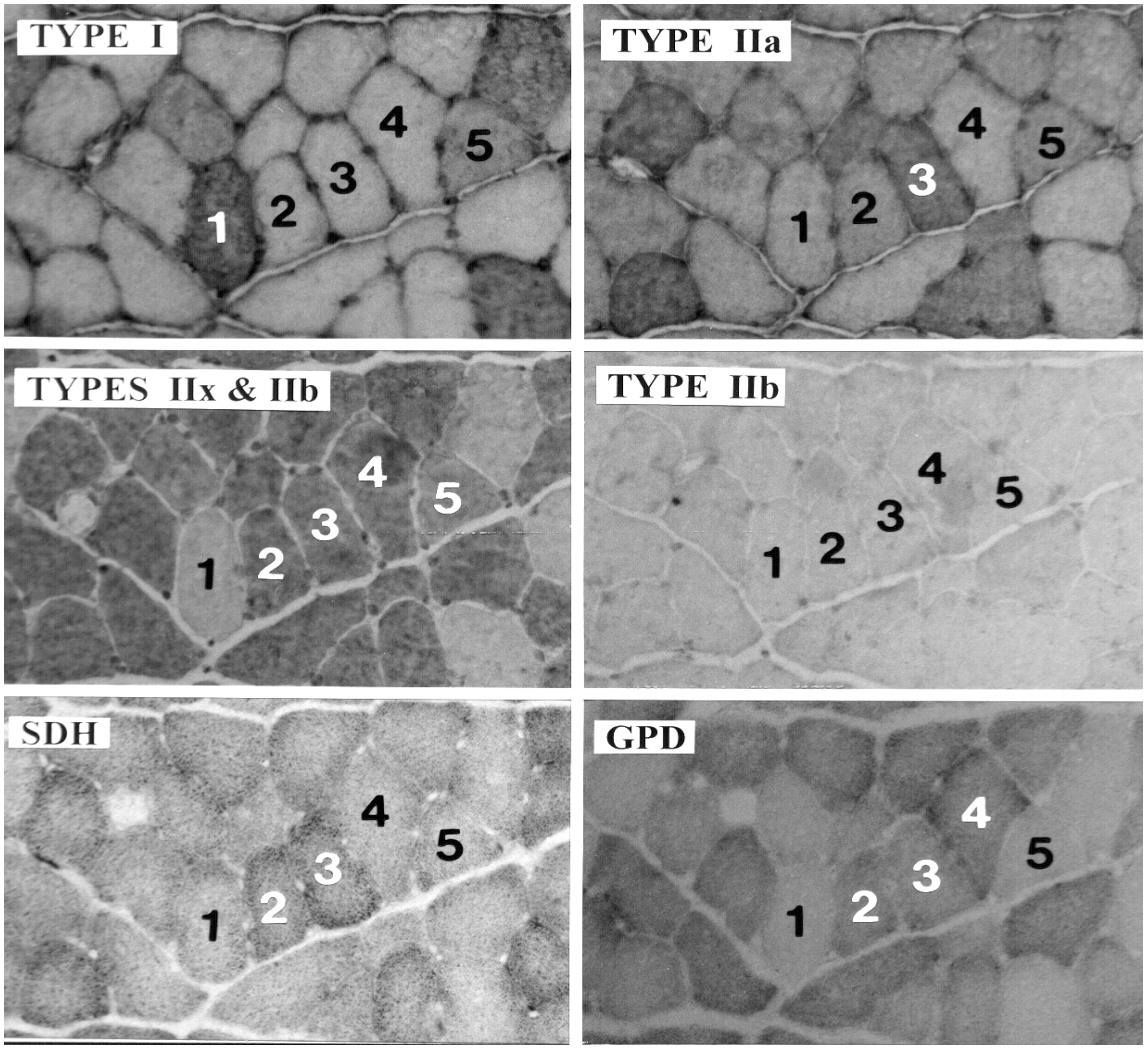


**Figure 1**. Representative muscle sections displaying immunohistochemistry (top four plates) and quantitative histochemistry (bottom two plates). For immunohistochemistry, each plate was incubated in a different primary monoclonal antibody specific for the MHC isoform(s) noted (see table 1 for antibody specificity). Comparing across the staining intensities from the seven primary antibodies and neighboring fibers allowed for final considerations of MHC fiber type, such that, 1 = type I; 2 and 3 = hybrid type IIa+IIx; 4 = type IIx; and 5 = hybrid type I+IIa+IIx. For quantitative histochemistry, specific glycolytic or oxidative capacity was determined by optical density analysis of the gray level of each fiber. Integrated glycolytic or oxidative capacity, a measure of total enzymatic potential, is the product of specific activity and cross-sectional area.

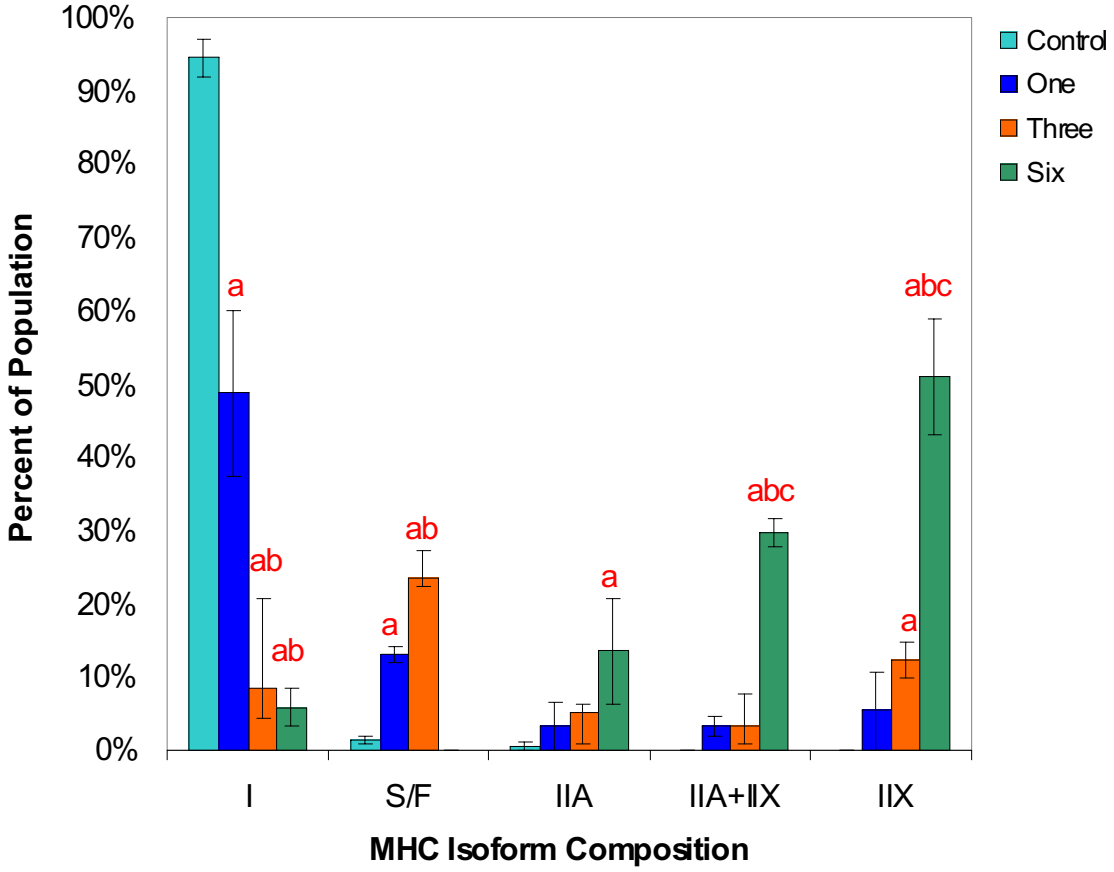


**Figure 2.** The percentage composition of adult MHC isoforms from soleus muscle of control and ST rats as determined by qualitative immunohistochemistry. I, MHC type I; S/F, fibers that co-express both slow and fast MHC; IIA, MHC type IIa; IIA+IIX, fibers that co-express both MHC types IIa and IIx; IIX, MHC type IIx. a, Significantly different from control, $P < 0.05$. b, significantly different from 1 month ST, $P < 0.05$. c, significantly different from 3 months ST, $P < 0.05$.

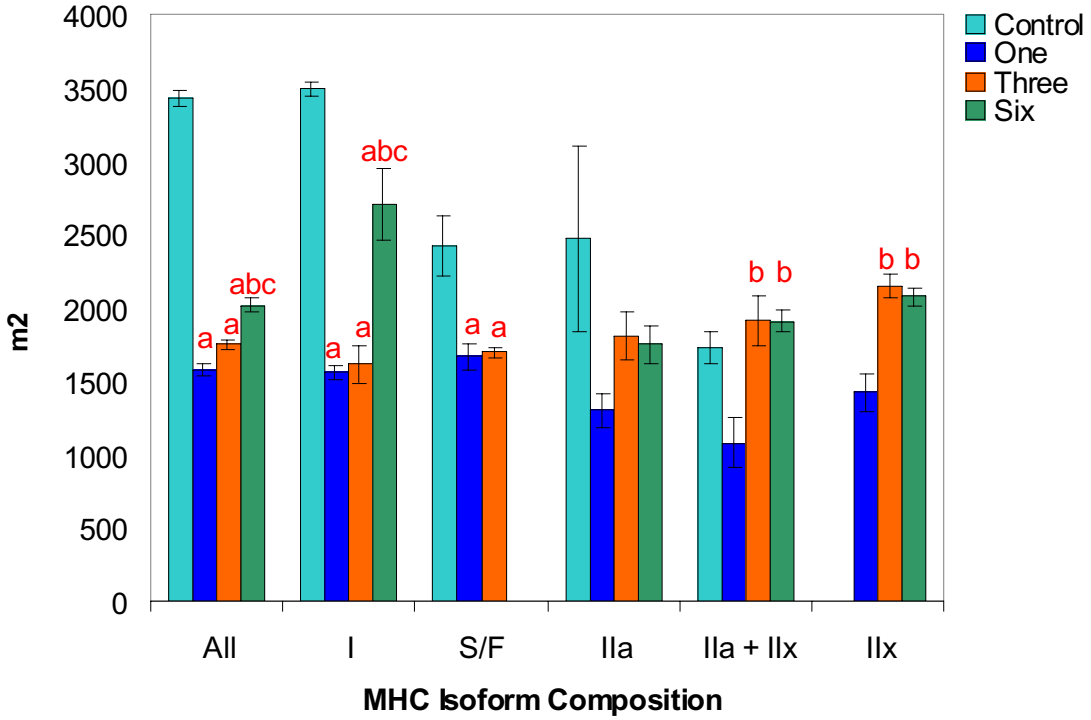


**Figure 3.** Cross-sectional areas (CSA) of soleus muscle fibers from control and ST rats. All, represents all fibers analyzed regardless of MHC isoform composition; S/F, fibers co-expressing both slow and fast MHC. a, Significantly different from control, $P < 0.05$. b, significantly different from 1 month ST, $P < 0.05$. c, significantly different from 3 months ST, $P < 0.05$.

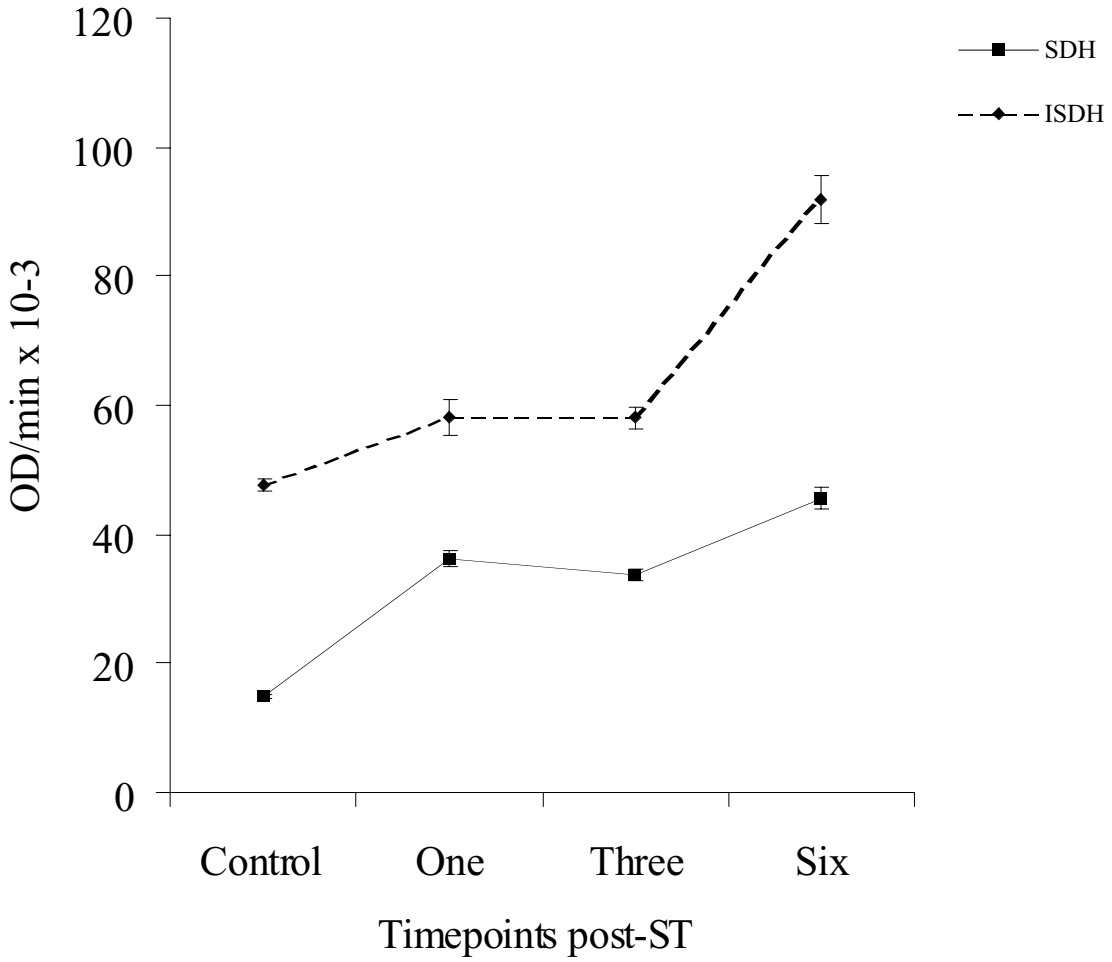


**Figure 4.** SDH and ISDH enzyme activities in all fibers in rat soleus following spinal cord transection. Values are means – SEM. a, Significantly different from controls. b, Significantly different from 1 month post-ST. c, Significantly different from 3 months post-ST. Significance was accepted at $P < 0.05$. Note: in some cases, the standard error bars for the SDH measurements are smaller than the symbol size.

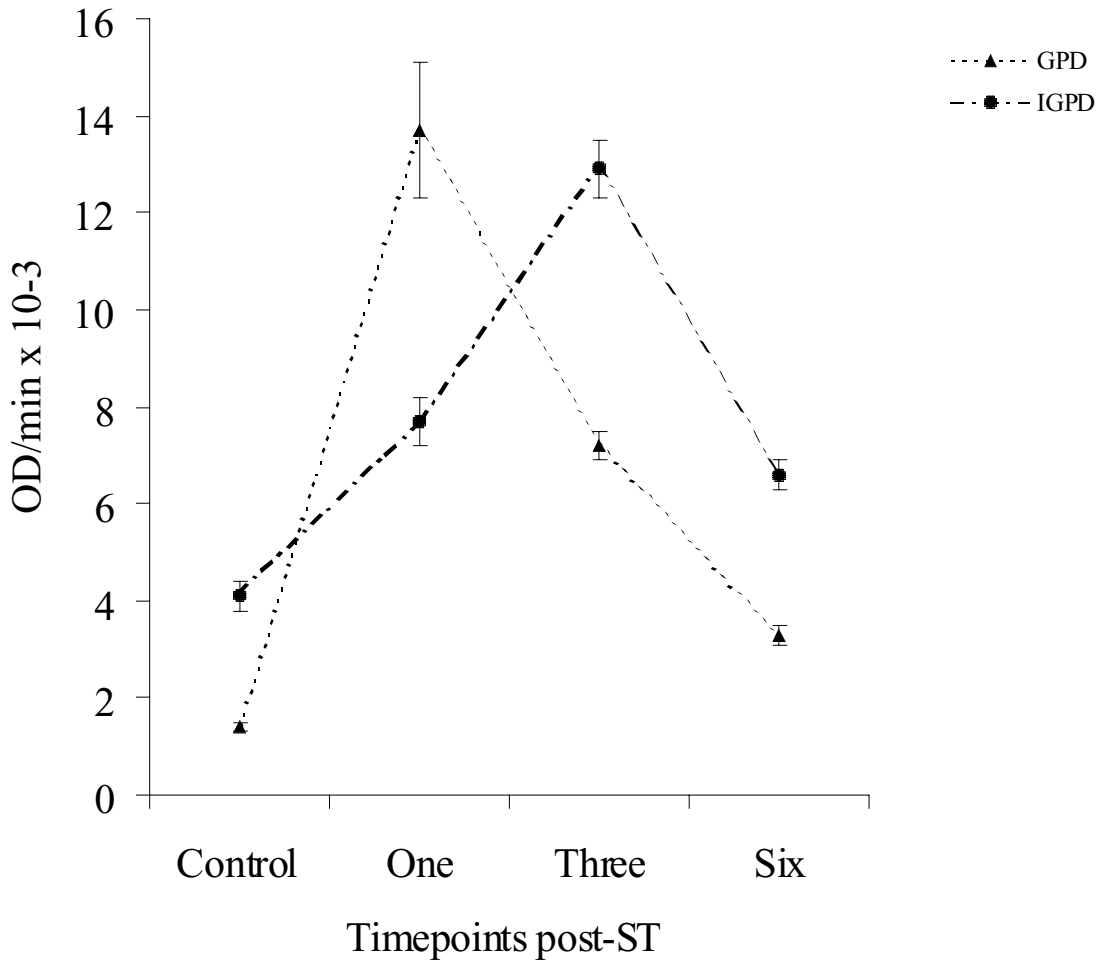


**Figure 5.** GPD and IGPD enzyme activities in all fibers in rat soleus following spinal cord transection. Values are means – SEM. a, Significantly different from controls. b, Significantly different from 1 month post-ST. c, Significantly different from 3 months post-ST. Significance was accepted at $P < 0.05$.

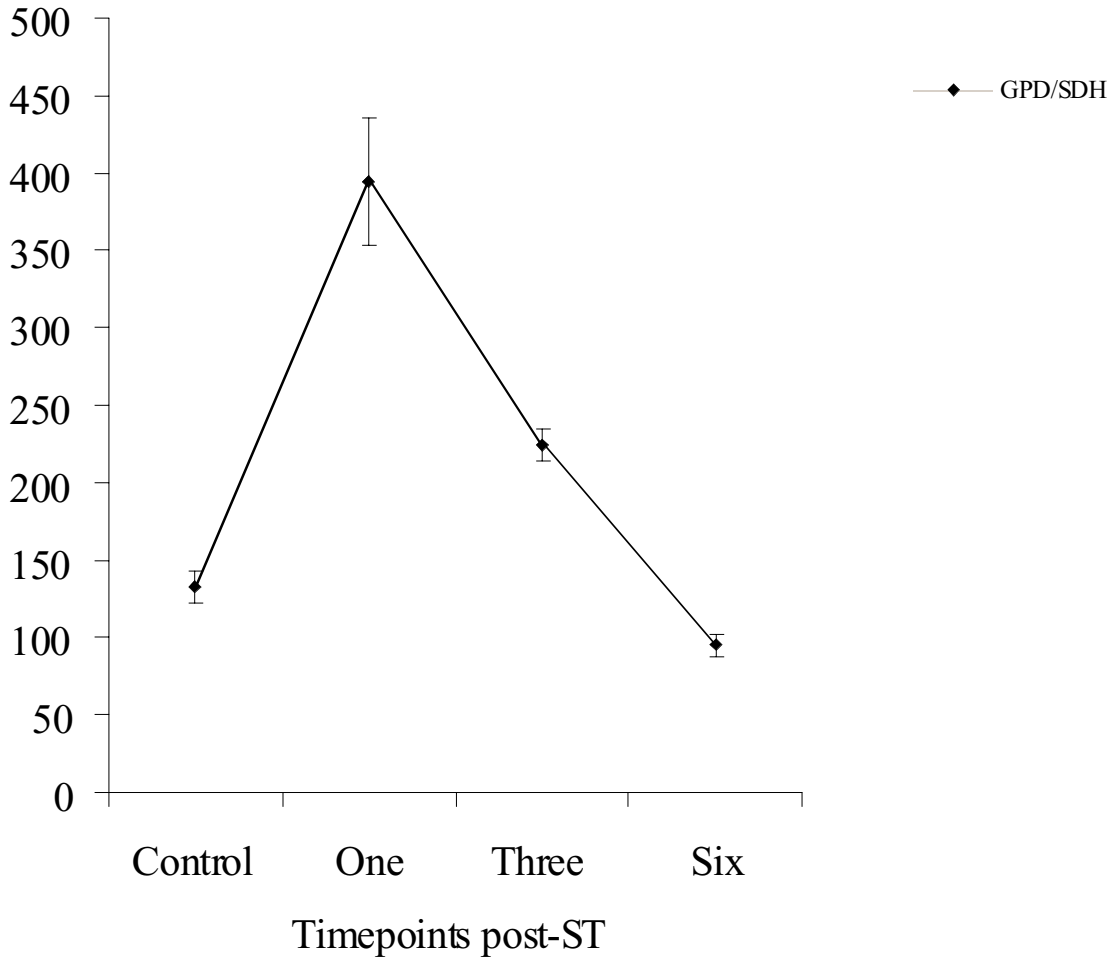


**Figure 6.** GPD/SDH ratio in all fibers in rat soleus following spinal cord transection. Values are means – SEM. a, Significantly different from controls. b, Significantly different from 1 month post-ST. c, Significantly different from 3 months post-ST. Significance was accepted at $P < 0.05$.