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**The role of consonant duration and amplitude processing on
speech intelligibility in noise**

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The effects of hearing loss on speech intelligibility have led researchers to search for methods to ameliorate these effects. Clear speech has been studied extensively to determine the specific acoustic and phonetic differences between speech spoken in a conversational versus a clear-speech mode. Two characteristics of clear speech, increased consonant duration and selective-consonant amplification were investigated. These components were applied individually to Hearing-in-Noise Test sentences and consonant-vowel (CV) pairs. Stimuli were presented in sound field to hearing-impaired and normal-hearing individuals in the presence of speech-shaped noise. Percent correct was measured for HINT sentences and confusion matrices were developed for the CV pair intelligibility tests. An information transmission analysis was performed. During HINT sentence presentations, subjects benefited most from lengthening the duration of the consonant, maximally in the 30 ms condition, beyond which significant degradation in intelligibility was observed. Consonant specific amplification of 10 dB resulted in improved intelligibility for sentences. These data suggest that the two processing components are viable to improve speech intelligibility and they, however, also suggest that there is a limit to the processing whereby benefits are no longer observed.