

Table 15

Protocol: Subject M. F.
Studied--Fall, 1943.

Date	Total Dietary Intake of Ascorbic Acid Found Calc. (mg./24 hrs.)	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs.	Work Output ergs	Date	Comment
1943						
10-21	87.36	0.32				
10-22			21.11			
10-23			21.31			
10-24	70.72	0.32				
10-25			26.01			
10-26		0.42				
10-27						
10-28		0.30				
10-29	47.08					
10-30						
10-31						
11- 1			9.48			
11- 2		0.38				
11- 3	68.71		22.33			
11- 4	104.05	0.48			11- 4 to 12-16	Menstrual periods began: 10-1-43 11-5-43 12-5-43
11- 5						
11- 6						
11- 7						
11- 8						
11- 9		0.50	113.09			
Average	57.90	0.40	35.56			
11-10	117.96					
11-11		0.48			11-10 to 11-23	incl. 100 gm. fresh orange juice added daily to basal diet.
11-12	125.12					
11-13		0.36				

Research diet; exercise.

633x109
623x109
665x109
669x109

Exercise 15 min. daily.

(Continued)

Table 15 (Continued)

Date	Total Dietary Intake of Ascorbic Acid		Plasma Ascorbic Acid	Urinary Ascorbic Acid	Work Output	Date	Comment
	Found	Calc.					
1943	(mg./24 hrs.)		mg. %	mg./24 hrs.	ergs		
11-14		117.96			663x10 ⁹	11-14	
11-15			0.28	52.34	654x10 ⁹		
11-16					659x10 ⁹		
11-17				92.6	672x10 ⁹		
11-18		116.55	0.24		641x10 ⁹		
11-19				51.32	670x10 ⁹		
11-20			0.17		713x10 ⁹		
11-21					679x10 ⁹		
11-22				74.11	672x10 ⁹		
11-23			0.10		684x10 ⁹		
11-24	129.30	110.32					
Average	129.30	117.58	0.27	71.19	664x10 ⁹		
11-25			0.16				Research diet; post-exercise.
11-26				51.32			11-25 Diet self-selected.
11-27	124.55		0.15				
11-28	139.55						
11-29	110.32		0.18	77.68			
11-30			0.16	64.50			11-30 Stopped riding bicycle. 500 mg. ascorbic acid.
Average	124.87						
12- 1							Research diet plus 100 mg. ascorbic acid daily; exercise.
12- 2				257.22*	672x10 ⁹	12- 1 to	
12- 3	123.10		0.33		667x10 ⁹	12-17	incl. 100 mg. ascorbic acid administered daily.
12- 4			0.28	192.54	676x10 ⁹		
12- 5					666x10 ⁹		
12- 6					668x10 ⁹	12- 1 to	
12- 7			0.22	177.55	672x10 ⁹	12-13	incl. Exercise 15 min. daily.
12- 7					659x10 ⁹		

*Omitted in average.

(Continued)

Table 15 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found Calc. (mg./24 hrs.)	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs.	Work Output ergs	Date	Comment
1943						
12- 9	143.05		176.67	656x10 ⁹		
12- 9	114.20	0.12		655x10 ⁹		
12-10			172.12	652x10 ⁹		
12-11	103.65	0.15		666x10 ⁹		
12-12				656x10 ⁹		
12-13				663x10 ⁹		
12-14			206.99			
Average	121.00	0.12	185.13	664x10 ⁹		
	Research diet plus 100 mg. ascorbic acid daily; post-exercise.					
12-14	112.25					
12-15	118.41	0.13	184.30			
12-16	109.75	0.15				
Average	113.47	0.14	184.30			

Table 16

Protocol: Subject E. C.
Studied--Fall, 1943

Date	Total Dietary Intake of Ascorbic Acid Found	Calc. (mg./24 hrs.)	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs. exs	Work Output	Date	Comment
1943							
10-19							
10-20							
10-21	87.36		0.44				E.C. was taking approx. 2 T. mineral oil per week, or a total of about 24 T. during experimental period.
10-22							
10-23			0.30				
10-24							
10-25	70.72		0.42	22.98		11-4 to 12-17	incl. 100 g. orange juice added to basal diet daily.
10-26							
10-27			0.38	21.03			
10-28							
10-29	47.08	100.55	0.26	12.47		11-5 to 11-8	incl. Diet self-chosen.
10-30							
10-31				16.00			Menstrual periods began:
11- 1							10-9-43
11- 2			0.32	42.67			11-12-43
11- 3	68.71	104.05	0.44				12-14-43
11- 4							
11- 5							
11- 6							
11- 7							
11- 8			0.48	29.68			
11- 9							
Average	57.90	90.67	0.38	24.14			

(Continued)

Table 16 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found		Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs.	Work Output	Date	Comment
	(mg./24 hrs.)	(mg./24 hrs. ergs)					
Research diet; exercise.							
11-10	117.96		0.46	89.80	763x10 ⁹	11-10 to	Exercise, 15. min. daily.
11-11					781x10 ⁹	11-23	
11-12	125.12		0.34	104.66	774x10 ⁹		
11-13					792x10 ⁹		
11-14					766x10 ⁹		
11-15			0.28	88.92	786x10 ⁹		
11-16	117.96			102.34	781x10 ⁹		
11-17					794x10 ⁹		
11-18	116.55		0.24	58.79	819x10 ⁹		
11-19			0.16		807x10 ⁹		
11-20					804x10 ⁹		
11-21					803x10 ⁹		
11-22			0.14	72.59	804x10 ⁹		
11-23			0.27	66.22	800x10 ⁹		
Average	119.40				791x10 ⁹		
Research diet; post-exercise.							
11-24	129.30	110.32	0.13				
11-25							
11-26				25.86			
11-27			0.16				
11-28	139.55						
11-29	110.32						
11-30			0.14	83.85		11-30	500 mg. ascorbic acid taken.
12- 1				214.33*	802x10 ⁹	12- 1 to	
Average	129.3	124.87	0.14	54.86		12-17	Incl. 100 mg. ascorbic acid daily.

* Omitted in average.

(Continued)

Table 16 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found Calc. (mg./24 hrs.)	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs. ergs	Work Output	Date	Comment
						Research diet plus 100 mg. ascorbic acid daily; exercise.
12- 2	123.10	0.24	198.64	756x10 ⁹	12- 1	to
12- 3				802x10 ⁹	12-13	incl. Exercise 15 min. daily.
12- 4		0.23		803x10 ⁹		
12- 5				830x10 ⁹		
12- 6			172.44	823x10 ⁹		
12- 7		0.21		812x10 ⁹		
12- 8	143.05		178.44	805x10 ⁹		
12- 9	114.20			809x10 ⁹		
12-10		0.20	153.22	808x10 ⁹	12-11	Slept 5 hrs. only.
12-11	103.65			821x10 ⁹		
12-12		0.12	178.24	814x10 ⁹		
12-13		0.15		829x10 ⁹		
12-14						
Average	121.00	0.19	176.20	809x10 ⁹		
						Research diet plus 100 mg. ascorbic acid daily; post-exercise.
12-14	112.25					
12-15	118.41	0.13	223.1			
12-16	109.75	0.13				
12-17		0.20				
Average	113.47	0.23	223.1			

Table 17

Protocol: Subject D. A.
Studied--Winter, 1944

Date	Total Dietary Intake of Ascorbic Acid Found Calc. (mg./24 hrs.)	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs. exes	Work Output	Date	Comment
1-7		0.44				
1-8					1-8	Announced engagement.
1-9						
1-10						
1-11	101.58	0.46	38.15			
1-12						
1-13	53.75	0.41	25.50			
1-14						
1-15		0.45			1-15	Danced 1.5 hrs.
1-16						
1-17			28.87			
1-18		0.32			1-18	Complained she couldn't sleep.
1-19	42.49	0.42	27.13		1-19	Danced 40 min.
1-20					1-20	Lunch off diet. Danced 1 hr; bowled 45 min.
1-21			42.98		1-21	Danced 2 hrs.
1-22	101.05	0.62				
1-23					1-23	Lunch self-selected.
1-24		0.73	32.61		1-24	Danced 30 min.
1-25	80.12					
1-26			33.97			
1-27		0.63			1-27	Lunch off diet.
1-28	74.80	0.63	19.45		1-28	Skated 1.5 hrs.
1-29		0.63			1-29	Bowled 1 line; danced 1 hr; slept extra 2.5 hrs.
1-30						
1-31						

Research diet.

(Continued)

Table 17 (Continued)

Date	Total Dietary Intake of Ascorbic Acid		Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs. ergs	Work Output	Date	Comment
	Found	Calc.					
1944							
	(mg./24 hrs.)	(mg./24 hrs.)					
2- 1	67.44	76.65	0.62			2- 1	Slept extra 2 hrs.
2- 2				20.61		2- 2	Danced 1 hr.
2- 3	54.90	69.85	0.73			2- 3	Bowled 1 line; danced 30 min.
2- 4						2- 4	Lunch self-selected.
2- 5			0.59			2- 5	Slept extra 3 hrs.; danced 1 hr.
2- 6							
2- 7							
2- 8			0.67	46.76	775x10 ⁹	2- 8	Slept 5 hrs. only.
						2- 8	to
Average	71.62	75.65	0.55	31.60		2-21	incl. Exercise 15 min. daily.
2- 9							
2-10			0.51	54.89	719x10 ⁹		
2-11					767x10 ⁹		
2-12			0.50	55.27	737x10 ⁹		
2-13					723x10 ⁹	2-12	Danced 3 hrs.
2-14						2-13	"Forgot" exercise.
2-15			0.57	37.17	734x10 ⁹	2-14	Danced 1.5 hrs.
2-16					718x10 ⁹	2-15	
2-17	70.69	77.35	0.51	24.67	750x10 ⁹	2-16	Danced 30 min.
2-18	67.34	79.90	0.44	49.56	740x10 ⁹	2-17	Danced 30 min.
2-19		80.65			743x10 ⁹	2-18	Bowled 1 line; danced 30 min.
2-20		73.55			735x10 ⁹	2-19	Danced 30 min.
2-21			0.46	59.71	740x10 ⁹	2-20	Lunch self-selected.
2-22			0.50	46.87	729x10 ⁹	2-21	End of daily exercise period.
Average	69.02	77.86				2-22	Bowled 1 line

(Continued)

Table 17 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found	Plasma Ascorbic Acid	Urinary Ascorbic Acid	Work Output	Date	Comment
1944	(mg./24 hrs.)	mg. %	mg./24 hrs.	ergs		
2-22	104.23					
2-23						
2-24	67.59	0.45				
2-25	77.56		46.32			
2-26		0.56				
Average	85.91	0.51	46.32			
Research diet plus 100 mg. ascorbic acid daily; exercise.						
2-27						
2-28					2-28	400-mg. dose ascorbic acid.
2-29		0.44*		1029x10 ⁹	2-29	to 3-18 100 mg. ascorbic acid daily.
3- 1			121.00	1029x10 ⁹	3- 1	Felt as if taking cold; rec'd medication--sulfathiazole and codeine.
3- 2	73.70	0.45		1162x10 ⁹		
3- 3			111.89	1076x10 ⁹		
3- 4		0.47		1077x10 ⁹	2-29	to
3- 5				1087x10 ⁹	3- 9	incl. Exercise 22 min. daily.
3- 6			142.32	1064x10 ⁹		
3- 7		0.61		1116x10 ⁹	3- 7	Developed sore throat; took codeine and sulfathiazole
3- 8			140.17	1032x10 ⁹		
3- 9	58.28	0.39		1055x10 ⁹	3- 8	Took codeine and sulfathiazole;
Average	65.99	0.48	123.95	1073x10 ⁹		"very sore" throat.

* Omitted in average.

(Continued)

Table 17 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found	Calc. (mg./24 hrs.)	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs. ergs	Work Output	Date	Comment
1944							
3-10				105.73		3-10	Omitted 100-mg. dose ascorbic acid.
3-11	75.25		0.69			3-11	Bowled 2 lines.
3-12				53.70			
3-13				105.11			
3-14	58.20	106.05	0.56				
3-15				118.08			
3-16	77.24		0.76				
3-17			0.72				
Average	58.20	86.18	0.68	95.66			

Research diet plus 100 mg. ascorbic acid daily; post-exercise.

Table 18 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found (mg./24 hrs.)	Plasma Ascorbic Acid (mg. %)	Urinary Ascorbic Acid (mg./24 hrs.)	Work Output	Date	Comment
1944						
2-2						
2-3	54.90	0.68				
2-4			12.28			
2-5		0.65				
2-6		0.67	3.94	769x10 ⁹	2-8	Pill for backache (sodium salicylate).
2-7		0.53	25.62	719x10 ⁹	2-21	incl. Exercise 15 min. daily.
2-8	70.55	73.04				
Average	70.55	73.04				
Research diet; exercise.						
2-9						
2-10	73.55	0.57		826x10 ⁹	2-10	to
2-14		0.55			2-14	incl. Diet self-selected.
2-15	74.60			764x10 ⁹	2-15	to
2-16	70.69		72.10	798x10 ⁹	2-21	incl. Sodium salicylate, for back trouble.
2-17	67.34	0.45		793x10 ⁹		
2-18		0.40	80.53	805x10 ⁹		
2-19				783x10 ⁹		
2-20				764x10 ⁹		
2-21			64.48	785x10 ⁹		
2-22		0.41				
Average	69.02	73.78	72.37	780x10 ⁹		

(Continued)

Table 18 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found	Plasma Ascorbic Acid	Urinary Ascorbic Acid	Work Output	Date	Comment
1944	(mg./24 hrs.)	mg. %	mg./24 hrs.	ergs		
Research diet; post-exercise.						
2-22	104.23	81.11				
2-23			24.76		2-23	Walked 5 miles.
2-24	67.59	73.55	0.45			
2-25			44.45			
2-26			0.44			
Average	85.91	77.33	0.45	34.61	2-27	Walked 3 hrs.
Research diet plus 100 mg. ascorbic acid daily; exercise.						
2-28			Research diet plus 100 mg. ascorbic acid daily; exercise.		2-28	400 mg. ascorbic acid.
2-29	68.61	73.55	0.53*	220.57*	2-29	to 1080x10 ⁹
3- 1			116.55	1064x10 ⁹	2-29	to 1075x10 ⁹
3- 2	73.70	75.08	0.44	138.43	3- 9	incl. Exercise 22 min. daily.
3- 3		86.20	0.51		3- 4	Dancing 0.5 hr.
3- 4			0.67		3- 5	One meal self-selected.
3- 5		73.16		103.30	3- 6	Considerable walking.
3- 6				108.92		
3- 7				116.80		
3- 8	58.28	97.45	0.53			
3- 9	65.99	82.97	0.54	1093x10 ⁹		
Average			Research diet plus 100 mg. ascorbic acid daily; post-exercise.			
3-10			131.59			
3-11		72.05	0.47			
3-12		82.95				
3-13				61.76		
3-14	58.20	107.55		113.19		
3-15				126.05		
3-16			0.58			
3-17			0.64			
Average	58.20	86.85	0.56	107.95		

*Omitted in average.

Table 19

Protocol: Subject A. S.
Studied--Winter, 1944

Date	Total Dietary Intake of Ascorbic Acid		Plasma Ascorbic Acid	Urinary Ascorbic Acid	Work Output	Date	Comment
	Found	Calc.					
1944	(mg./24 hrs.)		mg. %	mg./24 hrs.	ergs		
	Research diet.						
1-18						1-18	Refereed basketball game
1-19	42.49	107.05		15.34		1-19	Archery, 10 flights, 6 arrows
1-20						1-20	Swimming, 45 min.
1-21	101.05	89.01		19.17		1-22	Swimming, 1 hr.
1-22			0.84			1-24	5 hrs. sleep only; getting a cold.
1-23						1-25	Slept 3 hrs. in afternoon.
1-24	82.20	68.15	0.55	29.49		1-27	Archery, swimming, 1 hr.
1-25	72.61	63.65	0.81	41.09		1-29	Swimming, 1 hr; pingpong, 3 games.
1-26				20.48		2- 1	Swimming, 45 min.
1-27							
1-28							
1-29							
1-30							
1-31	67.44	80.55	0.87	11.13			
2- 1							
2- 2							
2- 3	54.90	73.30	0.83	13.65			
2- 4							
2- 5			0.79				
2- 6							
2- 7			0.84	12.18	1041x10 ⁹	2- 7	Sleep, 3.5 hrs. only.
2- 8						2- 8	to
						2-21	incl. Exercise (15 min. daily)
Average	70.11	80.29	0.80	20.32			

(Continued)

Table 19 (Continued)

Date	Total Dietary Intake of Ascorbic Acid		Plasma Ascorbic Acid	Urinary Ascorbic Acid	Work Output	Date	Comment
	Found	Calc.					
1944	(mg./24 hrs.)		mg.	mg./24 hrs.	ergs		
	Research diet; exercise.						
2-9				35.64	937x10 ⁹		
2-10	76.00		0.70		955x10 ⁹	2-10	Swimming, 1 hr.; refereed 1/2 basketball game.
2-11				64.96	927x10 ⁹		
2-12	87.92		0.56		916x10 ⁹	2-12	Swimming, 2 hrs.
2-13				11.99	954x10 ⁹	2-13	Sick headache, upset stomach.
2-14					915x10 ⁹		
2-15			0.69		915x10 ⁹	2-15	Getting cold; refereed game.
2-16	70.69	77.94		22.50	920x10 ⁹	2-16	Sleep, 5 hrs. only; slight head cold.
2-17	67.34	81.90	0.45		940x10 ⁹	2-17	Cold pills (amytal., ephedrine, aspirin).
2-18				38.91	940x10 ⁹		
2-19			0.55		694x10 ⁹	2-19	Cold not better; swimming, 1.25 hrs.; some cough.
2-20						2-20	Feeling tired; voice bad.
2-21				38.71	928x10 ⁹	2-21	Tired; cough.
2-22	104.23	86.00	0.52				
Average	69.02	80.94	0.58	35.45	936x10 ⁹		
	Research diet; post-exercise						
2-23				52.34		2-23	Setting-up exercise, 10 min.
2-24	67.59	77.25	0.43			2-24	Swimming, 30 min.
2-25		77.36		24.52			
2-26			0.44				
Average	85.91	80.20	0.44	38.43			

(Continued)

Table 19 (Continued)

Date	Total Dietary Intake of Ascorbic Acid Found	Calc.	Plasma Ascorbic Acid mg. %	Urinary Ascorbic Acid mg./24 hrs.	Work Output ergs	Date	Comment
Research diet plus 100 mg. ascorbic acid daily; exercise.							
2-27				153.42*		2-28	400 mg. ascorbic acid; sleep, 4.5 hrs. only.
2 28							
2 29			0.51*		1304x10 ⁹	2-29	to 3-18 100 mg. ascorbic acid daily; 1.75 hrs bas.ball.
						2-29	to 3-9 incl. exercise daily, 22 min.
3- 1					1301x10 ⁹	3- 1	Seemed to be getting cold.
3- 2	73.70	84.66	0.56	128.70	1327x10 ⁹	3- 2	Swimming, 1/4 hr.; sleep, 4.5 hrs. only.
3- 3						3- 3	Swimming, 1/2 hr.
3- 4	67.98		0.62	103.00	1331x10 ⁹	3- 4	Swimming, 1/2 hr.
3- 5					1377x10 ⁹		
3- 6	89.28		0.58	117.92	1350x10 ⁹		
3- 7					1372x10 ⁹		
3- 8					1336x10 ⁹		
3- 9	58.28	96.05	0.46	115.15	1318x10 ⁹		
Average	65.99	84.49	0.56	116.19	1335x10 ⁹		
Research diet plus 100 mg. ascorbic acid daily; post-exercise.							
3-10				101.23			
3-11			0.79				
3-12	91.85						
3-13	82.35			49.79			
3-14	58.20	106.05	0.77				
3-15				123.88			
3-16	76.90		0.80				
3-17			0.88				
Average	58.20	89.29	0.81	84.02			
*Omitted in average							