Video 1 shows genioglossus motion during inspiration for four subjects in different AHI categories. **Subject 1:** AHI < 5. Beginning of inspiration. **Subject 2:** AHI 5-15. Beginning of inspiration. **Subject 3:** AHI 30-50. Beginning of inspiration. **Subject 4:** AHI > 50. Beginning of inspiration. Video 2 shows genioglossus motion during the entire respiratory cycle, for a subject with AHI < 5. Video 3 shows genioglossus motion during the entire respiratory cycle, for a subject with AHI > 50.