Supplementary Figures

Online supplementary Figure S1

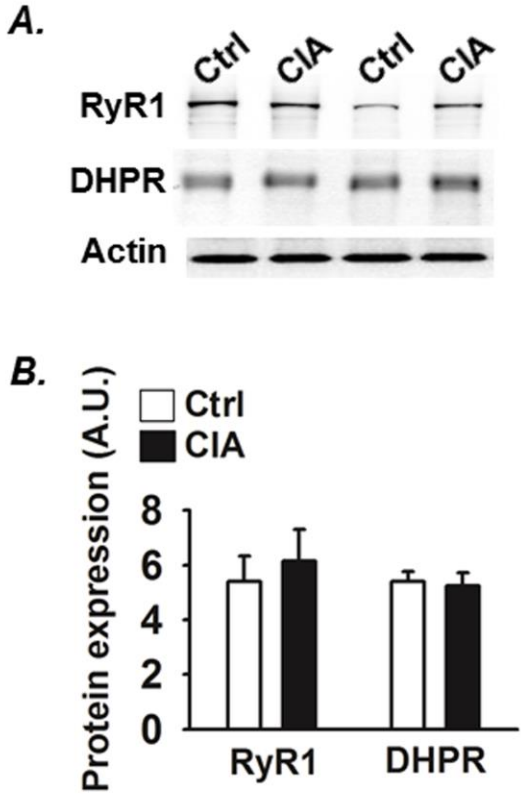

Figure S1. Expression of total RyR1 and DHPR protein in muscles from CIA and control mice. A. Representative Western blot of levels of RyR1 and DHPR in muscles from CIA and control mice. B. Mean levels (± SEM) of RyR1 and DHPR were quantified and normalized to actin content. 5-7 muscles per group.

Online supplementary Figure S2

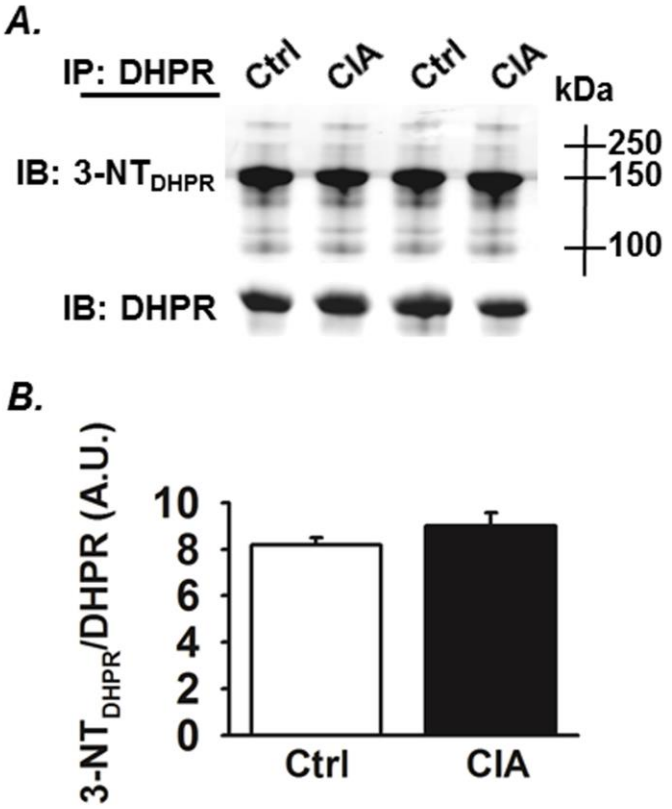

Figure S2. 3-NT modifications on DHPR in muscles from CIA or control mice. A. Representative 3-NT Western blots of DHPR (α2-subunit) immunoprecipitates from muscles of CIA and control mice as indicated. **B.** Mean data (±SEM; proteins larger than ~ 90 kDa were quantified) of 3-NT normalized to DHPR (n=5-6).

The immunoprecipitation started from 300 ug lysate incubated at 4°C overnight with anti-DHPR (α2-subunit) antibody in 300 µl homogenisation buffer (see Method section). The immune complexes were incubated with Dynabeads Protein G (Invitrogen) for 2 h at 4°C, after which the beads were washed three times with 100 mM Na-acetate solution (pH 5.0). Proteins were separated by electrophoresis and immunoblots were performed as described in Method section and quantified relative to DHPR expression.

Online supplementary Figure S3

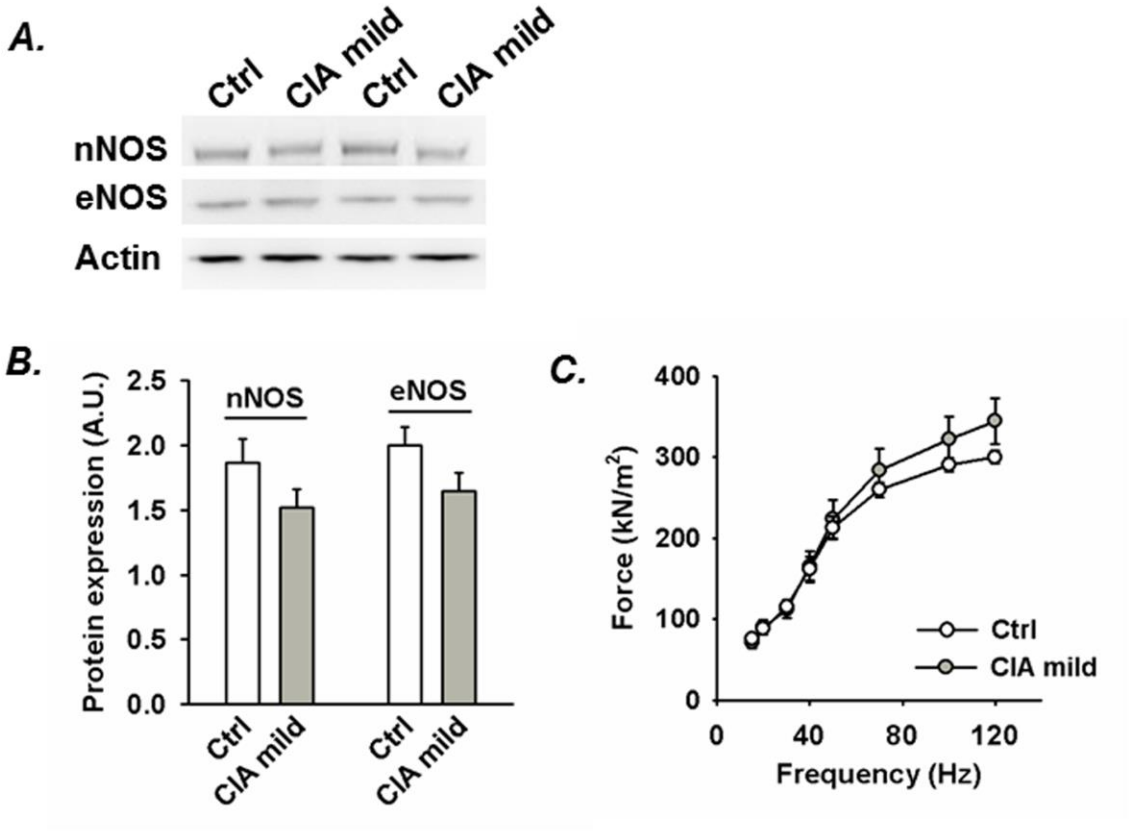

Figure S3. nNOS levels and force production in muscles from mice with mild arthritis do not differ from healthy controls. A. Representative Western blots of nNOS and eNOS in mouse muscles from CIA mice with mild arthritis (CIA mild, score 0-1) and healthy controls. **B.** Mean levels (±SEM) of nNOS and eNOS expression normalized to the actin content (6 muscles per group). **C.** Force per cross-sectional area in fast-twitch muscles from CIA mice with mild arthritis and controls. Data are mean ±SEM (n=6). No difference in force production was observed between groups.

Online supplementary Figure S4

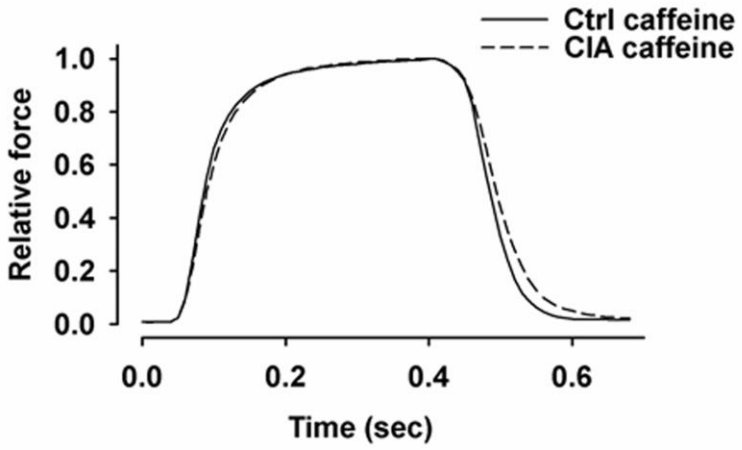

Figure S4. The rates of tetanic activation and relaxation were lower in CIA than in control muscle. Average force records from maximal tetanic contractions (i.e. 120 Hz stimulation in the presence of 5 mM caffeine) in FDB fibers of CIA (dashed line) and control (full line) mice (n=6 in both groups). The maximal force in each contraction was set to 1.0. Fibers of CIA mice showed lower rates of activation (K_{Act}: 21.8±0.8 *vs.* 25.7±0.9 s^{-1}) and relaxation (K_{relax}: 16.2±1.4 *vs.* 22.9±1.3 s^{-1}) than control fibers.

Online supplementary Figure S5

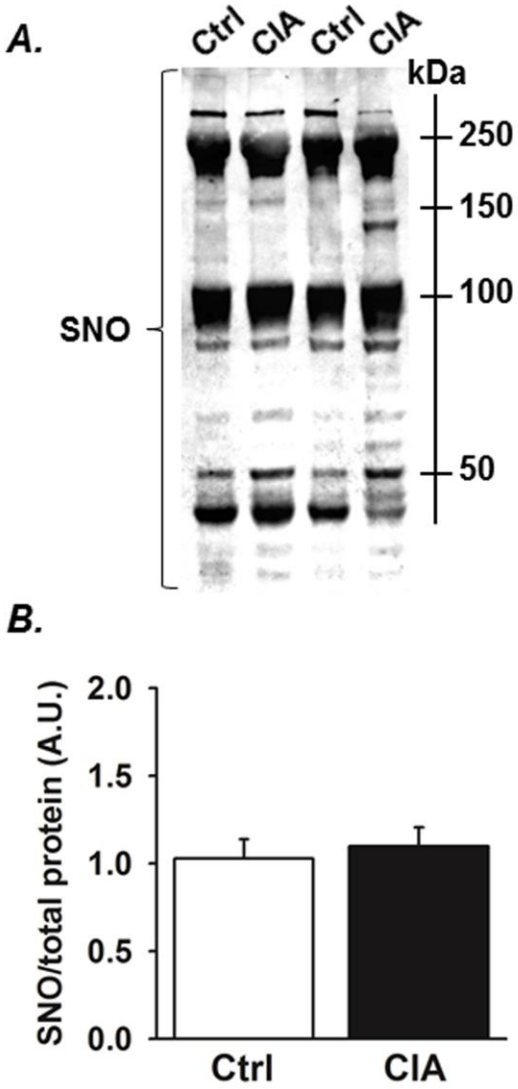

Figure S5. The extent of S-nitrosylation of cysteine residues (SNO) is similar in muscles from CIA and control mice. A. Representative Western blots of SNO modifications on proteins from muscles of CIA and control mice. **B**. Mean levels (± SEM) of SNO quantified and normalized to total protein content. 5-7 muscles per group. Experiments were performed in the absence of reducing agents.