120	1170	3291	2420	871
2	2790	1485	1305	3041	2510	1402
3	3040	1890	1150	-	-	-
4	2790	1600	1190	2791	2290	501
5	3150	1660	1490	2791	2030	761
6	3941	2470	1471	3511	2771	740
7	3510	2182	1328	3391	2384	1007
Mean	3215	1915	1300	3136	2400	736
Bedrest						
1	2790	2490	300	2291	2020	271
2	2790	2400	390	2141	1690	451
3	3290	2510	780	2791	2450	341
4	3170	2610	560	2901	2230	671
5	3075	2440	635	2551	1990	561
6	4015	3548	467	3506	3141	365
7	2790	1840	950	2791	2071	720
8	2790	1810	980	2291	1875	416
9	3290	2614	676	2291	1905	386
10	2790	2590	200	2791	2450	341
11	3290	3015	275	3291	2525	766
12	4055	2930	1125	3021	2143	878
13	3290	2980	310	2591	2143	448
14	3080	2770	310	-	-	-
Mean	3178	2610	568	2711	2202	509

TABLE 34
Page 2

FLUID BALANCE DATA
(ml)

Control Group

	SUBJECT 4			SUBJECT 6		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2411	1620	791	2781	1800	981
2	2411	1635	776	2281	1600	681
3	2411	1840	571	2081	-	-
4	2411	1660	751	2581	2065	516
5	2411	1750	661	2141	1500	641
6	3631	2975	656	4681	3805	876
7	3321	2228	1093	2701	1635	1066
Mean	2715	1958	757	2749	2067	682
Bedrest						
1	2411	1750	661	2281	2400	-119
2	2411	1785	626	2281	1590	691
3	2411	1440	971	2281	1790	491
4	2411	2380	31	2281	1720	561
5	2411	2240	171	2781	2230	551
6	2911	2050	861	5311	4765	546
7	2411	1950	461	2281	1680	601
8	2411	2040	371	2281	2055	226
9	2411	1775	636	2281	1920	361
10	2411	2100	311	2281	1590	691
11	2411	2190	221	2281	2110	171
12	2411	2090	321	4201	3620	581
13	-	-	-	2781	2630	151
14	2411	1690	721	2481	2110	371
Mean	2449	1960	489	2720	2300	420

TABLE 34
Page 3

FLUID BALANCE DATA
(ml)

Control Group

	SUBJECT 8			SUBJECT 10		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2495	1860	635	3120	2590	530
2	2235	1640	595	2620	1795	825
3	2235	1960	275	2620	1510	1110
4	2235	2000	235	2420	1210	1210
5	2235	2050	185	2620	1190	1430
6	3845	3515	330	3620	3595	25
7	2490	1875	615	2620	2573	47
Mean	2538	2128	410	2805	2066	739
Bedrest						
1	2035	2090	-55	2120	2310	-190
2	2735	2520	215	2620	2520	100
3	2235	2190	45	2620	2070	550
4	2505	1840	665	2620	2530	90
5	2495	2060	435	2220	2045	175
6	4980	4338	642	2620	2100	520
7	2385	2160	225	2320	2120	200
8	2645	2230	415	2620	2470	150
9	2525	2095	430	2620	2150	470
10	2355	2000	355	2620	2470	150
11	2555	2090	465	2620	2530	90
12	4235	3589	646	2620	2500	120
13	2235	2130	105	*3270	2840	430
14	2295	2040	255	2620	2320	300
Mean	2729	2383	346	2580	2355	225

*Febrile Episode

TABLE 34
Page 4

FLUID BALANCE DATA
(ml)

Control Group

	SUBJECT 12			SUBJECT 13		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2438	640	1798	2762	2320	442
2	3328	2010	1318	2582	1910	672
3	3438	1910	1528	3002	2920	82
4	3938	3150	788	2762	2620	142
5	3438	2915	523	2762	2070	692
6	3368	1820	1548	2392	2800	-408
7	3288	2928	360	3712	2896	816
Mean	3319	2196	1123	2853	2505	348
Bedrest						
1	2588	2340	248	2962	2880	82
2	2538	2270	268	2492	2510	-18
3	2588	1785	803	2762	2610	152
4	2828	1630	1198	3082	2820	262
5	2938	2045	893	2762	2520	242
6	2938	1840	1098	2762	2520	242
7	3278	2580	698	2742	2290	452
8	3198	2170	1028	2582	2390	192
9	3438	2790	648	*4762	3820	942
10	3438	3030	408	*3982	2720	1262
11	2938	2180	758	*3262	-	
12	3758	2800	958	2892	1710	1182
13	2938	2430	508	2262	1620	642
14	3048	2440	608	2502	2170	332
Mean	3032	2309	723	2986	2506	480

*Febrile Episode

TABLE 34
Page 5

FLUID BALANCE DATA
(ml)

Control Group

	SUBJECT 15			SUBJECT 19		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2211	1120	1091	3080	2570	510
2	2211	850	1361	3390	2880	510
3	2711	2140	571	3360	3140	220
4	2211	1590	621	3750	3350	400
5	2921	2120	801	2770	2720	50
6	2961	2450	511	3340	3030	310
7	3211	1730	1481	3710	3207	503
Mean	2633	1714	919	3342	2985	357
Bedrest						
1	2711	2350	361	3090	2780	310
2	2501	1430	1071	3220	2970	250
3	2601	2230	371	2670	3300	370
4	2511	2300	211	3440	2970	470
5	2211	2270	59	3940	3700	240
6	2621	1790	831	3440	2900	540
7	2141	1860	281	3440	3110	330
8	2711	2160	551	3440	3250	190
9	2211	1920	291	3440	3050	390
10	2411	2150	261	3440	3090	350
11	2211	2590	-379	3210	2590	620
12	2361	2290	71	3235	3010	225
13	2321	1890	431	2940	3190	-250
14	-	-	-	2940	2820	120
Mean	2424	2094	330	3348	3052	296

TABLE 35
Page 1

FLUID BALANCE DATA
(ml)

9-α-Fluorohydrocortisone Group

	SUBJECT 2			SUBJECT 5		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2291	1780	511	2550	1830	720
2	2291	1748	543	2411	1745	666
3	2291	1790	501	2061	1460	601
4	2631	2240	391	2501	1800	701
5	2291	1770	521	3176	2560	616
6	3456	2289	1167	4881	4538	343
7	3091	2469	622	3931	3190	741
Mean	2620	2012	608	3073	2446	627
Bedrest						
1	2631	1730	901	2781	2750	31
2	2291	1880	411	3281	2300	981
3	2291	1974	317	2781	2395	386
4	2541	2360	181	3281	3200	81
5	2791	2390	401	3281	2690	591
6	3506	2945	561	4566	4515	51
7	2791	2140	651	3281	2740	541
8	2791	2310	481	2781	2480	301
9	2541	2060	481	2531	2390	141
10	-	-	-	2781	-	-
11	2541	2280	261	3581	2900	681
12	3481	2578	903	5031	4410	621
13	2291	2110	181	2781	2820	-39
14	-	1461	-	2781	2540	241
Mean	2707	2170	537	3251	2933	318

TABLE 35
Page 2

FLUID BALANCE DATA
(ml)

9-α-Fluorohydrocortisone Group

	SUBJECT 7			SUBJECT 9		
Day	Intake	Output	Balance	Intake	Output	Balance
Ambulant						
1	2281	1930	351	2905	2330	575
2	2781	1630	1151	2535	-	-
3	2781	2630	151	2153	2000	153
4	2281	2250	31	2435	2340	95
5	2221	1660	561	2535	1930	605
6	4261	4170	91	6373	5775	598
7	3081	1910	1171	3203	2390	813
Mean	2812	2311	501	3162	2794	368
Bedrest						
1	2021	2120	-99	3283	3150	133
2	2621	1605	1016	3853	3270	583
3	2781	2450	331	3053	3350	-297
4	2781	2905	-129	2553	2510	43
5	2281	2190	91	2973	2390	583
6	4091	3895	196	5313	3425	1888
7	2281	2185	96	3053	2570	483
8	2161	1830	331	2833	2410	423
9	2281	1910	371	2853	1995	858
10	2281	1710	571	3153	2830	323
11	2281	2010	271	2453	2350	103
12	2281	2020	261	5323	5070	253
13	4151	3550	601	3553	3090	463
14	2281	1890	391	-	-	-
Mean	2612	2305	307	3403	2954	449

TABLE 35
Page 3

FLUID BALANCE DATA
(ml)

9-α-Fluorohydrocortisone Group

	SUBJECT 11			SUBJECT 14		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2502	2330	172	2078	1410	668
2	2862	1950	912	2838	1840	998
3	2422	1750	672	2838	2000	838
4	2462	1710	752	-	-	-
5	2502	2510	-8	2838	1810	1028
6	2412	1800	612	2838	1780	1058
7	3660	2460	1200	3338	3402	-62
Mean	2688	2072	616	2794	2040	754
Bedrest						
1	2402	2190	212	2218	1660	558
2	2262	2090	172	2248	1330	918
3	2262	2245	17	2838	2545	393
4	1937	2130	-193	3338	2820	518
5	1912	1390	522	2338	2580	-242
6	1982	1810	172	2338	2190	148
7	2462	2190	272	2338	1720	618
8	2187	2180	7	2838	1940	898
9	2162	1900	262	2338	2290	48
10	2372	2130	242	2838	2815	23
11	2372	2090	282	2338	1940	398
12	2262	2280	-18	2838	2890	-52
13	2012	2060	-48	2838	2670	168
14	1992	1670	322	2838	3300	-462
Mean	2184	2025	159	2608	2335	273

TABLE 35
Page 4

FLUID BALANCE DATA
(ml)

9-α-Fluorohydrocortisone Group

	SUBJECT 16			SUBJECT 17		
Ambulant						
Day	Intake	Output	Balance	Intake	Output	Balance
1	2748	1780	968	2050	1500	550
2	2598	1940	658	2095	1650	445
3	2528	2160	368	2350	1740	610
4	2658	2150	508	2220	1870	350
5	2728	2010	718	2220	1790	430
6	2328	1590	738	2270	1720	550
7	2858	2320	538	2220	1950	270
Mean	2635	1992	643	2203	1745	458
Bedrest						
1	2188	2400	-212	2220	1800	420
2	2438	2050	388	1890	1930	-40
3	2438	2410	28	2140	1590	550
4	2438	2390	48	1950	1790	160
5	2938	2280	658	2220	2100	120
6	2938	2790	148	2220	1910	310
7	2848	2200	648	2220	1410	810
8	2938	2150	788	2220	1860	360
9	3378	2950	428	2220	1960	260
10	2938	2880	58	2220	1760	460
11	2938	2990	-52	2220	2080	140
12	2938	2810	128	2220	1800	420
13	3388	2690	698	2220	1760	460
14	2938	3000	-62	2720	2440	280
Mean	2834	2570	264	2207	1870	337

TABLE 35
Page 5

FLUID BALANCE DATA
(ml)

9-α-Fluorohydrocortisone Group

	SUBJECT 18			SUBJECT 20		
Day	Intake	Output	Balance	Intake	Output	Balance
Ambulant						
1	2220	1730	490	3348	2260	88
2	2220	1740	480	3423	3250	173
3	2220	1770	450	2938	2440	498
4	2720	2130	590	2938	2490	448
5	2330	2130	200	2873	2330	543
6	2720	2360	360	2788	2525	263
7	2720	2190	530	2728	2240	488
Mean	2450	2007	443	3005	2505	500
Bedrest						
1	2220	2320	-100	2938	2680	258
2	2220	1900	320	2668	2390	278
3	2220	1980	240	2778	2510	268
4	2220	1710	510	2663	2380	283
5	2220	1980	240	2858	2480	378
6	2320	1960	360	2708	2430	278
7	2330	2110	220	2678	2360	318
8	2300	1960	340	2543	2315	228
9	2220	1620	600	2715	1980	735
10	2320	2100	220	2615	2470	145
11	2440	2150	290	2640	2590	50
12	2470	1900	570	2440	1790	650
13	2300	2120	180	2440	2380	60
14	2360	1970	390	2610	2590	20
Mean	2297	1984	313	2663	2381	282

TABLE 36

FLUID BALANCE SUMMARY

CONTROL GROUP

	Average Daily Intake (ml)		Average Daily Output (ml)		Average Daily Balance (ml)	
Subject	Ambulant	Bedrest	Ambulant	Bedrest	Ambulant	Bedrest
1	3215	3178	1915	2610	1300	568
3	3136	2711	2400	2202	736	509
4	2715	2449	1958	1960	757	489
6	2749	2720	2067	2300	682	420
8	2538	2729	2128	2383	410	346
10	2805	2580	2066	2355	739	225
12	3319	3032	2196	2309	1123	723
13	2853	2986	2505	2506	348	480
15	2633	2424	1714	2094	919	330
19	3342	3348	2985	3052	357	296
Mean	2931	2816	2193	2377	738	439
S.E.*	±210	±221	±257	±222	±226	±104
P**						<0.02

*95% Confidence Limits
**Comparison with ambulant value

TABLE 37

FLUID BALANCE SUMMARY

9-α-FLUOROHYDROCORTISONE GROUP

	Average Daily Intake (ml)		Average Daily Output (ml)		Average Daily Balance (ml)	
Subject	Ambulant	Bedrest	Ambulant	Bedrest	Ambulant	Bedrest
2	2620	2707	2012	2170	608	537
5	3073	3251	2446	2933	627	318
7	2812	2612	2311	2305	501	307
9	3162	3403	2794	2954	368	449
11	2688	2184	2072	2025	616	159
14	2794	2608	2040	2335	754	273
16	2635	2834	1992	2570	643	264
17	2203	2207	1745	1870	458	337
18	2450	2297	2007	1984	443	313
20	3005	2663	2505	2381	500	282
Mean	2744	2677	2192	2353	552	324
S.E.*	209	234	292	268	83	74
P**						<0.001

*95% Confidence Limits
**Comparison with ambulant value

TABLE 38

FLUID BALANCE COMPARISON

CONTROL GROUP VS 9-α-FLUOROHYDROCORTISONE GROUP

		Average Daily Intake (ml)		Average Daily Output (ml)		Average Daily Balance (ml)	
		Ambulant	Bedrest	Ambulant	Bedrest	Ambulant	Becrest
Control	Mean	2931	2816	2193	2377	738	439
	S.E.*	±210	±221	±257	±216	±226	±104
9-α	Mean	2744	2677	2192	2353	552	324
	S.E.*	±209	±234	±224	±268	± 84	± 74
P**		<0.2	<0.5	<0.995	<0.99	<0.2	<0.1

*95% Confidence Limits

**Comparison with Control Group Data

TABLE 39

ELECTROLYTE CONTENT OF FORMULA DIETS

(Meq.)

SUBJECT	Na^+ PRED	Na^+ ANAL	K^+ PRED	K^+ ANAL	Ca^{++} PRED	Ca^{++} ANAL	Mg^{++} PRED	Mg^{++} ANAL
B	121.4	*	94.2	*	90.7	*	28.3	*
C	115.1	114.9	74.2	84.4	52.7	56.8	22.4	19.4
1-7	121.4	*	94.2	*	90.7	*	28.3	*
8	114.9	113.2	70.8	70.1	52.2	51.6	21.8	18.6
9	114.9	115.0	70.0	74.2	52.2	60.8	20.5	18.1
10	114.7	116.8	64.5	80.4	51.6	55.1	19.0	16.7
11	114.7	116.8	64.5	80.4	51.6	55.1	19.0	16.7
12	115.1	114.9	74.2	85.8	52.7	57.3	22.4	20.3
13	114.7	116.3	68.4	83.3	51.6	53.0	19.6	16.7
14	114.9	114.5	67.9	87.1	52.0	54.7	19.6	17.2
15	114.7	116.3	68.4	83.3	51.6	53.0	19.6	16.7
16	115.1	115.6	74.2	93.3	52.7	52.9	22.4	19.1
17	114.9	113.2	70.8	86.3	52.2	51.6	21.8	18.6
18	114.9	116.2	70.8	81.1	52.2	55.5	21.8	19.3
19	115.1	114.9	74.2	85.8	52.7	57.3	22.4	20.3
20	115.1	114.9	74.2	85.8	52.7	57.3	22.4	20.3

*Unsatisfactory Sample

TABLE 40

SODIUM BALANCE DATA

Control Group

	SUBJECT 1				SUBJECT 3			
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
AMBULANT								
1	121		91	30	121		126	-5
2	121		71	50	121		110	11
3	121		76	45	121		-	-
4	121		95	26	121		119	2
5	121		97	24	121		80	41
6	121	23	117	27	121	32	126	27
7	121		-		121		126	-5
Cumulative Balance	Uncorrected			+202				+71
	Corrected*			+82				-49
BEDREST								
1	121		155	-34	121		146	-25
2	121		137	-16	121		81	40
3	121		141	-20	121		127	-6
4	121		114	7	121		101	20
5	121		96	25	121		112	9
6	121	31	135	17	121	32	148	5
7	121		87	34	121		137	-16
8	121		111	10	121		136	-15
9	121		116	5	121		124	-3
10	121		120	1	121		127	-6
11	121		137	-16	121		129	-8
12	121		123	-2	121	34	105	50
13	121	39	135	25	121		144	-23
14	121		123	-2	121		-	-
Cumulative Balance	Uncorrected			+34				+22
	Corrected*			-246				-248

*20 meq/day for extrarenal sodium loss included.

TABLE 40

SODIUM BALANCE DATA

Control Group

	SUBJECT 4				SUBJECT 6			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	121		103	18	121		81	40
2	121		103	18	121		113	8
3	121		133	-12	121		-	-
4	121		140	-19	121		135	-14
5	121		112	9	121		115	6
6	121	25	133	13	121	53	137	37
7	121		93	28	121		89	32
Cumulative Balance	Uncorrected			+55				+109
	Corrected*			-85				-11
BEDREST								
1	121		117	4	121		174	-53
2	121		117	4	121		119	2
3	121		110	11	121		117	4
4	121		169	-48	121		92	29
5	121		144	-23	121		104	17
6	121		115	6	121	42	114	49
7	121		114	7	121		141	-20
8	121		108	13	121		132	-11
9	121		101	20	121		112	9
10	121		126	-5	121		88	33
11	121		132	-11	121		136	-15
12	121		122	-1	121	32	131	22
13	121	35	133	23	121		152	-31
14	121		140	-19	121		137	-16
Cumulative Balance	Uncorrected			-19				+19
	Corrected*			-299				-261

*20 meq/day for extrarenal sodium loss included.

TABLE 40

SODIUM BALANCE DATA

Control Group

	SUBJECT 8				SUBJECT 10			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	113		56	57	117		104	13
2	113		66	47	117		95	22
3	113		113	0	117		96	21
4	113		113	0	117		83	34
5	113		124	-11	117		97	20
6	113	33	125	21	117		132	-15
7	113		57	56	117		102	15
Cumulative Balance	Uncorrected			+170				+110
	Corrected*			+30				-30
BEDREST								
1	113		129	-16	117		162	-45
2	113		122	-9	117		154	-37
3	113		118	-5	117		94	23
4	113		86	27	117		112	5
5	113		81	32	117		103	14
6	113	37	172	-22	117		91	26
7	113		126	-13	117		110	7
8	113		119	-6	117		104	13
9	113		116	-3	117		111	6
10	113		99	14	117		112	5
11	113		92	21	117		127	-10
12	113	46	119	40	117		128	-11
13	113		134	-21	117		127	-10
14	113		134	-21	117		85	32
Cumulative Balance	Uncorrected			+18				+18
	Corrected*			-262				-262

*20 meq/day for extrarenal sodium loss included.

TABLE 40

SODIUM BALANCE DATA

Control Group

	SUBJECT 12				SUBJECT 13			
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
AMBULANT								
1	115		69	46	116		88	28
2	115		69	46	116		88	28
3	115		90	25	116		110	6
4	115		90	25	116		110	6
5	115		85	30	116		83	33
6	115		85	30	116		83	33
7	115		90	25	116		91	25
Cumulative Balance	Uncorrected			+227				+159
	Corrected*			+87				+19
BEDREST								
1	115		145	-30	116		123	-7
2	115		145	-30	116		123	-7
3	115		101	14	116		121	-5
4	115		101	14	116		121	-5
5	115		81	34	116		120	-4
6	115		81	34	116		120	-4
7	115		96	19	116		99	17
8	115		96	19	116		99	17
9	115		101	14	116		64	52
10	115		101	14	116		64	52
11	115		85	30	116		142	-26
12	115		85	30	116		142	-26
13	115		94	21	116		133	-17
14	115		94	21	116		133	-17
Cumulative Balance	Uncorrected			+204				+20
	Corrected*			-76				-260

*20 meq/day for extrarenal sodium loss included.

TABLE 40

SODIUM BALANCE DATA

Control Group

	SUBJECT 15				SUBJECT 19			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	116		94	22	115		58	57
2	116		79	37	115		38	57
3	116		79	37	115		72	43
4	116		94	22	115		72	43
5	116		94	22	115		98	17
6	116		90	26	115		98	17
7	116		54	62	115		107	8
Cumulative Balance	Uncorrected			+228				+242
	Corrected*			+88				+102
BEDREST								
1	116		112	4	115		114	1
2	116		112	4	115		114	1
3	116		122	-6	115		115	0
4	116		122	-6	115		115	0
5	116		105	11	115		92	23
6	116		105	11	115		92	23
7	116		100	16	115		97	18
8	116		100	16	115		97	18
9	116		112	4	115		93	22
10	116		112	4	115		93	22
11	116		81	35	115		98	17
12	116		81	35	115		98	17
13	116		86	30	115		107	8
14	116		86	30	115		107	8
Cumulative Balance	Uncorrected			+188				+178
	Corrected*			-92				-102

*20 meq/day for extrarenal sodium loss included.

TABLE 41

SODIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 2				SUBJECT 5			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	121		90	31	121		62	59
2	121		107	14	121		86	35
3	121		120	1	121		90	31
4	121		113	8	121		111	10
5	121		100	21	121		112	9
6	121	25	97	49	121	38	104	55
7	121		-	-	121		93	28
Cumulative Balance	Uncorrected			+124				+227
	Corrected*			+4				+87
BEDREST								
1	121		119	2	121		113	8
2	121		138	-17	121		112	9
3	121		116	5	121		80	41
4	121		151	-30	121		91	30
5	121		118	3	121		123	-2
6	121	33	149	5	121	43	137	27
7	121		100	21	121		139	-18
8	121		105	16	121		123	-2
9	121		134	-13	121		102	19
10	121		-	-	121		119	2
11	121		138	-17	121		115	6
12	121	29	133	17	121	38	146	13
13	121		146	-25	121		119	2
14	121		-	-	121		126	-5
Cumulative Balance	Uncorrected			-33				+130
	Corrected*			-273				-150

TABLE 41

SODIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 7				SUBJECT 9			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	121		91	30	115		79	36
2	121		69	52	115		66	49
3	121		128	-7	115		98	17
4	121		139	-18	115		160	-45
5	121		88	33	115		158	-43
6	121	38	161	-2	115	51	91	75
7	121		74	47	115		90	25
Cumulative Balance	Uncorrected			+135				+112
	Corrected*			-5				-26
BEDREST								
1	121		96	25	115		130	-15
2	121		75	46	115		112	3
3	121		98	23	115		139	-24
4	121		140	-19	115		91	24
5	121		112	9	115		79	36
6	121	40	117	44	115	40	78	77
7	121		-	-	115		108	7
8	121		103	18	115		112	3
9	121		115	6	115		116	-1
10	121		98	23	115		111	4
11	121		116	5	115		92	23
12	121		119	2	115	41	145	11
13	121	35	129	27	115		113	2
14	121		124	-3	115		108	7
Cumulative Balance	Uncorrected			+206				+157
	Corrected*			-54				-123

*20 meq/day for extrarenal sodium loss included.

TABLE 41

SODIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 11				SUBJECT 14			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	117		78	39	115		99	16
2	117		74	43	115		99	16
3	117		77	40	115		72	43
4	117		110	7	115		72	43
5	115		95	22	115		64	51
6	117		75	42	115		64	51
7	117		93	24	115		152	-37
Cumulative Balance	Uncorrected			+217				+183
	Corrected*			+77				+43
BEDREST								
1	117		92	25	115		99	16
2	117		97	20	115		99	16
3	117		103	14	115		109	6
4	117		113	4	115		109	6
5	117		115	2	115		121	-6
6	117		101	16	115		121	-6
7	117		83	34	115		94	21
8	117		119	-2	115		94	21
9	117		105	12	115		113	2
10	117		123	-6	115		113	2
11	117		119	-2	115		99	16
12	117		161	-44	115		99	16
13	117		92	25	115		129	-14
14	117		95	22	115		129	-14
Cumulative Balance	Uncorrected			+120				+82
	Corrected*			-160				-198

*20 meq/day for extrarenal sodium loss included.

TABLE 41

SODIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 16				SUBJECT 17			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	116		51	65	113		97	16
2	116		51	65	113		97	16
3	116		88	28	113		84	29
4	116		88	28	113		84	29
5	116		86	30	113		108	5
6	116		86	30	113		90	23
7	116		97	19	113		90	23
Cumulative Balance	Uncorrected			+265				+141
	Corrected*			+125				+1
BEDREST								
1	116		100	16	113		111	2
2	116		100	16	113		111	2
3	116		97	19	113		85	28
4	116		97	19	113		85	28
5	116		104	12	113		105	8
6	116		104	12	113		105	8
7	116		85	31	113		103	10
8	116		85	31	113		103	10
9	116		129	-13	113		112	1
10	116		129	-13	113		112	1
11	116		112	4	113		110	3
12	116		112	4	113		110	3
13	116		106	10	113		112	1
14	116		106	10	113		112	1
Cumulative Balance	Uncorrected			+158				+106
	Corrected*			-122				-174

*20 meq/day for extrarenal sodium loss included.

TABLE 41

SODIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 18				SUBJECT 20			
AMBULANT								
Day	Diet Intake	Other Intake	Urine Output	Balance	Diet Intake	Other Intake	Urine Output	Balance
1	116		79	37	115		65	50
2	116		90	37	115		97	18
3	116		90	26	115		87	28
4	116		90	26	115		87	28
5	116		121	-5	115		97	18
6	116		121	-5	115		97	18
7	116		62	54	115		99	16
Cumulative Balance	Uncorrected			+170				+176
	Corrected*			+30				+36
BEDREST								
1	116		93	23	115		99	16
2	116		93	23	115		99	16
3	116		92	24	115		99	16
4	116		92	24	115		99	16
5	116		109	7	115		112	3
6	116		109	7	115		112	3
7	116		132	-16	115		109	6
8	116		132	-16	115		109	6
9	116		98	18	115		99	16
10	116		98	18	115		99	16
11	116		105	11	115		92	23
12	116		105	11	115		92	23
13	116		112	4	115		137	-22
14	116		112	4	115		137	-22
Cumulative Balance	Uncorrected			+142				+116
	Corrected*			-138				-167

*20 meq/day for extrarenal sodium loss included.

TABLE 42

AVERAGE 24-HOUR URINARY SODIUM
(meq)

Control Group					9-α-Fluorohydrocortisone Group				
Subject	Ambulant	Bedrest	Δ	P*	Subject	Ambulant	Bedrest	Δ	P*
1	91	124	+33		2	105	129	+24	
3	115	124	+19		5	94	118	+24	
4	117	125	+18		7	107	111	+ 4	
6	112	125	+14		9	106	110	+ 4	
8	93	118	+25		11	86	108	+22	
10	101	116	+15		14	89	109	+20	
12	83	100	+17		16	78	105	+27	
13	93	115	+22		17	93	105	+12	
15	83	103	+20		18	93	98	+ 5	
19	78	102	+24		20	90	107	+17	
Mean	97	115	+18	<0.005		94	110	+16	<0.005
S.E.**	± 7	± 9				±7	± 6		
P***						<0.6	<0.4		

*Comparison with ambulant value
**95% Confidence Limits
***Comparison with Control Group

TABLE 43

AVERAGE 24-HOUR SODIUM BALANCE
(meq)

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Ambulant	Bedrest	Δ	P*	Subject	Ambulant	Bedrest	Δ	P*
1	33.7	2.4	-31.3		2	20.7	-2.4	-23.1	
3	11.8	0.9	-10.9		5	32.4	9.3	-23.1	
4	7.9	-1.4	- 9.3		7	19.3	14.7	- 4.6	
6	18.2	1.4	-16.0		9	16.3	11.2	- 5.1	
8	24.3	1.3	-23.0		11	31.0	8.6	-22.4	
10	15.7	1.3	-14.4		14	26.1	5.6	-20.5	
12	32.4	14.6	-17.8		16	37.9	11.3	-26.6	
13	22.7	1.4	-21.3		17	20.1	7.6	-12.5	
15	32.6	13.4	-19.2		18	24.3	10.1	-14.2	
19	34.6	16.0	-18.6		20	25.1	8.3	-16.8	
Mean	23.4	5.1	-18.2	<0.001		25.3	8.4	-16.9	<0.001
S.E.**	±6.8	±4.8				±4.9	±3.3		
P***						<0.7	<0.3		

*Comparison with ambulant value
**95% Confidence Limits
***Comparison with control group

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POTASSIUM BALANCE DATA

Control Group

	SUBJECT 1				SUBJECT 3			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	94	76	9	9	94	61	18	15
2	"	71	9	14	"	66	18	10
3	"	66	13	13	"	-	18	-
4	"	64	13	17	"	71	11	12
5	"	63	13	18	"	83	11	0
6	"	67	9	18	"	80	11	3
7	"	68	9	17	"	70	10	14
Cumulative Balance				+106				+54
Bedrest Day								
1	94	60	9	25	94	83	10	1
2	"	61	19	14	"	44	10	40
3	"	82	19	- 7	"	96	15	-17
4	"	86	19	-11	"	58	15	21
5	"	78	9	7	"	79	15	0
6	"	81	9	4	"	73	12	9
7	"	59	9	26	"	68	12	14
8	"	68	11	15	"	72	12	10
9	"	81	11	2	"	82	14	- 2
10	"	84	11	- 1	"	78	14	2
11	"	92	14	-12	"	74	14	6
12	"	71	14	9	"	56	12	26
13	"	81	14	- 1	"	75	12	7
14	"	73	14	7	"	66	12	16
Cumulative Balance				+77				+133

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POTASSIUM BALANCE DATA

Control Group

	SUBJECT 4				SUBJECT 6			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	94	73	15	6	94	66	11	17
2	"	66	13	15	"	78	11	5
3	"	58	13	23	"	-	11	-
4	"	72	13	9	"	71	17	6
5	"	84	13	- 3	"	81	17	- 4
6	"	79	13	2	"	88	17	-11
7	"	89	5	0	"	65	0	29
Cumulative Balance				+52				+42
Bedrest Day								
1	94	67	5	22	94	74	0	20
2	"	59	14	21	"	55	7	32
3	"	63	14	17	"	82	7	5
4	"	79	14	1	"	82	7	5
5	"	75	17	2	"	91	11	- 8
6	"	90	17	-13	"	92	11	- 9
7	"	75	17	2	"	82	11	1
8	"	83	14	- 3	"	83	13	- 2
9	"	87	14	- 7	"	78	13	3
10	"	80	14	0	"	81	13	0
11	"	87	14	- 7	"	90	15	-11
12	"	92	14	-12	"	95	15	-16
13	"	91	14	-11	"	85	15	- 6
14	"	75	-	19	"	86	15	- 7
Cumulative Balance				+31				+7

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POTASSIUM BALANCE DATA

Control Group

	SUBJECT 8				SUBJECT 10			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	70	90	18	-38	80	62	0	18
2	"	76	18	-24	"	64	0	16
3	"	69	18	-17	"	55	0	25
4	"	69	7	- 6	"	56	7	17
5	"	67	7	- 6	"	61	7	12
6	"	64	7	- 1	"	63	7	10
7	"	68	0	2	"	66	2	12
Cumulative Balance				-90				+110
Bedrest Day								
1	70	64	15	- 9	80	61	2	17
2	"	67	15	-12	"	62	2	16
3	"	74	15	-19	"	55	7	18
4	"	69	3	- 2	"	57	7	16
5	"	69	3	- 2	"	55	7	18
6	"	70	3	- 3	"	55	3	22
7	"	69	5	- 4	"	67	3	10
8	"	71	5	- 6	"	65	3	12
9	"	70	5	- 5	"	55	6	19
10	"	67	10	- 7	"	66	6	8
11	"	75	10	-15	"	63	6	11
12	"	55	10	5	"	75	0	5
13	"	72	10	-12	"	74	0	6
14	"	64	0	6	"	66	0	14
Cumulative Balance				-85				+192

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POTASSIUM BALANCE DATA

Control Group

	SUBJECT 12				SUBJECT 13			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	86	40			83	63	0	20
2	"	62			"	63	14	6
3	"	54			"	65	14	4
4	"	54	Specimen lost		"	65	14	4
5	"	59	"		"	60	8	15
6	"	59	"		"	60	8	15
7	"	83	"		"	63	8	12
Cumulative Balance				-				+76
Bedrest Day								
1	86	68	7	11	83	67	0	16
2	"	68	7	11	"	67	10	6
3	"	67	7	12	"	66	10	7
4	"	67	5	14	"	66	10	7
5	"	73	5	8	"	80	3	0
6	"	73	5	8	"	80	3	0
7	"	80	8	- 2	"	83	3	- 3
8	"	80	8	- 2	"	83	5	- 5
9	"	77	8	1	"	81	5	- 3
10	"	77	5	4	"	81	5	- 3
11	"	76	5	5	"	64	2	17
12	"	76	5	5	"	64	2	17
13	"	80	5	1	"	65	2	16
14	"	80	0	6	"	65	14	4
Cumulative Balance				+82				+76

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POTASSIUM BALANCE DATA

Control Group

	SUBJECT 15				SUBJECT 19			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	83	55	4	24	86	72	0	14
2	"	54	4	25	"	72	0	14
3	"	54	4	25	"	68	15	3
4	"	73	2	8	"	68	15	3
5	"	73	2	8	"	62	15	9
6	"	73	2	8	"	62	15	9
7	"	45	0	38	"	65	0	21
Cumulative Balance				+136				+73
Bedrest Day								
1	83	105	0	-22	86	62	0	24
2	"	105	7	-29	"	62	2	22
3	"	74	7	2	"	72	2	12
4	"	74	7	2	"	72	2	12
5	"	77	6	0	"	70	0	16
6	"	77	6	0	"	70	0	16
7	"	72	6	5	"	75	0	11
8	"	72	7	4	"	75	21	-10
9	"	71	7	5	"	76	21	-11
10	"	71	7	5	"	76	21	-11
11	"	74	6	3	"	70	11	5
12	"	74	0	9	"	70	11	5
13	"	64	0	19	"	68	11	7
14	"	64	0	19	"	68	11	7
Cumulative Balance				+22				+105

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POTASSIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 2				SUBJECT 5			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	94	78	0	16	94	78	19	- 3
2	"	77	15	2	"	81	19	- 6
3	"	74	15	5	"	66	19	9
4	"	65	16	13	"	74	15	5
5	"	75	10	9	"	80	15	- 1
6	"	73	10	11	"	80	15	- 1
7	"	-	10	-	"	68	15	11
Cumulative Balance				+56				+15
Bedrest Day								
1	94	68	3	23	94	82	0	12
2	"	82	3	9	"	62	12	20
3	"	80	3	11	"	77	12	5
4	"	82	9	3	"	97	12	-15
5	"	85	9	0	"	88	6	0
6	"	91	9	- 6	"	82	6	6
7	"	82	15	- 3	"	78	6	10
8	"	66	15	13	"	79	20	- 5
9	"	64	15	15	"	79	20	- 5
10	"	-	-	-	"	85	20	-11
11	"	78	19	- 3	"	83	31	-20
12	"	77	19	- 2	"	71	31	- 8
13	"	84	19	- 9	"	84	31	-21
14	"	54		-	"	74	31	-11
Cumulative Balance				+51				-43

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POTASSIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 7				SUBJECT 9			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	94	92	13	-11	74	61	0	13
2	"	85	13	- 4	"	48	11	15
3	"	86	13	- 5	"	45	11	18
4	"	82	12	0	"	65	11	- 2
5	"	84	12	- 2	"	68	7	- 7
6	"	89	12	- 7	"	68	7	- 7
7	"	76	0	18	"	66	7	- 5
Cumulative Balance				-11				+25
Bedrest Day								
1	94	95	0	- 1	74	69	13	- 8
2	"	100	0	- 6	"	63	13	- 2
3	"	92	5	- 3	"	71	13	-10
4	"	99	5	-10	"	61	11	2
5	"	108	5	-19	"	45	11	18
6	"	111	7	-24	"	42	11	21
7	"	-	7	-	"	67	9	- 2
8	"	83	7	4	"	64	9	1
9	"	85	11	- 2	"	56	9	9
10	"	62	11	21	"	63	9	2
11	"	92	11	- 9	"	64	9	1
12	"	88	16	-10	"	75	9	-10
13	"	93	16	-15	"	65	9	0
14	"	92	16	-14	"	56	0	18
Cumulative Balance				-88				+40

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POTASSIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 11				SUBJECT 14			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	80	66	0	14	87	57	0	30
2	"	56	17	7	"	57	10	20
3	"	59	17	4	"	46	10	31
4	"	50	17	13	"	46	10	31
5	"	51	0	29	"	60	17	10
6	"	30	0	50	"	60	17	10
7	"	63	0	17	"	71	17	- 1
Cumulative Balance				+134				+131
Bedrest Day								
1	80	60	11	9	87	53	11	23
2	"	70	11	- 1	"	53	11	23
3	"	66	11	3	"	67	11	9
4	"	56	31	- 7	"	67	3	17
5	"	68	31	-19	"	73	3	11
6	"	66	31	-17	"	73	3	11
7	"	55	0	25	"	63	12	12
8	"	58	0	22	"	63	12	12
9	"	58	0	22	"	66	12	9
10	"	55	12	13	"	66	15	6
11	"	63	12	5	"	67	15	5
12	"	70	12	- 2	"	67	15	5
13	"	64	17	- 1	"	70	37	-20
14	"	73	17	-10	"	70	37	-20
Cumulative Balance				+42				+103

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POTASSIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 16				SUBJECT 17			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	93	63	15	15	86	52	0	34
2	"	63	15	15	"	52	17	17
3	"	59	10	24	"	61	17	8
4	"	59	10	24	"	61	10	15
5	"	48	10	35	"	60	10	16
6	"	48	6	39	"	74	10	2
7	"	67	6	20	"	74	10	2
Cumulative Balance				+172				+94
Bedrest Day								
1	93	88	6	- 1	86	78	13	- 5
2	"	88	19	-14	"	78	13	- 5
3	"	79	19	- 5	"	81	13	- 8
4	"	79	19	- 5	"	81	10	- 5
5	"	57	14	22	"	68	10	8
6	"	57	14	22	"	68	10	8
7	"	54	14	25	"	68	5	13
8	"	54	15	24	"	68	5	13
9	"	68	15	10	"	70	5	11
10	"	68	15	10	"	70	15	1
11	"	78	16	- 1	"	72	15	- 1
12	"	78	16	- 1	"	72	15	- 1
13	"	70	16	7	"	66	15	5
14	"	70	8	15	"	66	0	20
Cumulative Balance				+108				+54

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POTASSIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 18				SUBJECT 20			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	81	71	16	- 6	86	56	14	16
2	"	71	16	- 6	"	56	14	16
3	"	71	10	0	"	56	14	16
4	"	71	10	0	"	59	29	- 2
5	"	63	10	8	"	59	29	- 2
6	"	63	10	8	"	64	0	22
7	"	68	0	13	"	64	0	22
Cumulative Balance				+17				+88
Bedrest Day								
1	81	82	10	-11	86	62	0	24
2	"	82	10	-11	"	61	0	25
3	"	69	10	2	"	61	7	18
4	"	69	15	- 3	"	67	7	12
5	"	74	15	- 8	"	67	7	12
6	"	74	15	- 8	"	70	7	9
7	"	65	12	4	"	70	7	9
8	"	65	12	4	"	67	7	12
9	"	65	12	4	"	67	8	11
10	"	65	11	5	"	69	8	9
11	"	65	11	5	"	69	8	9
12	"	65	11	5	"	74	8	4
13	"	70	11	0	"	74	0	12
14	"	70	0	11	"	76	0	10
Cumulative Balance				-1				+176

TABLE 46

AVERAGE 24-HOUR URINE POTASSIUM EXCRETION
(meq)

CONTROL GROUP				9-α-FLUOROHYDROCORTISONE GROUP			
Subject	Ambulant Mean	Bedrest Mean	p*	Subject	Ambulant Mean	Bedrest Mean	p*
1	68	76		2	74	76	
3	72	72		5	75	80	
4	74	79		7	85	94	
6	75	83		9	60	62	
8	72	68		11	54	63	
10	61	63		14	57	66	
12	59	74		16	58	71	
13	63	72		17	62	72	
15	61	77		18	68	70	
19	67	70		20	56	68	
Mean	67.2	73.4	<0.05		64.9	72.2	0.2
S.E.**	±4.2	±4.0			±7.2	±6.7	
p***					0.6	0.8	

* Comparison with Ambulant Value
** 95 % Confidence Limits
*** Comparison with Control Group

TABLE 47

AVERAGE 24-HOUR POTASSIUM BALANCE
(meq)

CONTROL GROUP				9-α-FLUOROHYDROCORTISONE GROUP			
Subject	Ambulant Mean	Bedrest Mean	P*	Subject	Ambulant Mean	Bedrest Mean	P*
1	15	6		2	9	4	
3	8	10		5	2	-3	
4	8	2		7	-2	-7	
6	7	1		9	4	3	
8	-13	-6		11	19	3	
10	16	14		14	19	7	
12	-	6		16	25	8	
13	11	5		17	13	4	
15	19	2		18	2	0	
19	10	8		20	13	13	
Mean	9	4.8	0.2		10.4	3.2	<0.05
S.E.**	±6.9	±4.0			±6.7	±4.0	
P***					0.6	0.6	

* Comparison with Ambulant Value
** 95 % Confidence Limits
*** Comparison with Control Group

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CALCIUM BALANCE DATA

Control Group

	SUBJECT 1				SUBJECT 3			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	91.60	7.11		84.49	91.60	4.99		86.61
2	"	4.93	98.15	-11.48	"	3.32		88.28
3	"	4.79		86.81	"		241.50	-149.90
4	"	5.52		86.08	"	4.49		87.11
5	"	5.46	205.42	-119.28	"	3.28		88.32
6	"	6.37		85.23	"	3.20	153.75	-65.35
7	"	4.25	87.56	- .21	"	4.86	57.34	29.40
Cumulative Balance				+211.64				+164.47
Bedrest Day								
1	91.60	7.25	43.78	40.57	91.60	2.88		88.72
2	"	5.84		85.76	"	2.15	114.68	-25.23
3	"	8.26		83.34	"	4.98		86.62
4	"	8.13	322.62	-239.15	"	5.49		86.11
5	"	7.72		83.88	"	5.77	257.87	-172.04
6	"	10.49		81.11	"	6.29		85.31
7	"	9.12	142.00	-59.52	"	4.41		87.19
8	"	6.22		85.38	"	4.99	220.32	-133.71
9	"	9.21		82.39	"	5.01		86.59
10	"	11.09	264.92	-184.41	"	6.87		84.73
11	"	11.34		80.26	"	7.70	172.32	-88.42
12	"	10.29		81.31	"	5.94		85.66
13	"	12.18	316.25	-236.83	"	8.58		83.02
14	"	11.38		80.22	"	5.05	193.92	-107.37
Cumulative Balance				+64.31				+247.18

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CALCIUM BALANCE DATA

Control Group

	SUBJECT 4				SUBJECT 6			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	91.60	7.19		84.41	91.6	10.09		81.51
2	"	8.69		82.91	"	11.77		79.83
3	"	9.43	231.75	-149.58	"	10.88	184.99	-104.27
4	"	9.75		81.85	"	11.83		79.77
5	"	9.49		82.11	"	11.57		80.03
6	"	9.06	269.36	-186.82	"	11.11	307.41	-226.92
7	"	9.15	31.06	51.39	"	10.24		81.36
Cumulative Balance				+46.27				+71.31
Bedrest Day								
1	91.60	10.84	31.06	49.70	91.6	14.69		76.91
2	"	11.72		79.88	"	16.48		75.12
3	"	12.42		79.18	"	16.18		75.42
4	"	13.79	241.74	-163.93	"	16.01	139.86	-64.27
5	"	14.30		77.30	"	15.26		76.34
6	"	12.59		79.01	"	15.01		76.59
7	"	13.64	297.51	-219.55	"	17.41	234.06	-159.87
8	"	13.10		78.50	"	16.34		75.26
9	"	14.15		77.45	"	17.60		74.00
10	"	15.19	243.88	-167.47	"	15.07	258.12	-181.59
11	"	15.51		76.09	"	17.51		74.09
12	"	14.44		77.16	"	16.35		75.25
13	"	14.82	211.10	-134.32	"	17.55		74.05
14	"	17.17		74.43	"	18.97	463.62	-390.99
Cumulative Balance				+63.43				-43.69

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CALCIUM BALANCE DATA

Control Group

	SUBJECT 8				SUBJECT 10			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	51.64	6.84		44.80	55.09	11.71		43.38
2	"	6.70		44.94	"	11.63		43.46
3	"	8.13	153.91	-110.40	"	12.99		42.10
4	"	8.21		43.43	"	13.42		41.67
5	"	8.58		43.06	"	12.54		42.55
6	"	9.03	63.97	-21.36	"	13.47	156.38	-114.76
7	"	7.31		44.33	"	10.47	14.48	30.14
Cumulative Balance				+88.80				+128.54
Bedrest Day								
1	51.64	9.24		42.40	55.09	13.15		41.94
2	"	10.27		41.37	"	12.74	28.96	13.99
3	"	10.67	176.13	-135.16	"	12.61		42.48
4	"	11.10		40.54	"	14.55		40.54
5	"	11.49		40.15	"	13.42	137.36	-95.69
6	"	11.97	94.94	-55.27	"	13.84		41.25
7	"	10.59		41.05	"	17.92		37.17
8	"	11.14		40.50	"	14.87	52.27	-12.05
9	"	11.83	91.79	-51.98	"	15.50		39.59
10	"	11.84		39.80	"	17.20		37.89
11	"	12.15		39.49	"	16.75	132.40	-94.06
12	"	11.68		39.96	"	17.82		37.27
13	"	12.88	198.69	-159.93	"	14.52		40.57
14	"	13.29		38.35	"	19.60		35.49
Cumulative Balance				+1.27				+205.78

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CALCIUM BALANCE DATA

Control Group

	SUBJECT 12				SUBJECT 13			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	57.28	8.09		49.19	52.99	7.92		45.07
2	"	8.09		49.19	"	7.92		45.07
3	"	10.05	124.5	-77.27	"	8.80		44.19
4	"	10.05		47.23	"	8.80	193.2	-149.01
5	"	10.04		47.24	"	7.06		45.93
6	"	10.04		47.24	"	7.06		45.93
7	"	9.14		48.14	"	7.96	113.8	-68.77
Cumulative Balance				+210.96				+8.41
Bedrest Day								
1	57.28	10.94		46.34	52.99	9.62		43.37
2	"	10.94		46.34	"	9.62		43.37
3	"	12.28	140.6	-95.60	"	10.40		42.59
4	"	12.28		45.00	"	10.40	144.5	-101.91
5	"	11.84		45.44	"	12.09		40.90
6	"	11.84	113.3	-67.84	"	12.09		40.90
7	"	14.55		42.73	"	12.32	67.9	-27.23
8	"	14.55		42.73	"	12.32		40.67
9	"	15.80	129.5	-88.02	"	10.34		42.65
10	"	15.80		41.48	"	10.34	51.60	-8.95
11	"	14.58		42.70	"	7.62		45.37
12	"	14.58		42.70	"	7.62		45.37
13	"	21.26	173.2	-137.18	"	6.60	38.6	7.79
14	"	21.26		36.02	"	6.60		46.39
Cumulative Balance				+42.82				+301.28

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CALCIUM BALANCE DATA

Control Group

	SUBJECT 15				SUBJECT 19			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	52.99	4.14		48.85	57.28	7.75		49.53
2	"	4.14		48.85	"	7.75		49.53
3	"	3.56		49.43	"	7.67		49.61
4	"	3.56	53.0	- 3.57	"	7.67		49.61
5	"	3.68		49.31	"	8.00		49.28
6	"	3.68		49.31	"	8.00	250.5	-201.22
7	"	3.53	33.3	16.16	"	8.01		49.27
Cumulative Balance				+258.34				+95.61
Bedrest Day								
1	52.99	2.96		50.03	57.28	8.41		48.87
2	"	5.82		47.17	"	8.41		48.87
3	"	5.82		47.17	"	8.66		48.62
4	"	5.88		47.11	"	8.66	54.56	- 5.94
5	"	5.88	139.1	-91.99	"	8.65		48.63
6	"	5.48		47.51	"	8.65		48.63
7	"	5.48		47.51	"	10.12		47.16
8	"	6.35	135.4	-88.76	"	10.12		47.16
9	"	6.35		46.64	"	9.67		47.61
10	"	6.89		46.10	"	9.67	287.1	-239.49
11	"	6.89	107.1	-61.00	"	10.56		46.72
12	"	7.67		45.32	"	10.56		46.72
13	"	7.67	83.5	-38.18	"	10.72		46.56
14	"	6.58		46.41	"	10.72	277.9	-231.34
Cumulative Balance				+191.04				+95.34

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CALCIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 2				SUBJECT 5			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	91.6	8.10		83.5	91.6	11.66		79.94
2	"	8.73		82.87	"	12.37		79.23
3	"	9.07		82.53	"	11.84	229.58	-149.82
4	"	8.31	271.86	-188.57	"	12.96		78.64
5	"	8.35		83.25	"	14.01		77.59
6	"	7.85		83.75	"	14.71		76.89
7	"	7.72	173.60	-89.72	"	12.60	244.77	-165.77
Cumulative Balance				+137.61				+76.70
Bedrest Day								
1	91.6	8.87		82.73	91.6	13.32		78.28
2	"	8.98		82.62	"	17.22		74.38
3	"	10.65	43.04	37.91	"	15.42		76.18
4	"	11.30		80.30	"	17.96	177.89	-104.25
5	"	11.90		79.70	"	17.82		73.78
6	"	11.88	280.28	-200.56	"	15.50		76.10
7	"	10.60		81.00	"	18.35	104.74	-31.49
8	"	8.32		83.28	"	20.53		71.07
9	"	7.92	325.18	-241.50	"	19.96		71.64
10	"			91.6	"	21.63	280.10	-210.13
11	"	12.30		79.3	"	20.74		70.86
12	"	11.64		79.96	"	20.87		70.73
13	"	14.30	398.24	-320.94	"	22.87		68.73
14	"	10.19		81.41	"	22.32	453.22	-383.94
Cumulative Balance				+96.81				+ 1.94

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CALCIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 7				SUBJECT 9			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	91.6	10.17		81.43	61.19	8.19		53.00
2	"	10.02		81.58	"	10.09		51.10
3	"	12.34	286.08	-206.82	"	7.89		53.30
4	"	12.32		79.28	"	10.90	149.57	-99.28
5	"	10.19		81.41	"	9.23		51.96
6	"	10.87	226.28	-145.55	"	9.44		51.75
7	"	9.70		81.90	"	6.78	95.32	-40.91
Cumulative Balance				+53.23				+120.92
Bedrest Day								
1	91.6	12.10		79.50	61.19	8.10		53.09
2	"	10.74		80.86	"	9.48		51.71
3	"	12.14		79.46	"	10.80	156.55	-106.16
4	"	12.94		78.66	"	10.57		50.62
5	"	12.19	175.65	-96.24	"	9.56		51.63
6	"	12.11		79.49	"	7.33	113.89	-60.03
7	"			91.60	"	8.72		52.47
8	"	15.98	254.38	-178.76	"	10.51		50.68
9	"	16.73		74.87	"	10.73	89.25	-38.79
10	"	14.61		76.99	"	9.50		51.69
11	"	17.21	322.45	-248.06	"	11.34		49.85
12	"	16.68		74.92	"	10.10		51.09
13	"	16.43		75.17	"	10.57	127.03	-76.11
14	"	17.04	330.71	-256.15	"	12.90		48.29
Cumulative Balance				+12.31				+229.73

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CALCIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 11				SUBJECT 14			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	55.09	15.57		39.52	54.68	5.70		48.98
2	"	17.39		37.70	"	5.70		48.98
3	"	17.26		37.83	"	4.10	116.0	-65.42
4	"	16.80	137.06	-98.77	"	4.10		50.58
5	"	13.99		41.10	"	3.94		50.74
6	"	20.19		34.90	"	3.94		50.74
7	"	18.36		36.73	"	7.06	160.0	-112.38
Cumulative Balance				+129.01				+72.22
Bedrest Day								
1	55.09	18.51		36.58	54.68	5.59		49.09
2	"	16.61		38.48	"	5.59		49.09
3	"	22.28	128.14	-95.33	"	6.22	105.1	-56.64
4	"	18.76		36.33	"	6.22		48.46
5	"	20.29		34.80	"	7.30		47.38
6	"	23.89	187.59	-156.39	"	7.30		47.38
7	"	22.94		32.15	"	7.26		47.42
8	"	21.22		33.87	"	7.26	27.9	19.52
9	"	19.69		35.40	"	9.22		45.46
10	"	22.20		32.89	"	9.22	130.4	-84.94
11	"	19.24		35.85	"	8.51		46.17
12	"	20.48	128.1	-93.49	"	8.51	174.1	-127.93
13	"	19.09		36.00	"	10.00		44.68
14	"	20.78	138.5	-104.19	"	10.00	149.4	-104.72
Cumulative Balance				-97.05				+117.84

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CALCIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 16				SUBJECT 17			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	52.95	8.00		44.95	51.64	9.70		41.94
2	"	8.00	95.8	-50.85	"	9.70		41.94
3	"	8.10		44.85	"	11.35	117.7	-77.41
4	"	8.10		44.85	"	11.35		40.29
5	"	8.56	96.0	-51.61	"	10.47		41.17
6	"	8.56		44.39	"	11.10		40.54
7	"	7.26	32.0	13.69	"	9.20	143.6	-101.16
Cumulative Balance				+90.27				+27.31
Bedrest Day								
1	52.95	7.15	32.0	13.80	51.64	9.76		41.88
2	"	7.15		45.80	"	9.76		41.88
3	"	9.72		43.23	"	12.16	135.4	-95.92
4	"	9.72	155.7	-112.47	"	12.16		39.48
5	"	10.89		42.06	"	14.16		37.48
6	"	10.89		42.06	"	14.16	103.1	-65.62
7	"	11.28	110.0	-68.33	"	13.80		37.84
8	"	11.28		41.67	"	13.80		37.84
9	"	14.17		38.78	"	13.62	72.7	-34.68
10	"	14.17	135.8	-97.02	"	13.62		38.02
11	"	12.73		40.22	"	13.63		38.01
12	"	12.73		40.22	"	13.63		38.01
13	"	16.72	143.7	-107.47	"	15.19	185.0	-148.55
14	"	16.72		36.23	"	15.19		36.45
Cumulative Balance				- 1.22				+42.12

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CALCIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 18				SUBJECT 20			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	55.46	8.41		47.05	57.28	6.48		50.80
2	"	8.41	102.9	-55.85	"	7.69		49.59
3	"	10.43		45.03	"	6.34		50.94
4	"	10.43		45.03	"	6.34	131.5	-80.56
5	"	9.68		45.78	"	5.94		51.34
6	"	9.68	140.7	-94.92	"	5.94	174.0	-122.66
7	"	9.92		45.54	"	5.48		51.80
Cumulative Balance				+77.66				+51.25
Bedrest Day								
1	55.46	10.70		44.76	57.28	5.48		51.80
2	"	10.70		44.76	"	7.42		49.86
3	"	12.68	119.0	-76.22	"	8.41		48.87
4	"	12.68		42.78	"	8.41		48.87
5	"	13.92		41.54	"	10.04		47.24
6	"	13.92	143.4	-101.86	"	10.04	78.4	-31.16
7	"	14.91		40.55	"	10.97		46.31
8	"	14.91		40.55	"	10.97		46.31
9	"	14.88	112.68	-72.10	"	12.15	106.1	-60.97
10	"	14.88		40.58	"	12.15		45.13
11	"	15.28		40.18	"	11.27		46.01
12	"	15.28		40.18	"	11.27		46.01
13	"	15.31	153.0	-112.85	"	12.52	204.2	-159.44
14	"	15.31		40.15	"	12.52		44.76
Cumulative Balance				+53.0				+269.60

TABLE 50

AVERAGE 24-HOUR URINARY CALCIUM

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Ambulant	Bedrest	Δ	P*	Subject	Ambulant	Bedrest	Δ	P*
1	5.49	9.18	+3.69		2	8.30	10.68	+2.38	
3	4.02	5.44	+1.42		5	12.88	18.89	+6.01	
4	8.96	13.83	+4.87		7	10.80	14.38	+3.58	
6	11.07	16.46	+5.39		9	8.93	10.02	+1.09	
8	7.83	11.44	+3.61		11	17.08	20.43	+3.35	
10	12.32	15.32	+3.0		14	4.93	7.73	+2.80	
12	9.36	14.46	+5.10		16	8.08	11.81	+3.73	
13	7.93	9.86	+1.93		17	10.41	13.19	+2.78	
15	3.76	6.12	+2.36		18	9.56	13.95	+4.39	
19	7.84	9.54	+1.70		20	6.32	10.26	+3.94	
Mean	7.86	11.16	+3.31	<0.05		9.73	13.13	+3.40	<0.10
S.E.**	±2.01	±2.72				±2.45	±2.86		
P***						0.20	0.25		

* Comparison with Ambulant value
** 95 % Confidence Limits
*** Comparison with Control Group

TABLE 51

AVERAGE 24-HOUR CALCIUM BALANCE

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Ambulant	Bedrest	Δ	P*	Subject	Ambulant	Bedrest	Δ	P*
1	30.23	4.59	-25.64		2	19.66	6.92	-12.74	
3	23.50	17.66	- 5.84		5	10.96	.14	-10.82	
4	6.61	4.53	- 2.08		7	7.60	.88	- 6.72	
6	10.19	3.12	- 7.07		9	17.27	16.41	- .86	
8	12.68	.09	-12.59		11	18.43	6.93	-11.50	
10	18.36	14.70	- 3.66		14	10.32	8.42	- 1.90	
12	30.14	3.06	-27.08		16	12.90	- .09	-12.99	
13	1.20	21.52	+20.32		17	3.90	3.01	- .89	
15	36.90	13.64	-23.26		18	11.09	3.78	- 7.31	
19	13.66	6.81	+ 6.85		20	7.32	19.26	+11.94	
Mean	18.35	8.97	- 8.00	<0.05		11.94	6.57	- 5.38	<0.10
S.E.**	±8.27	±5.24				±3.66	±4.78		
P***						0.15	0.45		

* Comparison with Ambulant value
** 95 % Confidence Limits
*** Comparison with Control Group

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MAGNESIUM BALANCE DATA

Control Group

	SUBJECT 1				SUBJECT 3			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	24.0	3.53		20.47	24.0	.99		23.01
2	"	.99	20.64	2.37	"	.21		23.79
3	"	5.35		18.65	"		45.22	-21.22
4	"	5.86		18.14	"	9.10		14.90
5	"	5.17	45.88	-27.05	"	7.39		16.61
6	"	5.52		18.48	"	.64	27.79	- 4.43
7	"	4.53	20.19	- .72	"	8.62	9.62	5.76
Cumulative Balance				+50.34				+58.42
Bedrest Day								
1	24.0	6.88	10.10	7.02	24.0	1.39	19.24	3.37
2	"	4.17		19.83	"	1.00		23.00
3	"	7.25		16.75	"	.26		23.74
4	"	6.98	69.88	-52.86	"	6.17		17.83
5	"	6.70		17.30	"	8.70	44.99	-29.69
6	"	7.21		16.79	"	1.31		22.69
7	"	6.34	28.40	-10.74	"	.66		23.34
8	"	1.92		22.08	"	.89	37.94	-14.83
9	"	7.04		16.96	"	1.40		22.60
10	"	7.30	44.70	-28.00	"	6.33		17.67
11	"	7.17		16.83	"	9.83	30.48	-16.31
12	"	6.65		17.35	"	6.82		17.18
13	"	7.34	67.85	-51.19	"	9.65		14.35
14	"	7.61		16.39	"	2.84	31.68	-10.52
Cumulative Balance				+24.51				+114.42

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MAGNESIUM BALANCE DATA

Control Group

	SUBJECT 4				SUBJECT 6			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	24.0	10.85		13.15	24.0	10.95		13.05
2	"	11.56		12.44	"	10.58		13.42
3	"	10.05	34.40	-20.45	"	10.08	28.20	-14.28
4	"	10.82		13.18	"	10.26		13.74
5	"	10.60		13.40	"	10.19		13.81
6	"	9.42	42.64	-28.06	"	10.43	46.44	-32.87
7	"	10.07	4.22	9.71	"	11.58		12.42
Cumulative Balance				+13.37				+19.29
Bedrest Day								
1	24.0	7.43	4.22	12.35	24.0	11.94		12.06
2	"	8.32		15.68	"	12.66		11.34
3	"	7.86		16.14	"	11.86		12.14
4	"	10.48	33.66	-20.14	"	11.94	21.00	- 8.94
5	"	11.10		12.90	"	10.89		13.11
6	"	8.53		15.47	"	12.86		11.14
7	"	8.35	43.85	-28.20	"	13.40	34.92	-24.32
8	"	8.20		15.80	"	11.29		12.71
9	"	10.87		13.13	"	12.55		11.45
10	"	9.73	36.27	-22.00	"	11.14	36.57	-23.71
11	"	10.98		13.02	"	12.04		11.96
12	"	10.58		13.42	"	12.27		11.73
13	"	10.91	30.30	-17.21	"	12.31		11.69
14	"	9.27		14.73	"	12.51	70.14	-58.65
Cumulative Balance				+55.09				+ 3.71

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MAGNESIUM BALANCE DATA

Control Group

	SUBJECT 8				SUBJECT 10			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	18.61	9.71		8.90	16.71	10.86		5.85
2	"	8.87		9.74	"	10.83		5.88
3	"	9.84	37.31	-28.54	"	11.56		5.15
4	"	9.63		8.98	"	11.06		5.65
5	"	9.14		9.47	"	10.62		6.09
6	"	9.55	14.62	- 5.56	"	11.36	22.03	-16.68
7	"	9.69		8.92	"	7.99	1.82	6.90
Cumulative Balance				+11.91				+18.84
Bedrest Day								
1	18.61	9.83		8.78	16.71	10.28		6.43
2	"	11.44		7.17	"	9.87	3.64	3.20
3	"	7.67	47.69	-36.75	"	10.59		6.12
4	"	14.62		3.99	"	10.13		6.58
5	"	13.14		5.47	"	9.69	17.95	-10.93
6	"	19.57	95.22	-96.18	"	9.92		6.79
7	"	10.99		7.62	"	10.70		6.01
8	"	9.62		8.99	"	10.22	6.08	.41
9	"	11.20	56.15	-48.74	"	10.38		6.33
10	"	9.99		8.62	"	10.66		6.05
11	"	10.73		7.88	"	10.64	15.97	- 9.90
12	"	9.76		8.85	"	9.96		6.75
13	"	9.90	49.60	-40.89	"	7.54		9.17
14	"	10.11		8.50	"	9.40		7.31
Cumulative Balance				-146.69				+50.32

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MAGNESIUM BALANCE DATA

Control Group

	SUBJECT 12				SUBJECT 13			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	20.26	12.58		7.68	16.72	8.72		8.00
2	"	12.58		7.68	"	8.72		8.00
3	"	13.04	18.25	-11.03	"	8.76		7.96
4	"	13.04		7.22	"	8.76	36.5	-28.54
5	"	11.19		9.07	"	7.22		9.50
6	"	11.19		9.07	"	7.22		9.50
7	"	10.78		9.48	"	8.03	21.3	-12.61
Cumulative Balance				+39.17				+ 1.81
Bedrest Day								
1	20.26	13.84		6.42	16.72	8.54		8.18
2	"	13.84		6.42	"	8.54		8.18
3	"	14.44	16.08	-10.26	"	8.30		8.42
4	"	14.44		5.82	"	8.30	25.6	-17.18
5	"	10.20		10.06	"	9.39		7.33
6	"	10.20	12.77	- 2.71	"	9.39		7.33
7	"	15.07		5.19	"	8.55	11.22	- 3.05
8	"	15.07		5.19	"	8.55		8.17
9	"	14.66	15.38	- 9.78	"	7.00		9.72
10	"	14.66		5.60	"	7.00	7.68	2.04
11	"	11.23		9.03	"	8.84		7.88
12	"	11.23		9.03	"	8.84		7.88
13	"	14.86	19.30	-13.90	"	9.66	6.25	.81
14	"	14.86		5.40	"	9.66		7.06
Cumulative Balance				+31.51				+62.77

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MAGNESIUM BALANCE DATA

Control Group

	SUBJECT 15				SUBJECT 19			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	16.72	6.62		10.10	20.26	9.76		10.50
2	"	6.62		10.10	"	9.76		10.50
3	"	5.50		11.22	"	9.36		10.90
4	"	5.50	13.0	- 1.78	"	9.36		10.90
5	"	6.34		10.38	"	9.28		10.98
6	"	6.34		10.38	"	9.28	62.6	-51.62
7	"	3.05	6.70	6.97	"	9.38		10.88
Cumulative Balance				+57.37				+13.04
Bedrest Day								
1	16.72	4.79		11.93	20.26	10.31		9.95
2	"	7.58		9.14	"	10.31		9.95
3	"	7.58		9.14	"	10.24		10.02
4	"	7.64		9.08	"	10.24	11.52	- 1.50
5	"	7.64	26.7	-17.62	"	10.48		9.78
6	"	6.90		9.82	"	10.48		9.78
7	"	6.90		9.82	"	10.71		9.55
8	"	7.68	25.4	-16.36	"	10.71		9.55
9	"	7.68		9.04	"	10.38		9.88
10	"	6.93		9.79	"	10.38	52.5	-42.62
11	"	6.93	21.5	-11.71	"	10.25		10.01
12	"	8.22		8.50	"	10.25		10.01
13	"	8.22	17.47	- 8.97	"	10.43		9.83
14	"	6.30		10.42	"	10.43	52.0	-42.17
Cumulative Balance				+42.02				+31.85

TABLE 53
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MAGNESIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 2				SUBJECT 5			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	24.0	6.37		17.63	24.0	11.38		12.62
2	"	5.92		18.08	"	11.77		12.23
3	"	6.52		17.48	"	11.12	35.64	-22.76
4	"	5.75	59.00	-40.75	"	11.04		12.96
5	"	6.28		17.72	"	12.04		11.96
6	"	4.98		19.02	"	12.07		11.93
7	"	7.05	38.19	-21.24	"	12.80	36.90	-25.70
Cumulative Balance				+27.94				+13.22
Bedrest Day								
1	24.0	6.38		17.62	24.0	12.00		12.00
2	"	6.47		17.53	"	13.44		10.56
3	"	6.49	8.72	8.79	"	10.80		13.20
4	"	6.35		17.65	"	13.16	22.94	-12.10
5	"	7.41		16.59	"	11.82		12.18
6	"	7.13	55.37	-38.50	"	11.77		12.23
7	"	6.20		17.80	"	12.76	11.53	- .29
8	"	6.50		17.50	"	12.09		11.91
9	"	5.73	70.08	-51.81	"	13.41		10.59
10	"			24.00	"	13.06	35.15	-24.21
11	"	6.35		17.65	"	13.72		10.28
12	"	7.03		16.97	"	12.85		11.15
13	"	6.87	89.45	-72.32	"	13.54		10.46
14	"	5.74		18.26	"	12.75	60.52	-49.27
Cumulative Balance				+27.73				+28.69

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MAGNESIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 7				SUBJECT 9			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	24.0	9.74		14.26	18.02	9.25		8.77
2	"	8.84		15.16	"	12.43		5.59
3	"	9.88	52.45	-38.33	"	8.08		9.94
4	"	9.80		14.20	"	12.60	23.26	-17.84
5	"	9.41		14.59	"	10.44		7.58
6	"	9.63	40.01	-25.64	"	10.34		7.68
7	"	10.56		13.44	"	10.50	11.75	- 4.23
Cumulative Balance				+ 7.68				+17.49
Bedrest Day								
1	24.0	10.36		13.64	18.02	10.85		7.17
2	"	8.69		15.31	"	9.75		8.27
3	"	9.35		14.65	"	9.54	22.23	-13.75
4	"	10.45		13.55	"	9.89		8.13
5	"	11.91	26.75	-14.66	"	7.08		10.94
6	"	11.92		12.08	"	6.51	17.09	- 5.58
7	"			24.00	"	7.69		10.33
8	"	14.21	53.59	-43.80	"	9.38		8.64
9	"	17.70		6.30	"	9.27	14.28	- 5.53
10	"	11.42		12.58	"	8.40		9.62
11	"	11.36	126.24	-113.60	"	9.15		8.87
12	"	9.54		14.46	"	9.28		8.74
13	"	9.82		14.18	"	9.29	19.83	-11.10
14	"	11.02	75.39	-62.41	"	12.85		5.17
Cumulative Balance				-93.72				+49.92

TABLE 53
Page 3
MAGNESIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 11				SUBJECT 14			
Ambulant Day	Intake	Output	Output	Balance	Intake	Output	Output	Balance
1	16.71	7.84		8.87	17.22	10.54		6.68
2	"	8.06		8.65	"	10.54		6.68
3	"	6.46		10.25	"	8.10	16.9	- 7.78
4	"	5.72	35.19	-24.20	"	8.10		9.12
5	"	4.60		12.11	"	8.32		8.90
6	"	7.13		9.58	"	8.32		8.90
7	"	5.28		11.43	"	13.52	24.4	-20.70
Cumulative Balance				+36.69				+11.80
Bedrest Day								
1	16.71	5.26		11.45	17.22	10.12		7.10
2	"	6.48		10.23	"	10.12		7.10
3	"	6.90	30.26	-20.45	"	10.17	16.6	- 9.55
4	"	4.70		12.01	"	10.17		7.05
5	"	6.10		10.61	"	9.80		7.42
6	"	6.99	41.66	-31.94	"	9.80		7.42
7	"	6.81		9.90	"	11.20		6.02
8	"	5.85		10.86	"	11.20	4.30	1.72
9	"	6.30		10.41	"	11.92		5.30
10	"	6.81		9.90	"	11.92	15.5	-10.20
11	"	6.59		10.12	"	10.28		6.94
12	"	7.48	28.20	-18.97	"	10.28	17.73	-10.79
13	"	7.92		8.79	"	11.95		5.27
14	"	6.40	28.96	-18.65	"	11.95	20.10	-14.83
Cumulative Balance				+14.27				+21.99

TABLE 53
Page 4
MAGNESIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 16				SUBJECT 17			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	19.10	10.83		8.27	18.61	11.05		7.56
2	"	10.83	1.86	-10.33	"	11.05		7.56
3	"	10.12		8.98	"	12.91	19.3	-13.60
4	"	10.12		8.98	"	12.91		5.70
5	"	11.32	20.3	-12.52	"	10.99		7.62
6	"	11.32		7.78	"	9.34		9.27
7	"	7.87	6.25	4.98	"	11.31	23.4	-16.10
Cumulative Balance				+16.14				+ 8.01
Bedrest Day								
1	19.10	9.79	6.25	3.06	18.61	11.45		7.16
2	"	9.79		9.31	"	11.45		7.16
3	"	9.66		9.44	"	11.43	19.00	-11.82
4	"	9.66	27.6	-18.16	"	11.43		7.18
5	"	9.08		10.02	"	10.79		7.82
6	"	9.08		10.02	"	10.79	14.30	- 6.48
7	"	8.58	18.8	- 8.28	"	10.18		8.43
8	"	8.58		10.52	"	10.18		8.43
9	"	9.80		9.30	"	11.75	9.77	- 2.91
10	"	9.80	25.6	-16.30	"	11.75		6.86
11	"	10.12		8.98	"	11.68		6.93
12	"	10.12		8.98	"	11.68		6.93
13	"	12.46	26.6	-19.96	"	10.87	33.0	-25.26
14	"	12.46		6.64	"	10.87		7.74
Cumulative Balance				+23.57				+28.17

TABLE 53
Page 5
MAGNESIUM BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 18				SUBJECT 20			
Ambulant Day	Diet Intake	Urine Output	Fecal Output	Balance	Diet Intake	Urine Output	Fecal Output	Balance
1	19.30	8.37		10.93	20.26	9.52		10.74
2	"	8.37	24.7	-13.77	"	10.51		9.75
3	"	8.22		11.08	"	8.18		12.08
4	"	8.22		11.08	"	8.18	28.42	-16.34
5	"	7.56		11.74	"	7.52		12.74
6	"	7.56	36.4	-24.66	"	7.52	37.0	-24.26
7	"	9.46		9.84	"	7.09		13.17
Cumulative Balance				+16.24				+17.88
Bedrest Day								
1	19.30	8.14		11.16	20.26	7.09		13.17
2	"	8.14		11.16	"	8.33		11.93
3	"	8.90	25.4	-15.00	"	8.04		12.22
4	"	8.90		10.40	"	8.04		12.22
5	"	8.60		10.70	"	8.16		12.10
6	"	8.60	31.1	-20.40	"	8.16	15.8	- 3.70
7	"	8.80		10.50	"	8.18		12.08
8	"	8.80		10.50	"	8.18		12.08
9	"	9.33	25.8	-15.83	"	8.42	20.7	- 8.86
10	"	9.33		9.97	"	8.42		11.84
11	"	8.84		10.46	"	8.52		11.74
12	"	8.84		10.46	"	8.52		11.74
13	"	8.77	33.3	-22.77	"	9.38	40.9	-30.02
14	"	8.77		10.53	"	9.38		10.88
Cumulative Balance				+31.84				+89.42

TABLE 54

AVERAGE 24-HOUR URINARY MAGNESIUM

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Ambulant	Bedrest	Δ	P*	Subject	Ambulant	Bedrest	Δ	P*
1	4.42	6.47	+2.05		2	6.12	6.51	+ .39	
3	4.49	4.09	- .40		5	11.74	12.66	+ .92	
4	10.48	9.47	-1.01		7	9.69	11.36	+1.67	
6	10.58	12.12	+1.54		9	10.63	9.21	-1.42	
8	9.49	11.33	+1.84		11	6.44	6.47	+ .03	
10	10.61	10.00	- .61		14	9.63	10.78	+1.15	
12	12.06	13.47	+1.41		16	10.34	9.93	- .41	
13	8.20	8.61	+ .41		17	11.36	11.16	- .20	
15	5.71	7.21	+1.50		18	8.25	8.77	+ .52	
19	9.45	10.40	+ .95		20	8.36	8.34	- .02	
Mean	8.55	9.32	+0.77	0.60		9.56	9.52	-0.26	0.95
S.E.**	±1.96	±2.01				±1.38	±1.47		
P***						0.30	0.90		

* Comparison with Ambulant value
** 95 % Confidence Limits
*** Comparison with Control Group

TABLE 55

AVERAGE 24-HOUR MAGNESIUM BALANCE

CONTROL GROUP					9-α-FLUOROHYDROCORTISONE GROUP				
Subject	Ambulant	Bedrest	Δ	P*	Subject	Ambulant	Bedrest	Δ	P*
1	7.19	17.51	+10.32		2	3.99	1.98	-2.01	
3	8.34	8.17	- .17		5	1.89	2.05	+ .16	
4	1.91	3.94	+ 2.03		7	1.10	6.69	+5.59	
6	2.76	.28	- 2.48		9	2.50	3.56	+1.06	
8	1.70	10.48	+ 8.78		11	5.24	1.02	-4.22	
10	2.69	3.59	+ .90		14	1.68	1.57	- .11	
12	5.60	2.25	- 3.35		16	2.30	1.68	- .62	
13	.26	4.48	+ 4.22		17	1.14	2.01	+ .87	
15	8.20	3.00	- 5.20		18	2.32	2.27	- .05	
19	1.86	2.28	+ .42		20	2.55	6.39	+3.84	
Mean	4.05	5.60	+ 1.55	0.40		2.47	2.92	+0.45	0.60
S.E.**	±2.14	±3.68				±0.91	±1.44		
P***						0.20	0.20		

* Comparison with Ambulant value
** 95 % Confidence Limits
*** Comparison with Control Group

TABLE 56
Page 1
CHLORIDE BALANCE DATA

Control Group

	SUBJECT 1			SUBJECT 3		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	126	99	27	126	131	- 5
2	"	88	38	"	111	15
3	"	88	38	"	-	-
4	"	93	33	"	121	5
5	"	103	23	"	96	30
6	149*	123	25	158*	121	37
7	"	113	13	"	-	
Cumulative Balance			+198			+82
Bedrest Day						
1	126	145	-19	126	138	-12
2	"	131	- 5	"	86	40
3	"	142	-16	"	138	-12
4	"	123	3	"	93	33
5	"	104	22	"	111	15
6	157*	136	21	158*	137	-21
7	"	83	43	"	127	- 1
8	"	101	25	"	116	10
9	"	129	- 3	"	127	- 1
10	"	132	- 6	"	121	5
11	"	137	-11	"	129	- 3
12	"	128	- 2	160*	100	60
13	165*	138	27	"	135	- 9
14	"	129	- 3	"	-	-
Cumulative Balance			+76			+146

*Includes chloride given intravenously during clearance study.

TABLE 56
Page 2
CHLORIDE BALANCE DATA

Control Group

	SUBJECT 4			SUBJECT 6		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	126	104	22	125	85	40
2	"	103	23	"	115	10
3	"	123	3	"	-	-
4	"	135	- 9	"	131	- 6
5	"	112	14	"	115	10
6	151*	127	24	178*	132	46
7	"	113	13	"	87	38
Cumulative Balance			+90			+138
Bedrest Day						
1	126	99	27	125	160	-35
2	"	112	14	"	131	- 6
3	"	112	14	"	124	1
4	"	160	-34	"	99	26
5	"	130	- 4	"	110	15
6	"	105	21	167*	120	47
7	"	107	19	"	138	-13
8	"	112	14	"	136	-11
9	"	107	19	"	113	12
10	"	124	2	"	100	25
11	"	130	- 4	"	130	- 5
12	"	125	1	157*	135	22
13	161*	132	29	"	144	-19
14	"	132	- 6	"	146	-21
Cumulative Balance			+112			+38

*Includes chloride given intravenously during clearance study.

TABLE 56
Page 3
CHLORIDE BALANCE DATA

Control Group

	SUBJECT 8			SUBJECT 10		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	116	63	53	116	91	25
2	"	71	45	"	87	29
3	"	112	4	"	86	30
4	"	117	- 1	"	85	31
5	"	131	-15	"	82	34
6	149*	118	31	"	121	- 5
7	"	71	45	"	102	14
Cumulative Balance			+162			+158
Bedrest Day						
1	116	128	-12	116	151	-35
2	"	121	- 5	"	143	-27
3	"	105	11	"	101	15
4	"	84	32	"	113	3
5	"	83	33	"	97	19
6	153*	109	44	"	97	19
7	"	121	- 5	"	106	10
8	"	113	3	"	113	3
9	"	127	-11	"	102	14
10	"	101	15	"	111	5
11	"	100	16	"	110	6
12	162*	107	55	"	130	-14
13	"	121	- 5	"	124	- 8
14	"	115	1	"	89	27
Cumulative Balance			+172			+37

*Includes chloride given intravenously during clearance study.

TABLE 56
Page 4
CHLORIDE BALANCE DATA

Control Group

	SUBJECT 12			SUBJECT 13		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	116	64	52	116	93	23
2	"	64	52	"	93	23
3	"	86	30	"	103	13
4	"	86	30	"	103	13
5	"	87	29	"	81	35
6	"	87	29	"	81	35
7	"	62	54	"	92	24
Cumulative Balance			+276			+166
Bedrest Day						
1	116	135	-19	116	132	-16
2	"	135	-19	"	132	-16
3	"	102	14	"	112	4
4	"	102	14	"	112	4
5	"	84	32	"	116	0
6	"	84	32	"	116	0
7	"	96	20	"	117	- 1
8	"	96	20	"	117	- 1
9	"	102	14	"	101	15
10	"	102	14	"	101	15
11	"	94	22	"	62	54
12	"	94	22	"	62	54
13	"	112	4	"	105	11
14	"	112	4	"	105	11
Cumulative Balance			+174			+134

TABLE 56
Page 5
CHLORIDE BALANCE DATA

Control Group

	SUBJECT 15			SUBJECT 19		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	115	94	21	116	59	57
2	"	78	37	"	59	57
3	"	78	37	"	75	41
4	"	100	15	"	75	41
5	"	100	15	"	97	19
6	"	89	26	"	97	19
7	"	56	59	"	96	20
Cumulative Balance			+210			+254
Bedrest Day						
1	115	116	- 1	116	107	9
2	"	116	- 1	"	107	9
3	"	118	- 3	"	109	7
4	"	118	- 3	"	109	7
5	"	104	11	"	88	28
6	"	104	11	"	88	28
7	"	96	19	"	99	17
8	"	96	19	"	99	17
9	"	107	8	"	91	25
10	"	107	8	"	91	25
11	"	91	24	"	92	24
12	"	91	24	"	92	24
13	"	82	33	"	100	16
14	"	82	33	"	100	16
Cumulative Balance			+182			+252

TABLE 57
Page 1
CHLORIDE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 2			SUBJECT 5		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	126	108	18	125	80	45
2	"	114	12	"	98	27
3	"	128	- 2	"	93	32
4	"	117	9	"	108	17
5	"	79	47	"	121	4
6	151*	99	52	163*	150	13
7	"	-		"	72	53
Cumulative Balance			+136			+191
Bedrest Day						
1	126	125	1	125	134	- 9
2	"	150	-24	"	105	20
3	"	126	0	"	104	21
4	"	153	-27	"	110	15
5	"	124	2	"	107	18
6	159*	141	18	168*	123	45
7	"	104	22	"	133	- 8
8	"	108	18	"	126	- 1
9	"	133	- 7	"	112	13
10	"	-	-	"	126	0
11	"	135	- 9	"	119	6
12	155*	120	35	163*	123	40
13	"	150	-24	"	131	- 6
14	"	-	-	"	58	67
Cumulative Balance			+ 5			+221

*Includes chloride given intravenously during clearance study.

TABLE 57
Page 2
CHLORIDE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 7			SUBJECT 9		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	125	110	15	116	80	36
2	"	76	49	"	59	57
3	"	134	- 9	"	85	31
4	"	137	-12	"	134	-18
5	"	102	23	"	140	-24
6	163*	158	5	167*	80	87
7	"	77	48	"	97	19
Cumulative Balance			+119			+188
Bedrest Day						
1	125	111	14	116	137	-21
2	"	107	18	"	103	13
3	"	118	7	"	124	- 8
4	"	150	-25	"	90	26
5	"	115	10	"	98	18
6	165*	131	34	156*	88	68
7	"	-	-	"	113	3
8	"	112	13	"	112	4
9	"	125	0	"	101	15
10	"	106	19	"	106	10
11	"	134	- 9	"	90	26
12	"	128	- 3	157*	125	32
13	160*	131	29	"	102	14
14	"	128	- 3	"	78	38
Cumulative Balance			+104			+238

*Includes chloride given intravenously during clearance study.

TABLE 57
Page 3
CHLORIDE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 11			SUBJECT 14		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	116	96	20	116	101	15
2	"	85	31	"	101	15
3	"	90	26	"	64	52
4	"	96	20	"	64	52
5	"	85	31	"	65	51
6	"	49	67	"	65	51
7	"	-	-	"	135	-19
Cumulative Balance			+195			+217
Bedrest Day						
1	116	109	7	116	95	21
2	"	97	19	"	95	21
3	"	106	10	"	106	10
4	"	105	11	"	106	10
5	"	84	32	"	111	5
6	"	102	14	"	111	5
7	"	98	18	"	89	27
8	"	88	28	"	89	27
9	"	115	1	"	109	7
10	"	101	15	"	109	7
11	"	115	1	"	98	18
12	"	106	10	"	98	18
13	"	130	-14	"	121	- 5
14	"	106	10	"	121	- 5
Cumulative Balance			+162			+166

TABLE 57
Page 4
CHLORIDE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 16			SUBJECT 17		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	116	65	51	116	87	29
2	"	65	51	"	87	29
3	"	86	30	"	87	29
4	"	86	30	"	87	29
5	"	84	32	"	96	20
6	"	84	32	"	75	41
7	"	63	53	"	75	41
Cumulative Balance			+279			+218
Bedrest Day						
1	116	123	- 7	116	99	17
2	"	123	- 7	"	99	17
3	"	108	8	"	88	28
4	"	108	8	"	88	28
5	"	102	14	"	96	20
6	"	102	14	"	96	20
7	"	84	32	"	91	25
8	"	84	32	"	91	25
9	"	122	- 6	"	101	15
10	"	122	- 6	"	101	15
11	"	116	0	"	101	15
12	"	116	0	"	101	15
13	"	105	11	"	101	15
14	"	105	11	"	101	5
Cumulative Balance			+104			+270

TABLE 57
Page 5
CHLORIDE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 18			SUBJECT 20		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	116	74	42	116	71	45
2	"	74	42	"	95	21
3	"	83	33	"	87	29
4	"	83	33	"	87	29
5	"	105	11	"	96	20
6	"	105	11	"	96	20
7	"	58	58	"	105	11
Cumulative Balance			+230			+175
Bedrest Day						
1	116	100	16	116	105	11
2	"	100	16	"	107	9
3	"	81	35	"	100	16
4	"	81	35	"	100	16
5	"	102	14	"	109	7
6	"	102	14	"	109	7
7	"	113	3	"	108	8
8	"	113	3	"	108	8
9	"	89	27	"	102	14
10	"	89	27	"	102	14
11	"	91	25	"	95	21
12	"	91	25	"	95	21
13	"	101	15	"	129	-13
14	"	101	15	"	129	-13
Cumulative Balance			+270			+126

TABLE 58

AVERAGE 24-HOUR CHLORIDE EXCRETION
(meq)

CONTROL GROUP				9-α-FLUOROHYDROCORTISONE GROUP			
Subject	Ambulant Mean	Bedrest Mean	P*	Subject	Ambulant Mean	Bedrest Mean	P*
1	101	126		2	108	131	
3	116	120		5	103	115	
4	117	121		7	113	123	
6	111	128		9	96	105	
8	98	110		11	84	104	
10	93	113		14	85	104	
12	77	104		16	76	109	
13	92	106		17	85	97	
15	85	102		18	83	97	
19	80	98		20	91	107	
Mean	97	113	<0.02		92	109	<0.005
S.E.**	±10.1	±7.4			±8.6	±7.7	
P***					0.5	0.5	

* Comparison with Ambulant Value
** 95 % Confidence Limits
*** Comparison with Control Group

TABLE 59
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PHOSPHATE BALANCE DATA

Control Group

	SUBJECT 1			SUBJECT 3		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1885	1482	403	1885	987	898
2	"	1379	506	"	977	908
3	"	1350	535	"	-	-
4	"	1055	830	"	1108	777
5	"	1107	778	"	1058	827
6	"	1051	834	"	1012	873
7	"	1548	337	"	-	
Cumulative Balance			+4223			+4283
Bedrest Day						
1	1885	1214	671	1885	1079	806
2	"	1195	687	"	606	1279
3	"	1279	606	"	1372	513
4	"	1452	433	"	607	1278
5	"	1328	557	"	996	889
6	"	1422	463	"	1039	846
7	"	958	927	"	895	990
8	"	1220	665	"	910	975
9	"	1401	484	"	886	999
10	"	1420	465	"	1136	749
11	"	1281	604	"	1087	798
12	"	1178	707	"	788	1097
13	"	1399	486	"	1071	814
14	"	1341	544	"	-	-
Cumulative Balance			+8302			+12033

TABLE 59
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PHOSPHATE BALANCE DATA

Control Group

	SUBJECT 4			SUBJECT 6		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1876	1135	741	1879	1353	526
2	"	1099	777	"	1249	630
3	"	1134	742	"	-	-
4	"	1055	821	"	1376	503
5	"	1260	616	"	1364	515
6	"	1209	667	"	1379	500
7	"	1172	704	"	1425	454
Cumulative Balance			+5068			+3128
Bedrest Day						
1	1876	1061	815	1879	1249	630
2	"	951	925	"	1380	499
3	"	1053	823	"	1440	439
4	"	1223	653	"	1478	401
5	"	1133	743	"	1582	297
6	"	1196	680	"	1460	419
7	"	1267	609	"	1429	450
8	"	1195	681	"	1405	474
9	"	1245	631	"	1395	484
10	"	1274	602	"	1472	407
11	"	1238	638	"	1546	333
12	"	1345	531	"	1612	267
13	"	1155	721	"	1582	297
14	"	1323	553	"	1624	255
Cumulative Balance			+9605			+5652

TABLE 59
Page 3
PHOSPHATE BALANCE DATA

Control Group

	SUBJECT 8			SUBJECT 10		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1290	1129	161	1261	1043	218
2	"	988	302	"	1067	194
3	"	993	297	"	976	285
4	"	999	291	"	932	329
5	"	1118	172	"	1002	259
6	"	1060	230	"	1007	254
7	"	1193	97	"	1215	46
Cumulative Balance			+1550			+1585
Bedrest Day						
1	1290	1105	185	1261	921	340
2	"	1058	232	"	867	394
3	"	619	671	"	1048	213
4	"	715	575	"	957	304
5	"	909	381	"	996	265
6	"	984	306	"	1017	244
7	"	1109	181	"	1055	206
8	"	939	351	"	1072	189
9	"	1100	191	"	1080	181
10	"	1036	254	"	1097	164
11	"	1118	172	"	1118	143
12	"	849	441	"	945	316
13	"	-	-	"	988	273
14	"	1076	214	"	1098	163
Cumulative Balance			+4153			+3395

TABLE 59
Page 4
PHOSPHATE BALANCE DATA

Control Group

	SUBJECT 12			SUBJECT 13		
Ambulant Day	Intake	Output	Balance	Intake	Output	Balance
1	1306	1005	301	1261	932	329
2	"	1005	301	"	932	329
3	"	1042	264	"	965	296
4	"	1042	264	"	965	296
5	"	1097	209	"	857	404
6	"	1097	209	"	857	404
7	"	1011	295	"	1055	206
Cumulative Balance			+1843			+2264
Bedrest Day						
1	1306	965	341	1261	1057	204
2	"	965	341	"	1057	204
3	"	1126	180	"	952	309
4	"	1126	180	"	952	309
5	"	1124	182	"	1224	37
6	"	1124	182	"	1224	37
7	"	1172	134	"	1223	38
8	"	1172	134	"	1223	38
9	"	1244	62	"	1053	208
10	"	1244	62	"	1053	208
11	"	1235	71	"	1243	18
12	"	1235	71	"	1243	18
13	"	950	356	"	1076	185
14	"	950	356	"	1076	185
Cumulative Balance			+2652			+1998

TABLE 59
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PHOSPHATE BALANCE DATA

Control Group

	SUBJECT 15			SUBJECT 19		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1260	990	270	1306	1016	290
2	"	893	367	"	1016	290
3	"	893	367	"	943	363
4	"	1038	222	"	943	363
5	"	1038	222	"	1014	292
6	"	1062	198	"	1014	292
7	"	641	619	"	1108	198
Cumulative Balance			+2265			+2088
Bedrest Day						
1	1260	1014	246	1306	956	350
2	"	1014	246	"	956	350
3	"	1080	180	"	1027	279
4	"	1080	180	"	1027	279
5	"	958	302	"	1122	184
6	"	958	302	"	1122	184
7	"	1062	198	"	1106	200
8	"	1062	198	"	1106	200
9	"	1042	218	"	1112	194
10	"	1042	218	"	1112	194
11	"	1102	158	"	1134	172
12	"	1102	158	"	1134	172
13	"	1146	114	"	1092	214
14	"	1146	114	"	1092	214
Cumulative Balance			+2832			+3186

TABLE 60
Page 1
PHOSPHATE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 2			SUBJECT 5		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1885	1370	515	1879	1456	423
2	"	1175	710	"	1466	413
3	"	1093	792	"	1162	717
4	"	1140	745	"	1418	461
5	"	1124	761	"	1419	460
6	"	1017	868	"	1375	504
7	"	-	-	"	1352	527
Cumulative Balance			+4391			+3505
Bedrest Day						
1	1885	1356	529	1879	1275	604
2	"	1212	673	"	1193	686
3	"	1244	641	"	1315	564
4	"	1211	674	"	1456	423
5	"	1277	608	"	1411	468
6	"	1315	570	"	1283	596
7	"	1122	763	"	1282	597
8	"	1096	789	"	1278	601
9	"	1074	811	"	1346	533
10	"	-	-	"	1415	464
11	"	1238	647	"	1434	445
12	"	1193	692	"	1268	611
13	"	1204	681	"	1314	565
14	"	-	-	"	1329	550
Cumulative Balance			+8078			+7707

TABLE 60
Page 2
PHOSPHATE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 7			SUBJECT 9		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1879	1363	516	1287	1092	195
2	"	1398	481	"	1045	242
3	"	1292	587	"	894	393
4	"	1414	465	"	1359	-72
5	"	1415	464	"	1338	-51
6	"	1361	518	"	1195	92
7	"	1608	271	"	1326	-39
Cumulative Balance			+3302			+ 760
Bedrest Day						
1	1879	1505	374	1287	1022	265
2	"	1429	450	"	963	324
3	"	1502	377	"	1029	258
4	"	1617	262	"	970	317
5	"	1722	157	"	787	500
6	"	1336	543	"	783	504
7	"	-	-	"	993	294
8	"	1210	669	"	1049	238
9	"	864	1015	"	972	315
10	"	1089	790	"	1027	260
11	"	1476	403	"	1183	104
12	"	1589	290	"	1201	86
13	"	1234	645	"	1090	197
14	"	1456	423	"	1639	-352
Cumulative Balance			+6398			+3310

TABLE 60
Page 3
PHOSPHATE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 11			SUBJECT 14		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1261	1014	247	1277	925	352
2	"	773	488	"	925	352
3	"	888	373	"	778	499
4	"	825	436	"	778	499
5	"	802	459	"	766	511
6	"	567	694	"	766	511
7	"	-	-	"	1115	162
Cumulative Balance			+2697			+2886
Bedrest Day						
1	1261	879	382	1277	809	468
2	"	932	329	"	809	468
3	"	886	375	"	916	361
4	"	989	272	"	916	361
5	"	1041	220	"	926	351
6	"	977	284	"	926	351
7	"	802	459	"	995	282
8	"	900	361	"	995	282
9	"	797	464	"	985	292
10	"	804	457	"	985	292
11	"	815	446	"	958	319
12	"	890	371	"	958	319
13	"	1072	189	"	1015	262
14	"	873	388	"	1015	262
Cumulative Balance			+4997			+4670

TABLE 60
Page 4
PHOSPHATE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 16			SUBJECT 17		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1306	1051	255	1290	1005	285
2	"	1051	255	"	1005	285
3	"	907	399	"	1028	262
4	"	907	399	"	1028	262
5	"	966	340	"	980	310
6	"	966	340	"	1028	262
7	"	752	554	"	1028	262
Cumulative Balance			+2542			+1928
Bedrest Day						
1	1306	1086	220	1290	1101	189
2	"	1086	220	"	1101	189
3	"	902	404	"	1019	271
4	"	902	404	"	1019	271
5	"	945	361	"	972	318
6	"	945	361	"	972	318
7	"	966	340	"	1073	217
8	"	966	340	"	1073	217
9	"	949	357	"	1112	178
10	"	949	357	"	1112	178
11	"	1068	238	"	1139	151
12	"	1068	238	"	1139	151
13	"	1020	286	"	1074	216
14	"	1020	286	"	1074	216
Cumulative Balance			+4412			+3080

TABLE 60
Page 5

PHOSPHATE BALANCE DATA

9-α-Fluorohydrocortisone Group

	SUBJECT 18			SUBJECT 20		
Ambulant Day	Diet Intake	Urine Output	Balance	Diet Intake	Urine Output	Balance
1	1290	939	351	1306	732	574
2	"	939	351	"	886	420
3	"	895	395	"	813	493
4	"	895	395	"	813	493
5	"	906	384	"	849	457
6	"	906	384	"	849	457
7	"	1431	-141	"	738	568
Cumulative Balance			+2119			+3462
Bedrest Day						
1	1290	916	374	1306	738	568
2	"	916	374	"	782	524
3	"	931	359	"	849	457
4	"	931	359	"	849	457
5	"	867	423	"	861	445
6	"	867	423	"	861	445
7	"	1023	267	"	897	409
8	"	1023	267	"	897	409
9	"	1030	260	"	868	438
10	"	1030	260	"	868	438
11	"	1393	-103	"	939	367
12	"	1393	-103	"	939	367
13	"	1044	246	"	1005	301
14	"	1044	246	"	1005	301
Cumulative Balance			+3652			+5926

TABLE 61

AVERAGE 24-HOUR PHOSPHATE EXCRETION
(mgm)

CONTROL GROUP				9-α-FLUOROHYDROCORTISONE GROUP			
Subject	Ambulant Mean	Bedrest Mean	P*	Subject	Ambulant Mean	Bedrest Mean	P*
1	1282	1292		2	1153	1212	
3	1028	959		5	1378	1329	
4	1152	1190		7	1407	1387	
6	1358	1475		9	1178	1051	
8	1069	971		11	812	904	
10	1035	1019		14	865	943	
12	1043	1117		16	943	991	
13	938	1118		17	1015	1070	
15	936	1058		18	987	1029	
19	1008	1078		20	811	883	
Mean	1085	1128	0.95		1055	1080	0.9
S.E.**	±99	±113			±155	±125	
P***					0.8	0.6	

* Comparison with Ambulant Value
** 95 % Confidence Limits
*** Comparison with Control Group

TABLE 62
Page 1
URINE CATECHOLAMINES
(μgm/24 hrs)

Control Group

	Subject 1		Subject 3		Subject 4		Subject 6	
	NE*	E*	NE	E	NE	E	NE	E
Ambulant Day								
4	32.48	22.80	26.40	18.37	24.27	18.84	20.08	11.79
5	47.18	21.43	38.37	17.83	12.70	6.00	30.14	12.45
7	61.27	42.61	35.04	13.53	42.18	12.90	31.94	13.78
Bedrest Day								
4	16.56	30.24	-	-	35.16	11.27	32.15	8.96
5	19.72	29.89	20.01	8.15	28.76	16.59	26.13	17.79
11	23.27	39.83	23.79	14.57	26.93	13.71	23.82	10.58
13	40.66	34.19	26.76	6.76	33.03	26.99		
14					35.14	16.15		
15	32.60	17.81					32.07	13.67

*NE is abbreviation for norepinephrine.
E is abbreviation for epinephrine.

TABLE 62
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URINE CATECHOLAMINES
(μgm/24 hrs)

Control Group

	Subject 8		Subject 10		Subject 12		Subject 13	
	NE*	E*	NE	E	NE	E	NE	E
Ambulant Day								
3					62.81	15.79	26.77	19.53
4	35.22	12.6	27.84	6.15	50.00	17.30	35.07	23.30
5	39.76	9.7	25.69	4.20				
7	45.49	14.1	32.63	11.94	52.31	17.93	45.01	13.86
Bedrest Day								
3					40.27	31.46	35.72	18.62
4	32.30	10.09	26.63	10.98	45.07	29.27	32.80	19.31
5	34.82	11.03	28.14	6.22				
9					51.86	9.49	46.87	26.15
10					46.91	8.62	31.49	3.45
11	42.28	8.64	25.91	6.26				
13	37.25	7.33						
14			29.75	1.01				
15	40.59	8.08			59.90	19.12		

*NE is abbreviation for norepinephrine.
E is abbreviation for epinephrine.

TABLE 62
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URINE CATECHOLAMINES
(μgm/24 hrs)

Control Group

	Subject 15		Subject 19	
	NE*	E*	NE	E
Ambulant Day				
3	14.33	7.17	38.71	8.48
4	40.24	11.65	34.64	13.89
7	54.57	13.96	40.60	12.65
Bedrest Day				
3			28.48	7.87
4	39.43	7.51	30.72	7.33
5	34.66	11.65		
9			35.32	10.32
10	29.56	6.26	31.33	8.88
11	31.12	11.06		
14	35.26	14.11		
15	46.03	13.72	44.66	12.60

*NE is abbreviation for norepinephrine.
E is abbreviation for epinephrine.

TABLE 63
Page 1

URINE CATECHOLAMINES
(μgm/24 hrs)

9-α-Fluorohydrocortisone Group

	Subject 2		Subject 5		Subject 7		Subject 9	
	NE*	E*	NE	E	NE	E	NE	E
Ambulant Day								
4	6.67	27.6	17.06	7.74	19.29	12.08	27.27	9.39
5	33.54	11.97	22.34	7.93	27.52	14.44	34.25	7.53
7	33.22	21.47	30.30	13.7	25.86	9.8	38.01	15.53
Bedrest Day								
4	2.05	13.35	26.27	9.07	22.21	9.49	28.20	10.68
5	30.13	21.71	22.19	14.16	21.38	5.8	26.98	16.08
10							25.74	14.63
11	35.79	21.05	16.89	10.22	15.04	14.55		
12							25.92	7.53
13	23.00	20.19	31.42	8.30	26.85	14.14	34.51	8.50
15			36.38	25.09	30.62	7.3		

*NE is abbreviation for norepinephrine.
E is abbreviation for epinephrine.

TABLE 63
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URINE CATECHOLAMINES
(μgm/24 hrs)

9-α-Fluorohydrocortisone Group

	Subject 11		Subject 14		Subject 16		Subject 17	
	NE*	E*	NE	E	NE	E	NE	E
Ambulant Day								
3			9.16	7.66	35.89	17.91	46.83	14.96
4	22.17	7.67	8.76	5.37	43.97	15.21	38.83	16.97
5	34.43	10.09						
6	24.20	14.92					33.46	13.85
7			28.47	12.20	32.70	13.55	32.04	18.38
Bedrest Day								
3			6.21	5.11	31.53	16.50	24.28	6.28
4	19.27	7.26	9.16	7.74			37.01	4.61
9			18.37	1.26	31.26	14.88	24.73	13.30
10			21.35	7.45	28.38	10.19	31.77	9.21
12	17.94	10.45						
14	25.31	14.30						
15	25.81	13.34	41.26	10.73	26.04	13.02	29.44	14.53

*NE is abbreviation for norepinephrine.
E is abbreviation for epinephrine.

TABLE 63
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URINE CATECHOLAMINES
(μgm/24 hrs)

9-α-Fluorohydrocortisone Group

	Subject 18		Subject 20	
	NE*	E*	NE	E
Ambulant Day				
2			43.17	10.68
3	38.64	22.38	29.68	10.65
4	37.57	17.32	33.29	13.07
7	34.32	10.11		
Bedrest Day				
3	29.44	18.40	36.01	6.26
4	30.79	11.23	23.68	12.74
9	24.19	14.12	29.00	8.34
10	32.69	16.09	35.28	5.65
15	40.22	21.70	34.88	10.17

*NE is abbreviation for norepinephrine.
E is abbreviation for epinephrine.

TABLE 64

URINE NOREPINEPHRINE EXCRETION
(μgm/24 hrs)

Control Group				9-α-Fluorohydrocortisone Group			
Subject	Week of Study*			Subject	Week of Study*		
	A	B-1	B-2		A	B-1	B-2
1	46.98	18.14	32.18	2	24.48	16.09	29.40
3	33.27	20.01	25.28	5	23.23	24.23	36.31
4	26.38	31.96	31.70	7	24.22	21.80	24.17
6	27.39	29.14	27.95	9	33.18	27.59	39.78
8	40.16	33.56	38.92	11	26.93	19.27	22.52
10	28.71	27.39	27.83	14	15.46	7.69	26.99
12	55.64	42.67	52.89	16	37.52	31.53	28.56
13	35.62	34.26	39.18	17	37.79	30.65	28.65
15	36.38	35.00	35.49	18	36.84	30.12	32.37
19	37.98	29.60	37.10	20	35.38	29.85	33.05
Group Mean	36.85	30.17	34.85		29.50	23.88	30.18
S.E.**	±10.83	±8.84	±5.70		±5.50	±5.54	±3.80
P***		0.2	0.95			0.10	0.98
P (Intergroup Comparison)					0.10	0.10	0.10

*Values represent mean results for the ambulant week (A) and the first (B-1) and second (B-2) weeks of bedrest.

**95 % Confidence Limits

***Comparison with Ambulant Data

TABLE 65

URINE EPINEPHRINE EXCRETION
(μgm/24 hrs)

Control Group				9-α-Fluorohydrocortisone Group			
Subject	Week of Study*			Subject	Week of Study*		
	A	B-1	B-2		A	B-1	B-2
1	28.80	30.07	30.61	2	20.35	17.53	20.62
3	16.58	8.15	10.67	5	9.79	11.62	14.54
4	12.58	13.93	21.57	7	12.11	7.65	12.00
6	12.67	13.38	12.13	9	10.82	13.38	10.22
8	12.13	10.56	8.02	11	10.89	7.26	11.11
10	7.43	8.50	3.64	14	8.41	6.43	6.48
12	17.01	30.37	12.41	16	15.56	16.50	12.70
13	18.90	18.97	14.80	17	16.04	5.45	12.35
15	10.93	16.98	11.29	18	16.60	14.82	17.30
19	11.67	7.60	10.60	20	11.47	9.50	8.05
Group Mean	14.87	15.85	13.57		13.20	11.01	11.30
S.E.**	±4.25	±6.03	±5.38		±2.67	±3.14	±5.07
P***		0.70	0.70			0.25	0.45
P(Intergroup Comparison)					0.45	0.10	0.50

* Values represent mean results for the ambulant week (A) and the first (B-1) and second (B-2) weeks of bedrest.

** 95 % Confidence Limits

*** Comparison with Ambulant Data

TABLE 66

17-HYDROXYCORTICOSTEROID EXCRETION
(mgm/24 hours)
CONTROL GROUP

SUBJECT		A	1	3	4	6	8	10	12	13	15	19
Ambulant Day	1	13.4	19.7	14.0	13.9	9.8	8.2	11.11				
	2	9.6	22.2	14.5	14.9	5.4	10.3	11.8				
	5								21.5	16.3	9.6	9.2
	6								21.5	16.3	9.6	9.2
Bed Rest Day	1	12.2	23.4	12.4	17.5	7.1	8.4	9.9				
	2	8.8	22.2	13.1	11.7	8.3	10.9	13.3				
	5								22.2	13.8	21.7	10.0
	6								22.2	13.8	21.7	10.0
	8	15.0	25.2	15.2	11.1	12.2	9.2	9.9				
	9	16.8	25.5	14.5	9.3	15.4	9.6	8.4				
	11								21.5	16.0	8.5	13.0
	12								21.5	16.0	8.5	13.0
	14	---	16.6	---	11.9	13.4	6.1	19.8				

TABLE 67

17-HYDROXYCORTICOSTEROID EXCRETION
(mgm/24 hours)
9-α-FLUOROHYDROCORTISONE GROUP

SUBJECT		B	2	5	7	9	11	14	16	17	18	20
Ambulant Day	1	16.3	12.8	10.2	9.8	10.3	11.3					
	2	16.2	13.0	8.0	14.1	8.9	9.6					
	5							5.9	13.0	5.1	9.8	7.6
	6							5.9	13.0	---	9.8	7.6
Bed Rest Day	1	11.0	12.8	15.9	13.1	11.0	11.8					
	2	24.6	11.6	8.4	8.9	15.1	9.1					
	5							11.9	12.0	7.1	6.4	10.5
	6							11.9	12.0	7.1	6.4	10.5
	8	17.3	8.8	6.0	14.0	10.5	13.0					
	9	17.3	10.5	10.6	12.3	15.6	14.1					
	11							11.7	9.6	1.8	7.7	10.5
	12							11.7	9.6	1.8	7.7	10.5
	14	9.5	---	5.6	7.4	---	9.5					

TABLE 68

URINE ALDOSTERONE EXCRETION
(μgm/24 hrs)

Control Group

	Ambulant Day		Bedrest Day					
Subject	1	2	1	2	8	9	13	14
4	16.3					15.4		-
8	28.2	28.0	13.5	17.0	11.1	15.0		10.5
10	13.0*		4.3	8.0		12.0		
12	22.0	22.0	17.0	17.0			21.0	21.0
13	15.5	15.5	9.5	9.5	14.5	14.5	8.5	8.5
15	13.5	13.5	12.0	12.0	16.0	16.0		
19	22.5	22.5	21.5	21.5			12.0	12.0

*Sample obtained on Ambulant Day 1 after bedrest.

TABLE 69

URINE ALDOSTERONE EXCRETION
(μgm/24 hrs)

9-α-Fluorohydrocortisone Group

	Ambulant Day	Bedrest Day				Ambulant Day*	
Subject	1	1	8	9	14	1	2
2	10.2	6.8	4.7				
5	14.7	5.6			1.5		
7	22.1	11.5			2.6		
9	6.4			2.1			
11	18.5	9.9			1.1	2.4	2.7

*Subjects maintained on 9-α-fluorohydrocortisone.

TABLE 70

Page 1

24-HOUR URINARY CLEARANCE
(cc/min)

Control Group

		Endogenous Creatinine			Phosphate		
Day		1A*	1B*	12B	1A	1B	12B
Subject	1	146	124	122	23.9	21.6	21.0
	3	117	124	89	15.2	17.2	14.8
	4	120	120	117	18.8	19.9	28.3
	6	142	135	131	28.5	25.5	29.5
	8	167	144	122	20.6	20.2	18.4
	**10	125	119	-	19.6	17.3	-
	12	171	182	168	19.4	17.2	18.5
	13	167	144	192	12.7	15.3	17.6
	**15	112	-	-	17.2	-	-
	19	143	137	144	21.4	17.9	20.2
Mean		147	139	136	20.1	19.4	21.0
S.E.		±17	±17	±27	±4.1	±2.7	±4.3

*A and B refer to Ambulant and Bedrest Days
**Data not included in analysis

TABLE 70

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24-HOUR URINARY CLEARANCE
(cc/min)

Control Group

		Osmotic			Free Water		
Day		1A*	1B*	12B	1A	1B	12B
Subject	1	2.36	2.18	1.98	-0.89	-0.45	+0.05
	3	2.11	2.22	1.71	-0.43	-0.82	-0.22
	4	2.15	2.00	2.23	-1.02	-0.78	-0.78
	6	1.86	1.33	3.03	-0.61	+0.34	-0.52
	8	1.86	2.09	2.04	-0.57	-0.64	+0.45
	**10	1.87	1.77	-	-0.07	-0.17	-
	12	0.85	1.59	1.07	-0.41	+0.04	+0.87
	13	2.21	2.28	1.15	-0.60	-0.28	+0.04
	**15	1.45	-	-	-0.67	-	-
	19	1.95	1.94	2.15	-0.17	-0.01	-0.06
Mean		1.92	1.95	1.92	-0.59	-0.32	-0.02
S.E.		±0.39	±0.28	±0.52	±0.23	±0.35	±0.43

*A and B refer to Ambulant and Bedrest Days
**Data not included in analysis

TABLE 71

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24-HOUR URINARY CLEARANCE
(cc/min)

9-α-Fluorohydrocortisone Group

		Endogenous Creatinine			Phosphate		
Day		1A*	1B*	12B	1A	1B	12B
Subject	2	125	114	127	28.0	26.9	25.1
	5	122	124	143	23.5	23.3	25.9
	7	154	131	139	25.6	27.5	31.5
	9	146	143	173	21.1	18.7	25.3
	**11	144	-	-	24.1	-	-
	14	157	139	166	16.5	14.4	15.8
	16	156	149	177	22.1	20.4	19.5
	17	139	130	150	18.9	20.1	19.8
	18	117	126	132	17.6	17.7	24.2
	20	123	124	134	11.6	11.6	16.7
Mean		138	131	149	20.5	20.0	22.6
S.E.		±12	± 8	±14	±3.8	±4.1	±3.9

*A and B refer to Ambulant and Bedrest Days
**Data not included in analysis

TABLE 71

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24-HOUR URINARY CLEARANCE
(cc/min)

9-α-Fluorohydrocortisone Group

		Osmotic			Free Water		
Day		1A*	1B*	12B	1A	1B	12B
Subject	2	2.15	1.97	2.28	-0.91	-0.77	-0.49
	5	2.09	2.22	2.48	-0.82	-0.31	+0.58
	7	2.23	2.10	2.22	-0.89	-0.63	-0.82
	9	1.84	2.01	2.59	-0.22	+0.18	+0.93
	**11	2.20	-	-	-0.58	-	-
	14	1.93	1.98	2.18	-0.95	-0.83	-0.17
	16	1.77	2.22	1.76	-0.53	-0.55	+0.19
	17	1.87	1.85	1.60	-0.83	-0.60	-0.35
	18	1.86	2.05	1.53	-0.66	-0.44	-0.21
	20	1.76	2.06	1.48	-0.19	-0.20	-0.24
Mean		1.94	2.05	2.01	-0.67	-0.46	-0.06
S.E.		±0.13	±0.09	±0.33	±0.22	±0.24	±0.42

*A and B refer to Ambulant and Bedrest Days
**Data not included in analysis

TABLE 72
Page 1
URINE CREATININE & OSMOLALITY*

Control Group

	SUBJECT 1		SUBJECT 3	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	2211	466	2114	361
2	2119	623	2102	347
3	1982	462	-	-
4	1920	539	2130	382
5	2050	529	2134	411
6	2059	359	2051	-
7	2127	-		338
Bedrest Day				
1	1965	365	2189	455
2	1661	321	1313	333
3	2023	385	2862	-
4	2107	377	1404	288
5	1960	364	2050	431
6	2092	-	2120	331
7	1736	398	2038	434
8	2095	478	2071	466
9	2093	369	2047	477
10	2990	372	2087	378
11	2134	340	2070	359
12	1873	284	1609	336
13	2145	345	2129	438
14	2213	340	-	-

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 72
Page 2

URINE CREATININE & OSMOLALITY*

Control Group

	SUBJECT 4		SUBJECT 6	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	1911	557	2132	455
2	1964	535	2017	500
3	1969	489	-	-
4	1939	578	2176	455
5	1970	529	2286	616
6	1970	-	2248	311
7	1940	-	2154	641
Bedrest Day				
1	1995	479	2228	246
2	1896	478	2315	572
3	1919	604	2365	509
4	1993	421	2198	524
5	1980	421	2284	431
6	1825	412	2279	-
7	1964	485	2341	547
8	1907	438	2227	445
9	1951	506	2025	434
10	1899	436	2192	534
11	1968	448	2296	475
12	1850	451	2331	349
13	1914	-	2256	399
14	2070	569	2242	461

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 72
Page 3
URINE CREATININE & OSMOLALITY*

Control Group

	SUBJECT 8		SUBJECT 10	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	1920	417	1888	310
2	1987	482	1914	439
3	1668	428	1923	522
4	1924	449	1753	677
5	1972	439	1924	675
6	1990	-	1825	281
7	1974	-	1869	301
Bedrest Day				
1	2012	417	1856	363
2	1911	333	1851	335
3	1943	382	1872	381
4	1933	460	1851	344
5	1982	391	1845	395
6	1705	-	1926	360
7	1930	401	1926	370
8	1883	371	1933	325
9	1900	403	1963	369
10	1913	389	1939	336
11	1818	393	1973	352
12	1719	-	2016	342
13	1968	418	2042	314
14	1935	412	2243	403

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 72
Page 4

URINE CREATININE & OSMOLALITY*

Control Group

	SUBJECT 12		SUBJECT 13	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	4186	555	4607	400
2				
3	4568	324	4820	301
4				
5	4558	301	4437	277
6				
7	1722	285	2490	287
Bedrest Day				
1	4555	283	4642	332
2				
3	4451	521	4761	303
4				
5	4232	372	4649	336
6				
7	4425	375	4805	399
8				
9	4548	302	5751	309
10				
11	4498	307	4878	278
12				
13	4440	364	4675	494
14				

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 72
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URINE CREATININE & OSMOLALITY*

Control Group

	SUBJECT 15		SUBJECT 19	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	1849	540	4124	326
2	3089	489		
3			3927	266
4	3852	410		
5			4282	305
6	1968	365		
7	1168	465	2078	308
Bedrest Day				
1	3767	430	4063	302
2				
3	3940	380	3985	284
4				
5	3411	350	4087	239
6				
7	3969	412	3939	294
8				
9	3996	407	4165	282
10				
11	3918	304	4108	307
12				
13	3784	-	3857	305
14				

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 73
Page 1

URINE CREATININE & OSMOLALITY*

9-α-Fluorohydrocortisone Group

	SUBJECT 2		SUBJECT 5	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	2050	508	1799	473
2	2083	518	1881	511
3	2027	508	1725	547
4	2028	395	1755	518
5	2056	494	1859	383
6	1822	439	1885	-
7	-	-	1761	-
Bedrest Day				
1	2059	491	1785	326
2	2180	467	1683	366
3	2163	467	1927	363
4	2189	420	1855	313
5	2137	390	1829	361
6	2164	-	2066	-
7	2111	412	1882	335
8	1907	352	1870	367
9	2121	429	1843	361
10	-	-	1938	-
11	2270	429	1840	342
12	2073	377	2020	238
13	2228	476	1873	362
14	-	-	1832	360

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 73
Page 2

URINE CREATININE & OSMOLALITY*

9-α-Fluorohydrocortisone Group

	SUBJECT 7		SUBJECT 9	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	1949	482	2058	335
2	1866	553	1720	-
3	1912	378	1717	330
4	1904	456	2499	400
5	1910	567	2661	-
6	1879	-	2128	-
7	1938	-	2360	292
Bedrest Day				
1	1928	411	2371	265
2	1781	526	2281	237
3	1841	366	2354	249
4	1924	371	2262	314
5	2210	506	1919	303
6	1884	-	1598	-
7	-	-	2273	291
8	1938	495	2263	318
9	1923	484	2184	363
10	1580	448	2439	281
11	1959	498	2309	328
12	1965	465	2492	215
13	2076	-	2096	256
14	2015	501	2270	-

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 73
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URINE CREATININE & OSMOLALITY*

9-α-Fluorohydrocortisone Group

	SUBJECT 11		SUBJECT 14	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	2075	420	4604	569
2	2037	437		
3	2033	462	3709	-
4	1851	324		
5	1859	401	4432	367
6	1418	-		
7	-	-	2360	273
Bedrest Day				
1	2040	325	4404	507
2	1960	346		
3	2037	346	4759	316
4	2272	376		
5	1984	533	4703	334
6	2048	455		
7	2077	353	4564	450
8	2025	313		
9	2080	386	9616	343
10	2125	349		
11	2059	359	4742	316
12	2064	380		
13	2096	422	4525	307
14	2039	427		

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 73
Page 4

URINE CREATININE & OSMOLALITY*

9-α-Fluorohydrocortisone Group

	SUBJECT 16		SUBJECT 17	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	4501	423	3950	529
2				
3	4340	366	4264	454
4				
5	4384	374	2015	400
6			4006	406
7	2014	332		
Bedrest Day				
1	4235	391	3946	437
2				
3	4280	326	3925	447
4				
5	4128	270	4082	358
6				
7	3863	333	3943	494
8				
9	4355	281	4036	445
10				
11	4241	262	3974	385
12				
13	4140	285	3863	388
14				

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - milliosmol/kg of H_2O

TABLE 73
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URINE CREATININE & OSMOLALITY*

9-α-Fluorohydrocortisone Group

	SUBJECT 18		SUBJECT 20	
	Creatinine	Osmolality	Creatinine	Osmolality
Ambulant Day				
1	3574	470	1782	332
2			1949	237
3	3638	431	3993	320
4				
5	3547	331	3831	299
6				
7	2421	303	1786	326
Bedrest Day				
1	3658	376	1786	326
2			1842	343
3	3634	410	4021	331
4				
5	3547	390	3800	323
6				
7	3802	424	3859	375
8				
9	3802	425	3977	379
10				
11	3771	360	3889	355
12				
13	3833	408	3848	381
14				

*Results are expressed as follows:

Creatinine - mgm/24 hrs.
Osmolality - millosmol/kg of H_2O

TABLE 74
Page 1

BLOOD CHEMISTRIES*

Control Group

Day	Subject	Na^+	K^+	Cl^-	$PO_4^=$	Ca^{++}	Mg^{++}	Osmolality	Creatinine	Total Serum Proteins	Albumin	Globul
1A**	1	141	4.7	100	4.30	4.76	1.62	291	1.05	7.6	4.5	3.1
1B**		140	3.9	103	3.95	4.81	1.71	290	1.10	7.0	3.7	3.3
12B		143	4.7	109	3.90	5.04	1.83	292	1.07	7.9	4.7	3.2
1A	3	138	3.9	104	4.5	5.30	1.80	288	1.25	8.8	4.4	4.4
1B		135	5.4	105	4.4	4.88	1.71	288	1.23	6.7	3.3	3.4
12B		142	4.5	106	3.7	5.23	1.81	293	1.26	7.6	4.2	3.4
1A	4	138	4.3	108	4.2	5.08	1.83	291	1.05	7.2	3.9	3.3
1B		137	4.1	105	3.7	5.03	1.65	291	1.15	6.5	3.7	2.8
12B		142	4.2	105	3.3	4.93	1.69	294	1.10	7.6	3.9	3.7
1A	6	138	3.9	105	3.3	5.0	1.64	306	1.04	6.7	3.7	3.0
1B		141	4.0	108	3.4	5.01	1.76	308	1.15	6.7	3.9	3.8
12B		145	4.6	108	3.8	5.05	1.72	290	1.24	7.0	4.3	2.7
1A	8	142	4.1	102	3.8	4.87	1.79	290	0.80	8.4	4.6	3.8
1B		141	4.0	102	3.8	4.71	1.65	290	0.97	6.9	4.3	2.6
12B		142	4.1	102	3.2	4.70	1.50	294	0.98	8.6	4.9	3.7
1A	10	142	3.8	99	3.7	5.21	1.58	298	1.05	8.6	5.2	3.4
1B		145	4.3	102	3.7	5.13	1.54	329	1.08	7.2	4.5	2.7
12B		-	-	-	-	-	-	-	-	6.7	4.3	2.4
1A	12	145	4.2	111	3.6	5.23	1.74	290	0.85	7.0	4.3	2.7
1B		155	-	111	3.9	5.17	1.68	290	0.87	6.3	3.1	3.2
12B		145	4.4	112	4.6	5.19	1.62	286	0.93	6.7	3.7	3.0

TABLE 74
Page 2

BLOOD CHEMISTRIES*

Control Group

Day	Subject	Na+	K+	Cl⁻	$PO_4^{=}$	Ca++	Mg++	Osmolality	Creatinine	Total Serum Proteins	Albumin	Globulin
1A **	13	146	5.0	111	5.1	5.24	1.74	292	0.96	6.5	3.4	3.1
1B **		146	5.4	103	4.8	5.17	1.68	291	1.12	7.2	3.7	3.5
12B		144	4.8	102	4.9	5.19	1.62	287	0.88	7.2	3.7	3.5
1A	15	146	3.9	102	4.0	5.45	1.59	290	1.12	7.0	4.3	2.7
1B		147	4.7	100		4.82	1.69					
12B		144	4.4	104		5.45	1.59			7.4	4.6	2.8
1A	19	142	4.9	104	3.3	5.34	1.67	299	1.00	7.1	3.9	3.2
1B		141	4.4	106	3.7	5.02	1.67	300	1.03	6.1	3.8	2.3
12B		141	4.2	105	3.9	5.19	1.64	299	0.99	6.7	3.9	2.8

*Results are expressed as follows:

Sodium - meq/L
Potassium - meq/L
Chlorides - meq/L
Phosphate - mgm %
Calcium - meq/L
Magnesium - meq/L
Osmolality - mos./kg. H_2O
Creatinine - mgm %
Total Serum Proteins, Albumin and Globulin - Grams %

**A indicates ambulation, B indicates bedrest.

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Page 1

BLOOD CHEMISTRIES*

9-α-Fluorohydrocortisone Group

Day	Subject	Na^+	K^+	Cl^-	$PO_4^{=}$	Ca^{++}	Mg^{++}	Osmolality	Creatinine	Total Serum Proteins	Albumin	Globuli
1A**	2	138	4.5	105	3.4	5.31	1.67	292	1.14	7.9	4.0	3.9
1B**		144	4.3	100	3.5	5.40	1.66	300	1.25	8.8	4.4	4.0
12B		139	4.2	107	3.3	5.15	1.66	296	1.13	7.6	3.9	3.7
1A	5	140	4.6	105	4.3	5.21	1.62	288	1.02	5.9	3.9	2.0
1B		139	4.3	107	3.8	5.10	1.65	281	1.00	6.9	4.1	2.8
12B		140	4.3	106	3.4	4.85	1.69	286	0.98	6.9	3.5	3.4
1A	7	139	4.2	102	3.7	5.10	1.66	290	0.88	7.4	4.6	2.8
1B		141	3.9	99	3.8	4.99	1.62	288	1.02	7.8	4.3	3.5
12B		142	4.1	101	3.5	4.99	1.75	294	0.98	7.8	4.1	3.7
1A	9	143	4.5	104	3.6	5.28	1.69	294	0.98	8.1	4.9	3.2
1B		143	4.5	106	3.8	4.95	1.60	288	1.15	7.8	4.5	3.3
12B		143	4.2	106	3.3	4.93	1.66	292	1.00	7.4	4.7	2.7
1A	11	142	3.85	105	2.92	5.25	1.62	308	1.00	7.0	4.6	2.4
1B		-	-	-	-	-	-	-	-	7.6	5.2	2.4
12B		125	3.15	92	-	4.41	1.30	-	-	6.5	3.3	3.2
1A	14	144	4.5	103	3.9	5.09	1.72	288	1.02	6.7	3.4	3.3
1B		148	4.4	105	3.9	5.02	1.63	295	1.10	7.0	3.5	3.5
12B		147	4.5	106	4.2	5.07	1.64	291	0.99	7.0	3.5	3.5
1A	16	143	-	102	3.3	5.15	1.71	295	1.00	6.5	3.8	2.7
1B		144	4.0	107	3.7	4.88	1.61	293	0.99	-	-	-
12B		144	3.4	103	3.8	5.38	1.72	290	0.83	6.8	4.5	2.3

TABLE 75
Page 2

BLOOD CHEMISTRIES*

9-α-Fluorohydrocortisone Group

Day	Subject	Na^+	K^+	Cl^-	$PO_4^=$	Ca^{++}	Mg^{++}	Osmolality	Creatinine	Total Serum Proteins	Albumin	Globu
1A **	17	143	4.8	105	3.7	4.99	1.66	294	0.99	6.8	3.7	3.1
1B **		143	4.5	108	3.8	4.99	1.67	295	1.05	5.8	3.5	2.3
12B		147	3.7	102	4.0	6.18	1.70	301	0.92	7.7	4.3	3.4
1A	18	142	4.1	101	3.7	5.42	1.93	303	1.06	8.0	4.5	3.5
1B		143	4.3	109	3.6	5.05	1.83	295	1.01	7.0	3.4	3.6
12B		147	3.7	108	4.0	5.54	1.94	311	0.99	8.0	3.8	4.2
1A	20	139	3.7	104	4.4	5.10	1.71	296	1.01	6.7	3.4	3.3
1B		130	3.4	103	4.0	4.35	1.46	295	1.00	6.0	3.9	2.1
12B		132	4.0	105	3.9	4.61	1.51	297	1.01	6.0	3.9	2.1

*Results are expressed as follows:

Sodium - meq/L
Potassium - meq/L
Chlorides - meq/L
Phosphate - mgm %
Calcium - meq/L
Magnesium - meq/L
Osmolality - mos./kg. H_2O
Creatinine - mgm %
Total Serum Proteins, Albumin and Globulin - Grams %

**A indicates ambulation, B indicates bedrest.

TABLE 76

SERUM CHOLESTEROL AND TRIGLYCERIDES

Subject	Day	CHOLESTEROL Mg %	TRIGLYCERIDES Mg %
1	1 A*	230	157
	7 A	202	139
	1 B**	204	133
	12 B	246	174
2	1 A	238	137
	1 B	212	118
	12 B	230	230
3	1 A	225	94
	1 B	171	83
	12 B	203	104
4	1 A	221	100
	15 B	192	80
5	1 A	214.5	85
	1 B	200	55
6	1 A	236	154
	1 B	221	106
	15 B	204	128
7	1 A	259	114
	15 B	240	101
8	1 A	196	71
	15 B	210	66
9	1 A	284	119
	14 B	228	87
10	1 A	200	81
	15 B	181	79
11	1 A	200	81
	15 B	181	79
12	1 A	148	81
	1 B	118	67
	12 B	140	128
13	1 A	172	69
	1 B	166	46
	19 B	180	61
14	1 A	167	89
	8 B	158	93
	12 B	168	112
15	1 A	140	60
	14 B	173	72
16	1 A	170	98
	5 B	147	93
	12 B	188	89
17	2 A	188	68
	1 B	185	114
	12 B	214	92
18	1 A	228	153
	1 B	178	189
	12 B	230	90
19	1 A	244	107
	1 B	244	103
	12 B	288	96
20	1 A	175	119
	1 B	170	114
	12 B	198	121

*A symbolizes ambulant phase.
**B symbolizes bedrest phase.

TABLE 77

HEMATOLOGIC DATA

Control Group

SUBJECT		AMBULANT DAY 1	BEDREST DAY 1	DAY 12
1	WBC	8200	6000	8300
	Hematocrit	42	38	40
	Hemoglobin	14.4	12.4	15.2
	Sedimentation Rate	13	16	11
3	WBC	8000	6900	7500
	Hematocrit	42	37	42
	Hemoglobin	15.2	12.8	14.0
	Sedimentation Rate	6	6	12
4	WBC	8300	7700	8400
	Hematocrit	40	37	42
	Hemoglobin	14.4	13.5	14.9
	Sedimentation Rate	3	8	5
6	WBC	9200	9100	-
	Hematocrit	45	42	-
	Hemoglobin	15.6	14.2	-
	Sedimentation Rate	6	4	-
8	WBC	6000	8100	8100
	Hematocrit	43	40	43
	Hemoglobin	15.2	14.2	15.0
	Sedimentation Rate	3	6	8
10	WBC	6100	7300	7300
	Hematocrit	46	43	44
	Hemoglobin	15.3	13.8	14.8
	Sedimentation Rate	2	2	1
12	WBC	8100	8200	7900
	Hematocrit	43	38	45
	Hemoglobin	14.2	12.6	15.2
	Sedimentation Rate	6	4	4
13	WBC	5200	5400	5600
	Hematocrit	46	43	42
	Hemoglobin	15.2	13.9	14.0
	Sedimentation Rate	5	9	18
15	WBC	8200	10,800	-
	Hematocrit	47	47	45
	Hemoglobin	16.0	-	-
	Sedimentation Rate	8	5	-
19	WBC	5500	7400	6800
	Hematocrit	45	40	44
	Hemoglobin	15.0	14.4	15.0
	Sedimentation Rate	4	3	8

TABLE 78

HEMATOLOGIC DATA

9-α-Fluorohydrocortisone Group

SUBJECT		AMBULANT DAY 1	BEDREST DAY 1	DAY 12
2	WBC	6300	9000	7600
	Hematocrit	47	42	42
	Hemoglobin	15.6	14.6	14.0
	Sedimentation Rate	10	10	11
5	WBC	7500	7300	7200
	Hematocrit	47	42	44
	Hemoglobin	16.3	14.0	15.2
	Sedimentation Rate	2	4	4
7	WBC	5700	6100	5700
	Hematocrit	43	39	41
	Hemoglobin	14.8	14.4	14.6
	Sedimentation Rate	6	9	6
9	WBC	7800	7900	9400
	Hematocrit	48	43	44
	Hemoglobin	15.6	14.6	14.8
	Sedimentation Rate	5	4	5
11	WBC	7500	8600	7200
	Hematocrit	44	44	43
	Hemoglobin	15.6	15.6	14.0
	Sedimentation Rate	2	4	7
14	WBC	9400	10,700	10,400
	Hematocrit	46	42	45
	Hemoglobin	15.2	13.8	14.6
	Sedimentation Rate	2	10	7
16	WBC	6700	5300	7000
	Hematocrit	43	40	44
	Hemoglobin	14.5	13.4	15.0
	Sedimentation Rate	2	3	6
17	WBC	5600	5800	6000
	Hematocrit	44	40	44
	Hemoglobin	15.2	-	14.2
	Sedimentation Rate	6	3	3
18	WBC	6700	8200	9800
	Hematocrit	47	40	44
	Hemoglobin	15.6	13.1	14.2
	Sedimentation Rate	5	7	18
20	WBC	7000	7100	7900
	Hematocrit	44	39	39
	Hemoglobin	14.0	13.9	13.0
	Sedimentation Rate	1	4	5

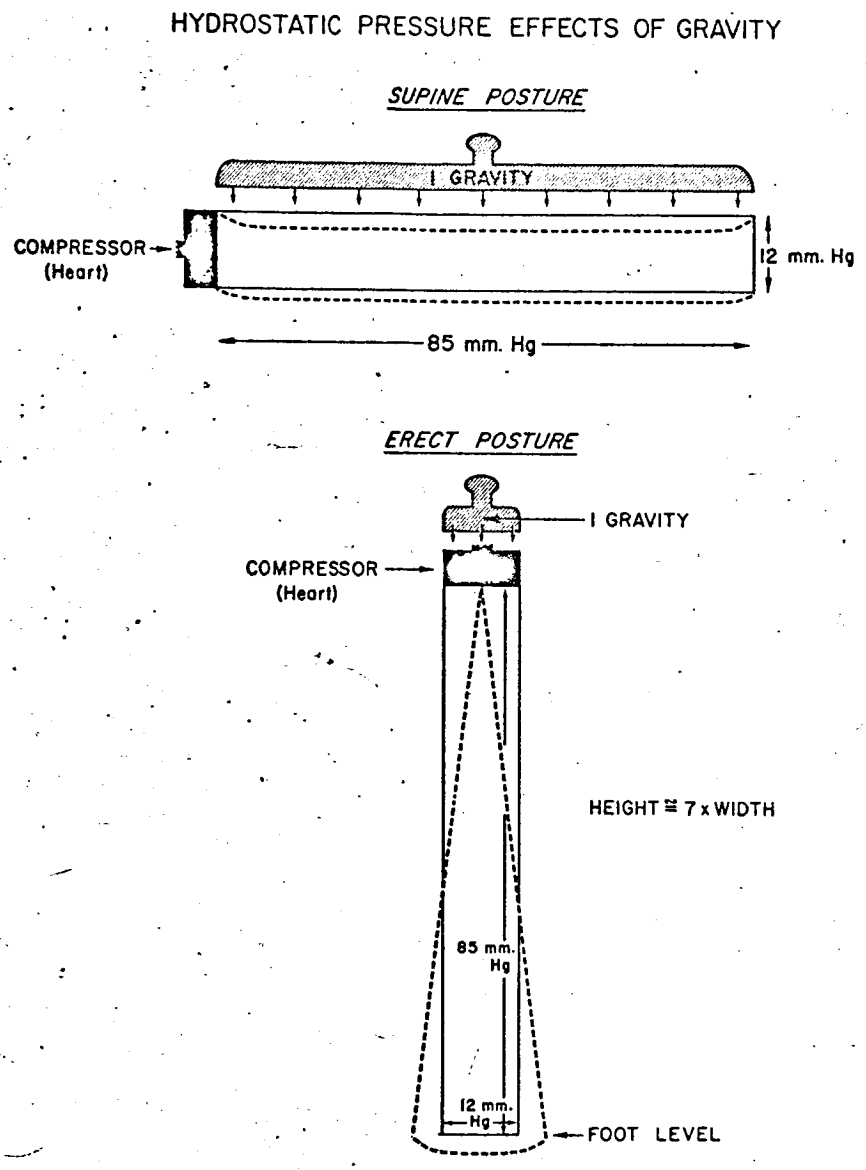

Figure 1. The hydrostatic pressure effect of gravity.

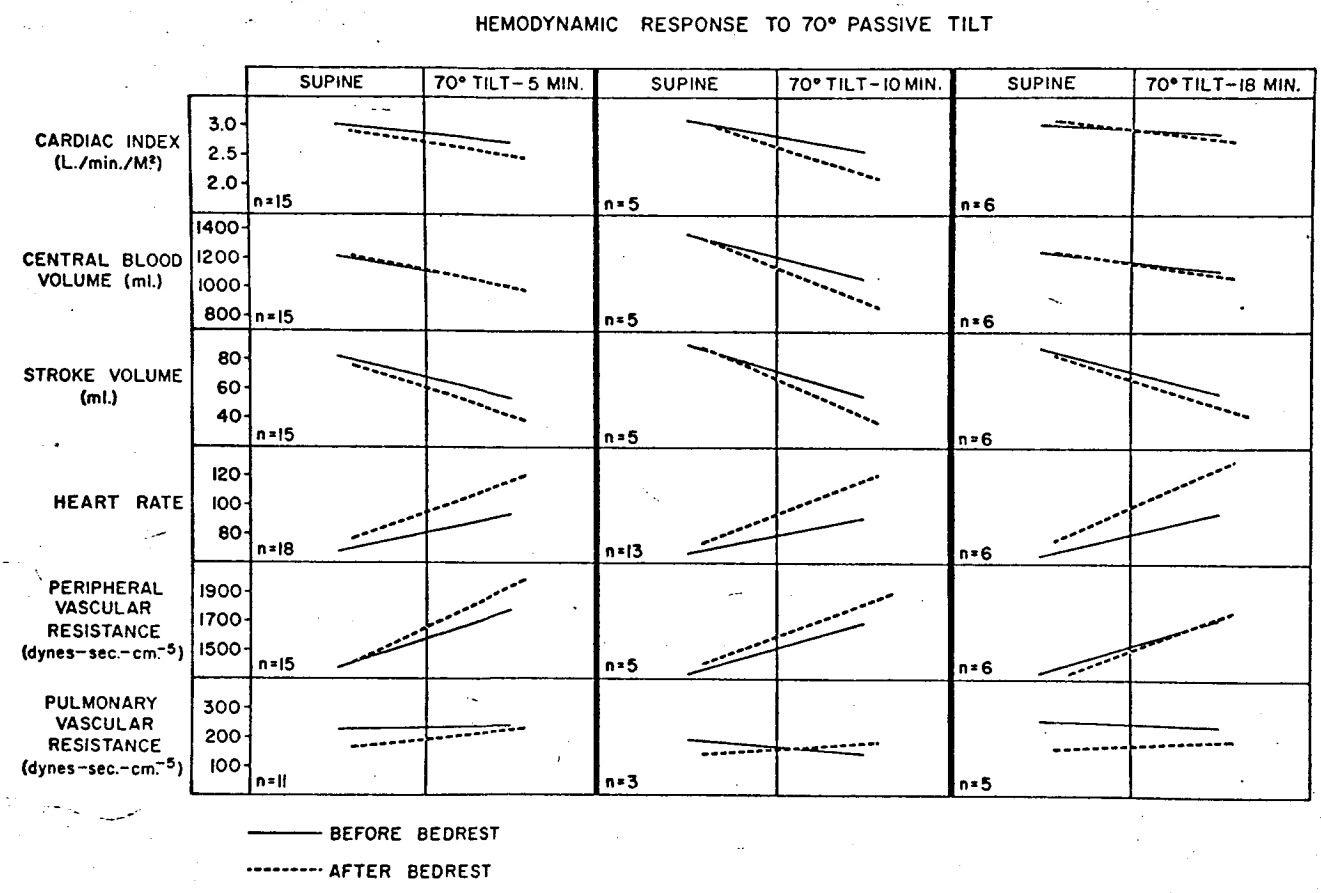

Figure 2. The hemodynamic response to 70° passive foot-down tilt before and after bedrest.

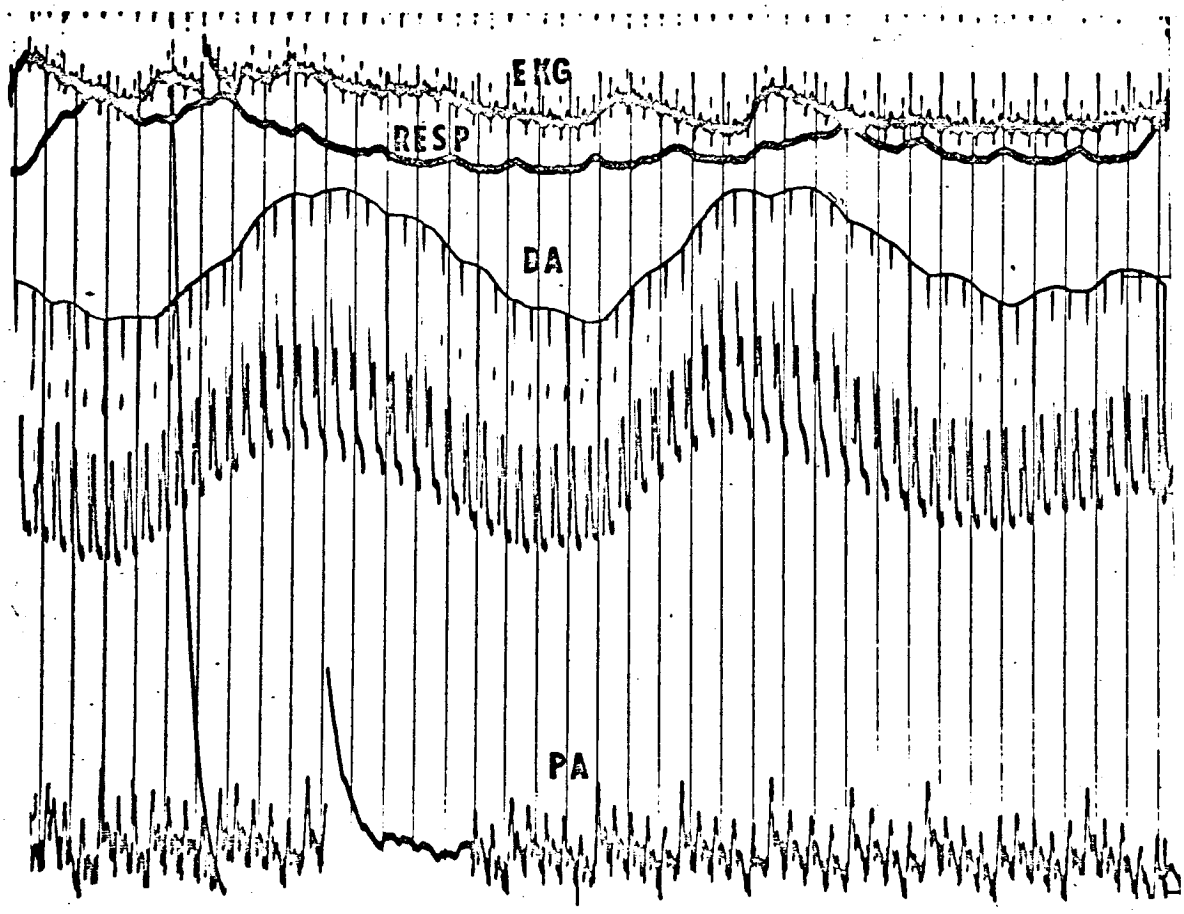

Figure 3 a. Vasomotor waves are present in the brachial artery pressure tracing (BA), but are not seen in the pulmonary artery pressure tracing (PA). Waves are unrelated to respiration (RESP).

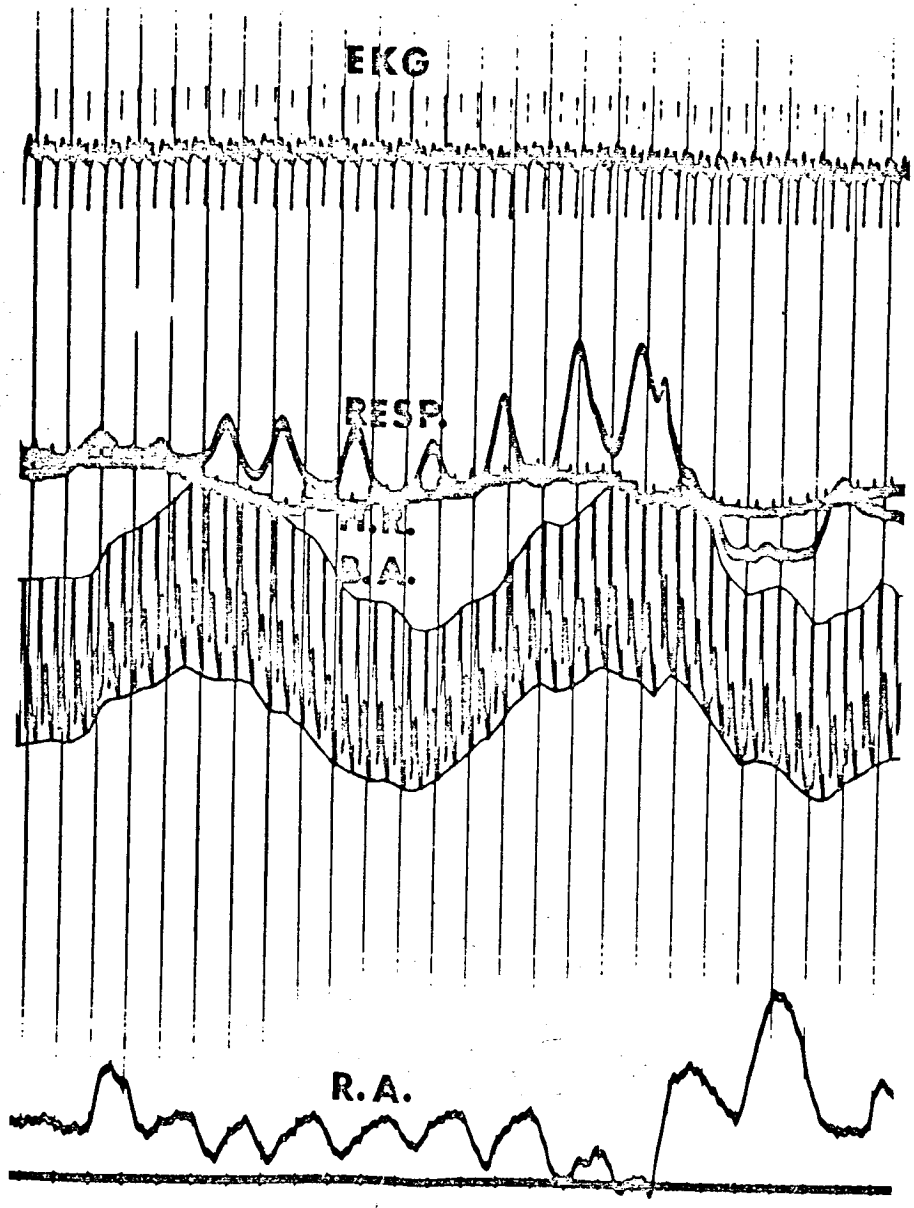

Figure 3 b. Brachial artery vasomotor waves are present (BA). A similar variation is seen in heart rate (HR). Waveforms are not seen in the right atrial pressure tracing (RA).

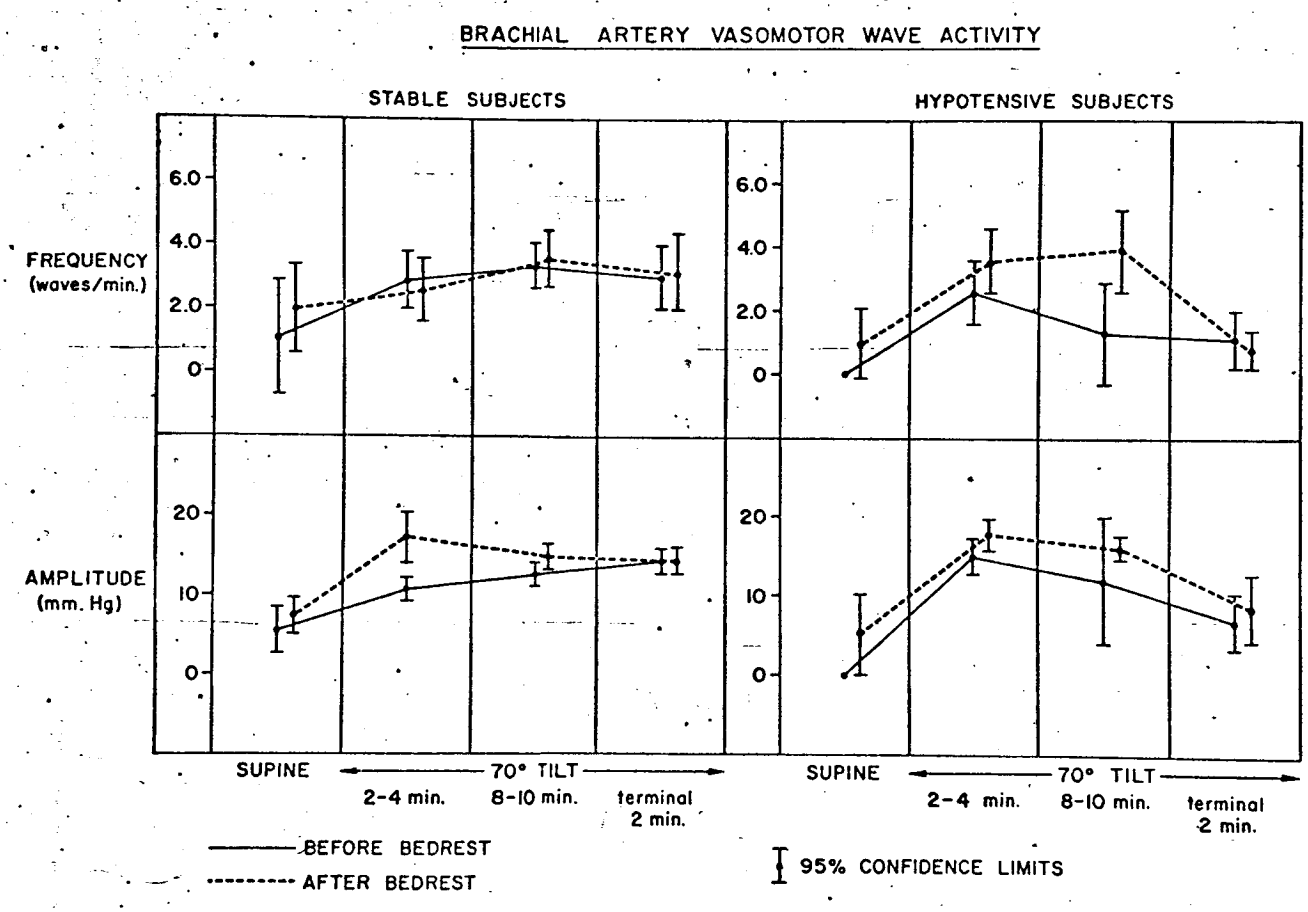

Figure 4. Summary of brachial artery vasomotor wave frequency and amplitude at rest and after various intervals of 70° tilt in stable and orthostatic intolerant subjects before and after bedrest.

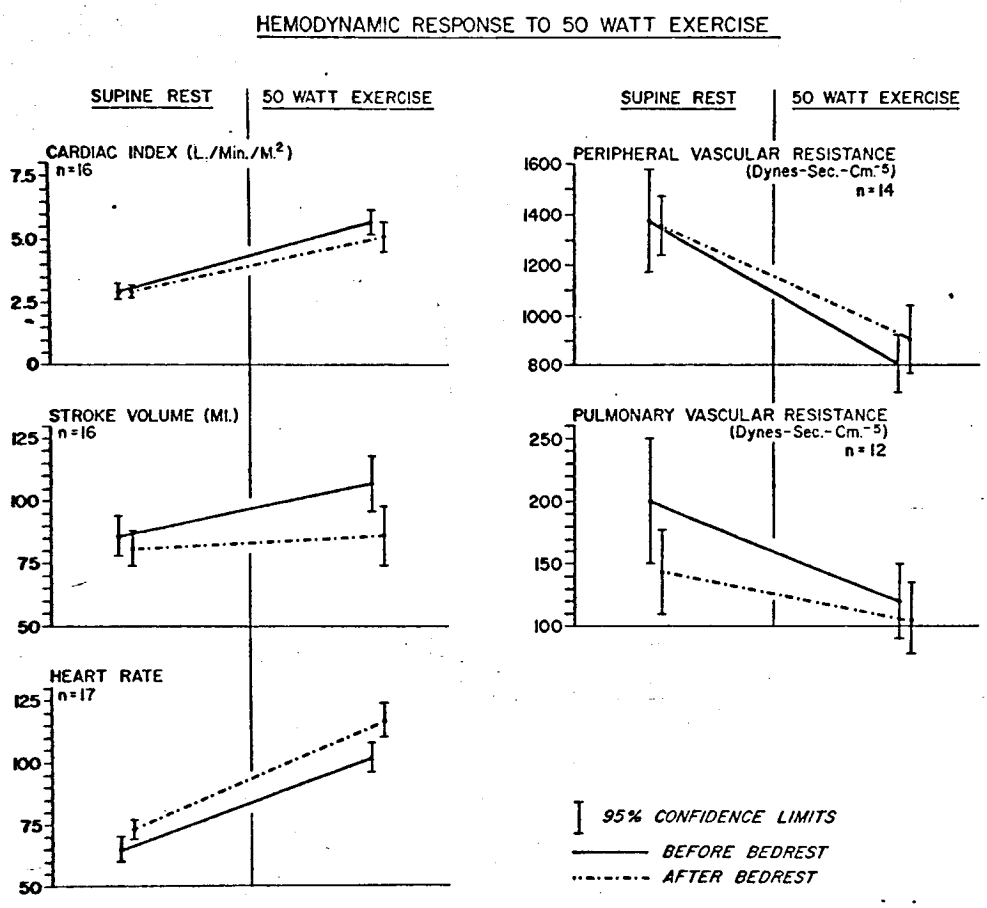

Figure 5. Hemodynamic response to 50 watt supine bicycle exercise before and after bedrest.

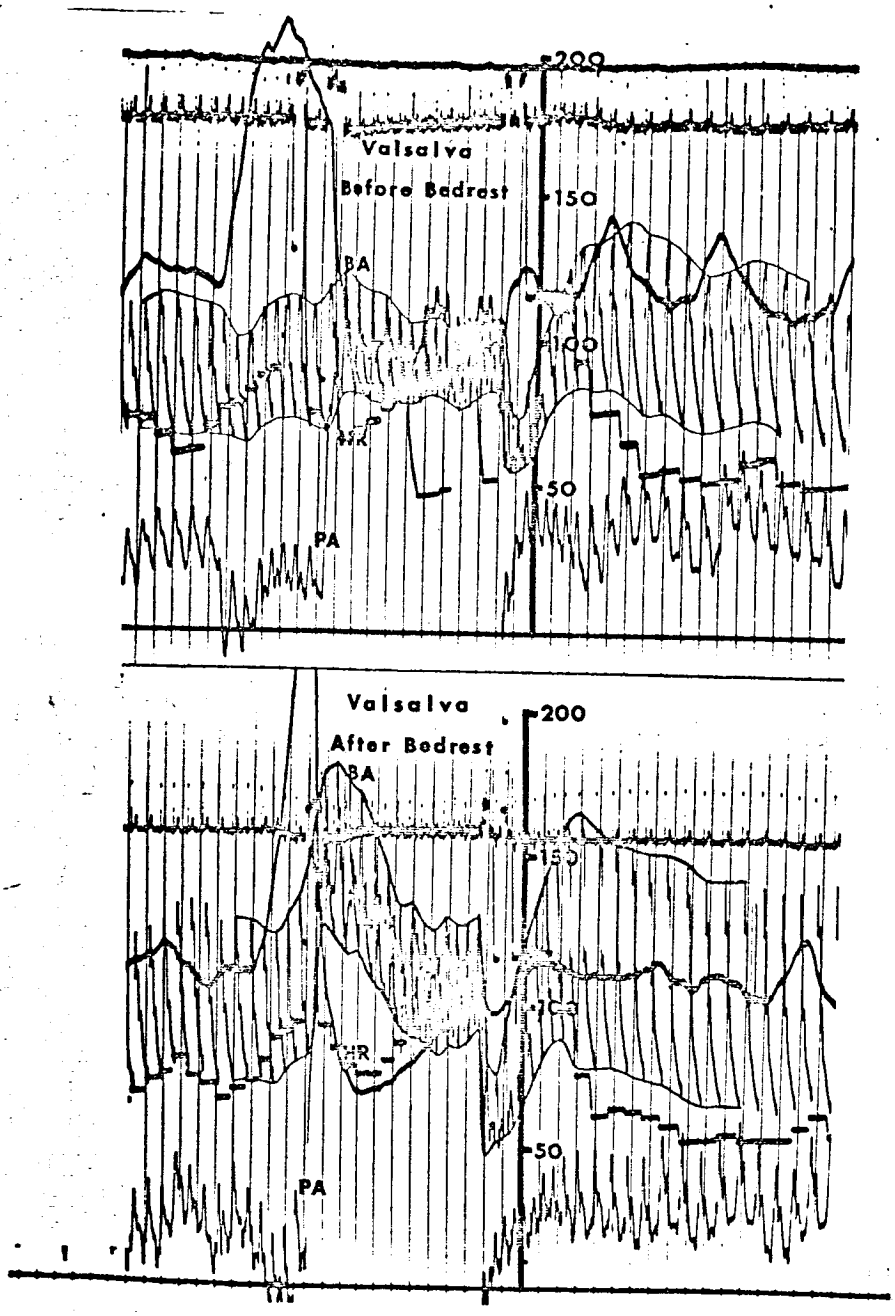

Figure 6. Valsalva response before and after fourteen days bedrest.

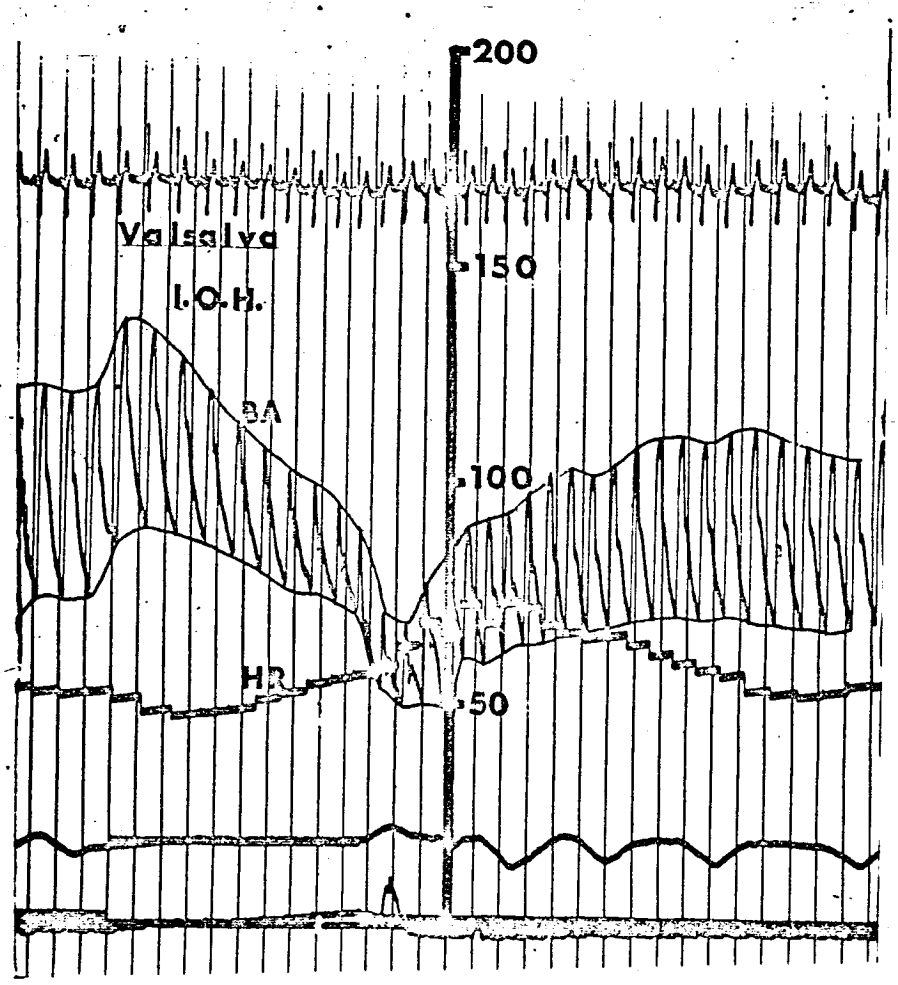

Figure 7. Valsalva response of a patient with idiopathic orthostatic hypotension (I.O.H.).

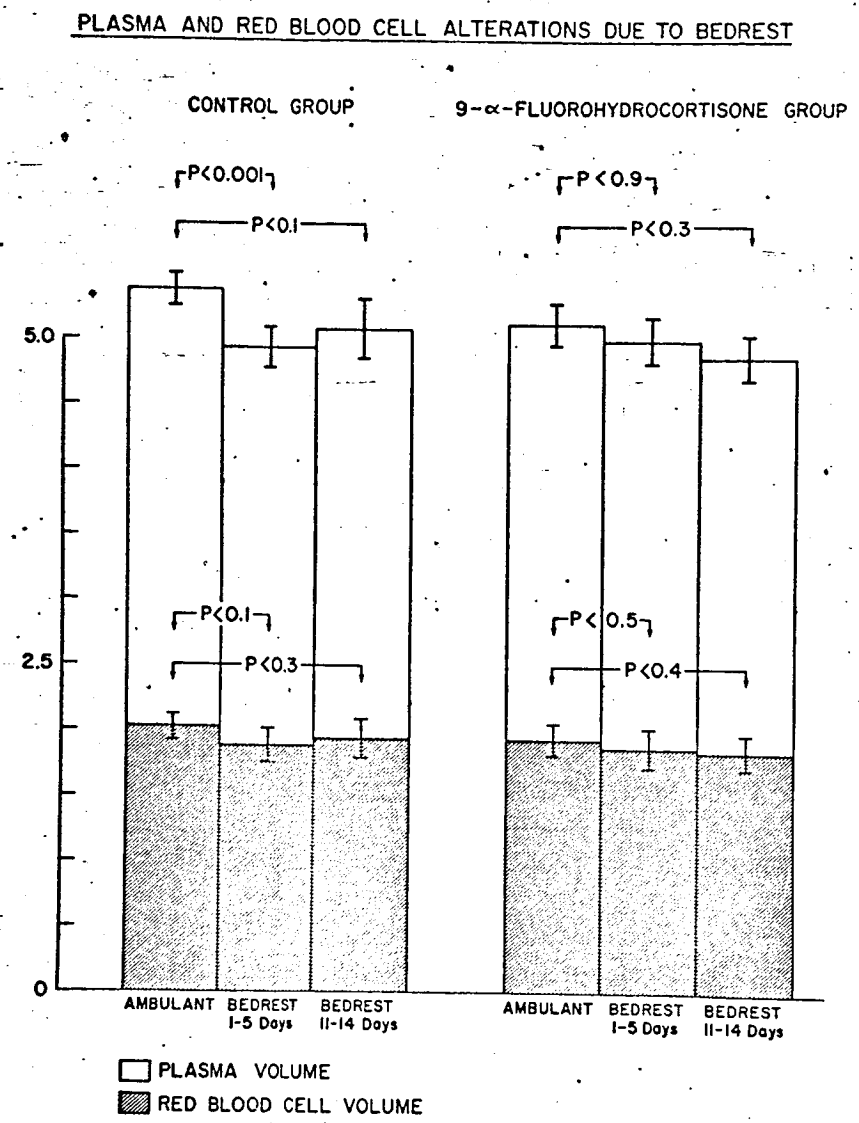

Figure 8. Mean total blood volume, plasma volume and red cell volume of the control and 9-α groups at the stated intervals. P values are based on plasma and red cell volume.

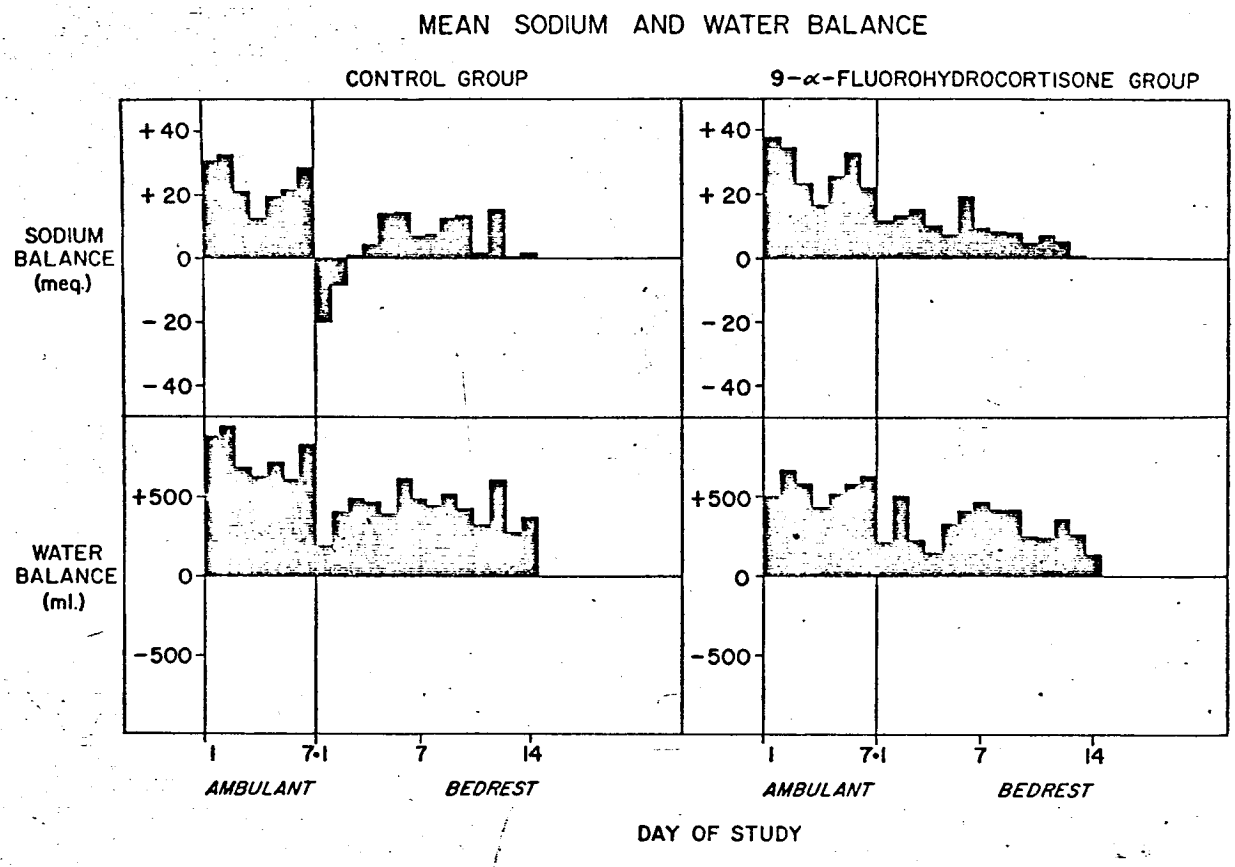

Figure 9. Mean day to day sodium and water balance of the control and 9-α groups.

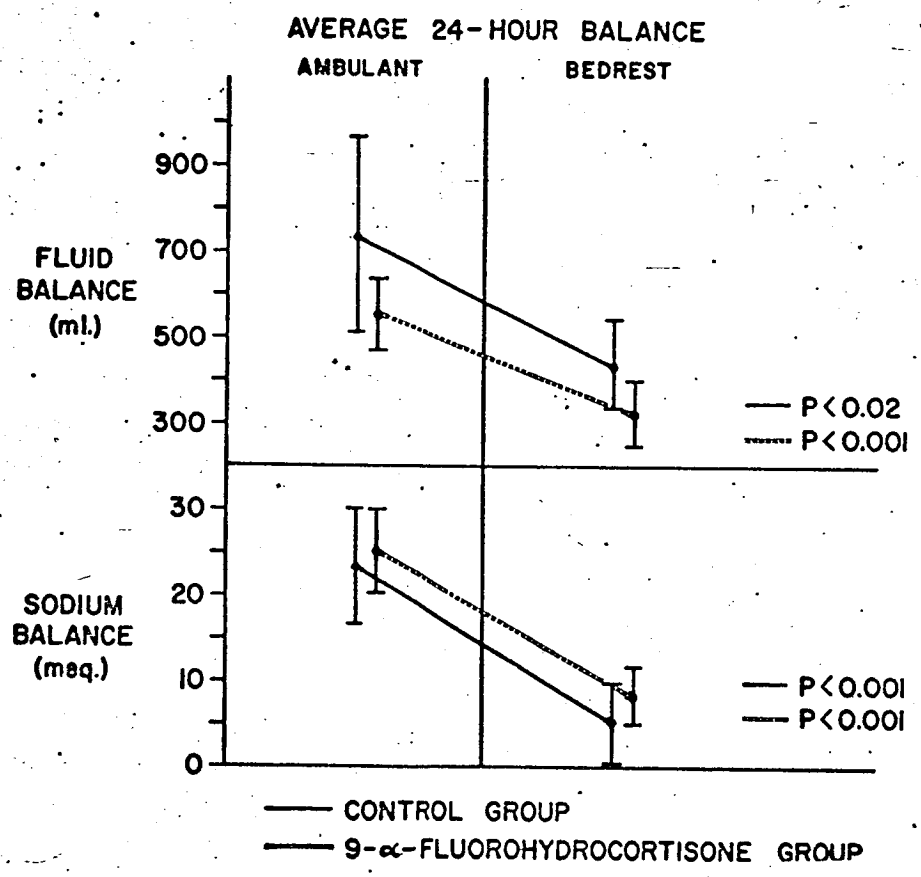

Figure 10. Average 24-hour sodium and water balance during the ambulatory and bedrest phases of the control and 9-α groups.

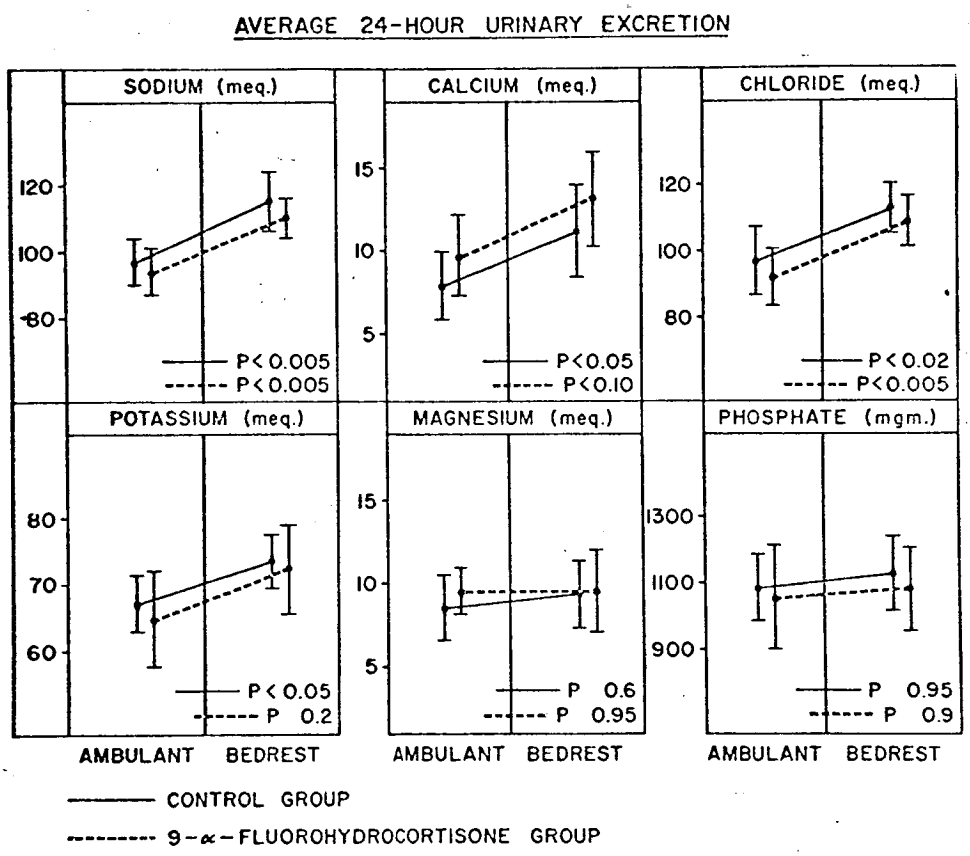

Figure 11. Average 24-hour excretion of various electrolytes during the ambulatory and bedrest phases of the control and 9-α group.