
Contents

Preface
Introduction

xiii
xv

PART ONE Fitness Test Profiles of Footballers

1. A comparison of fitness characteristics of elite and non-elite Gaelic football players
S. Keane, T. Reilly and A. Borrie 3
2. Profile of elite female touch football players
D. O'Connor 7
3. Fitness profile of professional Rugby League players
D. O'Connor 11
4. A comparison of upper body strength in collegiate Rugby players
R.J. Tong and G.L. Wood 16
5. Aerobic and anaerobic field testing of soccer players
K. Odetoyinbo and R. Ramsbottom 21
6. Fitness profiles of English professional and semi-professional soccer players using a battery or field tests
G.M.J. Dunbar and K. Power 27
7. Comparison of the physiological characteristics of the First, Second and Third League Turkish soccer players
G. Tiryaki, F. Tuncel, F. Yamaner, S.A. Agaoglu, H. Gumubdad and M.F. Acar 32
8. Physiological characteristics of Turkish female soccer players
K. Tamer, M. Gunay, G. Tiryaki, I. Cicioolu and E. Erol 37

PART TWO Metabolism and Nutrition

9. The physiology of intermittent activity in football
J. Bangsbo 43
10. Fluid loss and replacement in English Premier League soccer players
P.D. Davies, C.B. Cooke and R.F.G.J. King 54
11. The influence of water ingestion on repeated sprint performance during a simulated soccer match
J.L. Fallowfield, A.G. Jackson, D.M. Wilkinson and J.J.H. Harrison 60
12. The influence of carbohydrate ingestion on repeated sprint performance during a simulated soccer match
D.M. Wilkinson, J. Garner, J.L. Fallowfield and J.J.H. Harrison 66
13. The lipid profile of a Rugby Union football squad
C.P. O'Brien and J.F. Fielding 72
14. Pattern of alcohol use in Rugby players and Rugby referees
C.P. O'Brien and J.F. Fielding 77
15. Iron supplements are not required for Rugby Union football
C.P. O'Brien and J.F. Fielding 81

PART THREE Football Training

16. Resistance training by senior Rugby Union players - just what do coaches think they're doing?
J. McKenna 89
17. Rugby Union players' resistance training - an application of the transtheoretical model
J. McKenna and A. Muckle 94

18.	The effect of pre-season training on the physiological characteristics of international rugby players <i>R.J. Tong and R. Mayes</i>	98
19.	Effects of different pre-season preparations on lactate kinetics in professional soccer players <i>C. Islegen, M.F. Acar, A. Cecen, T. Erding, R. Varol, G. Tiryaki and O. Karamizrak</i>	103
20.	Endurance capacity of soccer players pre-season and during the playing season <i>A.N. Rebelo and J.M.C. Soares</i>	106
21.	Fitness profiles of professional soccer players before and after pre-season conditioning <i>T.H. Mercer, N.P. Gleeson and J. Mitchell</i>	112
22.	An investigation into the fitness of professional soccer players over two seasons <i>K. Brady, A. Maile and B. Ewing</i>	118
PART FOUR	Medical Aspects of Football	
23.	Footballers' body clocks <i>T. Reilly</i>	125
24.	Injuries in American Football <i>D.T. Kirkendall, K.P. Speer and W.E. Garrett Jr</i>	132
25.	Lumbar spine abnormalities in American Football linemen <i>K.P. Speer, H. Pavlov and R.F. Warren</i>	139
26.	The diagnosis and treatment of pulmonary pneumothorax in grid-iron football <i>A.S. Levy, K. Speer, F. Bassett and S. Lintner</i>	142
27.	Cervical spines of middle-aged soccer players: radiographic findings and computer simulation <i>H. Kurosawa and T. Yamanoi</i>	145
28.	Knee ligament injuries in soccer players <i>J. Ékstrand</i>	150

	29. Injuries in Rugby football <i>D.A.D. MacLeod</i>	156
	30. Effect of a fatigue task on absolute and relativitised indices of isokinetic leg strength in female collegiate soccer players <i>N. Gleeson, T. Mercer and I. Campbell</i>	162
	31. Training and retraining muscle strength <i>J.P. Clarys, E. Zinzen, D. Caboor and P. Van Roy</i>	168
	32. Isokinetic assessment of Rugby League players with groin problems <i>D. O'Connor</i>	176
PART FIVE	Paediatric Science and Football	
	33. Sports injuries and physical fitness in adolescent soccer players <i>T. Kohno, N. O'Hata, M. Ohara, T. Shirahata, Y. Endo, M. Satoh, Y. Kimura and Y. Nakajima</i>	185
	34. High-school soccer summer tournaments in Japan - comparison of laboratory data of the players in summer and winter <i>M. Kobayashi, H. Aoki, S. Ikeda, T. Katsumata, T. Kohno, K. Shiono, J. Seki, T. Takagi, T. Takei, J. Tanaka, K. Nabeshima, K. Nomura, S. Fukaya, T. Fukubayashi, S. Miyakawa, T. Murakami, T. Morikawa, T. Morimoto, F. Yamashita, M. Wakayama and N. O'Hata</i>	190
	35. Heart rate responses of children during soccer play <i>B. Drust and T. Reilly</i>	196
	36. Developing and acquiring football skills <i>L. Burwitz</i>	201
PART SIX	Match Analysis	
	37. Use of match analysis by coaches <i>E. Olsen and O. Larsen</i>	209

38. An analysis of the playing patterns of the Japan national team in the 1994 World Cup qualifying match for Asia 221
K. Yamanaka, D.Y. Liang and M. Hughes
39. A new notational analysis system with special reference to the comparison of Brazil and its opponents in the World Cup 1994 229
P.H. Luhtanen, V. Korhonen and A. Ilkka
40. Bivariate analysis of the repeatability of football offensive schemes 233
C. Sforza, G. Michielon, G. Grassi, G. Alberti and V.F. Ferrario
41. Repeatability of the football penalty: a statistical evaluation by the Morphological Variation Analysis 240
C. Sforza, S. Dunani, F. Mauro, L. Torri and V.F. Ferrario
42. Analysis of goal-scoring patterns of European top level soccer teams 246
J. Garganta, J. Maia and F. Basto
43. A time analysis of men's and women's soccer 251
S. Miyamura, S. Seto and H. Kobayashi
44. A method to analyse attacking moves in soccer 258
J.F. Grehaigne, D. Bouthier and B. David
- PART SEVEN Psychology and Football Behaviour**
45. Use of feedback by coaches and players 267
I.M. Franks
46. Effects of exercise on the decision making of soccer players 279
T. McMorris and J. Graydon
47. Stress management in male and female soccer players 285
I.W. Maynard, M.J. Smith and L. Warwick-Evans
48. Improving anticipation of goalkeepers using video observation 290
T. McMorris and B. Hauxwell

	49. Physical play, foul play and violence in football: Comparative analysis of violent play among professional soccer players in Italy and England <i>B.J. Peiser and T. Madsen</i>	156 295
PART EIGHT	Management and Organisation	
	50. The expected economic effects of football special events <i>S. Thompson</i>	301
	51. Issues of management and business arising from the transformation of the soccer industry <i>E.D. Allcorn</i>	308
	52. The impact of 'youth training' on the stock of 'contract professional' players in soccer in England and Wales <i>J. Sutherland, G. Stewart and C. Wolsey</i>	314
	53. Comparison of Australian Rules football and German professional soccer with regard to planning and execution of training and competition <i>W. Kuhn</i>	321
	54. Rugby's penalty problem - myth or reality? <i>C. Thomas</i>	330
Index		337