encounters they face, and the type of training that they require. Boulder, Colorado is a mecca for outdoor activities, but search and rescue data for this region have not been documented in the medical literature. The Rocky Mountain Rescue Group (RMRG) is one of the more active search and rescue groups in Colorado, and has been formally collecting data related to their activities since 2002.

Objective.—The purpose of this study is to examine the epidemiology of search and rescue activities in and around Boulder, Colorado using data available from RMRG.

Methods.—A retrospective analysis was performed on data available from RMRG for 2002 to 2008. Data points collected include number of calls, types of calls, location of calls, victim activity, rescue techniques used, and volunteer hours required. Data were analyzed using descriptive statistics and linear regression models.

Results.—Injuries related to hiking and climbing activities were the most common activities requiring a search and rescue response. The types of activities associated with a response did not change significantly over time. The number of calls, types of calls, location of calls, and types of required rescue did not change significantly over the study period. Limited medical data were available for collection.

Conclusions.—The prevalence and nature of calls to RMRG did not change over time. These data are valuable for assessing volunteer training program requirements, and for assessing necessary evacuation and medical equipment needs for the near future. Improving medical data collection may be beneficial to better plan for future medical emergencies.

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A Blinded, Randomized, Palatability Study Comparing Variations of Two Popular Field Water Disinfection Tablets

Introduction.—Field water disinfection tablets that rely on halogens, such as iodine and chlorine, are effective but often render an unpleasant taste to disinfected water. Safe additives such as ascorbic acid have been proposed as means of reducing this objectionable taste.

Objectives.—We compared the palatability of two popular commercially available field water disinfectants: iodine based tetraglycine hydropyridide (TGHP) and chlorine based chlorine dioxide (CD) both with and without the concomitant use of an ascorbic acid taste neutralizer.

Methods.—Participants blindly and randomly sampled 5 different distilled water based samples containing combinations of disinfectant tablets and ascorbic acid: (1) water, (2) water

with TGHP, (3) water with CD, (4) water with TGHP plus ascorbic acid, and (5) water with CD plus ascorbic acid. Participants rated the taste of the beverage using a previously validated 100-mm visual analogue scale (VAS) and ranked the samples from “most pleasant” to the “least pleasant.”

Results.—Sixty participants evaluated the samples. On the VAS, water with TGHP measured as the worst tasting. Water with CD was the second worst tasting overall. Water with TGHP plus ascorbic acid, water alone, and water with CD plus ascorbic acid all measured similarly as being significantly best tasting. Water with TGHP was ranked by 58% of participants as “least pleasant” tasting, while water with TGHP and ascorbic acid was ranked by 40% of participants as the “most pleasant” tasting.

Conclusions.—Participants in our study found halogenated water to be significantly less palatable than halogenated water with ascorbic acid taste neutralizer. Addition of ascorbic acid to treated water created a beverage of similar preference to plain distilled water. Familiarity with these results may increase compliance of the proper field use of disinfecting tablets by better anticipating an individual’s taste preference of drinking water that has been made potable via halogenation.

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Effects of Long Distance Bicycle Touring on Body Physiology, Physical Performance, and Body Composition

Introduction.—Multiday physical exertion with limited recuperation can result in an overtraining syndrome. Few studies have examined the performance and physiological adaptations that occur during bicycle touring.

Objective.—We sought to characterize potential physiological changes in young bicycle tourists.

Methods.—Three fit, healthy, cyclists, aged 23, 25, and 27 years, completed an unsupported, 4506-km bicycle tour through the United States and Canadian Rocky Mountains averaging 112 km/day for 40 days. During the tour, average power output and heart rate were measured weekly using field performance tests. Daily physiological measures included blood pressure, morning heart rate, fasting blood sugar, and salivary cortisol. Peak power (W_{peak}), VO_{2max} , maximum heart rate, lactate threshold, and body composition were obtained before and after the tour.

Results.— VO_{2max} at baseline was 59.2, 63.9, and 49.2 ml/kg min⁻¹ and increased modestly in all 3 subjects (1.9–6.5 mL/kg min⁻¹) following the tour. W_{peak} increased in 2 subjects and slightly decreased in the 3rd though average power output increased for all 3 subjects. Average heart rate remained stable. Lactate threshold, morning heart rate, and power output did not decrease following the completion of the ride. All 3 subjects lost weight (0.6, 2.3, and 2.4 kg). Two of the subjects finished