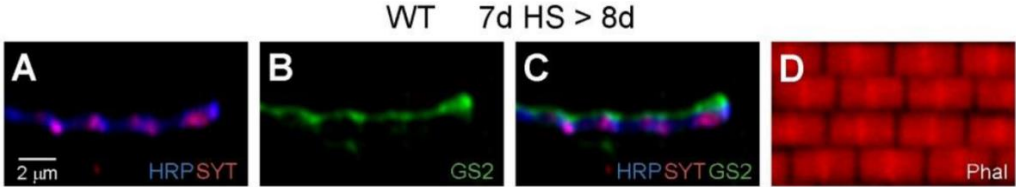
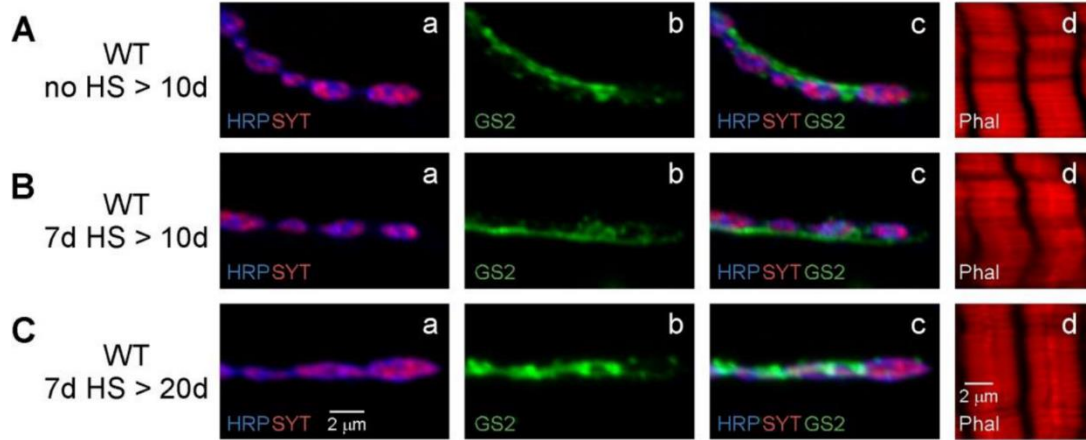
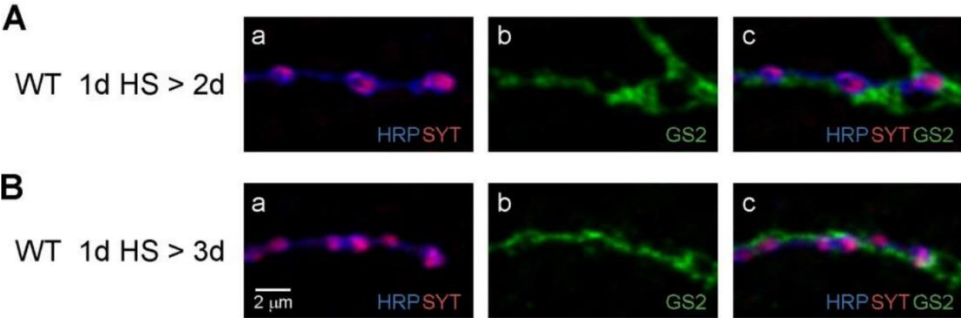


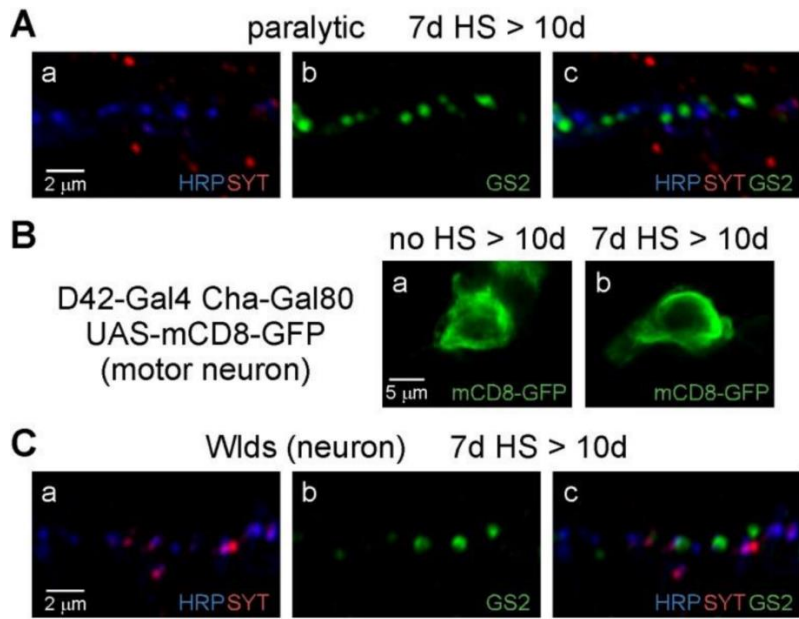
Figure S1. Retention of general motor function after HS as indicated by climbing behavior. Climbing assays were carried out on flies exposed to standard heat shock paradigms for 1d, 4d, or 7d HS. As for flight, climbing was examined two days after the final HS. No significant difference in climbing ability was observed between HS and no HS for 1d HS or 4d HS flies. In contrast, 4dHS produced a severe loss of flight ability (Fig. 1B). A significant decline in climbing ability was observed in 7d HS flies relative to no HS controls (asterisk). These flies were able to climb effectively but required approximately 73% more time to do so. Thus, at least in older flies, the behavioral effects of HS stress are not absolutely restricted to flight. However, flight ability is abolished under the same conditions (Fig. 1D) which, along with retention of general motor behavior and fertility (see also Movie S1), indicates that HS exhibits a high degree of selectivity for flight. The asterisk indicates a significant difference ($p \leq 0.01$) from the no HS control value. The number of experiments (n) for each condition is 10.

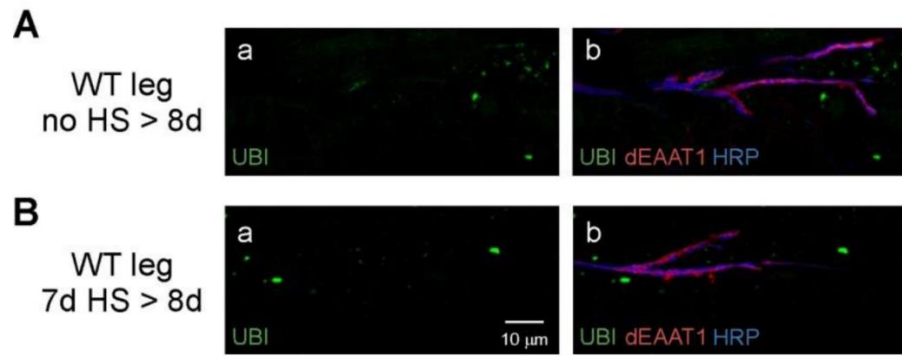


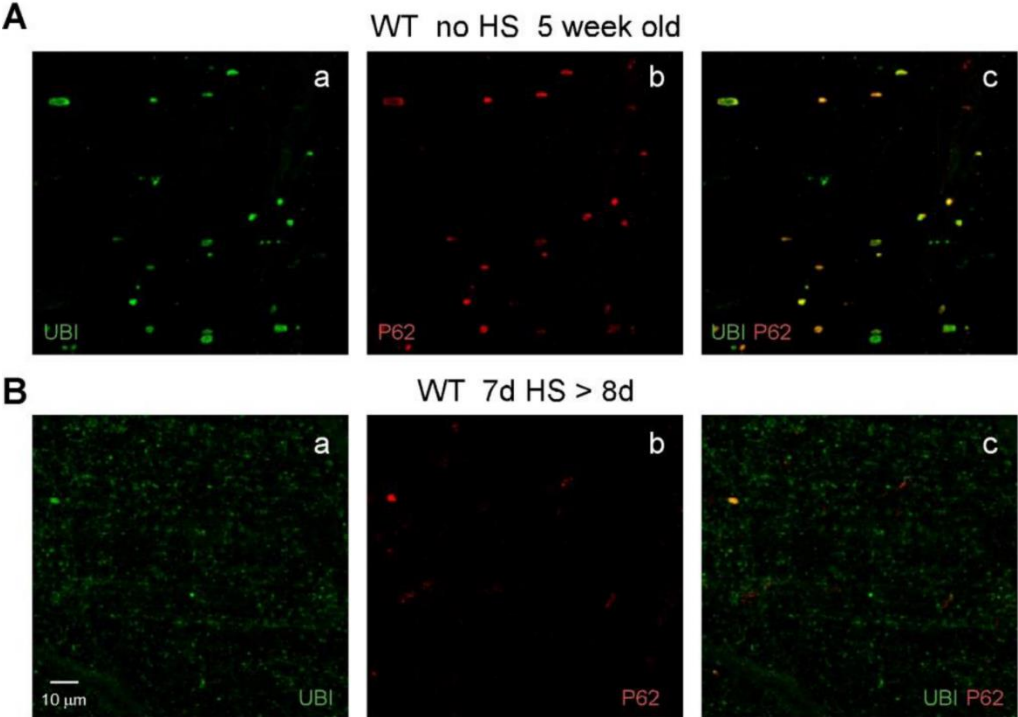
Lack of cell degeneration at leg muscle neuromuscular synapses

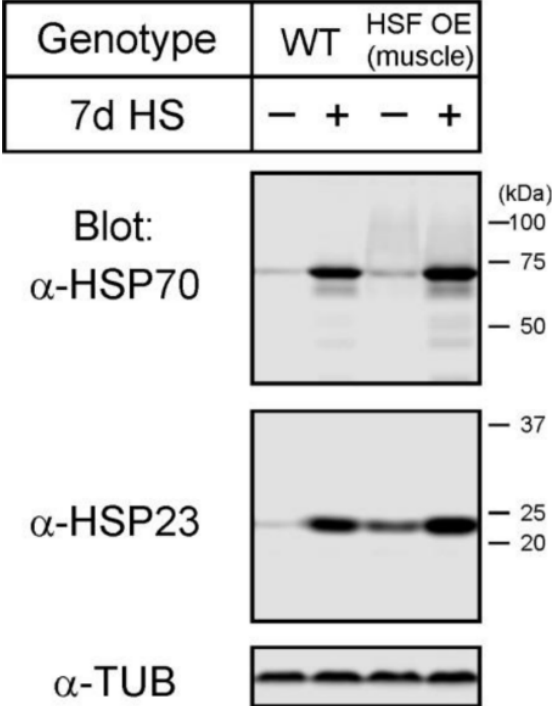


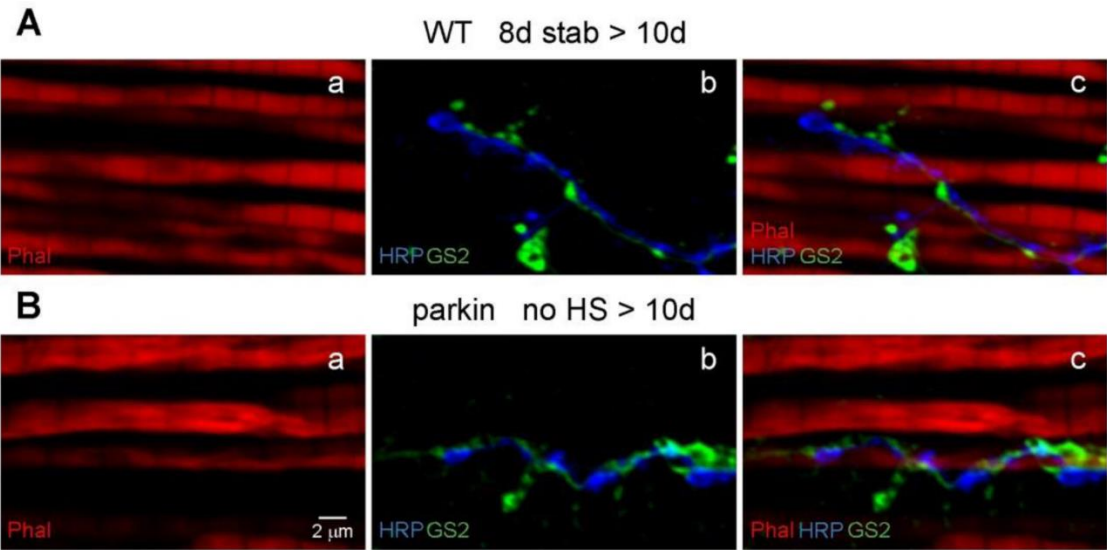


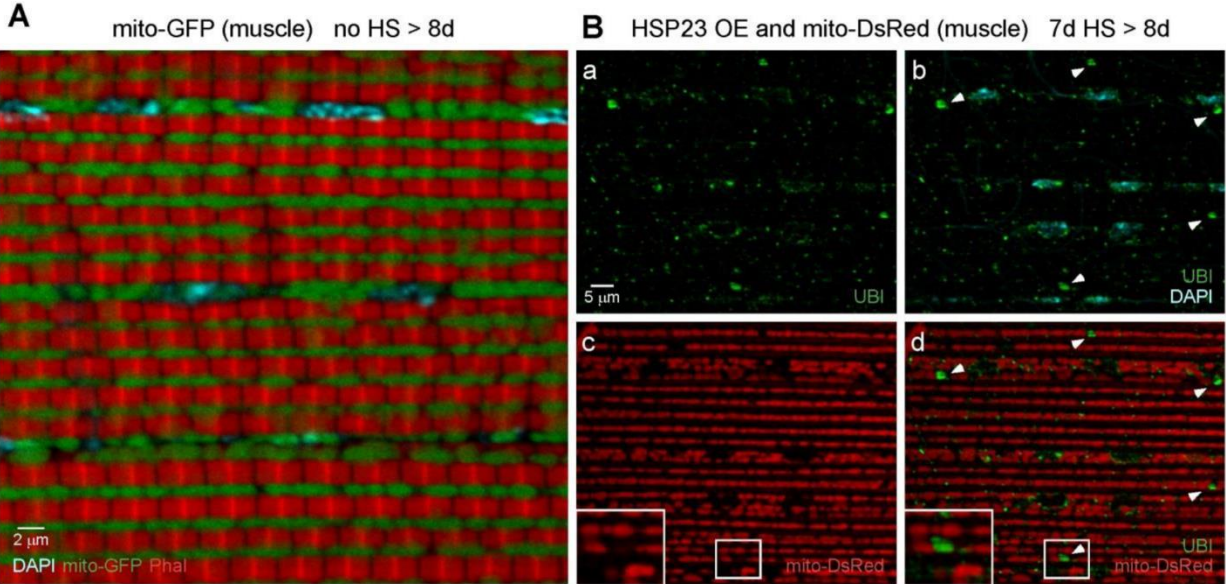


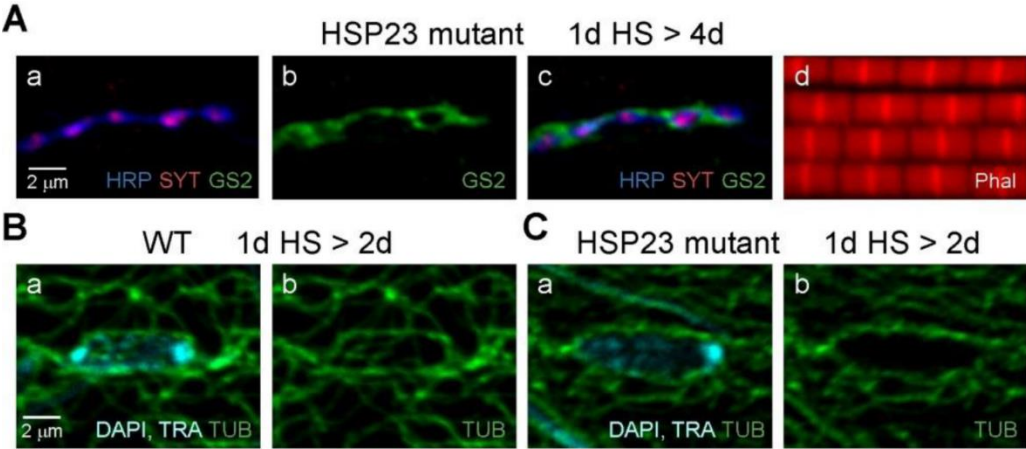


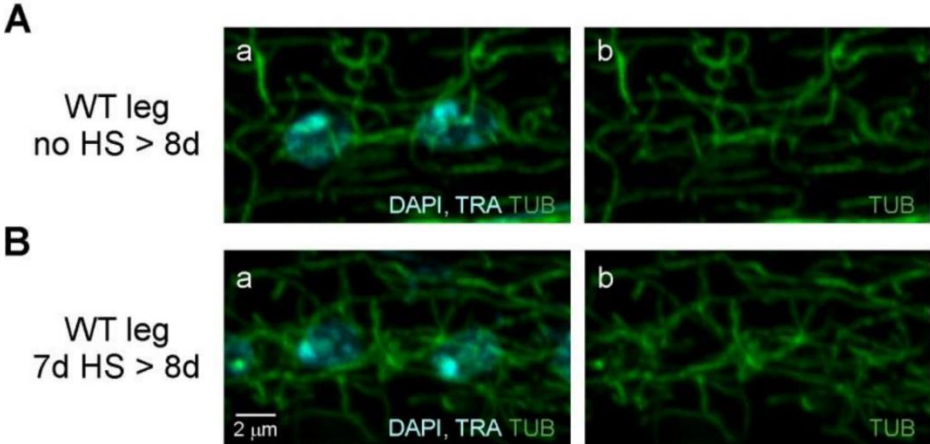














Movie 1. General motor behavior persists in wild-type flies exposed to HS stress.

In this video, the fly initially positioned to the right is a WT fly which has been exposed to a standard HS stress paradigm at 7d old and is being examined at 10d (7d HS > 10d). The fly initially positioned to the left is a WT no HS control (no HS > 10d). Note the slightly downturned wing position in the fly exposed to HS stress. Despite the loss of flight ability, general motor function appears normal after HS stress.