

Mute Stem Changes

Certain consonants in Greek are called *mutes* or “stops,” because in forming them the passage of the breath is closed for a moment. The triad of consonants β , π , and ϕ are called “labials” (made with the lips); γ , κ , and χ are called “palatal” (or “guttural”) mutes (made with the soft palate); and δ , τ , and θ are “lingual” or “dental” mutes (made with the teeth).

Mute stem changes occur in the *Future* and the *1st Aorist Active* and *Middle* voices as the verb stem, ending in one of the “mute” consonants listed above, comes into contact with the Greek “ σ .” Also, in the *1st Aorist* and *Future Passive* voices, there is a mute stem change, as the verb stem’s consonant collides with “ θ .”

In the *Perfect Active* voice, “mute” consonants encounter the tense sign “ κ ,” and the labials and gutturals each “swallow” up the “ κ ” using their roughest mute letters, “ ϕ ” and “ χ ,” respectively. Meanwhile, dental consonants simply give way to the “ κ .”

Finally, the *Perfect Middle* principal part (stem), off of which the Perfect and Pluperfect Middle and Passive forms are formed, finds labial mutes changing to “ μ ” before endings beginning with “ μ ” (hence a doubled “ $\mu\mu$ ”); gutturals all change to the softest “ γ ” before the “ μ ” (hence “ $\gamma\mu$ ”), and dentals all become “ σ ” (hence “ $\sigma\mu$ ”). Before the “ τ ” of the endings, the Perfect and Pluperfect Middle and Passive voices change to “ π ” (labials), “ κ ” (gutturals) and “ σ ” (dentals).

MUTE STEM CHANGES PARADIGM							
VERB STEM ENDS:		TENSE SIGN SUFFIX/VERB ENDING CONSONANT					
		+	- σ -	- θ -	- κ -	- μ -	- τ -
(Labials)	β -, π -, ϕ -		- ψ -	- $\phi\theta$ -	- ϕ -	- $\mu\mu$ -	- $\pi\tau$ -
(Gutturals) ($\sigma\sigma$)	γ -, κ -, χ -		- ξ -	- $\chi\theta$ -	- χ -	- $\gamma\mu$ -	- $\kappa\tau$ -
(Dentals)*	(ζ) δ- , τ- , θ-		- σ -	- $\sigma\theta$ -	- κ -	- $\sigma\mu$ -	- $\sigma\tau$ -

*NOTE: The “dental” stem consonants fall away when coming into contact with other consonants, either from the addition of the tense sign consonant or the initial consonant from the added ending.