

# Retrospective survey of rugby injuries in the Leinster province of Ireland 1987–1989

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Rugby Union Football is a high-speed contact sport and has a significant incidence of injury. This study evaluated senior rugby players with reference to the anatomical site of injury for each playing position.

**Keywords:** Rugby, injuries, site, playing position

## Methods

A questionnaire was presented to 50 senior rugby players in the Leinster province of Ireland, who comprised 23% of the rugby population. They were asked to list the type and site of the injuries they had sustained playing rugby over the previous three seasons. The criteria for inclusion of an injury was 'an injury which prevented the player from playing or training for at least 7 days and which required a consultation with a medical professional'.

## Results

Over the 3-year period, 120 injuries were reported among the 50 players. These senior players play, on average, 25 times in a season. This gives an injury incidence of 1 in 31 appearances.

The actual overall reported injury incidence was 26.7%. This is more than twice the incidence which was reported in a similar study in 1954<sup>1</sup>.

The lower limb and knee joint were the most commonly injured anatomical sites (Figure 1). Previous studies show that the head was the most common site<sup>1</sup> (Table 1).

The most frequently injured playing positions were full-back and centre three-quarters (Figure 2), compared with previous studies where the scrum-half and number eight were the most regularly injured<sup>1,2</sup> (Table 2).

## Discussion

The injury incidence has more than doubled in this 37-year period. This may be explained by the faster

pace of modern Rugby Union Football. Players are faster and fitter and as a result high-speed impact injuries are more common. This accounts for the increased incidence in lower limb and knee injuries.

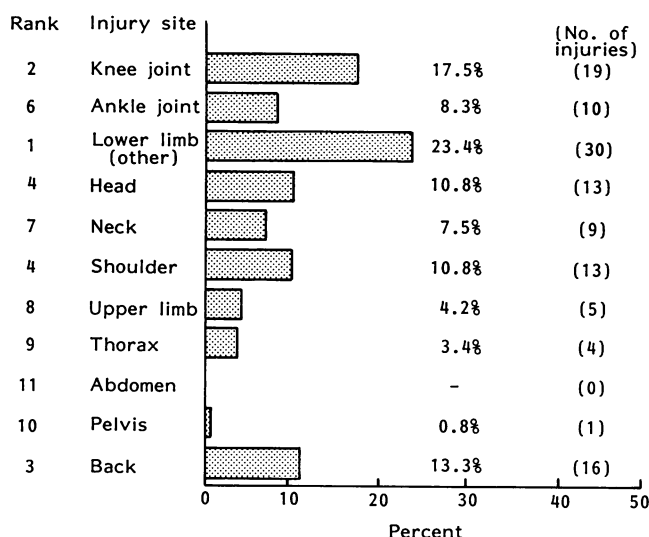


Figure 1. Anatomical site of injury

Table 1. Review of injury frequency according to anatomical position

	O'Connell (1954) <sup>1</sup>		Van Heerden (1976) <sup>2</sup>		O'Brien (1990)	
	%	Rank	%	Rank	%	Rank
Head	21.5	1	20.9	1	10.8	4
Neck	2.3	10	1.5	11	7.5	7
Shoulder	18.3	2	9.2	6	10.8	4
Upper limb	12.8	3	12.2	4	4.2	8
Thorax	2.8	8	5.5	7	3.4	9
Abdomen	2.5	9	0.9	12	0.0	11
Spine/back	5.8	7	3.7	8	13.3	3
Pelvis	5.8	7	2.5	10	0.8	10
Knee	21.5	4	17.4	2	17.5	2
Ankle	11.3	5	10.9	5	8.3	6
Remainder of limbs	10.0	6	12.6	3	23.4	1
Intermediate	—	11	2.7	9	—	11

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## Survey of rugby injuries: C. O'Brien

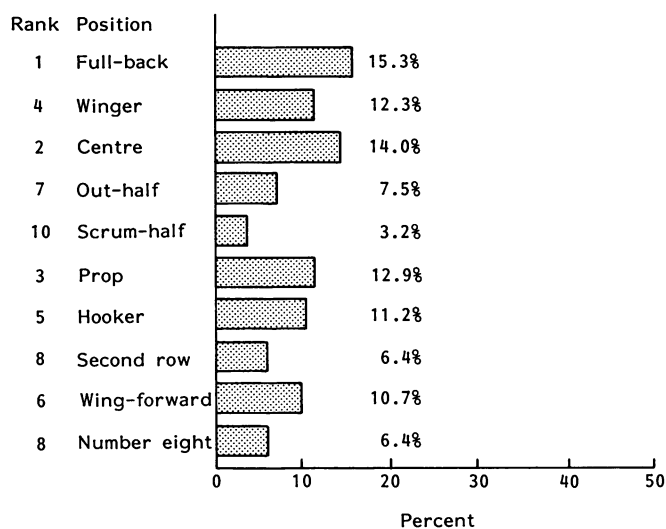


Figure 2. Playing position frequency of injury

The profile of the playing position injury frequency has also altered in this 37-year period. The full-back and centre being the most frequently injured. This may be explained by the many changes to the laws of Rugby Union. Direct kicking into touch and 'marking' the ball can only occur inside a player's 22-m line. Many offences result in 'differential penalties' rather than 'full penalties'. These changes have produced a more fluid game. Penalties are frequently 'run', engaging the opponents directly. Some penalties are hoisted as a 'Garryowen kick' – this creates a situation where players are engaged at high speed near a dropping ball.

Table 2. Injury frequency by position

	Roy (1974) <sup>3</sup>		Van Heerden (1976) <sup>2</sup>		O'Brien (1990)	
	%	Rank	%	Rank	%	Rank
Full-back	9.5	6	10.5	3	15.3	1
Wing three-quarter	10.5	5	12.0	2	12.3	4
Centre three-quarter	9.0	7	10.5	3	14.0	2
Outside-half	8.5	9	7.5	10	7.5	7
Scrum-half	7.0	10	14.2	1	3.2	10
Prop	9.0	7	8.4	8	12.9	3
Hooker	11.0	2	9.1	6	11.2	5
Lock forward	11.0	2	8.4	8	6.4	8
Wing forward	11.0	2	10.0	5	10.7	6
Number eight	14.0	1	8.6	7	6.4	8

The changes in laws have ensured a faster game where the full-back and three-quarters run out of defence in counterattack. This has led to an increase in 'open field' injuries and tackling injuries which have principally involved the lower limb.

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