PROPER NUTRITION PLAYS AN IMPORTANT ROLE IN OPTIMIZING PERFORMANCE AND RECOVERY FROM DAILY RIGOROUS SPECIAL OPERATIONS MILITARY TRAINING. PURPOSE: TO EVALUATE FOOD, FLUID AND DIETARY SUPPLEMENT HABITS OF SEAL OPERATORS. METHODS: A TOTAL OF 215 SEALs FROM NSW GROUP 2 VOLUNTEERED (AGE: 29.7±6.8 YEARS, HEIGHT: 70.2±2.3 IN., WEIGHT: 188.8±20.0 LB., BODY FAT: 17.5±5.9%) AND COMPLETED A DETAILED DIET HISTORY INCLUDING EATING HABITS, FOOD AND FLUID INTAKE BEFORE DURING AND AFTER PHYSICAL TRAINING, AND DIETARY SUPPLEMENT USE. RESULTS: FLUIDS WERE CONSUMED BY 97% OF OPERATORS BEFORE PHYSICAL TRAINING (PT), 96% DURING PT, AND 99% FOLLOWING PT. TOP BEVERAGE CHOICES BEFORE PT WERE WATER (69%), COMBINATION WATER AND SPORTS DRINK (13%) AND COMBINATION WATER AND PRE-WORKOUT SUPPLEMENT (6%). DURING PT TOP BEVERAGE CHOICES INCLUDED WATER (77%), COMBINATION WATER AND SPORTS DRINK (12%), AND SPORTS DRINK ONLY (5%). BEVERAGE CHOICES FOLLOWING PT WERE WATER (41%), COMBINATION WATER AND SPORTS DRINK (17%), SPORTS DRINK WITH PROTEIN (16%), AND SPORTS DRINK ONLY (10%). FOOD WAS CONSUMED BY 72% OF OPERATORS BEFORE PT, WHEREAS 89% CONSUME FOOD FOLLOWING PT (73% WITHIN 1 HOUR, 23% 1-2h, 2% > 3 h, 2% UNKNOWN) WITH 75% EATING A SNACK OR MEAL WITH BOTH CARBOHYDRATE (CHO) AND PROTEIN, 15% EATING A SNACK WITH ONLY PROTEIN AND 6% EATING A SNACK WITH ONLY CHO. USE OF AT LEAST ONE DIETARY SUPPLEMENT WAS REPORTED BY 64% OF THE OPERATORS (63% VITAMIN/MINERAL, 62% PROTEIN-ENERGY DRINKS, 36% FISH OILS AND OTHER ANTIOXIDANTS, 23% JOINT HEALTH, 17% NITRIC OXIDE, 14% CREATINE). ALMOST AS MANY OPERATORS CONSUME A PROTEIN-ENERGY DRINK AS DO TAKE A DAILY MULTIVITAMIN-MINERAL SUPPLEMENT. REASONS FOR SUPPLEMENT USE INCLUDE, FEELING MORE ENERGIZED, IMPROVING PHYSICAL PERFORMANCE DURING TRAINING, INCREASING ALERTNESS AND STAYING AWAKE. CONCLUSION: OUR FINDINGS SUGGEST THAT SEAL OPERATORS PRACTICE ADEQUATE HYDRATION BEFORE, DURING AND AFTER EXERCISE. WATER IS THE PREFERRED BEVERAGE DURING PT, HOWEVER, IF PT LASTS LONGER THAN 60 MINUTES AND IS RIGOROUS, IT MAY BE MORE BENEFICIAL TO CONSUME FLUIDS WITH CHO (6-8%) AND ELECTROLYTES (10-20 MEQ/L SODIUM AND CHLORIDE). FOLLOWING PT, A BEVERAGE WITH CHO, PROTEIN AND ELECTROLYTES WILL EXPEDITE FLUID RESTORATION AND MUSCLE RECOVERY. THE MAJORITY OF OPERATORS CONSUME A POST-TRAINING SNACK TO AID IN RECOVERY WITHIN 60 MINUTES FOLLOWING PT. HOWEVER, 35% ARE CONSUMING A SNACK OF EITHER SOLELY PROTEIN OR CHO. IDEALLY, CONSUMING FOODS AND FLUIDS THAT CONTAIN A MODERATE AMOUNT OF CHO AND A SMALL AMOUNT OF PROTEIN (~10-20G) WILL EXPEDITE MUSCLE GLYCOGEN RESYNTHESIS, DELAY FATIGUE AND HELP TO REDUCE MUSCLE PROTEIN BREAKDOWN. THIS IS ESPECIALLY IMPORTANT FOR OPERATORS PARTICIPATING IN SUBSEQUENT TRAINING BOUTS AND/OR MISSIONS WITHIN 8 HOURS. FUTURE RESEARCH SHOULD FOCUS ON EXAMINING THE USE OF FOODS, FLUIDS, AND NUTRIENT TIMING AS A MEANS TO ENERGIZE FOR AND HELP RECOVER FROM DAILY HARD PHYSICAL TRAINING.

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