



Injury Prevention in Rugby

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England U18 Team Doctor**

Who am I

- Consultant Physician in Sport and Exercise Medicine, U18 Team Doctor
- Former GB Rowing Coach at U18 and U23 level
- Team Doctor to GB Rowing 2004-6
- Team Doctor to Collingwood AFL 2006-7
- Team Doctor to Melbourne Storm NRL 2006-9
- Team Doctor to Black Ferns NZWRFU 2010
- Australian Open, World Swimming Champs and Cirque du Soleil
- Consultant in athletic competence and talent identification, recovery and performance monitoring

What is the risk

- What is the risk ?
- Why?
- Movement competence
- Scoring
- Outcome

The risk

- ▶ 9% school boy injury risk vs 19% club
- ▶ 1/3 in September
- ▶ 64% tackling or being tackled
- ▶ Concussion highest
- ▶ *Lee AJ and Garraway BJSM 1996 Sep;30(3):213-7*
- ▶ 10 injuries /1000 playing hours
- ▶ *Nicol, A et al Journal of Public Health 2010*

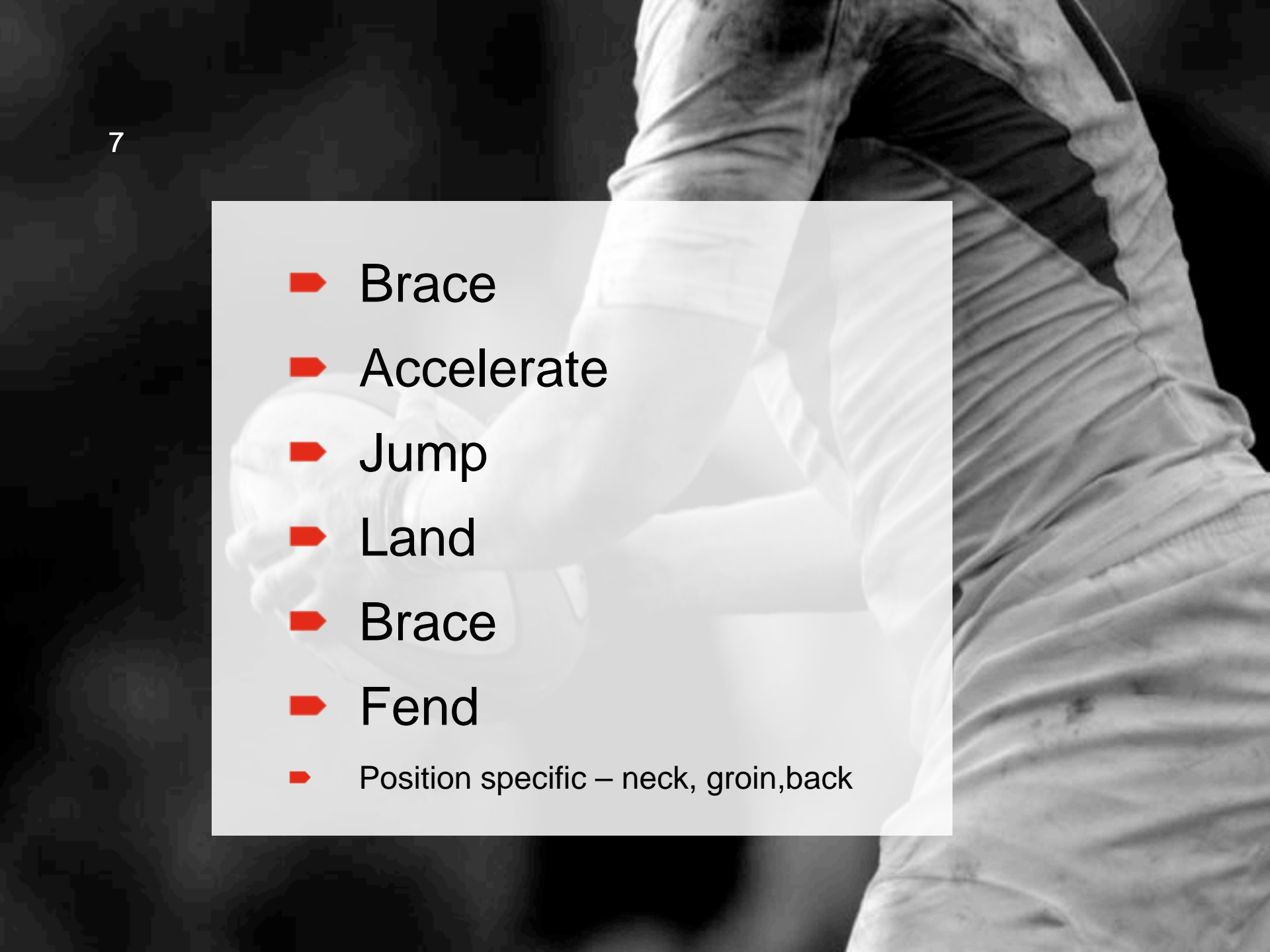
The difference

- Contact/Collision injury
- Non Contact injury
- Hamstring
- Groin
- Gluteal
- Quadriceps

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What do we ask our athletes to do?

- 
- Brace
 - Accelerate
 - Jump
 - Land
 - Brace
 - Fend
 - Position specific – neck, groin, back

Movement Competence

The ability, from a stable platform, to:

Triple flex

Lunge

Hop

Land

Change direction

Push

Pull

Rotate

Brace

Movement Competence

- Flexibility
- Kinetic Strength
- Kinetic Control



Fundamental



Learn to train



Train to train



Train to
compete



Train to win

6-9 years.

10-12 years.

13-16 years.

17-20 years.

20+

building blocks of physical competence and sport specific skills to build kinetic complex load



**Complex movements do not
happen by themselves**



**Pelvic stability is key to groin
and overuse injury**

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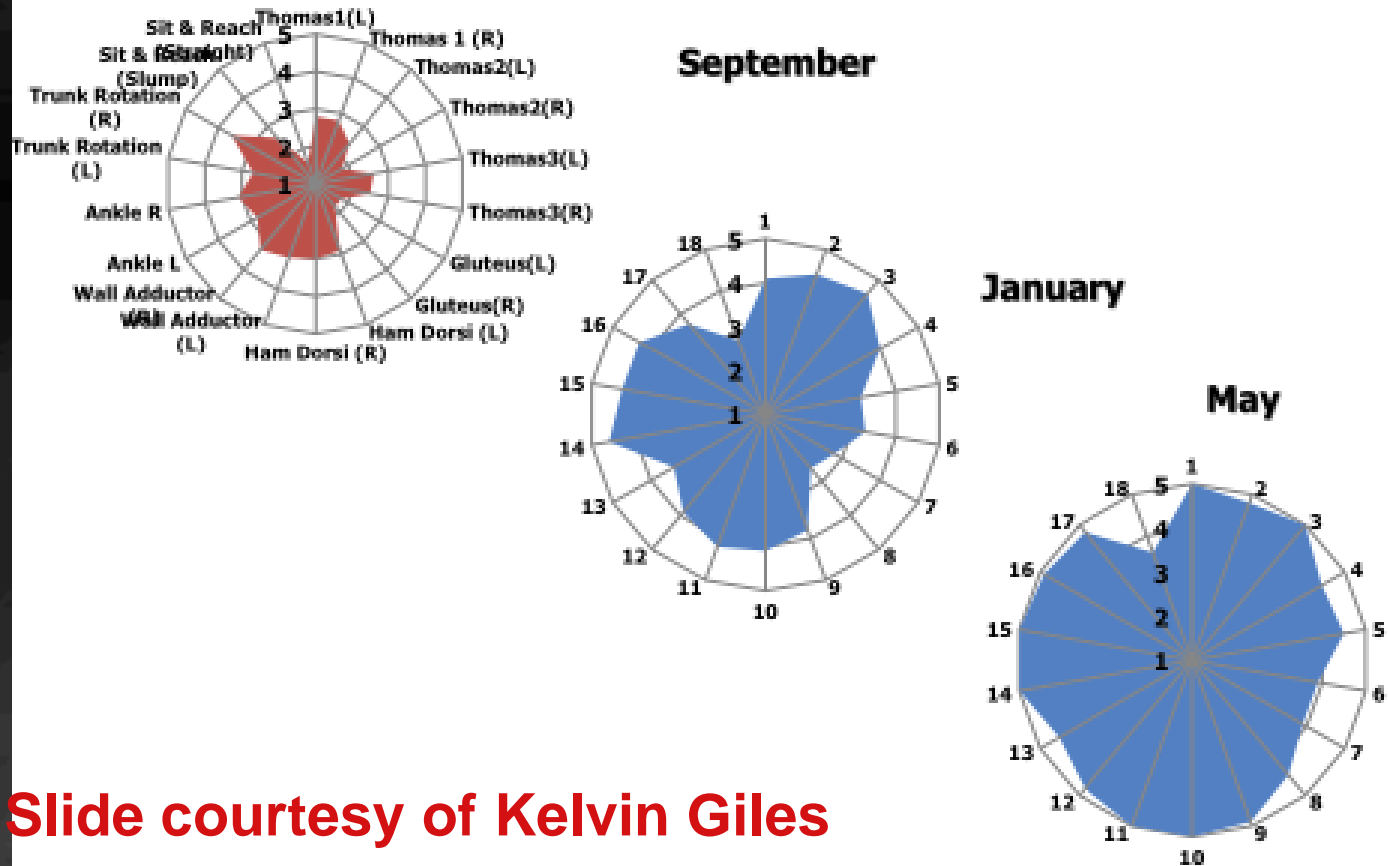




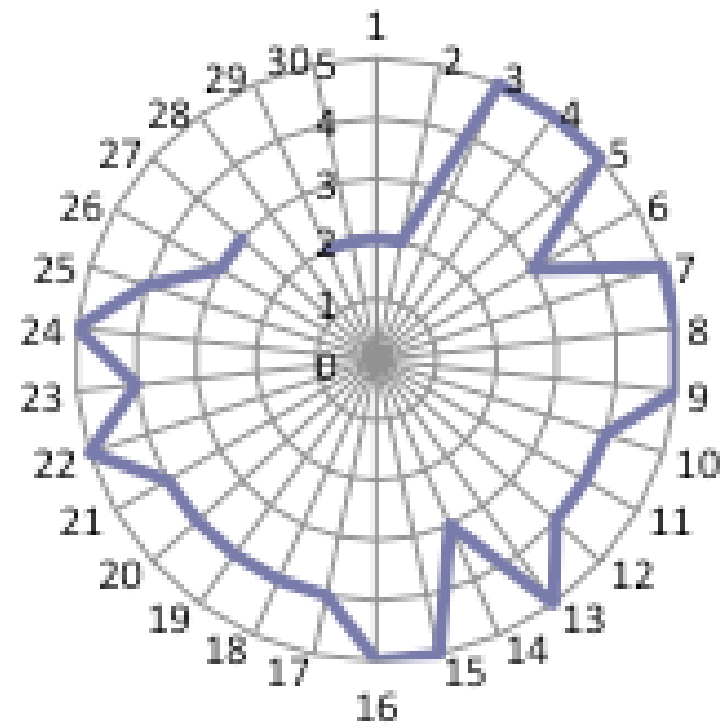
Existing Systems

- ▶ FMS
- ▶ Movement Dynamic
- ▶ Performance Matrix

Year 8 Induction to Year End - Physical Competence - Flexibility



Slide courtesy of Kelvin Giles



Series 1

Injury Overview NTS

Non-Contact (Hamstring, Calf, Groin, Thigh)

Reduction in Training / Playing – 7+ Days

Competence Level	No	2002	No	2003	No	2004	No	2005	No	2006
2	26	78 (3.0)	3	7 (2.6)	0		0		0	
3	52	145 (2.78)	12	21 (1.8)	0		0		1	0
4	18	40 (2.2)	42	37 (0.9)	27	21 (0.8)	6	2.5 (0.4)	5	1.0 (0.2)
5	12	14 (1.16)	51	35 (0.7)	81	64 (0.8)	102	30 (0.3)	103	21 (0.2)

3.8

Slide Courtesy of Kelvin Giles

The 11+

A complete warm-up program





7.1 STATIC

Starting position: Lie on your front, support upper body with forearms. Elbows directly under shoulders.

Exercise: Lift upper body, pelvis and legs up until your body is in a straight line from head to foot. Pull in stomach and gluteal muscles and hold the position for 20-30 sec. **3 sets.**

Important: Do not sway or arch your back. Do not move your buttocks upwards.



7.2 ALTERNATE LEGS

Starting position: Lie on your front, support upper body with forearms. Elbows directly under shoulders. **Exercise:** Lift upper body, pelvis and legs up until your body is in a straight line from head to foot. Pull in stomach and gluteal muscles. Lift each leg in turn, holding for a count of 2 sec. Continue for 40-60 sec. **3 sets.**

Important: Do not sway or arch your back. Do not move your buttocks upwards. Keep pelvis stable and do not let it tilt to the side.



7.3 ONE LEG LIFT AND HOLD

Starting position: Lie on your front, support upper body with forearms. Elbows directly under your shoulders. **Exercise:** Lift upper body, pelvis and legs up until your body is in a straight line. Pull in stomach and gluteal muscles. Lift one leg about 10-15cm off the ground and hold the position for 20-30 sec. Repeat with other leg. **3 sets.** **Important:** Do not sway or arch your back. Do not move your buttocks upwards. Keep pelvis is stable and do not let it tilt to the side.

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FIFA: The 11+ Warm up



FIFA 11+:

FIFA 11+

- Injury prevention programme from FIFA
- Not performance linked
- 3 phases - running/control and running
- injury prevention is large 50% Soligard BJSM 2010
- <http://f-marc.com/11plus>

Rugby 15

- In development
- 3 stage testing process
- 15 min Training Programme and Warm up
- Performance and Injury prevention





► Questions?