



## 5 Occipital alpha peak

The occipital alpha frequency is the frequency at which oscillations in the alpha range (8 - 12 Hz) in the occipital regions present their maximum power. This feature shows the percentiles of peak amplitude and frequency compared with the normative EEG database in occipital regions. Alpha frequency may vary markedly to a large extent as a function of age, neurological disease status, memory performance, cognitive processing, and other factors (T179).

### Clinical significance

- Resting state alpha rhythms show decreased amplitude in both Alzheimer's disease and mild cognitive disorder, compared with normal elderly subjects (T148)(T149)(T150)(T151)(T152)(T153)(T154)(T155).
- Decreased alpha frequency is known to reflect neurological diseases such as dementia, Alzheimer's disease, brain injuries, and age-related cognitive performances (T157)(T158)(T159)
- Occipital alpha peak frequency is decreased in autism spectrum disorder (ASD) and