

Research Informed Epee Fencing Training and Performance Tips

Based on research by Dr Lindsay Bottoms

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Practical Application

1 TRY AND REMAIN COOL DURING COMPETITION

The fencing clothing is creating a micro environment and eliciting similar skin temperatures to exercising in hot climates such as Spain in the summer (35°C).



2 KEEP HYDRATED

Research shows we need to maintain hydration during exercise. To calculate how much to consume, weigh yourself pre and post exercise and the amount lost in kg is the amount in litres needing to be replaced. On average fencers require **1.4%** of body weight of fluid for training. This will equate to approximately **3-4 litres** during competition.



3 ADD CAFFEINE (3MG.KG⁻¹ OF BODY WEIGHT) AND CARBOHYDRATE (30g to 500ml OF WATER) TO SOME (NOT ALL) OF YOUR DRINKS DURING COMPETITION

(practice in training)
Carbohydrate mouth rinsing and caffeine ingestion improve accuracy in fencing when fatigued.



4 ENSURE YOU REPLACE FUEL DURING COMPETITION.

Practice in training if you find eating during competition difficult

You are expending about **12kcal/min** when performing epee fencing. This equates to a total daily calorie expenditure of approximately **3500kcal** during a competition day when accounting for resting metabolic rate.



5 ENSURE YOU INCLUDE INTERVAL TRAINING RELEVANT TO THE WORK TO REST RATIO

Average duration of a point in a poule fight is **9s** followed by **8s** rest, with a fight lasting **2½ minutes**. A direct elimination fight lasts approximately **8 and a half minutes** with an average duration for a point being **10s** followed by **12s** rest.



6 AEROBIC CONDITIONING IS IMPORTANT

Include approximately **30 min** running training twice a week

Heart rate during a match is on average **86%** of maximum in both poule and direct elimination fights, with peaks above **95%** of maximum.



7 IMPORTANCE OF AEROBIC ENERGY SYSTEM

Lactate levels are low throughout a competition, in **particular at the latter stages**, therefore there is a large emphasis on the **aerobic energy system**.



8 INCLUDE PLYOMETRIC TRAINING IN YOUR CONDITIONING PROGRAMME

Speed of your lunge can be improved by lowering your fencing stance and increasing speed of extending your front leg during the lunge.

Please note, that training should be by a suitably qualified person.

