



2017 **world rowing**™
Vancouver, Canada coaches conference d'entraîneurs

ROWING CANADA AVIRON national conference nationale

BASIC MONITORING TO MARGINAL GAINS: LESSON LEARNED IN SUPPORTING PERFORMANCE

Session #:
Presented By: Ben Sporer PhD

Date: 2015-01-08

OBJECTIVES

- » Tell some stories
- » Share some lessons
- » Limit the science



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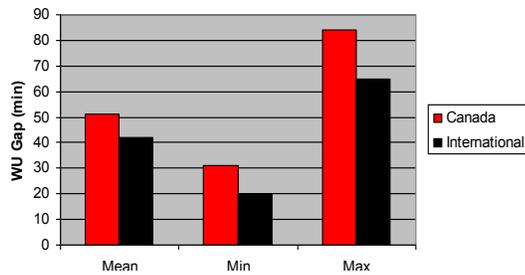
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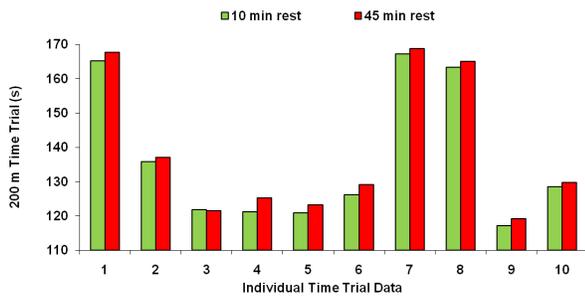
- » WHO am I **really** working with
- » KNOW the **real** goals and objectives
- » KNOW the **real** environment



WARM UP GAP?

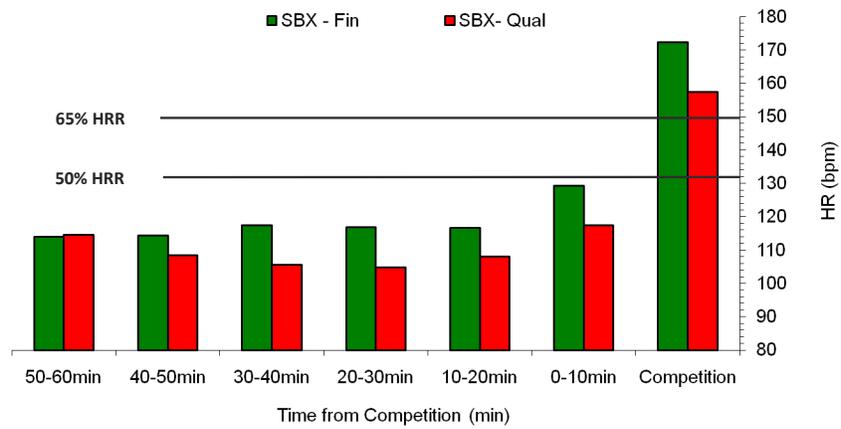


*Gap in some swimmers was as long as 80 min



Zochowski et al., 2007 (IJSP)

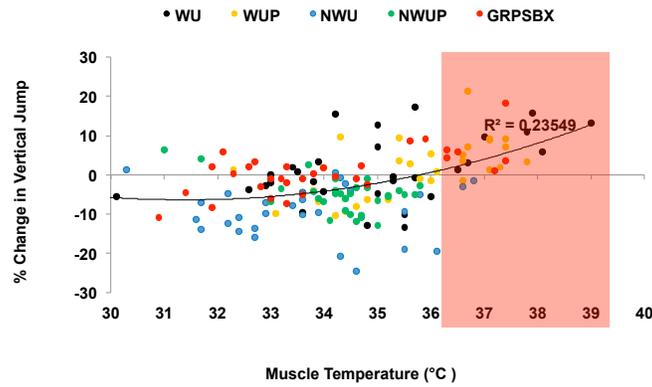
MEAN HR DURING WARM-UP WINTER SPORT



MUSCLE TEMPERATURE AND PERFORMANCE



PERFORMANCE VS. T_M



Key points

- Critical temperature above which effects on performance are primarily +
- ~90% of all + effects followed a warm up condition

APPLICATION IN SPORT

Strategy 1 – Timing of warm up

- complete a warm up within 5-10 minutes of competition
- use of “micro” warm ups

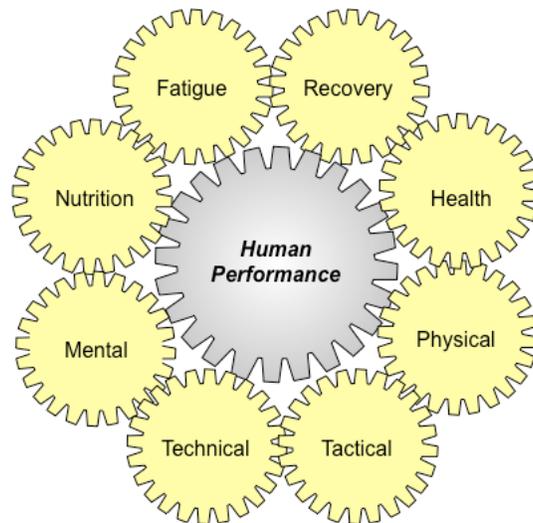
Strategy 2 - Quality of warm up

- ensure the warm up is of sufficient intensity and duration

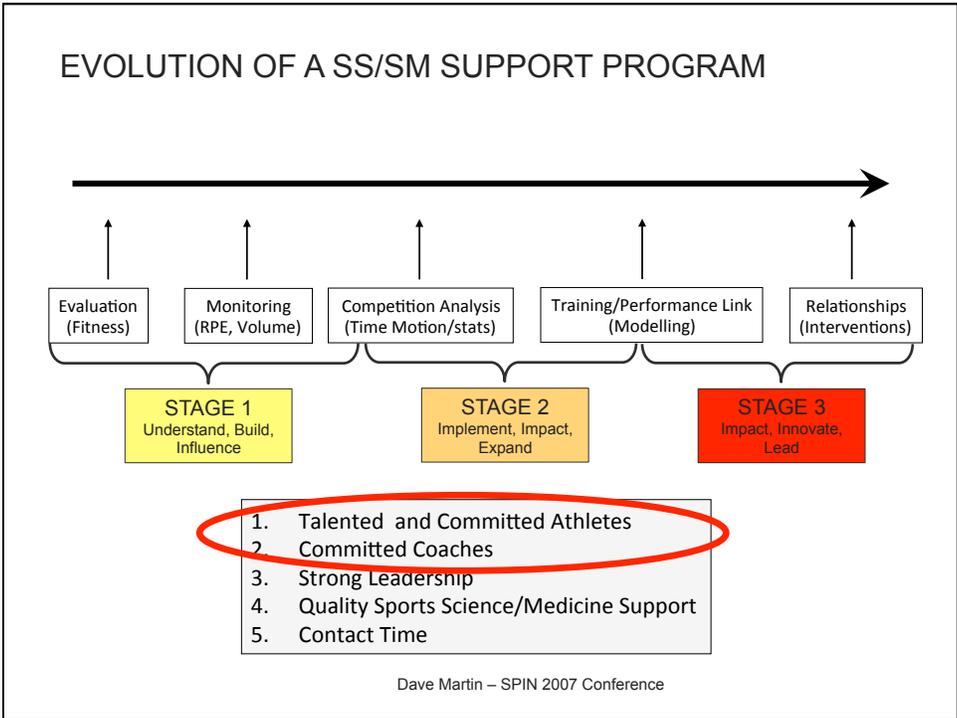
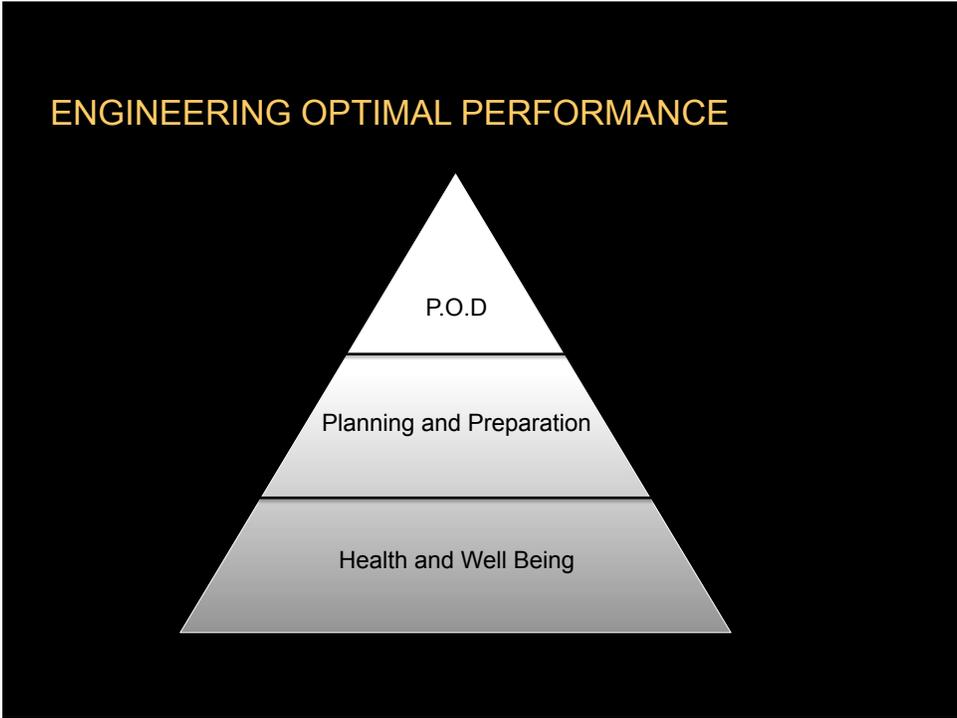




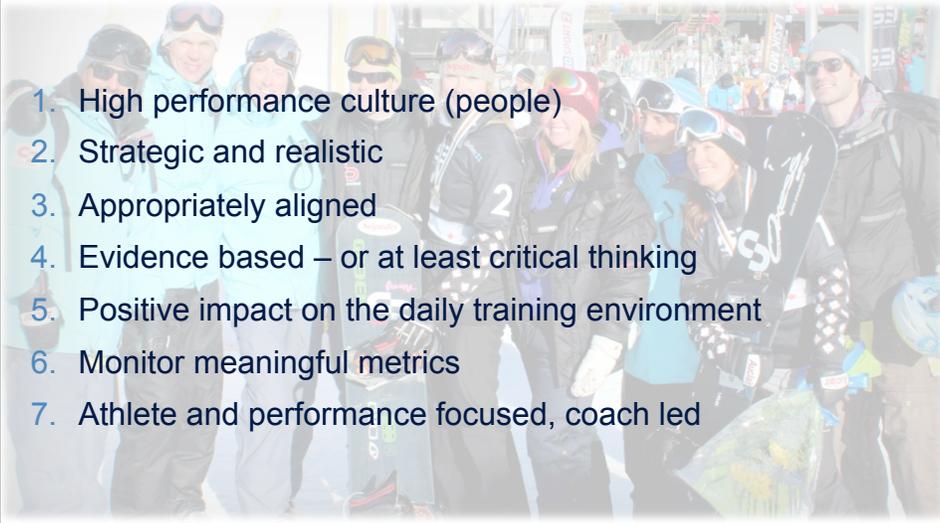
GEARS OF PERFORMANCE



Adapted from Wenger (1998)



SS/SM SUPPORT PROGRAM PRINCIPLES



1. High performance culture (people)
2. Strategic and realistic
3. Appropriately aligned
4. Evidence based – or at least critical thinking
5. Positive impact on the daily training environment
6. Monitor meaningful metrics
7. Athlete and performance focused, coach led

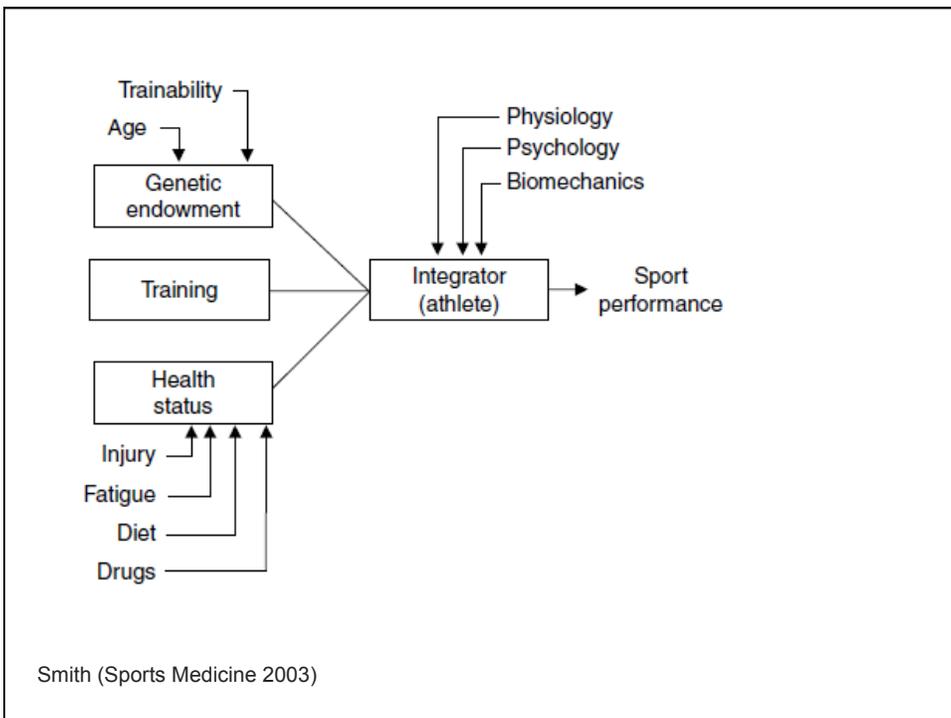
It depends

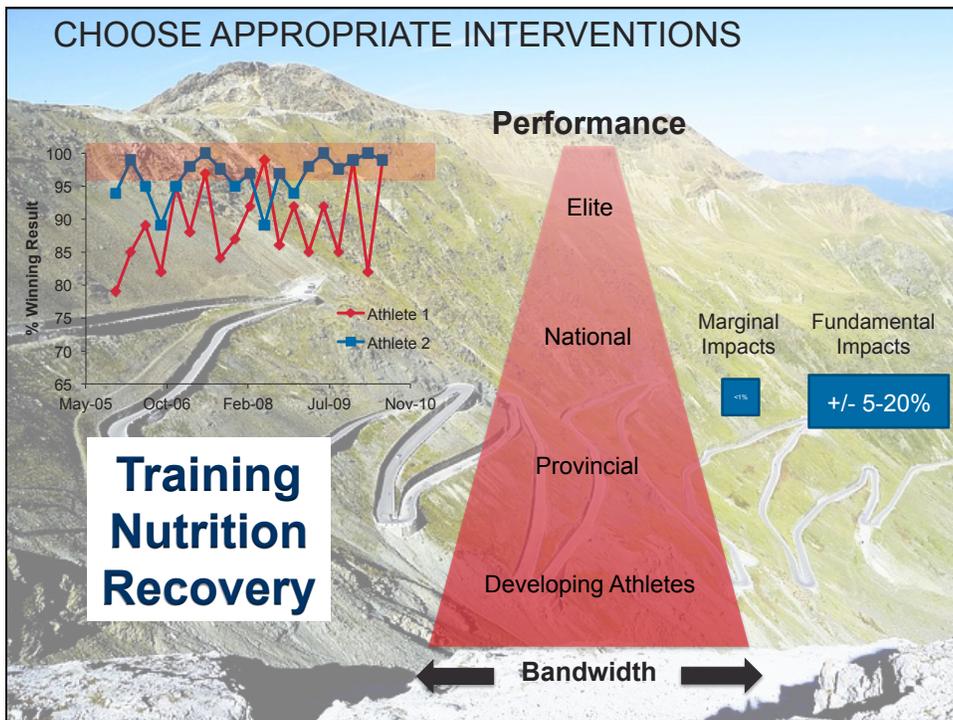
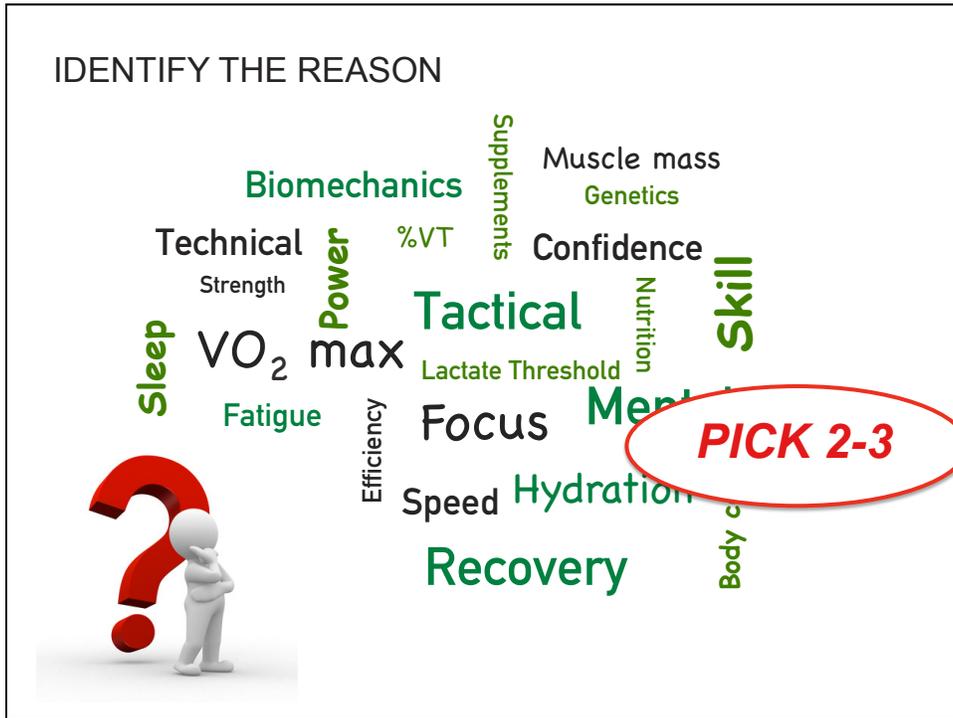


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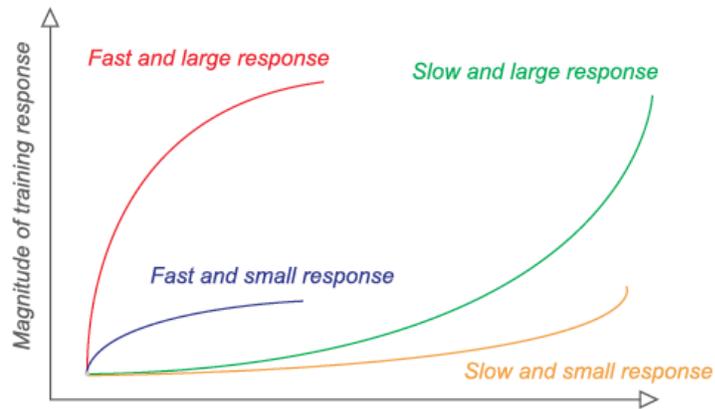


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INDIVIDUAL TRAINING RESPONSE



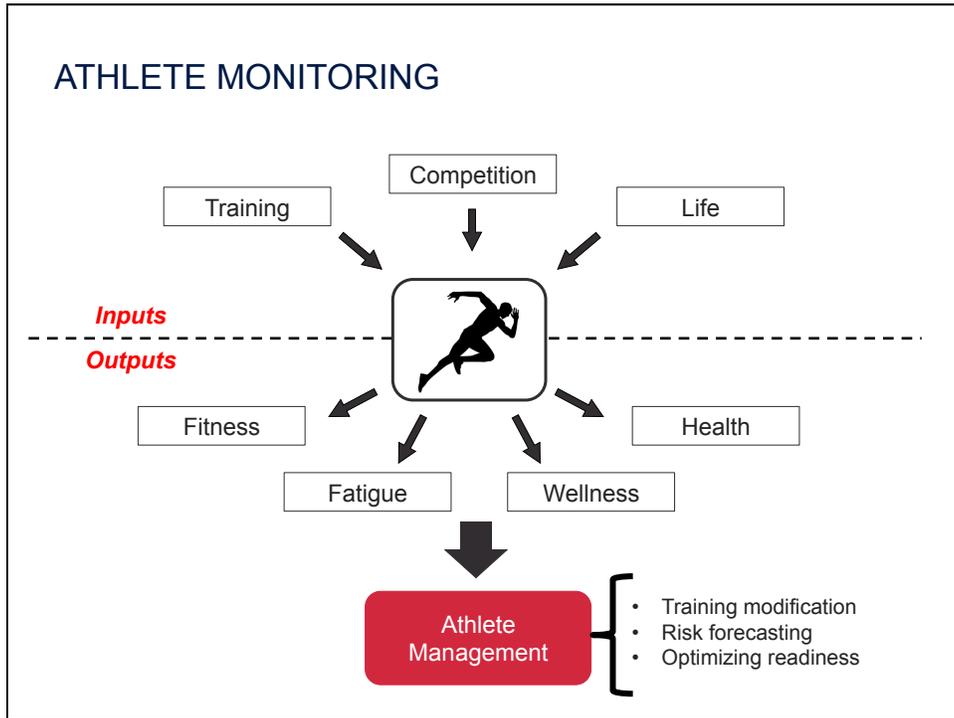
LTAD 2.0 - Canadian Sport for Life - 2015

ATHLETE MONITORING

1. Annual plan based monitoring
2. Ongoing monitoring

- » well rested and healthy – prior to training
- » fatigued following heavy training but still healthy
- » is well rested and healthy and ready to compete at a high level
- » when underperforming
- » when athlete is sick
- » when at altitude, travelling internationally, etc...

****** A LONG TERM INVESTMENT**



ATHLETE MONITORING

How Are You Doing Check In

Athlete ID

Date

Session RPE & Duration

Swim minutes

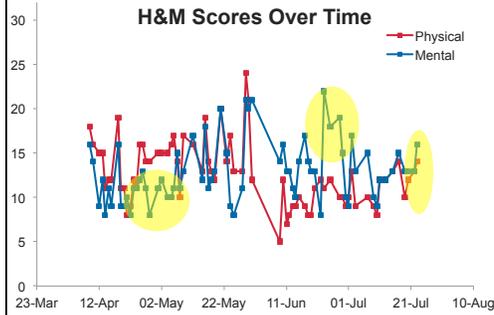
Bike minutes

Run minutes

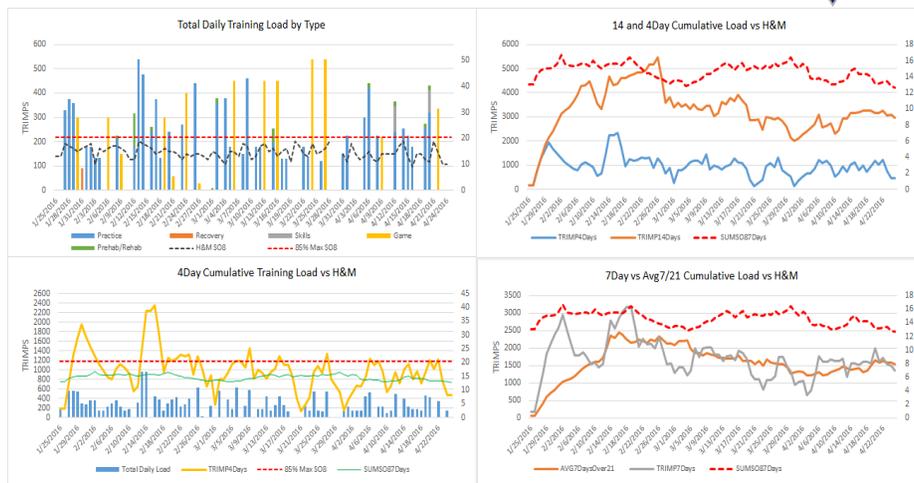
(form last updated 20 June 2010)

Combined Training Load

ATHLETE MONITORING



RPE BASED TRAINING LOAD



RPE LOAD AND INJURY



SESSION

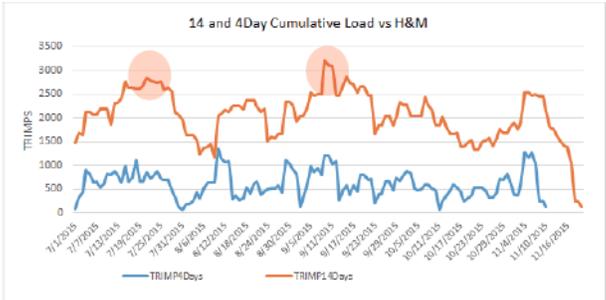
Training Location, Type, RPE, Duration (minutes)

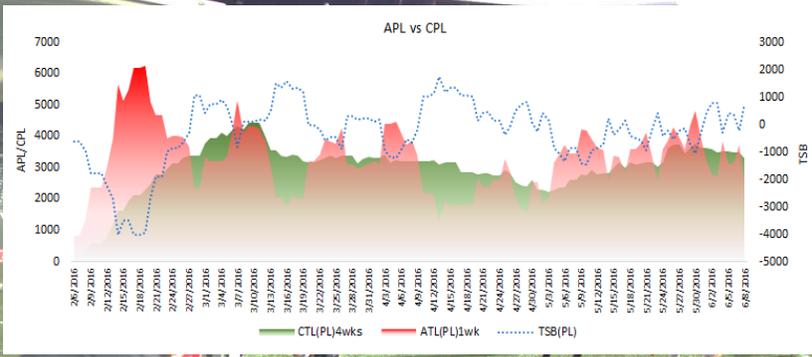
Session 1 (0) Rest

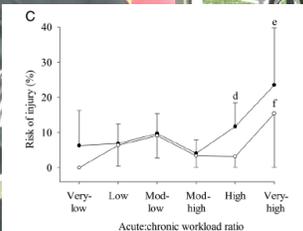
Session 2 (0) Rest

Session 3 (0) Rest

Session 4 (0) Rest







C
Risk of injury (%)
Acute:chronic workload ratio

Row Labels	CTL(PL)4wks	ATL(PL)1wk	RRRat(PL)
9	4636		
10	3300	3128	0.95
11	3098	3947	1.27
12	2976	3309	1.11
13	2596	3530	1.36
14	3478	2867	0.82
15	3413	3230	0.95
16	3234	3129	0.97
17	3189	3405	1.07
18	3158	3356	1.06
19	3280	3094	0.94
20	3246	3442	1.06
21	3324	1740	0.52
22	2908	3868	1.33
23	3036	2595	0.85
24	3192	2362	0.74

Hulin BT, et al. *Br J Sports Med* 2016;0:1-5. doi:10.1136/bjsports-2015-095364

MONITORING – CONSIDERATIONS

- » Purpose
- » Tools and technology
- » Validity, reliability, and sensitivity
- » Commitment (resources, time, financial)
- » Cost-benefit
- » Impacts on DTE and performance
- » Individual vs. team
- » Screening or intervention
- » Scope drift



THE TECHNOLOGY REVOLUTION



Wearable Technology for Athletes: Information Overload and Pseudoscience?

February 1, 2016

Accuracy & Reliability

“While it is beyond our scope to determine the accuracy of these variables, testing has shown inter unit reliability to be in the order of 3-5% for the variables listed above.”

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TECHNOLOGY – SWORD OR SHIELD



- » Need to avoid hiding behind technology to make decisions
- » People make decisions; technology provides information
- » \$1 on technology = \$6-\$8 on people

“TAIL WAGGING THE DOG”

"All of a sudden you start drilling someone in training, and a sports science bloke pops over: 'Woah, woah, woah, he's in the red'.



Rio Ferdinand

“TAIL WAGGING THE DOG”

“The sports science guy comes up and says 'I don't think you should train today, you're at that level, if you teeter over the edge you won't be fit for Saturday; have a rest day”



Rio Ferdinand

“TAIL WAGGING THE DOG”

“Now it's a warm-up - before the warm-up even, you go into the training centre, you go into like a lab, and you've got to do a urine sample, a spit test, and go on a few well-being machines.”

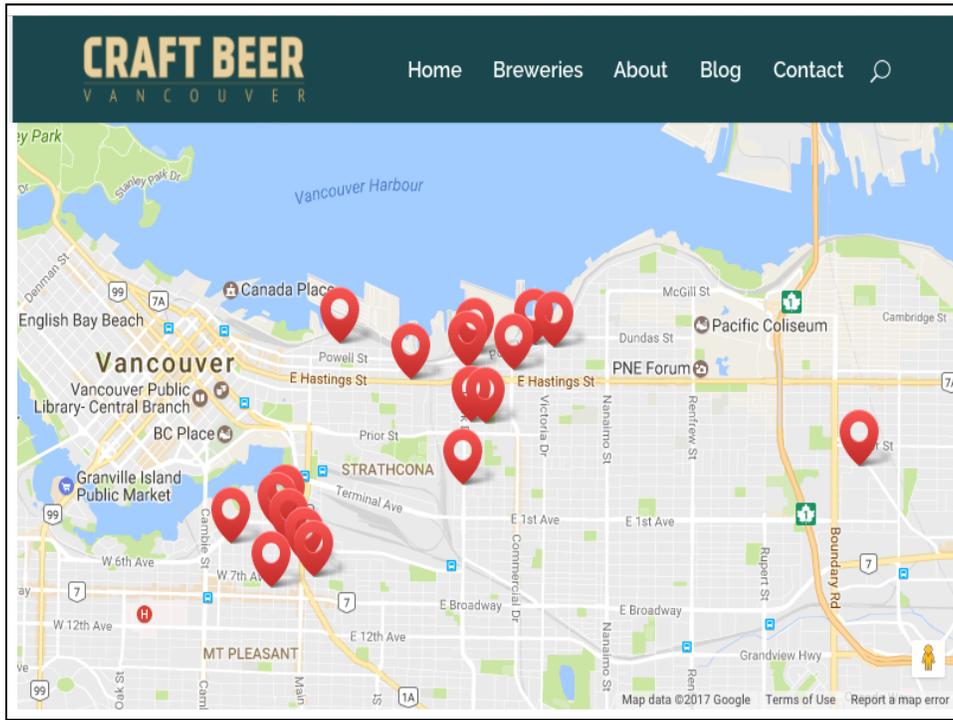


Rio Ferdinand

TAKE HOME POINTS

- » Create positive environments that drive performance
- » Surround yourself with good people, empower, and trust them
- » Little details can make big differences
- » Fundamentals first
- » Promote individuality in team environments
- » Encourage monitoring but with purpose
- » Drive the bus but let people on
- » Continue the evening “beer” meetings





THANK YOU

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Presentation Title
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