Nutrition and Training Habits Associated with the Strongest and Fittest Special Operation Forces Operators

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ABSTRACT

PURPOSE:
To identify dietary and physical training variables associated with high physical performance in SOF Operators.

CONCLUSION:
These findings demonstrate that the fittest and strongest Operators based on strength and physiological assessments are younger, have less body fat, partake in higher total and strength training volumes and consume diets higher in carbohydrates and seafood/plant protein foods perform better. Future research should focus on examining the interrelationship that body fat, diet and training have on performance and injury in SOF. Supported by PM/CARF F866B0122671, ONR N00184-11-1-0929, USAMRMC W81XWH-11-2-0202.

INTRODUCTION

• SOF Operators participate in strenuous and demanding physical and tactical training.

• Identifying nutrition and training habits associated with improved strength, power and endurance in SOF is important in improving military readiness and may guide human performance training and fueling programs.

PRACTICE APPLICATIONS:
• To identify dietary and physical training variables associated with high physical (top 10%) and low (bottom 10%) performance in SOF Operators.

RESULTS

• 595 SOF Operators participated in this study, representing NAVSOC, AFSOC, USASOC.

• Age: 27 ± 5.5 yrs, Height: 178.6 ± 6.5 cm, Mass: 84.8 ± 9.9 kg, Body Fat: 16.9 ± 5.4%

• Higher carbohydrate and seafood/plant protein consumption

• Higher total exercise and strength training volumes

• Younger (23.9 ± 3.0, 32.2 ± 7.2 yrs, p<0.001), were lower in body fat (13.9 ± 3.3, 21.2 ± 6.3% p<0.001), had higher protein intake (1.9 ± 0.9, 1.5 ± 0.7 g/kg body wt, p=0.094), consumed more daily carbohydrates (4.3 ± 1.7, 3.1 ± 1.5 g/kg body wt, p=0.002) and more seafood/plant protein foods (14.0 ± 41.6, 2.5 ± 5.1 kcal/kg body wt/week)

• Significant p<0.05; # Significant Adjusted for Age using ANCOVA

SUMMARY AND CONCLUSIONS

• Fittest and Strongest SOF Operators:
  - Younger
  - Lower body fat
  - Higher total exercise and strength training volumes
  - Higher carbohydrate and seafood/plant protein consumption

• Future research should focus on examining the interrelationship that body fat, diet and training have on performance and injury in SOF.