

Les Mills Lab: LES MILLS GRIT soccer study



Background

As a result of growth and increased interest in women's soccer in the past 20 years, numerous scientific studies have been conducted with a focus on enhancing performance.

Training status - defined as lean body mass and $VO_2\max$ - is correlated to performance during games; specifically in terms of ground covered, time spent at high intensity, number of sprints, and number of touches on the ball. Improving an athlete's training status is therefore a critical component of any soccer regimen.

The Question

Can LES MILLS GRIT™ classes (a form of high-intensity interval training involving explosive plyometric and dynamic strength exercises) improve $VO_2\max$ and body composition in elite women's soccer players?

Method

Eighteen NCAA Division I women soccer players replaced their eight hours per week of traditional training with a unique five hour per week training intervention over a six week period. The intervention comprised:

Group 1

- 2 x 60 minutes of soccer-specific cardio training
- 2 x 60 minutes of strength training (Les Mills BODYPUMP™)
- 2 x 30 minute LES MILLS GRIT series

Group 2

- 3 x 60 minutes of soccer-specific cardio training
- 2 x 60 minutes of strength training

At the beginning and end of the six-week intervention, lean mass was evaluated with a body composition test and $VO_2\max$ was estimated from a 2.4 km run.

Results

Group 1 - whose training program included an hour in the 85-100% heart rate zone doing LES MILLS GRIT, experienced an increase in both lean body mass (average 2kg gain), and a 10% increase in $VO_2\max$.

Conclusion

LES MILLS GRIT can be an effective protocol for soccer players - and the athletic community - and may maximize competition performance while minimizing training time.

A link to the published abstract in the Journal of Fitness Research is available [here](#).