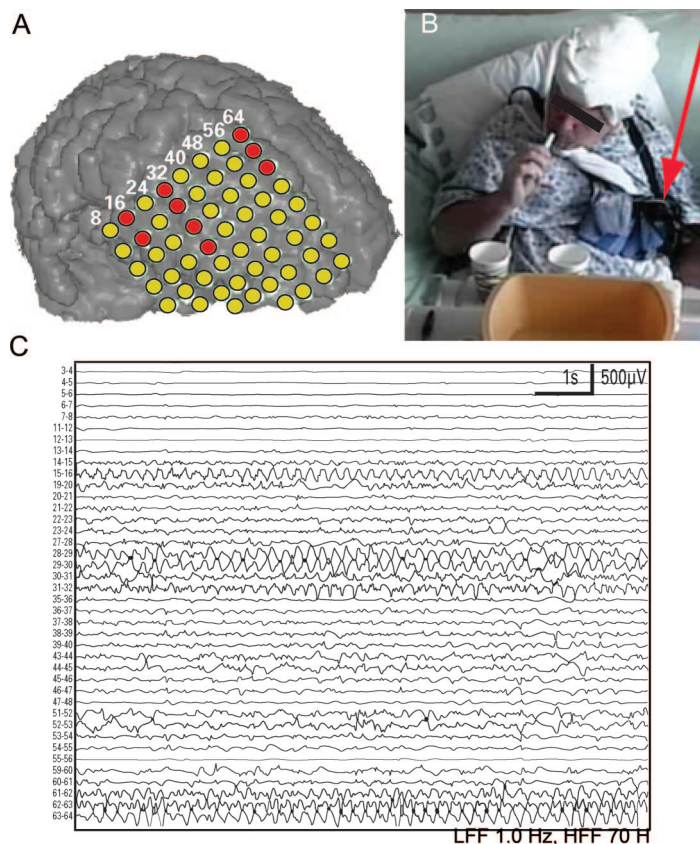


Toothbrushing EEG artifact recorded from chronically implanted subdural electrodes



Figure Artifact arising from electrode-jackbox connections generated from toothbrushing during intracranial EEG



(A) Three-dimensional MRI of a right frontotemporal subdural grid. Red, affected electrodes. Note: The grid has 64 electrodes. Not all electrodes are shown. (B) Patient brushing his teeth causing movement of jackbox (arrow) disproportionately affecting posterior rows of electrode inputs. (C) Nonevolving, rhythmic, ~5 Hz artifact induced by jackbox-electrode movement.

A 45-year-old man had epilepsy beginning at 13 years after herpes simplex virus encephalitis and subsequent right frontotemporal encephalomalacia. Intracranial EEG recording were performed. Rhythmic EEG artifacts, often seen on scalp EEG, can still occur during intracranial recordings from the connections linking the patient to the machine. A software-detected “seizure” revealed activity in the posterior portions of a subdural grid (figure, A, red) that corresponded to toothbrushing (figure, B; video on the *Neurology*[®] Web site at www.neurology.org), but did not evolve spatially or temporally (figure, C). The source was current induced by the movement of electrodes plugged into the posterior rows of the 2 32-input jackbox/amplifiers worn suspended in a pouch about the patient’s chest.

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