

# Etre en forme le *Jour J*



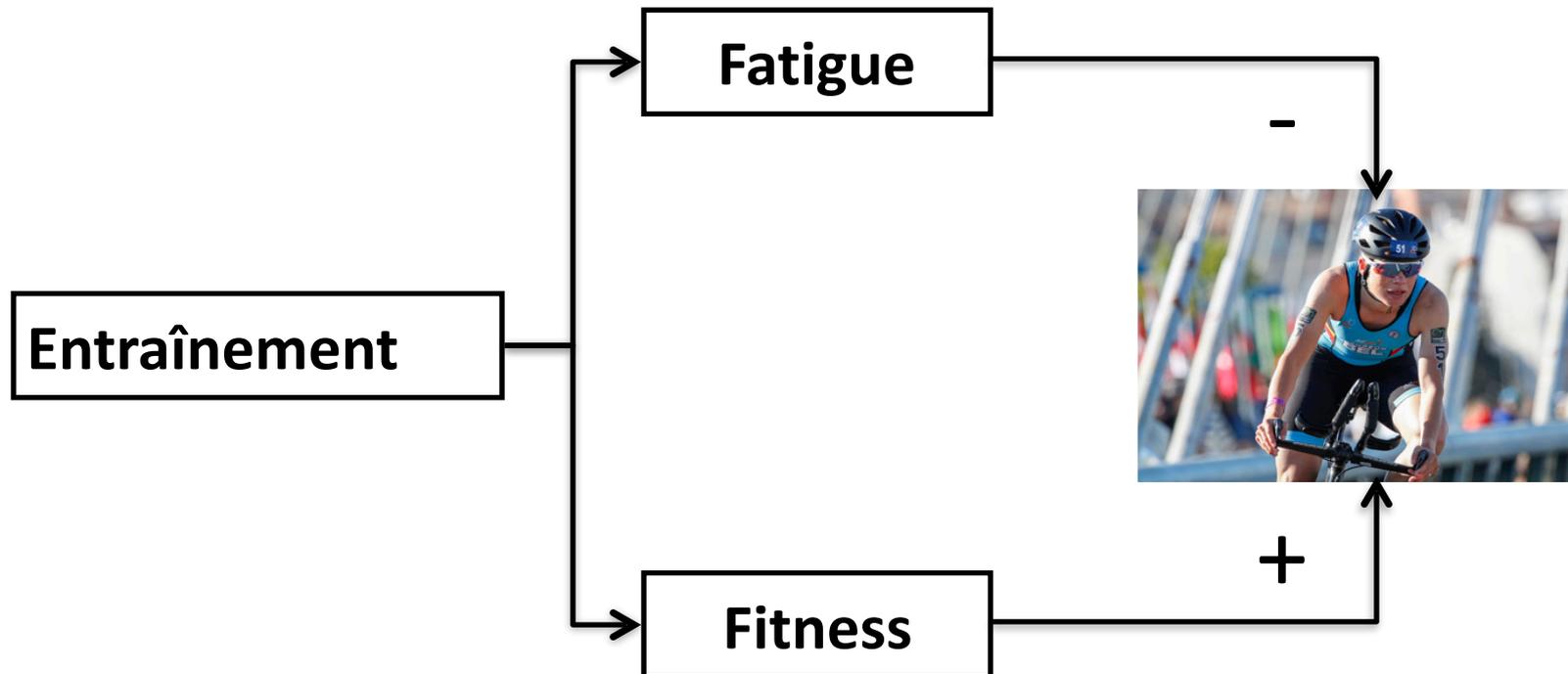
@laurent.bosquet

# Introduction



# Affûtage

**Obtenir un pic de performance**



# Affûtage

## Définition



Diminution de la charge d'entraînement au cours d'une période de durée variable, afin de diminuer la fatigue physiologique et psychologique induite par les cycles d'entraînement précédents et d'optimiser la performance.

# Affûtage

## Paramètres manipulables



### Charge d'entraînement

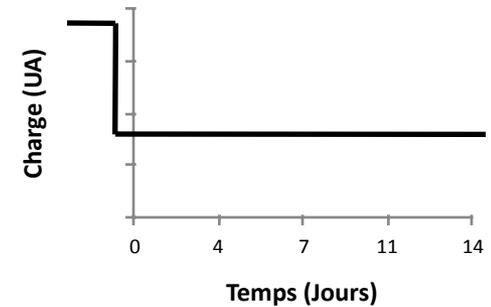
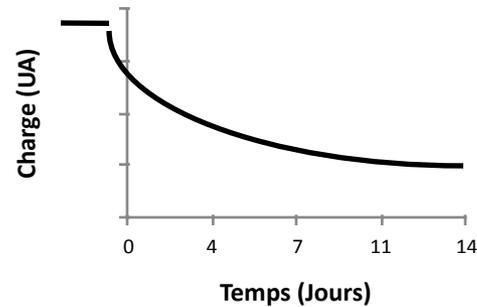
- Intensité
- Volume
  - Volume de chaque séance (fréquence normale)
  - Fréquence des séances (volume normal)

# Affûtage

## Paramètres manipulables



### Forme de l'affûtage



# Affûtage

## Paramètres manipulables



### Durée de l'affûtage

- 1 semaine
- 2 semaines
- x semaines

# Affûtage

## Méta analyse

*Physical Fitness and Performance*

### Effects of Tapering on Performance: A Meta-Analysis

LAURENT BOSQUET<sup>1,2</sup>, JONATHAN MONTPETIT<sup>1</sup>, DENIS ARVISAIS<sup>1</sup>, and IÑIGO MUJIKA<sup>3,4</sup>

<sup>1</sup>Department of Kinesiology, University of Montreal, Montreal, CANADA; <sup>2</sup>Faculty of Sport Sciences, University of Lille, Ronchin, FRANCE; <sup>3</sup>Department of Research and Development, Athletic Club Bilbao, Lezama, SPAIN; and <sup>4</sup>Department of Physiology, Faculty of Medicine and Odontology, University of the Basque Country, Álava, SPAIN



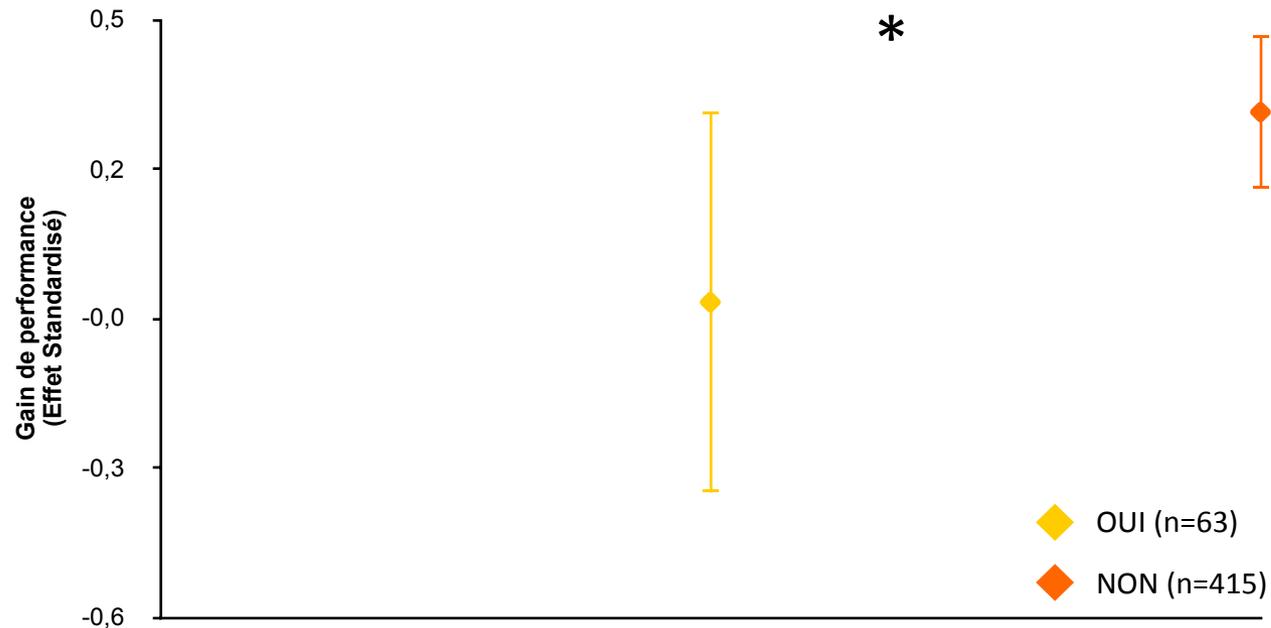
Le niveau de preuve le plus élevé provient des méta-analyses

#### ABSTRACT

BOSQUET, L., J. MONTPETIT, D. ARVISAIS, and I. MUJIKA. Effects of Tapering on Performance: A Meta-Analysis. *Med. Sci. Sports Exerc.*, Vol. 39, No. 8, pp. 1358–1365, 2007. **Purpose:** The purpose of this investigation was to assess the effects of alterations in taper components on performance in competitive athletes, through a meta-analysis. **Methods:** Six databases were searched using relevant terms and strategies. Criteria for study inclusion were that participants must be competitive athletes, a tapering intervention must be employed providing details about the procedures used to decrease the training load, use of actual competition or field-based criterion performance, and inclusion of all necessary data to calculate effect sizes. Datasets reported in more than one published study were only included once in the present analyses. Twenty-seven of 182 potential studies met these criteria and were included in the analysis. The dependent variable was performance, and the independent variables were the decrease in training intensity, volume, and frequency, as well as the pattern of the taper and its duration. Pre–post taper standardized mean differences in performance were calculated and weighted according to the within-group heterogeneity to develop an overall effect. **Results:** The optimal strategy to optimize performance is a tapering intervention of 2-wk duration (overall effect =  $0.59 \pm 0.33$ ,  $P < 0.001$ ), where the training volume is exponentially decreased by 41–60% (overall effect =  $0.72 \pm 0.36$ ,  $P < 0.001$ ), without any modification of either training intensity (overall effect =  $0.33 \pm 0.14$ ,  $P < 0.001$ ) or frequency (overall effect =  $0.35 \pm 0.17$ ,  $P < 0.001$ ). **Conclusion:** A 2-wk taper during which training volume is exponentially reduced by 41–60% seems to be the most efficient strategy to maximize performance gains. This meta-analysis provides a framework that can be useful for athletes, coaches, and sport scientists to optimize their tapering strategy. **Key Words:** TRAINING INTENSITY, TRAINING VOLUME, TRAINING FREQUENCY, PERIODIZATION

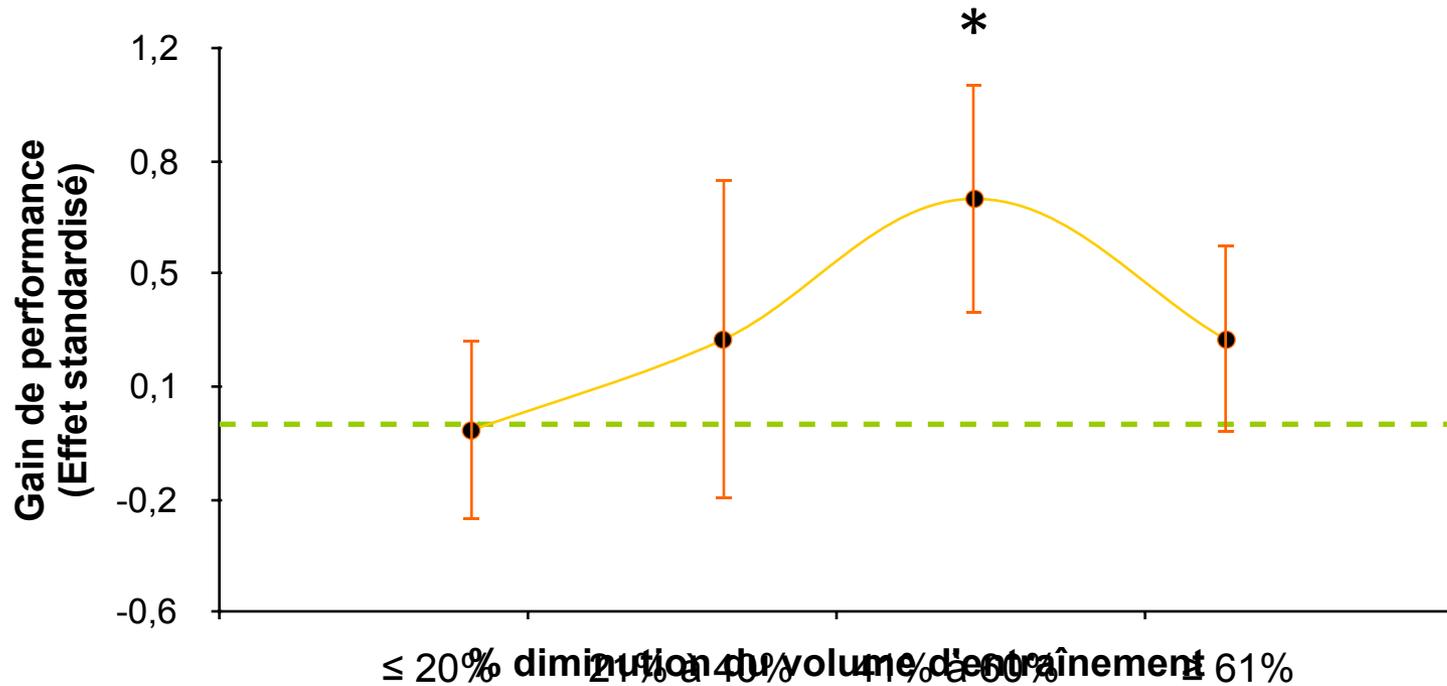
# Affûtage

## Manipulation de l'intensité



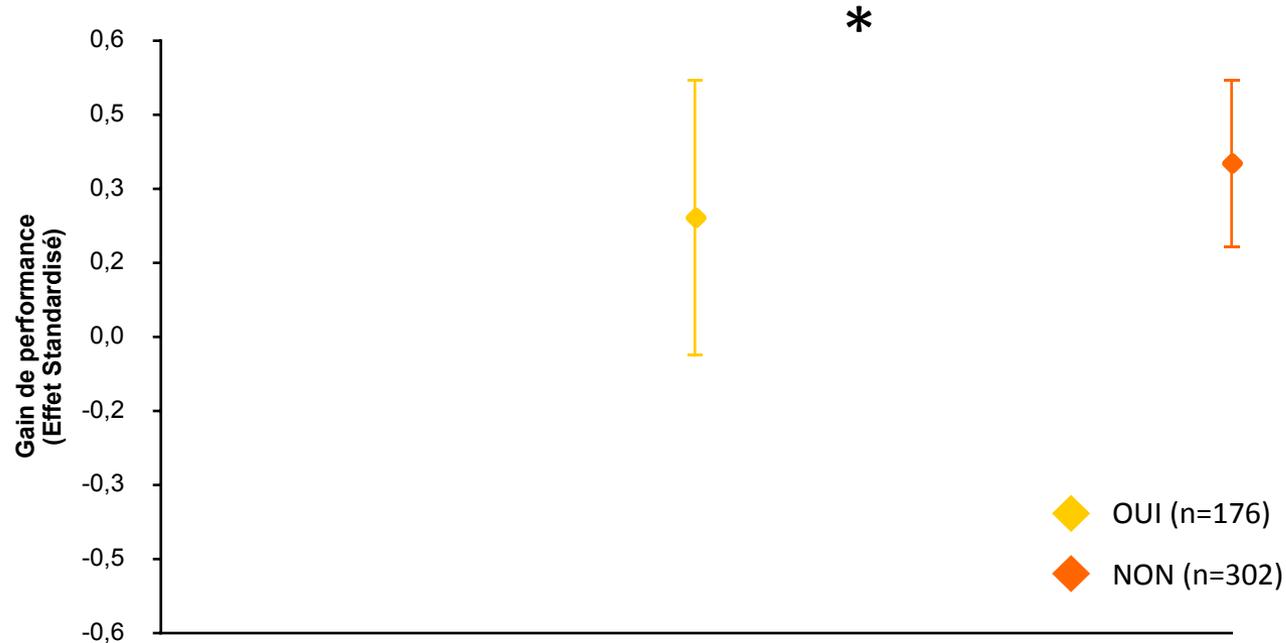
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## Manipulation du volume



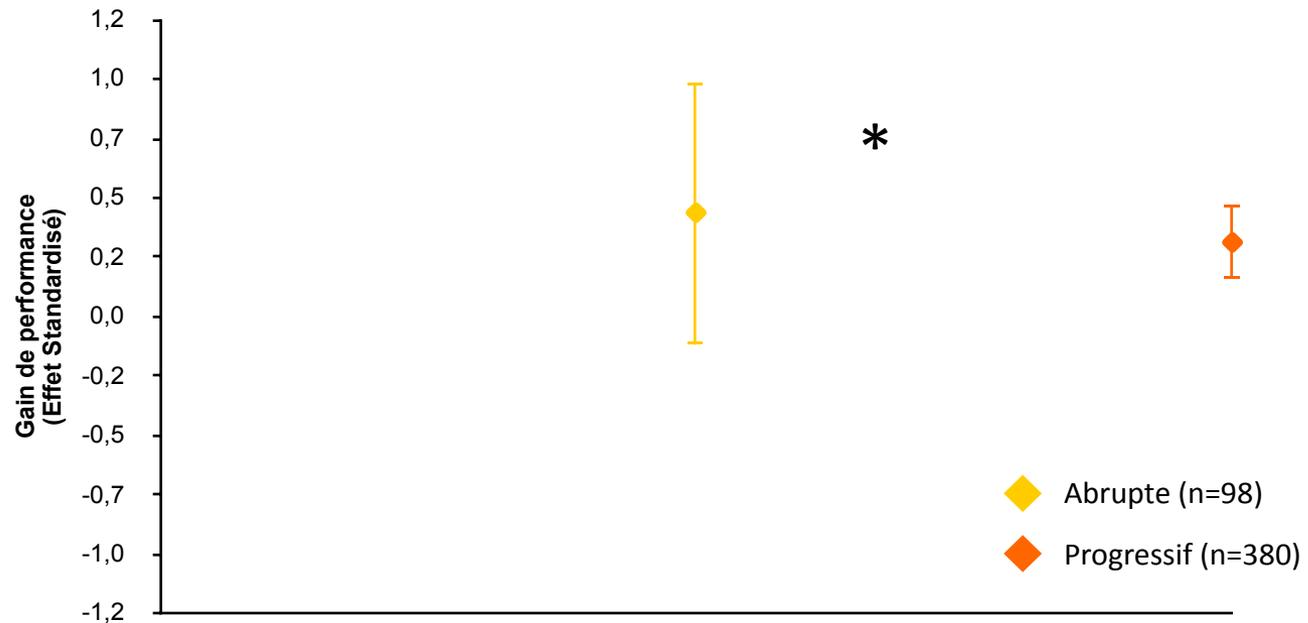
# Affûtage

## Manipulation de la fréquence



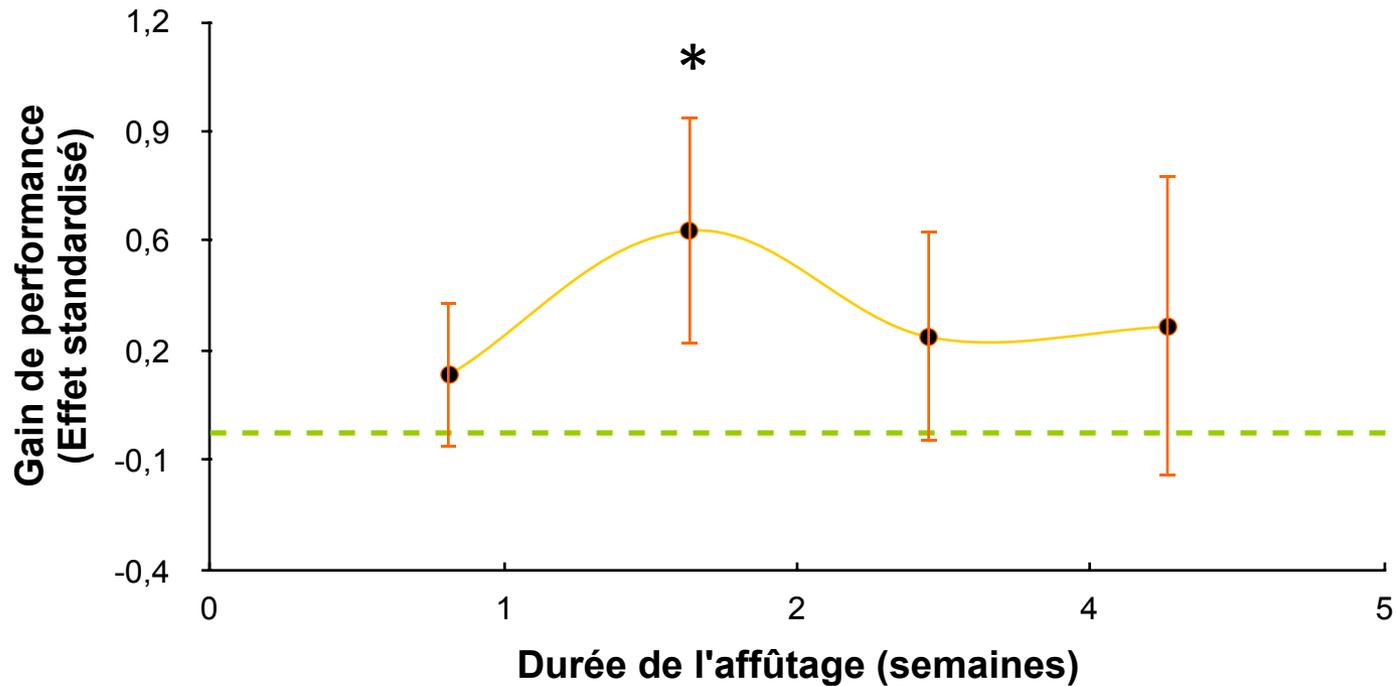
# Affûtage

## Manipulation de la forme



# Affûtage

## Manipulation de la durée



# Affûtage

## Stratégie optimale



- Diminution progressive
- Volume : 41 à 60%
- Durée : 2 semaines
- Fréquence : maintenue
- Intensité : maintenue

# Affûtage

## Quels gains de performance ?



-2.28% (*Neary et al. Dyn Med 2005 ; 4 : 4*)

+8.91% (*Halson et al. J Appl Physiol 2002 ; 93 : 947-956*)

Moyenne pondérée : **1,96 %**

# Affûtage

## Quels gains de performance ?



1) H. El Guerrouj : 3'34.18

2) B. Lagat : 3'34.30

3) R. Silva : 3'34.68

El Guerrouj vs Lagat : 0.05 %

El Guerrouj vs Silva : 0.23 %

1) R. Silva : 3'34.25 (- 0.2%)

2) B. Lagat : 3'34.30 (=)

3) H. El Guerrouj : 3'34.39 (+ 0.1%)

# Affûtage

**Quels gains de performance ?**



**2:00:23 vs 1:59:40 = 0.6%**

# Affûtage

## Quels gains de performance ?



-2.28% (*Neary et al. Dyn Med 2005 ; 4 : 4*)

+8.91% (*Halson et al. J Appl Physiol 2002 ; 93 : 947-956*)

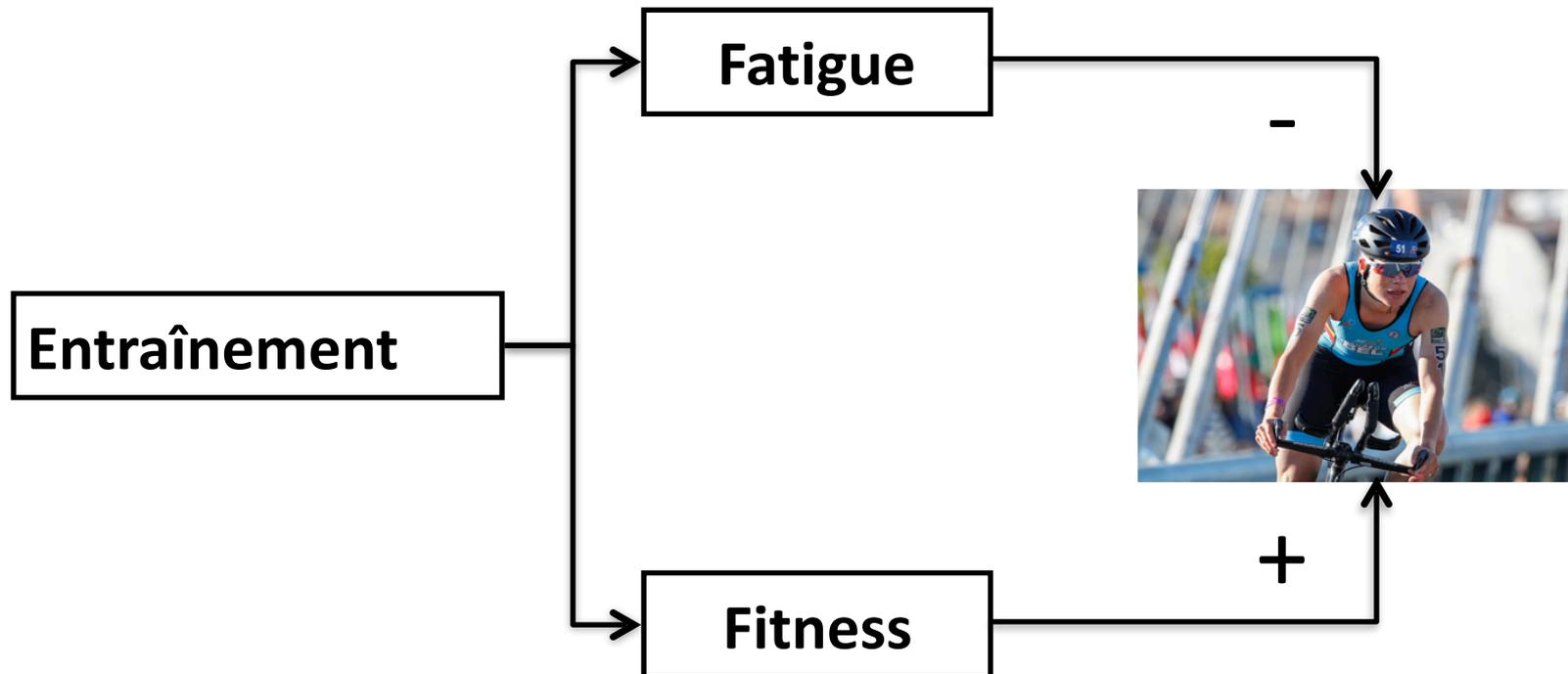
Moyenne pondérée : **1,96 %**

**Très grande variabilité interindividuelle**

Bosquet et coll. *Med Sci Sports Exerc* 2007 ; 39 : 1358-1365

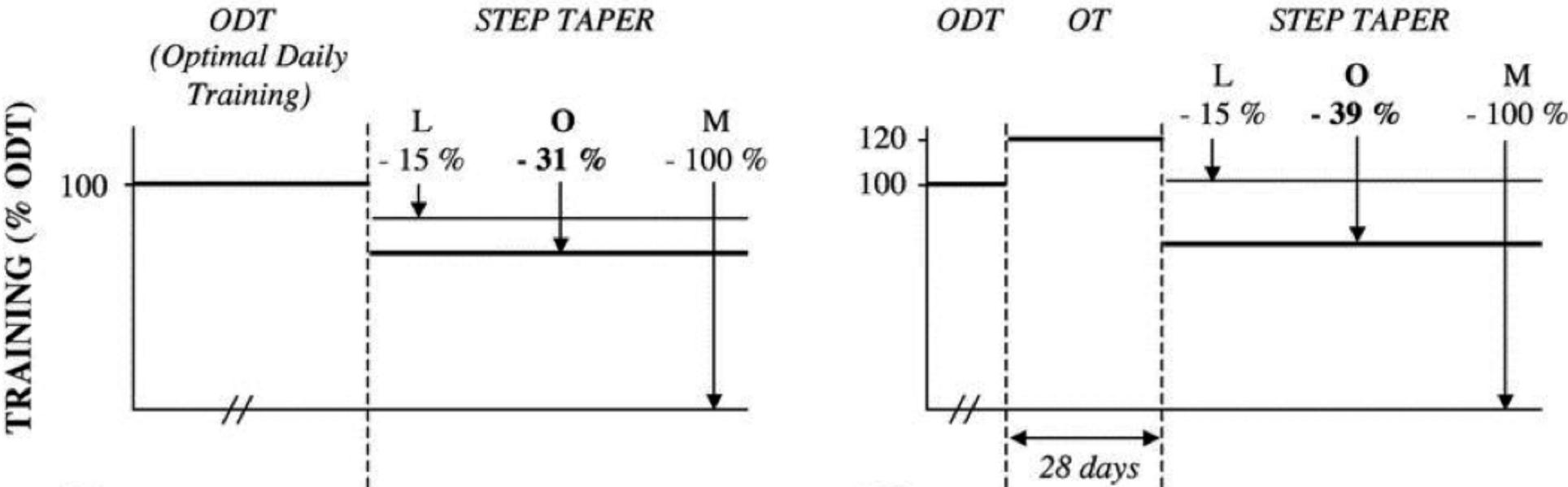
# Affûtage

**Obtenir un pic de performance**



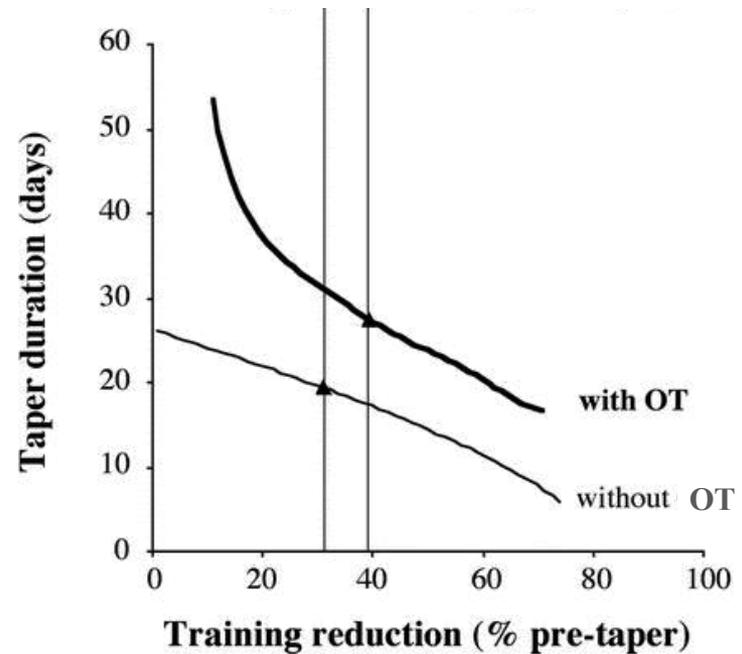
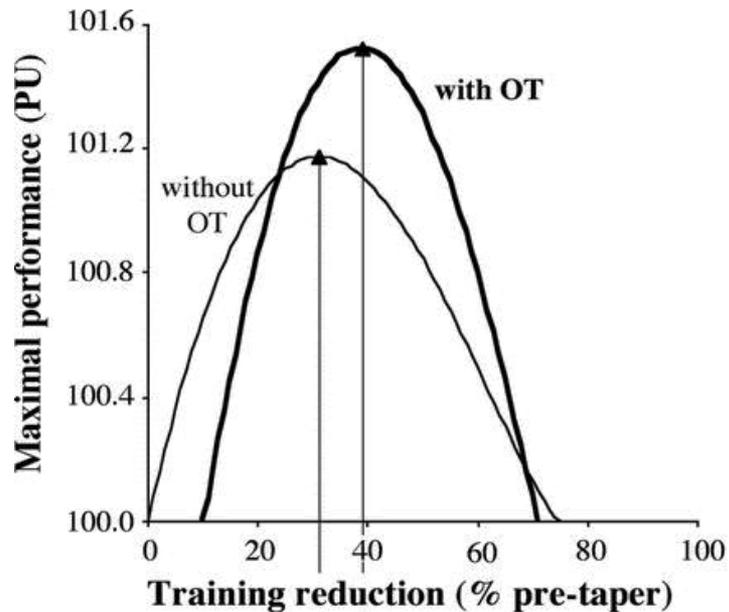
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## Influence du niveau de fatigue



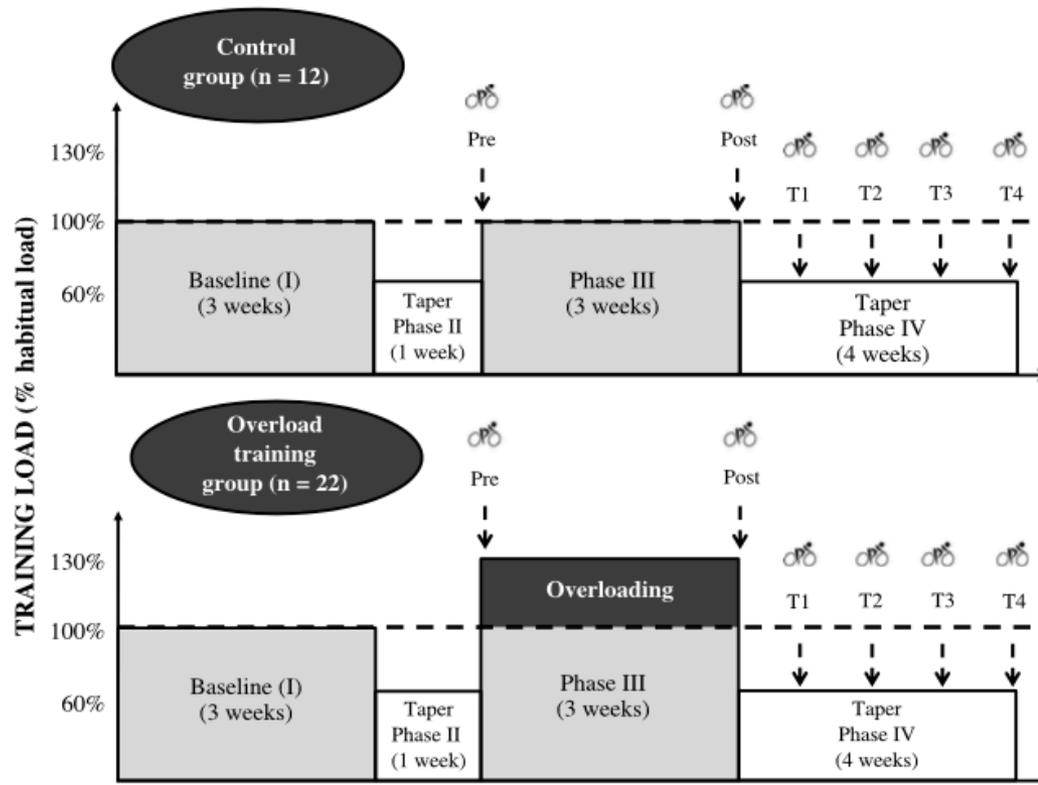
# Affûtage

## Influence du niveau de fatigue



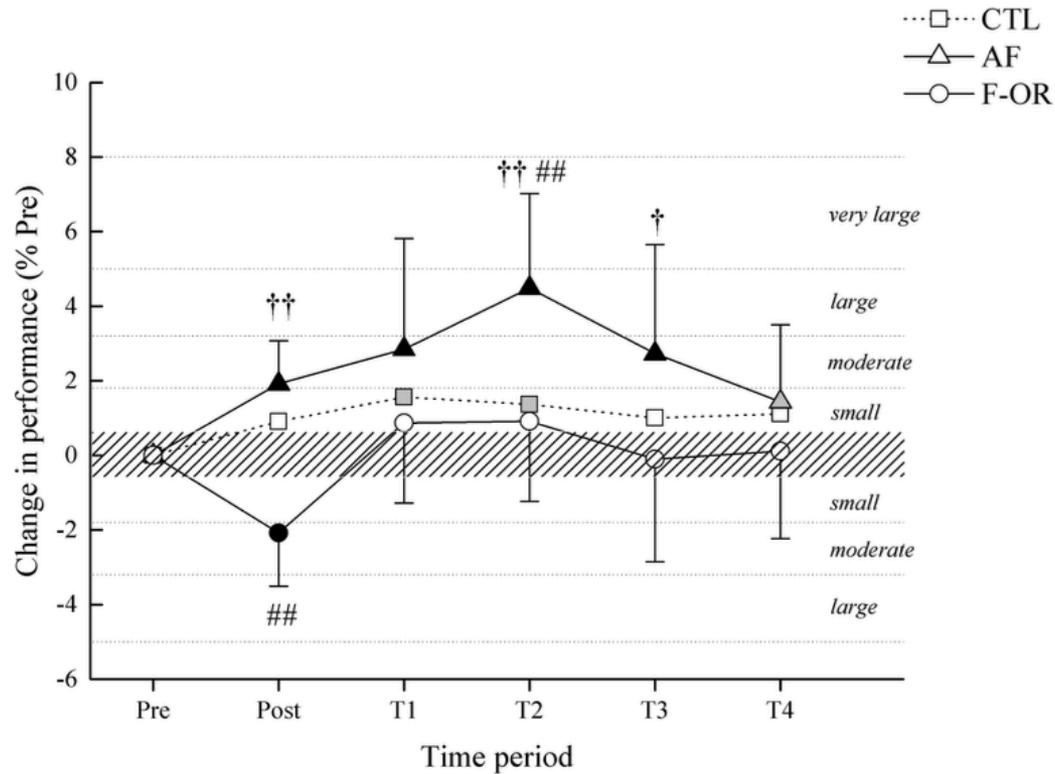
# Affûtage

## Influence du niveau de fatigue



# Affûtage

## Influence du niveau de fatigue



# Affûtage

## Influence du niveau de fatigue

Système cardiovasculaire



Sphère psychologique

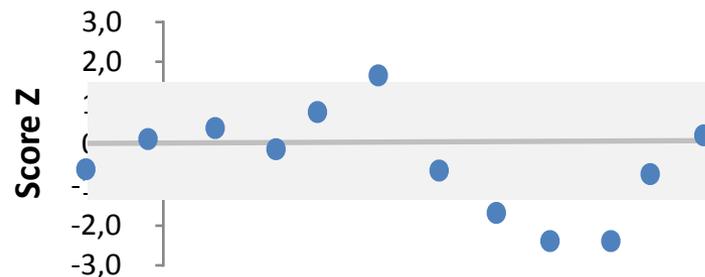
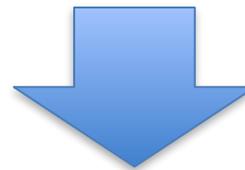


heureux



malheureux

Fonctions cognitives



# Affûtage

## Stratégie optimale



- Diminution progressive
- Volume : 41 à 60%
- Durée : 2 semaines
- Fréquence : maintenue
- Intensité : maintenue
  
- Gain de performance : 1.9%
- Adapter au niveau de Fatigue



**Merci de votre attention**

**@laurent.bosquet**

laurent.bosquet@univ-poitiers.fr

  
**Université**  
de Poitiers

UNIVERSITÉ  
FACULTÉ des  
SCIENCES du  
**SPORT**

# Affûtage

## Stratégie optimale

