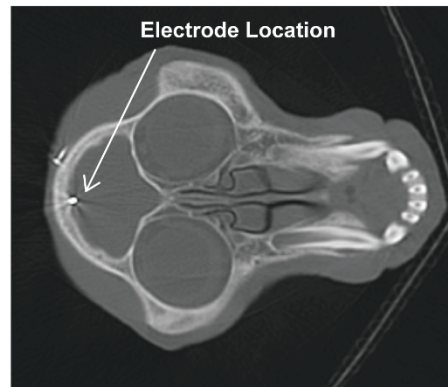
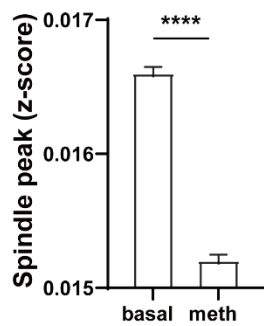


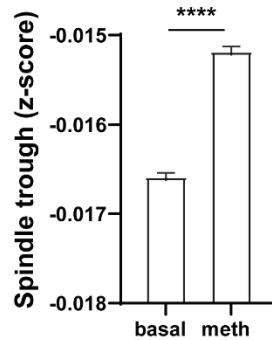
A



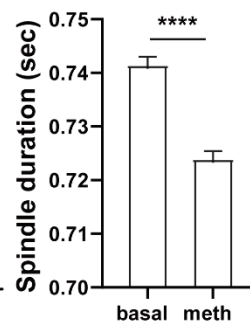
B



C



D



E

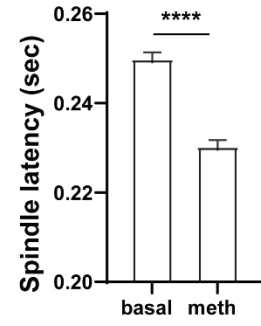


Fig. S1 AME attenuating sleep spindles waveform features.

(A) The electrode location displayed in the computed tomography (CT) scan are located on the forehead and are used to record electroencephalogram (EEG) data during sleep.

(B) Comparison of the peak amplitude of sleep spindles during non-rapid-eye-movement (NREM) at baseline and acute methamphetamine exposure (AME) periods (unpaired *t*-test, $n=30\,144$ in basal versus $n=28\,904$ in meth, $P<0.0001$).

(C) Comparison of the trough amplitude of sleep spindles during NREM at baseline and AME periods (unpaired *t*-test, $n=30\,144$ in basal versus $n=28\,904$ in meth, $P<0.0001$).

(D) Comparison of the duration of sleep spindles during NREM at baseline and AME periods (unpaired *t*-test, $n=30\,144$ in basal versus $n=28\,904$ in meth, $P<0.0001$).

(E) Comparison of the latency of sleep spindles during NREM at baseline and AME periods (unpaired *t*-test, $n=30\,144$ in basal versus $n=28\,904$ in meth, $P<0.0001$).

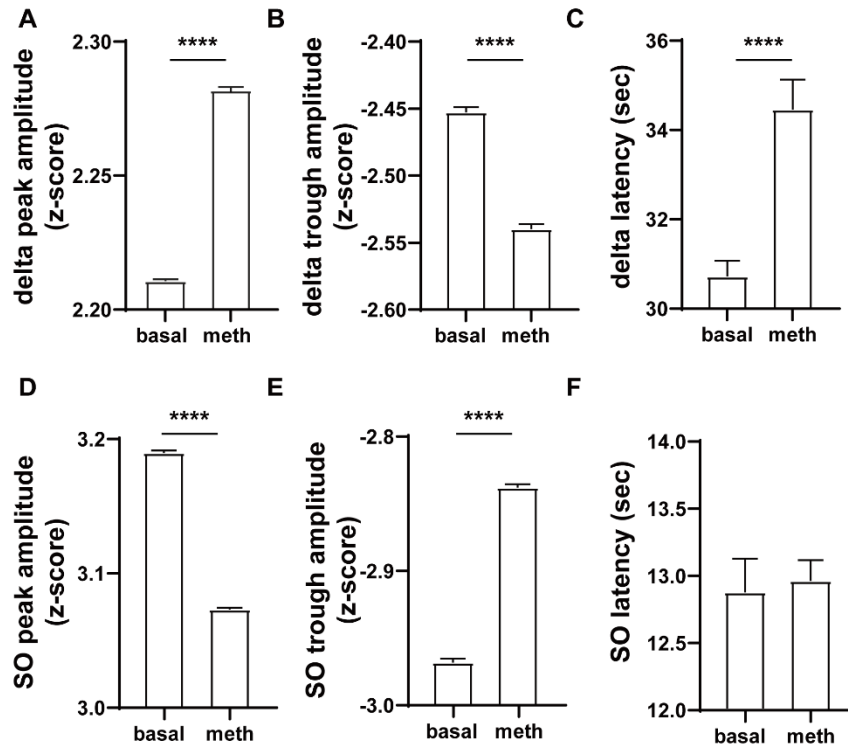


Fig. S2 AME attenuating delta oscillations and slow oscillations (SOs) waveform features.

(A) Comparison of the peak amplitude of delta oscillations during non-rapid-eye-movement (NREM) at baseline and acute methamphetamine exposure (AME) periods (unpaired *t*-test, $n=39\,300$ in basal versus $n=50\,043$ in meth, $P<0.0001$).

(B) Comparison of the trough amplitude of delta oscillations during NREM at baseline and AME periods (unpaired *t*-test, $n=39\,300$ in basal versus $n=50\,043$ in meth, $P<0.0001$).

(C) Comparison of the latency of delta oscillations during NREM at baseline and AME periods (unpaired *t*-test, $n=39\,300$ in basal versus $n=50\,043$ in meth, $P<0.0001$).

(D) Comparison of the peak amplitude of slow oscillations (SOs) during NREM at baseline and AME periods (unpaired *t*-test, $n=93\,204$ in basal versus $n=134\,091$ in meth, $P<0.0001$).

(E) Comparison of the trough amplitude of slow oscillations during NREM at baseline and AME periods (unpaired *t*-test, $n=93\,204$ in basal versus $n=134\,091$ in meth, $P<0.0001$).

(F) Comparison of the latency of slow oscillations during NREM at baseline and AME periods (unpaired *t*-test, $n=93\,204$ in basal versus $n=134\,091$ in meth, $P<0.0001$).