

SUPPLEMENTARY FIGURES

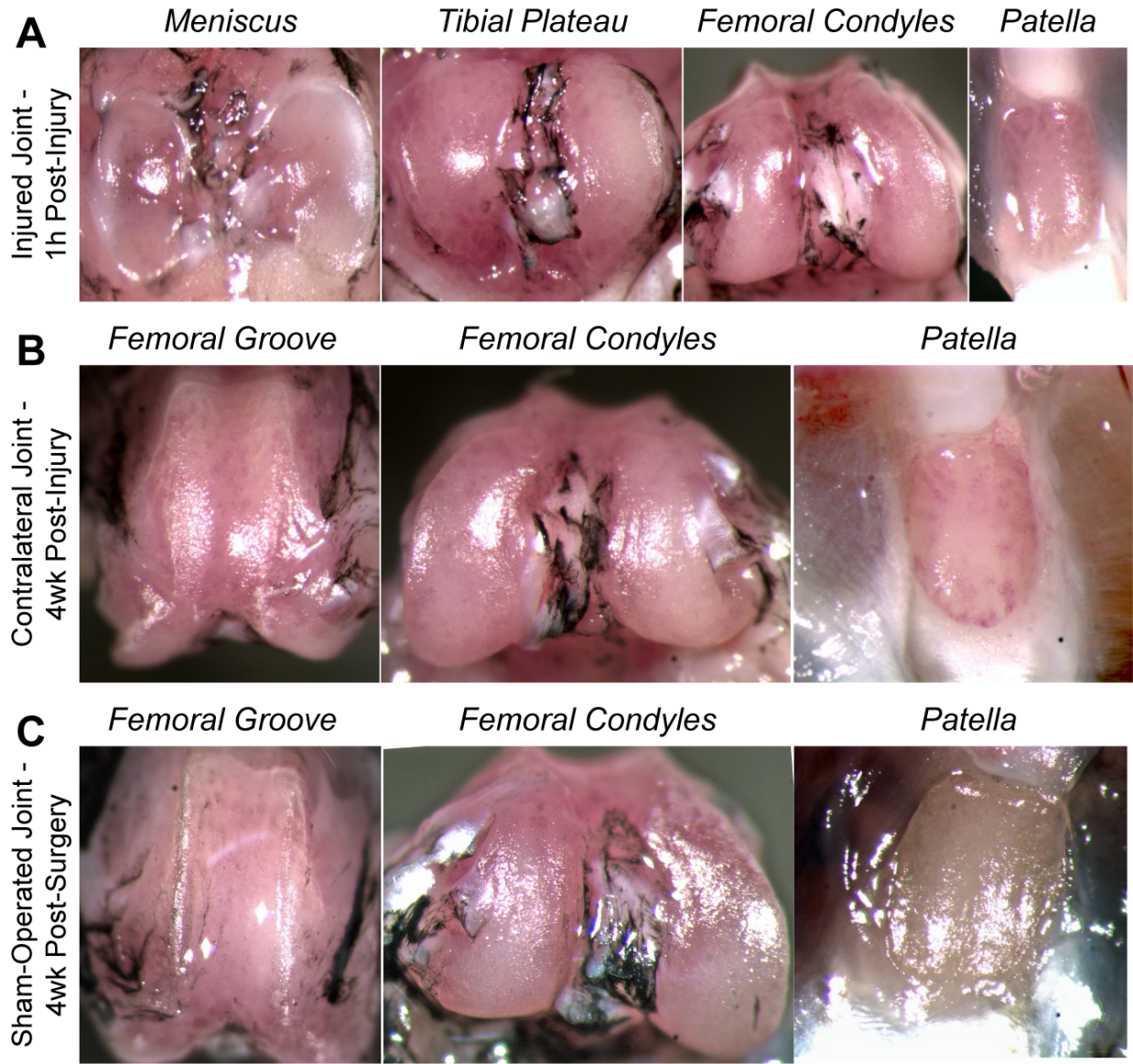


Figure S-1. Macroscopic appearance of joint tissues in the operated joint (A) immediately following femoral groove cartilage injury, (B) in the contralateral joint, and (C) in sham-operated joints after 4 weeks. No changes were observed macroscopically in the contralateral joint. There are slight indications of mild synovitis of the peripatellar synovium in the sham, but no cartilage or bone damage and no perichondrial or periosteal overgrowth is observed.

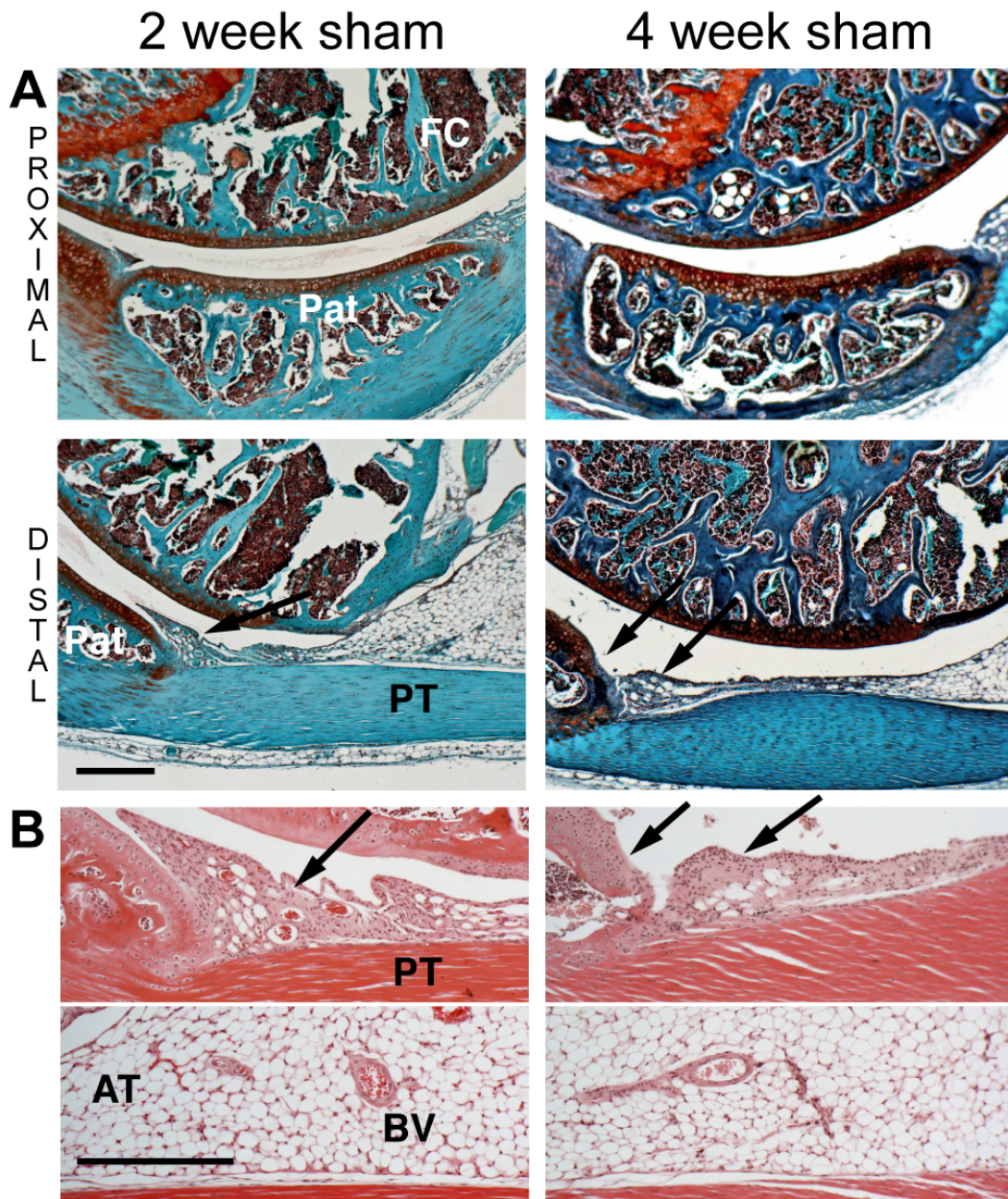
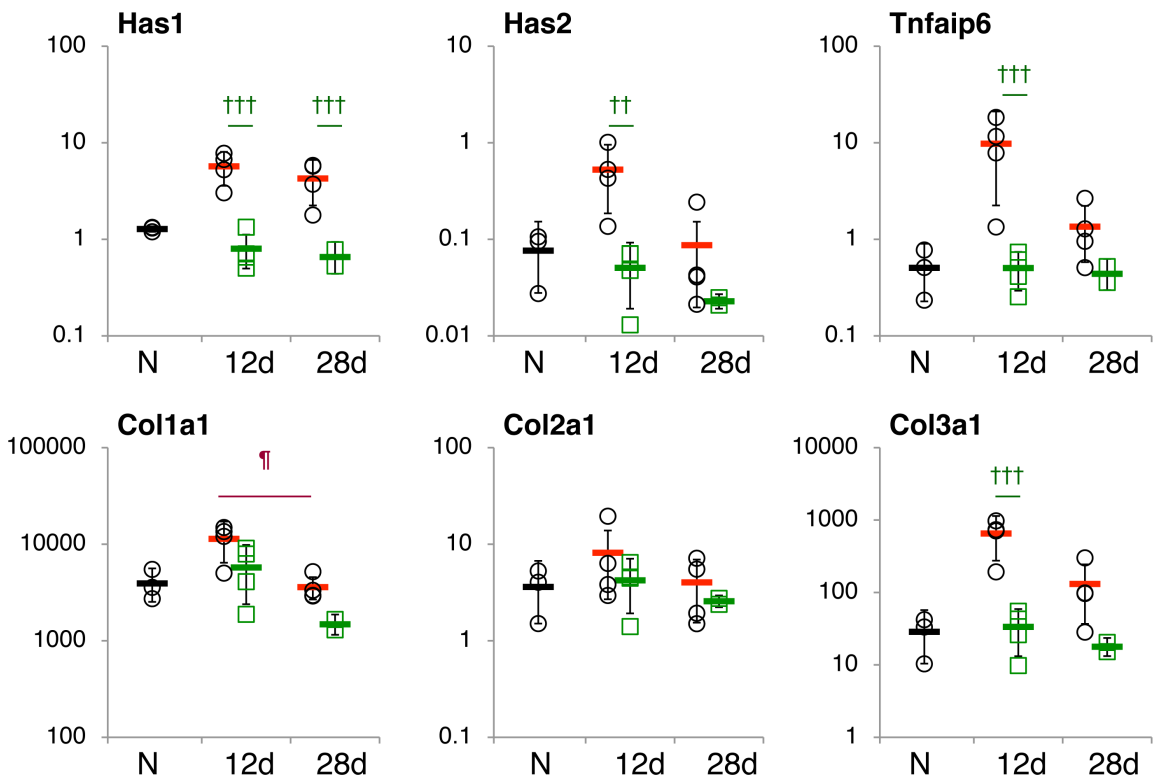


Figure S-2. (A) Safranin-O staining of the patellofemoral joint is shown in images equivalent to areas shown in Figure 1 of the main text. (B) H&E staining of patellar tendon enthesis and infrapatellar fat pad is shown in WT sham joints equivalent to those shown in Figure 2 of the main text. FC = femoral condyle, PT = patellar tendon, Pat = patella, BV = blood vessel, AT = adipose tissue. Arrows indicate some fibrotic remodeling at the margins of the patella, confirming mild peripatellar synovitis, at 2 weeks, persisting into but not worsening at 4 weeks, after sham operation. Neither cartilage and bone hyperplasia nor damage is observed. Scale bar = 100 μ m.

A mRNA Abundance (vs *Gapdh*) —○— Naive —●— Injured —■— Contralateral



B —○— Naive —●— Injured —▲— Sham

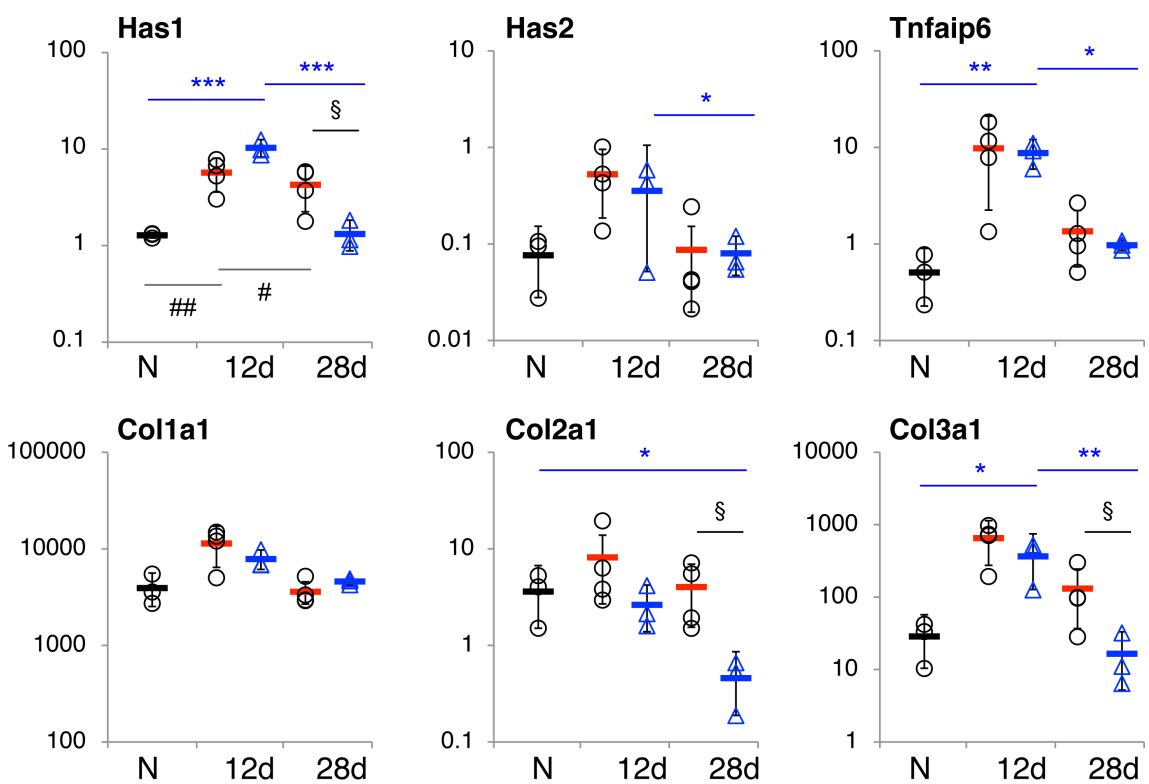


Figure S-3. Expression of HA-network and collagen genes relative to *Gapdh* (arbitrary units, see Methods for calculation) in whole joints extracts from WT naïve (n=3) and injured (n = 3-4) joints, as compared to (A) contralateral (n = 2-4) and (B) sham (n = 3) joints. Statistical differences were determined using ANOVA for injured vs. contralateral legs and, separately, for injured vs. sham groups. In (A), significant differences within contralateral groups across time points (¶ / ¶¶ / ¶¶¶), and, at each time point, between injured and contralateral († / †† / †††) are indicated. In (B), post hoc comparisons were performed to determine significant differences ($p < 0.05$ / 0.01 / 0.001) between sham groups across time points (* / ** / ***) and, at each time point, between injured and sham (§ / §§ / §§§). Statistically significant differences with time after injury are indicated for *Has1* (# / ## / ###) and for other genes in Figure 5 of the main text.