Context: Determining levels of dehydration is critical for safety and performance in physically active individuals. The National Athletic Trainers' Association (NATA) has recommended indexes of hydration status for urine color and urine specific gravity (USG). It is important to have reliable and valid methods for measuring the status of dehydration of persons under an athletic trainer's care. **Objective:** To determine if urine color assessment and urine specific gravity are reliable and valid methods for determining hydration status. **Design:** Twelve independent urine samples were each tested by 12 testers utilizing a) color assessment, b) urine specific gravity (USG) via a refractometer, and c) USG via dipstick. Data were compared between methods and against the significant dehydration threshold value. **Setting:** Athletic training lab. **Patients or Other Participants:** Twelve individuals (11 students and one Certified Athletic Trainer) executed three methods of testing of the twelve urine samples. **Intervention:** Each tester recorded a value for urine color, USG by refractometer, and USG by dipstick for each sample independently without knowledge of the recorded data of other testers. **Main Outcome Measure(s):** A urine color measurement value (1-8) was determined by the tester comparing the specimen to a urine color chart. USG was determined by utilizing a refractometer and urine reagent strips. All three measures were compared to Table 2. **Results:** Specimen measures (n = 144) by three methods of measurement were evaluated. One way ANOVA revealed no significant differences between testers and the specimen measures (color chart p = .695, refractometer p = 1.000, dipstick p = .997). Of the 144 specimen measures 69 (47.9%) had dehydration threshold inconsistencies. Of these 69 specimens, the color assessment chart had no significant correlation with refractometer (p = .143, r = -.178) or dipstick (p = .617, r = -.061). There was significant correlation between refractometer and dipstick (p = .010, r = .307). **Conclusion:** The data suggests that there is inconsistency amongst the level of agreement of urine color assessment data with USG values in relation to the NATA position statement. Further investigation is needed to determine whether or not these methods are reliable and valid means of determining dehydration status of an individual. Additionally, the equivalency of urine color assessment and urine specific gravity in determining significant dehydration status per the recommendations of the NATA position statement should be assessed. **Word Count:** 448