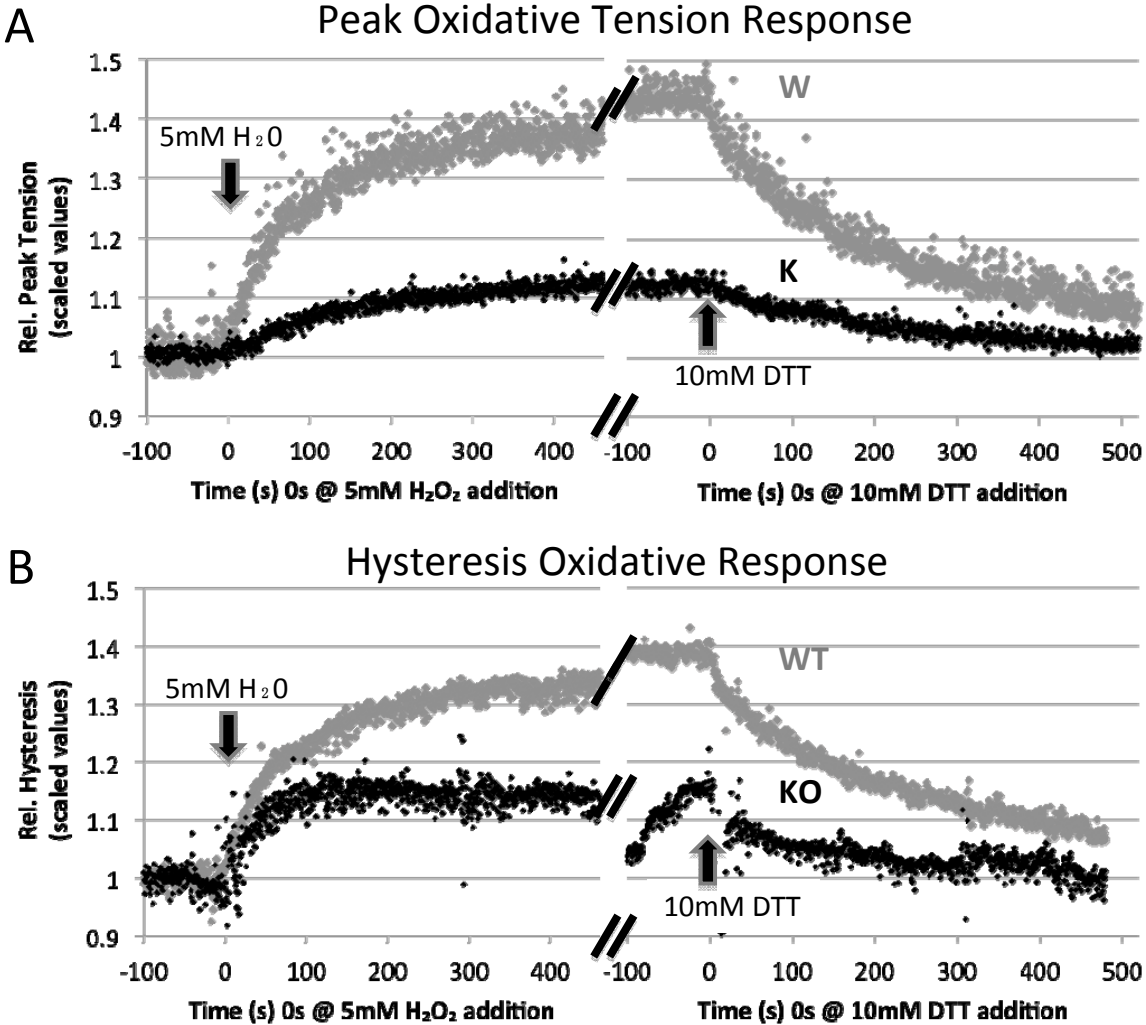


Mechanics on myocardium deficient in the N2B region of titin: the cardiac-unique spring element improves efficiency of the cardiac cycle.

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Supplemental Figure. Effect of oxidation on passive tension and hysteresis. Oxidative stress response while using a physiological cyclical loading pattern. When the tissue had been stretch-released by >400 cycles (i.e., was fully preconditioned), 5mM hydrogen peroxide was added at the first arrow, at which time disulfide bonds can start to form. After maximal crosslinking had occurred the hydrogen peroxide was first washed out with DTT-free relaxing solution and after that relaxing solution was added that contained 10mM DTT (second arrow), reversing the oxidative response. A) Example curve of peak tension in response to oxidation. B) Example curve of hysteresis in response to oxidation. In KO tissue the increase in passive tension and hysteresis was significantly smaller as compared to WT. All values are reported relative to the steady state values after 20 min of stretching.