Age-related changes of temporal coding representations in the peripheral and central auditory systems Edward L. Bartlett

Representations of temporal modulation are critical for sound recognition, including recognition in background noise and sound segregation. Aging affects temporal coding in complex ways because changes in the cochlea and inner hair cell-auditory nerve synapses can lead to compensatory changes in more central auditory regions. Here I will discuss some of these age-related alterations that can be observed through scalp recordings of auditory evoked potentials, their relationships to age-related alterations in inferior colliculus activities, how these are related to temporal discrimination, and preliminary results regarding training-based improvements.