

# TEAM SPORTS CONDITIONING

Maximising the wattbike

6.6.2017

**wattbike**

# CHANGING THE WAY YOU TRAIN

## THE BENEFITS OF OFF-FEET CONDITIONING

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The Wattbike is an incredibly effective off-feet conditioning tool. The benefits include:

- Injury Reduction
- Improved Recovery
- Improved Fitness; and
- An increase in On-Foot Performance specific to the Game



France National Rugby Team

# STRONG TESTIMONY

## FROM THE NEW ZEALAND RUGBY TEAM COACH

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"It's easy to forget life before Wattbike. It's such an invaluable training tool and unrivalled in terms of the quality of the workout and the feedback you get.

Whether it's performance on the road, the pitch or just life in general, the Wattbike is the magic ingredient. Simply the best there is in terms of a static bike in the world today."



Nic Gill - Strength & Conditioning Coach

**New Zealand Rugby Team**

# OFF FEET TRAINING TO AVOID INJURY

## DO WE NEED TO BE ON OUR FEET?

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The golden rule, in professional sport is to keep your best players healthy. Wattbike can play a role in improving performance and reducing injury.



This presentation is based on experience, over many years of using the Wattbike as a team sport conditioning tool.

A significant number of individual professional athletes and team sports have utilized the Wattbike in their training.

Rugby (NZ, England), Football (Man Utd, Man City, Chelsea), Ice Hockey, Tennis (Andy Murray), Boxing (Anthony Joshua), Rowing (UK, NZ, AUS), Track and Field (Jessica Ennis-Hill).

Many coaches use running to improve physiological parameters. This frequently leads to stagnation of performance and increased risk of injury.

There are important elements of training that can be replicated, on a Wattbike using an off-foot conditioning programme during pre-season training and during game to game recovery.

# WHAT IS OFF FEET CONDITIONING?

## DEFINITION

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Leicester City FC

The replacement of running training with off-feet, weight supporting conditioning to replicate the on-pitch needs.

On-feet activity is reserved for game specific skill workouts. The number of game specific skill workouts is increased because of the benefits of the off-feet, weight supporting activity.

The increased game specific skill workouts result in significantly more on-feet skill specific meters but without the disadvantages of pure running drills. This is because pure on-feet running needs longer recovery and has a higher injury risk.

Game specific aerobic and sprint ability is improved by a combination of the off-feet, weight supporting activity and additional game specific skill workouts.



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The Wattbike enables the players to break new ground, uninhibited by personal expectations. We can accurately match up the demands of game by position and then push the players to the limit and beyond, safe in the knowledge that there is no impact injury danger.

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Eddie Jones – Head Coach England Rugby

# BENEFITS FROM WATTBIKE TRAINING

## STAY INJURY FREE!

Avoid muscle tissue injuries & increase conditioning stimulus at the same time!



Billy Vunipola – England Rugby

The Wattbike measures performance, over aerobic and sprint durations at the correct cadence, power and physiological response (to match on-pitch needs) accurately, and by individual player position.

Aerobic and sprint workouts are at the correct intensity (following a Wattbike test) and match the cadence of running or skating.

Wattbike, off-feet conditioning develops leg speed sprint power (LSSP) in a safe and measurable way.

Recovery and regeneration workouts are performed in the correct zone.

A UK based professional rugby league team have integrated 200 minutes of specific off-feet conditioning per week on Wattbikes into their program.

Because there is less impact damage and recovery is so much faster this has resulted in a similar increase in on-pitch specific skills activity.

# WATTBIKE TESTS

## 8 STANDARD + YOU CAN CREATE YOUR OWN

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Wattbike is a powerful testing device

The Wattbike is ideal for accurate testing. Built in test protocols make testing easy, accurate, comparable and repeatable.

Standard Tests (team sports in green):

- UCI-WCC Power Profile Test (2 x 6sec. + 30sec. + 4min.)
- 6sec. test (peak power)
- 30sec. test (peak power, average power for 30sec. and fatigue factor)
- 3min. test (training zones and max minute power)
- 10min. test (Check test for endurance athletes)
- 20min. FTP test (Gives Functional Threshold Power, FTP)
- Submax ramp test (training zones and max minute power)
- Max ramp test (training zones and max minute power)



# PRE TRAINING TESTING

## INTENSITIES ARE BASED ON TESTS



**UCI World Cycling Centre  
Power Profile Test**

Designed to identify Road, Track, BMX and MTB talent and generate global performance benchmarks

**wattbike**  
Centre Mondial du Cyclisme  
World Cycling Centre  
Improving Performance Together

“  
For the first time we are able to legitimately compare performance data from all over the world and reassess what constitutes world class talent.”  
Frédéric Magné  
WCC Director | UCI Development Director

The UCI-WCC Power Profile Test is a great tool for testing players for sprint power and aerobic condition.

To make the test repeatable, use the same warm up prior to test. The best warm ups to use are either the UCI test 17min. warm up or the 20min. warm up in the Wattbike Hub application.

For the 6sec. and 30sec. elements, use the Monitor recommendation for the resistance level. These are based on body mass and gender.

From the 4min. element, estimated MMP (Max Minute Power) can be calculated by multiplying the average watts for 4min. test by 1.1.

An estimated MMP can be obtained from a preliminary submaximal ramp test – Multiply MMP by 0.9 to get an estimate for 4min.

The 4min test should be ridden at, approximately 100 cadence.

(Monitor software that includes the UCI test is available free of charge)



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The impact of the Wattbike has been profound. It has completely changed our strategy going forward and allows us to be far more ambitious in our global talent ID and coach education plans.

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Frederic Magne – Director, UCI World Cycling Centre

# PRE-SEASON CONDITIONING

## GENERAL PLAN

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Dan Carter – New Zealand Rugby

- Design a plan of 3-4 workouts to replace on feet conditioning sessions. 2 Aerobic and 2 Leg Speed Sprint Power (LSSP) Sessions
- 1st 4 weeks build adaptation and accumulation of training and establish base aerobic condition and minimum RPM's. For Aerobic 90-95 rpm and 115-120 rpm for LSSP.
- Build both aerobic and sprint duration to match the game requirements. (Game duration, typical sprint duration at given players' position)
- Training phases should help the athletes to reach Z4 for aerobic and move up LSSP to 150 (increasing with steps of 5-10). 150 is for short sprints depending on game requirements
- Use the 10min. or 20min. warm ups before the sprint session

# SEASON PLAN

## GAME TO GAME ON WEEKLY GAME RHYTHM

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### 3 Workouts / Week

- Recovery – Z1 session day after a game, or after the game. This enhances recovery significantly.
- Aerobic session Z2-Z3
- Leg Speed Sprint Power (LSSP) – Preparation towards the game. LSSP workouts can also serve as "performance tests" - a drop in performance may need a specific training intervention.

Coaches can monitor progress and workout compliance can be achieved by using the Wattbike App.

The Wattbike App is a free mobile app for iPhones, iPads and Android devices and can be found in the App Store and Play Shop.

# SEASON PLAN

## MULTI GAME WEEKS

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French National Rugby Team

Team physiologists need to create recovery/game periodization, depending on circumstances. Rough guidelines:

- Daily games - Recovery after a game (or 20 hrs post game) 20-30min, 90rpm, Recovery Zone.
- One day apart - Recovery after a game (or next morning before pre game workouts).
- 2 days apart, recovery & regeneration right after or next morning.
- 2 games / week, 1st: Recovery after games. In day between: 30' (6x5' Z2/Z3) aerobic workout or a short LSSP set to get the body back into action - warm up, 10 x 6" (140-150 rpm) off 1' and cool down.
- LSSP the day prior to a game for some players. (Always depends on the total training load and individual player needs).
- Wattbike can also be used as a training tool for injury rehabilitation.

# JUDGE US NOT BY WHO WE SPONSOR BUT BY THE CHAMPIONS WE CREATE

CENTRE MONDIAL DU CYCLISME  
**UCI**  
WORLD CYCLING CENTRE





# THANK YOU

For more information contact:

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