

Player Load

MCC Update Meeting
Conrad Smith & Danielle Salmon





Player Load Guidelines

- Player Load sport's biggest challenge
- World Rugby's role?
- Origins; Regulation 9 "Global Calendar"
 - If a global season is not possible, what is?
 - A set of principles to provide a calendar which prioritises player welfare
- Reflect Local Guidelines, shared responsibility & evolution
- Core elements; off season, matches, post-international, communication contact training
- A framework within which individualised load management can operate





Player Load Guidelines

Proposed Recommendations

- 1. Five weeks off-season
- 2. Match Number 30 matches or 6 consecutive
- **3.** In-season rest post international
- **4.** Club Country communication
- 5. Non-contact blocks



Challenges

Current player load recommendations:

- Data derived from 1 professional competition
- Training load information has come from survey data
- Limited women's specific data



What we currently know



PRL

- Injury risk in the subsequent season was 1 for players with low (<15) or high (>35) match involvements (Williams et al., 2017)
- Injury rates were shown to 1 with 1 in the 1-month match exposure, particularly for those players with limited number of matches (Williams et al., 2017)
- Involvement in ≥31 matches was associated with ↑ match and training injury burden during the following season (Williams et al. 2023)



Top 14

 Emerging evidence looking at training load structure and content and the subsequent risk of injury Cheradame et al. 2024

Primary Aim:

Global picture descriptive picture of men's and women's professional rugby











					some or
	-4-4		-		Water Street
and the sec	- i d - b -	Call Care	_	des teri	New York Control
				-	 •
		•			

Secondary Aim

 To provide a player's voice to the mental and physical fatigue/energy levels at certain time points across a calendar year across a range of experience levels









TOP 14





Men's Calendar





















Companion	Date 200	35	Feb- 36	Han 35	25	10000000	海	A448	Augus	34/2		35	Nov-20	DATE:	77	Tiebe	77	47	Hay	710
Super Bugby NZ	Pre-S	isasari	Sugar Rugliy Regulat Section				anen .		Be	restat NPC Comp	ettion		Seguon							
Super Rugby Australia	Pre-S	Pre-Season Super Rugley Region Season					Off second													
MUR	Season.	Fre- Season		.16	II Negyta) Service		Off-season												
LIBC	Officers						6	Pre-Se	0000			SHORE	palar Sec	nine :						
The Top 14							OH- Sesson	Pre-Season		Top Li Register Severan										
PFL:								X5 Suum	Fre-So	1900	PRE Regular Section						Г			
Japan MughyLeogie Ow 1	Pos- Season		Sprin B	ugby kes	public)							Office	1900							
100.00									Natrational Con-	peitura										
Northern International Window	- Shellow Companies						September 1					Second								
Southern International Window	The state of the s																			
Pacific Nations									Property Asset	W1538										



















Women's Calendar







Competition	Dec- 25	Jan- 26	Feb-26	Mar-28	Apr- 26	May 26	Jun- 26	Jul- 28	Aug- 26	Sep- 26	Oct- 26.	Nov- 26	Dec 26	Jon- 27	Feb- 27	Mar- 27	Apr-	May- 27	Jun- 27
PWR									Pre	-Season			Regular	Season					
Super Rugby W		Pre Seasi		Regular Season						To appear to							20.		
Super Rugby Augiki		Pre- Sease		Regular Sea	ison														
Internationals Cor	npetitions			- 8															
6 Nations				61	Vations														
PAC 4						PAC4 Series													
ww											WXV Series								









Match Variables

Variable Collected	Who will Provide Data	What Metrics will be Examine	Specific Details Around Data						
		Minutes played	Į.						
		Player number							
		Starting 23							
	World Bughy Blauss	Sacra of motob	Win vs loss						
	World Rugby Player Database	Score of match	Point difference	1					
Matches	Database		1	KM travelled from home city to away game					
		Location of match	Travel data	Time zones crossed					
		Location of match	Travel data	Type of travel	Economy, business				
	Team	Away games	Traveling squad	Fraveling squad Attendance regarding players who					
	Team/Union	Match time loss injuries	Alignment with injur	Alignment with injury consensus					

Training Variables

Variable Collected	Who will Provide Data	What Metrics will be Examine						
	Team	Weekly schedule	Assembly	Days assembled and days off				
	ream	Weekly schedule	Make-up of actual day	Hrs. assembled				
			Full contact					
Training Data				Rugby training with breakdown for	Controlled contact			
			Session type	breakdown for	Live set piece play			
	Team	Daily training blocks	,	Gym sessions				
	Co		Conditioning					
			Duration of each session	minutes				
		RPE (provided by S&C)	1-10					
		8	Player attendance					
	Team/Union	Training time loss injuries	Alignment with injury co	t with injury consensus				



Players Voice

- Team = ID 6 players
- 3-5 interviews over the season
 - Aim to explore how they are feeling from a physical and mental fatigue/energy perspective

Player Interviews over the Season

Prior to Pre-Season End of domestic season

End of international window

Half-way point Start of international window

	I _	
Player	Туре	Description
1	Fringe player	A player who trains with the team but gets minimal playing time
2	New fully contracted player	Younger player who recently joined the team but who gets regular playing time
3	Domestic and U20 national team	A member of the squad who gets regular playing time but is also on the U20 international squad
4	Domestic only player	A player who gets regular playing and has been involved with the club for a number of years but is not playing international rugby
5	Domestic and International same country	A younger player who is playing both club and has recently been named to the international squad (0-2 years international experience)
6	Domestic and International same country	Senior player who is playing both club and international rugby same country (> 2 years international experience)
7	Domestic and	Senior player who is playing both club and international rugby same
	International	country (> 2 years international experience) but for a different country
	different	
	country	

with thon

OUTCOMES

- Avg match load per comp -median number & player minutes, exposure by domestic vs international, consecutive matches played
- Avg daily schedule
- Off-season -Number of consecutive weeks
- Full season -Number of weeks of training involving contact/non-contact training
- Breakdown by phase of season -days assembled, days off, hours assembled per day
- Training load per competition -phase of season, sessions per week, intensity and duration of session
- Travel load per competition -length, duration and type



Spens Med (2017) 47:0385-0480 DOI: 00.1009/s40279-407-0721-1



ORIGINAL RESEARCH ARTICLE

How Much Rugby is Too Much? A Seven-Season Prospective Cohort Study of Match Exposure and Injury Risk in Professional Rugby Union Players

Scan Williams 6- Grant Trovarilla - Simon P. T. Kempi - John H. M. Brooks -Colin W. Eufler* - Ailcon E. Taylor* - Manthew J. Cross*2 - Govin Shoddick* -Keith A. Sodies

Piccolesi: 22 March 2004 | Revised: 1 August 2004 | Accepted: 27 August 2024 DOI: 10.3000/m. 12388

ORIGINAL PAPER



The application of match-event and instrumented mouthguard data to inform match limits: An example using rugby union Premiership and rugby league Super League data from England

Matt Cross 1,2 | Cameron Thomas Sawczuk¹ Keith Stokes 4.5.6 | Simon Kemp 4.7 | James To Eanna Falvey 10,11 | Lindsay Starling 5,4,10 | Gr Ben Jones 12212,14

Carried: Applied Ready Research (CARR Contro. Carried: School of Spare, Look 8-Dominicha Righy, London HK

Fingland Performance Unit, Rugby Football Lengue, Worstherser, UK



SPORTS PERFORMANCE

The longest journeys in Super Rugby: 11 years of travel and performance indicators

Michaele Louise Reduced 1 Augstage William P. Hopkinst Nicholas Diffs and Andrew M. Stanzart

tratisale for Health and Spari, (HeC), Valueta University, Birlbinsen, Australia, Valuer, Centre for High Performance, University of Walsalia, Tannings, New Zestind: New Zestind Ragby Union, Wellington, New Zepland

Regular dir tracel is common in sport. The sim of this study was in understood the court to which would have a directed Super Regity scores' performance from 2006, the dest session with available Ray Nethermance Indianate Patholic Style (In 2016). In 2016, Data were analyzed addressed became before models in the effects of marries of time water, conced frost or west), torsel dussion, the every match disabourage, difference to carriers, a set of accomposers to the box of Raginy Union in 2003, a change in competition forces. Scientistics of a conference system; in 2011, and a secular torus in 2006, the predicted combined effects of concling 26 is cover 12 time-score, and playing away were chief or cred and regative list generally scaled for read of the CPs in both directions of Good. In 2016 once effects were slow, and and require the action from the road offices to contend to continue that and to continue and require that Offic dispers small to marketic process, one the 11 years, while difference to carbing the estimatestam of new rules and game beneat had to enough small changes. Changes in the physical demands of the game and inadequate recovery time for long-boat tracel can explain these

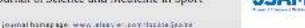
Maximising performance and succeeding in competition are the final goals of every professional athlete and coach, Measuring performence and its variations during a season is crucial to increase the chance of winning a competition. Notational analy-

travel across time-gones (Waterhouse, Reilly, & Edwards, 2004). The number of time-zones grossed and direction of travel dictate the duration and severty of jet (ag symptoms, which include sleep disturbances, fetigue, changes in mood and a deficit in cognitive skills (Herobeimer & Petric, 2002; Revell & Eastman, 2005). The

Contains Bris evellet in at Science Circuit



Journal of Science and Medicine in Sport



Original research.

The influence of match exposure on injury risk in elite men's rugby union

Sean Williams **, Cllz Kay * Richard Bryan *, Mark Lambert *, Marthew Gross *, Stephen W. West * Simon Remp 14. Keith A. Stokes at

Committy of Medita is of Management as an Programma of Comparison of the Medital Committee of Management (in Medital Committee) of Medital Committee (in Medital Committee) of Medital Committ

The Bagin Silve and exertation, U.S.

Present Region has (1) has a Degrae Seen leaves from on the Govern Degrae Service of the orthogo, for hereby of Gegans, Corolla

more during to high veen, or sony of tager, or rate

Park fortell blocks

Orlainal Research

Total of Sweet and Continuing Recent

Impact of Weekly Training-Load Structure and Content on the Risk of Injury in Professional Rugby Union Match-Play

Jénémy Chairadama, 172 Romain Lourses, * Julien Pisspone, * Christopher Carling, A.* Philippe Decs, * and Hélène Jacqmin-Gadda^x



AUSTRALIA LEGISTRA

MENTANGRADA

Acception 3 Play 2019

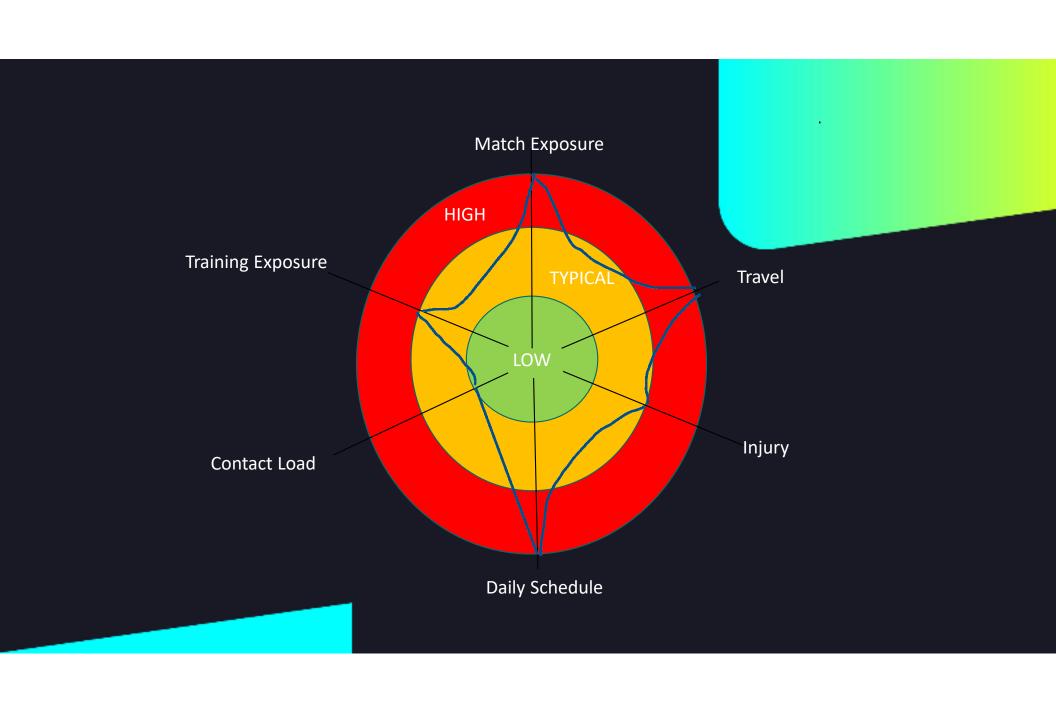
analysis, performance energies, every marris

cousds. France: "Institut de Blomécanique Hémaine Georges Charpak." Sublique-Hóptaux de Parie, Hópiral Buayon, Meurochirurgie, Clichy, While USB, NSPECE Bordware, France Center Cethopiesione Senty, HVA Jacob, Lyon, France: "FFF (lesseech Center, French Football Federalis), tings, Francis, and *Laboratory Sport, Expertise and Performance (EA-

and Jacquin-Dadds, H. Impact of weakly training-road structure and thiology, J. Strongth Cond Ros SBISt, 1618-1619, 2024—The sim of this allowy training load curing the week preceding the matching the risk of ron of 72 players from a single professional French dub participated. ence (RE) and high-speed distance in solution to ratings of perceived. randitioning world training were collected for each training session ever nessures of external and internal training lead over the week preceding



and burden in all to and analyse it my



Thank You:

IRP:

Conrad Smith
Dr. Sharron Flahive
Dr. Deirdre Lyons

External Research Team:

Dr. Marelise Badenhorst Prof Stephen Mellalieu Dr. Julien Piscione Prof Jon Patricios Dr. Gregory Roe Dr. Sean Williams

Federation Française de Rugby, Pau Club & Dax:

Victor Azalbert Sébastien Piqueronies Romain Bourdiol

South Africa Rugby Union, My Players & Stormers

Clint Readhead Eugene Henning Lara Paul Dr. Jason Suter

MLR Teams

Jamie Beamish

New Zealand Rugby Union

Karen Rasmussen

Wales Rugby Union

Prabhat Mathema

Scottish Rugby Union

Dr. Warren MacDonald

Rugby Football Union, PRL & PWR

Dr. Simon Kemp

Dr. Matt Cross
Dr. Ben Jones

Prof Keith Stokes

Amy Walmsley

Japanese Rugby League One- Division 1

Dr. Shogo Tanaka Steven Hansen Jason Price

Tabai Matson