Sports nutrition recommendations were developed to provide optimal nutrition for athletic performance. The 2010 Dietary Guidelines for Americans (DGA) were developed to improve health through nutrition guidelines for disease risk reduction and health promotion. Both of these may be used as a guide for SEALs to ensure proper nutrition to optimize physical readiness, performance, and long term health.

PURPOSE: To compare dietary intakes of SEALs to sports nutrition recommendations and the 2010 DGA. METHODS: A total of 215 SEALs (age: 29.7 ± 6.8 yrs, weight: 85.8 ± 9.1 kg, body fat: 17.5 ± 5.9%) completed a 24-hour diet recall. Intake was assessed using dietary analysis software. RESULTS: Carbohydrate (CHO), protein, carbohydrate (CHO), and fat intake was 2,775 ± 883 kcal, 152 ± 62g, 314 ± 113g, and 98 ± 50g, respectively. Fat intake >30% kcal was found in 52% of SEALs, with 40% consuming >10% kcal from saturated (sat) fat. Cholesterol intake was 434.5 ± 337.0 mg, with 54% consuming > 300mg. CONCLUSIONS: findings suggest SEALs should consume adequate CHO and other key nutrients to meet the demands of physical training and to optimize overall health. Increased consumption of CHO (g) whole grains, fruits, vegetables, legumes and nut intake reducing fat and sat kcal intake may optimize physical readiness, performance, and health in SEALs. Except for calcium, most SEALs failed to meet nutrient guidelines for health promotion and disease risk reduction. Many SEALs consumed diets high in fat, sat fat, and cholesterol, which can increase risks for cardiovascular disease. Future research should examine methods to modify eating habits of SEALs to meet their unique demands of training while improving overall health and longevity.

INTRODUCTION
• Training and tactical demands of Naval Special Warfare (NSW) Sea, Air, and Land (SEAL) Operators have been likened to those of elite athletes, with similar performance and nutrition needs.
• Evidence-based sports nutrition recommendations have been developed to provide optimal nutrition for athletic performance. Additionally, the 2010 Dietary Guidelines for Americans (DGA) have been developed to improve the health of our Nation’s population through nutrition guidelines focusing on health promotion and disease risk reduction.
• Both recommendations may be used as a guide for operators with increased physical training and to optimize overall health and longevity.

SUMMARY AND CONCLUSIONS
• Results suggest SEALs do not consume adequate CHO and other key nutrients to meet the demands of physical training and to optimize overall health.
• Except for calcium, most SEAL Operators failed to meet nutrient guidelines for health promotion and disease risk reduction. Many Operators consumed diets high in sat fat and cholesterol, which can increase risks for cardiovascular disease.
• Future research should examine methods to modify eating habits of SEAL Operators to meet their unique demands of training while improving overall health and longevity.

ABSTRACT
• 215 male active duty SEAL Operators
• Age: 29.7 ± 6.8 yrs
• Weight: 85.8 ± 9.1 kg
• Body Fat: 17.5 ± 5.9%

EXPERIMENTAL DESIGN AND METHODS
• To compare dietary intakes of SEAL Operators to sports nutrition recommendations and the 2010 Dietary Guidelines for Americans

RESULTS
• On average SEALs consumed 2,775 ± 883 calories, 152 ± 62g protein, 314 ± 113g carbohydrate, and 98 ± 50g fat
• Fat intake >30% kcal was found in 52% of SEALs, with 40% consuming >10% kcal from saturated (sat) fat
• Cholesterol intake was 434.5 ± 337.0 mg, with 54% consuming > 300mg
• SEALs intakes compared to goal amounts are displayed in Table 1

Table 1: SEALs Intake of Nutrients Compared to 2010 DGA and Sports Nutrition Guidelines

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Goal Amount</th>
<th>SEALs Intake (mean ± SD)</th>
<th>SEALs &lt; Goal Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrates (g/kg)</td>
<td>≥ 5</td>
<td>3.7 ± 1.37</td>
<td>96%</td>
</tr>
<tr>
<td>Protein (g/kg)</td>
<td>1.2-1.7</td>
<td>1.78 ± 0.77</td>
<td>19%</td>
</tr>
<tr>
<td>Potassium (mg)</td>
<td>4,700</td>
<td>2,360.3 ± 1,451.4</td>
<td>98%</td>
</tr>
<tr>
<td>Dietary Fiber (g)</td>
<td>38</td>
<td>26.7 ± 15.5</td>
<td>82%</td>
</tr>
<tr>
<td>Calcium (mg)</td>
<td>1,000</td>
<td>1,135.2 ± 706.9</td>
<td>48%</td>
</tr>
<tr>
<td>Vitamin D (IU)</td>
<td>600</td>
<td>183.7 ± 230.1</td>
<td>94%</td>
</tr>
</tbody>
</table>

DEPENDENT VARIABLES
• Total energy (kcal), carbohydrate (g), protein (g), fat (g), saturated fat (g), fiber (g), cholesterol (mg), potassium (mg), calcium (mg), and vitamin D (IU)
• Percent of calories from carbohydrate, protein, fat and saturated fat
• Grams of carbohydrate and protein per kg of body weight

STATISTICAL ANALYSIS
• Descriptive statistics
• Mean and standard deviations
• Proportions

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