This double-blind, controlled clinical trial assessed the anxiety relief provided by oral triazolam given before intravenous sedation. Twenty-two healthy adults undergoing third-molar surgery with intravenous sedation were enrolled in this study. Subjects were randomly assigned to receive either 0.25 mg of triazolam p.o. or an identically appearing placebo 45 to 60 min before venipuncture. Immediately before test drug administration, subjects completed the Corah Anxiety Scale, a Visual Analog Scale (VAS) assessing state anxiety, and the Interval Scale of Anxiety Response (ISAR). The VAS and ISAR were repeated immediately before venipuncture. Intravenous sedation medications consisted of fentanyl, midazolam, and methohexital. At 24 hr, assessments of the venipuncture and global experience were obtained. Results indicated that the characteristics of the triazolam and placebo patients were similar at baseline. With triazolam pretreatment, both the VAS and ISAR scores decreased significantly. Dose requirements for conscious sedation medications were decreased in the triazolam group. Patients rated the venipuncture experience significantly less unpleasant when pretreated with triazolam, and global ratings of the overall surgical experience favored triazolam. An oral-intravenous combination sedation technique using 0.25 mg of triazolam may have a significant therapeutic advantage for outpatient oral surgery.