Military personnel Needed for Cold Stress & Sleep Deprivation Research Study

Purpose: Determine if the FDA-approved medication, Modafinil (Provigil®), will improve the effects of cold environmental temperature and sleep-deprivation stressors.

- Determine whether Modafinil will mitigate cognitive and physical performance decrements from the combination of cold stress and sleep deprivation.
- Determine if Modafinil increases heat production in the cold regardless of whether
 Warfighters are well-rested or sleep deprived.

You are potentially eligible if you:

- Are between the ages of 18-39 years old.
- Can refrain from the use of caffeine including dietary supplements that contain caffeine alcohol, and nicotine 24 hours prior to data collection.
- Can refrain from vigorous physical activity 24 hours prior to data collection.
- Can refrain from dietary supplement use within one week of initial screening and at any time while enrolled in the study, with the exception of a multi-vitamin containing up to 100% RDA.
- Agree to consume study diets throughout the course of the study.
- Obtain supervisory approval for participation if permanent part military or a federal employee.

Description:

- This study consists of one day of baseline testing, followed by two days of continuous wakefulness under cold-stress testing (26 hours), followed by a two-day recovery period, and another two-day testing cycle of continuous wakefulness under cold-stress (26 hours).
- We will measure body composition (height, weight, and DEXA scan) at baseline.
- Participants will insert a telemetric thermometer capsule to determine core body temperature.

Benefits:

There are no direct benefits from participating in this research. However, data from this study will assist in understanding whether or not a pharmaceutical compound will effectively counter the effects of two common military stressors (cold-stress and sleep-deprivation stress).

This research is being conducted by USARIEM's Military Nutrition Division (PI: Dr. Harris R. Lieberman).

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