# Tune Less, Play More

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The purpose of this experiment was to discover whether coated acoustic guitar strings have less change in note frequency, compared to uncoated acoustic guitar strings, allowing guitar players to tune less and play more. Four common brands of acoustic guitar strings were tested. The coated group included String Type A and String Type B. The uncoated group included String Type C and String Type D. All six strings, E, A, D, G, B and e, were analyzed during the seven day test period which consisted of play and idle time and was repeated for each of the four string types. The frequency of the note, measured in Hertz, was determined by means of a Fast Fourier Transform technique, performed by a spectrum analysis program. The data from the coated string group showed less change from the original note frequency compared to the uncoated string group. The data also showed that in the coated string group, changes of approximately 1 to 4 Hertz occurred, while data from the uncoated string group showed changes of 0 to 5 Hertz. Data also showed that one coated string brand, String Type A, had remarkably less change in frequency of only 1 to 3 Hertz. Over the short testing period, the data supported that overall, the coated string group had the least amount of decrease in Hertz from the original frequency in four out of the six strings in each string set.