HOW DO MARATHON RUNNERS FARE?

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The opportunity was taken to find out what happened to a group of runners during and after a provincial marathon race and to assess the influence of various factors on the problems and rate of recovery.

METHOD AND RESULTS

There were 415 entrants to the 1983 Guildford Marathon disclosing a true intent to run the full marathon by entering the second circuit of the course and 386 (93%) completed the race. Of these 299 out of the 415 (72%) returned a questionnaire. There were no hospital admissions among any of the competitors. The morning of the marathon was cool (9.1-10.1°C) with a relative humidity of 86%, a moderate wind (12-16 kts) and the onset of drizzle during the second hour.

Details relating to the runners are summarised in the Table. A number of outcome variables are of particular interest. These are stitch, vomiting, diarrhoea, blood in the stools, (Porter, 1983) abdominal pain during and after the race, important afflictions of joint, muscle or tendon, recovery time, and the rapidity with which training could be resumed. Regression techniques (Dyke and Patterson, 1952) were used to investigate how these variables were associated with the factors sex, age, experience, speed, amount of training (average and maximum weekly mileage), number of feeding stations used, and use of non-steroidal anti-inflammatory and other drugs before and after the race. Only associations significant at the 5% level are recorded below.

The results indicated that stitches were less likely in the older age group and were associated with abdominal pain after the race. Important joint and tendon afflictions were more likely in those with a higher maximum weekly training mileage, but lower in those who drank more frequently during the race. Recovery was quicker in those with experience of a previous full marathon, those who had a higher maximum weekly mileage and those who ran more slowly.

COMMENT

The relatively small numbers preclude any comment about rare but serious complications. In addition care must be taken not to generalise from just one marathon (Terpstra, 1983), in particular the outcome might have been different if the weather had been adverse (Tunstall Pedoe, 1983). The Guildford Marathon was, nonetheless, a benign experience for almost all the runners. Most finished, suffered few ill-effects and recovered rapidly.

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Details relating to runners (n = 299)

	(n)	%	Mean	SD
Sex: Male	299	287	96	
Female		12	4	
Age Range 18-69 yrs			35.1	9.8
Failed to complete		14	5	
Lapsed time for completors in minutes			212.8	31.3
Previous marathon experience	189	67		
Weekly mileage in training:				
Average			39.5	18.1
Maximum			53.2	20.6
Feeding stations used (out of 8)			6.3	2.3
Took a drug before or after race				
Non-steroidal anti-inflammatory	4	1		
Aspirin	9	3		
Anti-asthma	5	2		
Others	12	4		
Total	30	10		
Required medical attention (all men)	17	6		
Developed stitch: Men	50	17		
Women	3	25		
Mean lapsed time in hours to first relishing food			2.6	2.1
Vomited during or after race	7	2		
Diarrhoea during or after race	18	6		
Abdominal pain or tenderness after race	21	7		
Bloody urine noticed	0			
Tarry or bloody stool noticed	1			
Minor orthopaedic condition	165	55		
Important orthopaedic condition	8	3		
Attended work next day	242	98		
Lapsed time in days to first jog			2.3	1.5

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