The goal of the present study was to characterize the event-level severity and time course of hangover as it occurs naturalistically. Hangover symptoms were studied in a community sample of 402 adult regular drinkers (mean age=23.5, 50% female, 85% White). Participants carried palm-top computers for 21 days. They completed questionnaires upon waking, after drinking alcoholic beverages, smoking cigarettes, and randomly five times daily. Participants recorded 8,508 days of data. Each morning participants reported whether they were experiencing hangover. Reports of hangover were associated with increased sluggishness, headache, and nausea compared to post-drinking and post-abstinence days, and these effects persisted from 6:00 a.m. to midnight. Increased reports of dizziness were related to hangover, which persisted from 6:00 a.m. through 9:00 p.m. Hangover was also related to decreased enthusiasm and excitement compared to post-drinking days, these effects persisted until 3:00 p.m. As a whole, the findings suggest that hangover is a common consequence of heavy drinking that persists throughout the day after overindulgence. Results also demonstrate the utility of studying hangover using electronic diary designs.