**Background:** Social support, defined as receipt of empathic and emotional resources from another person, is one of the strongest protective factors against posttraumatic stress disorder (PTSD). The mechanism by which social support reduces PTSD symptoms is unclear, however. Self-compassion, a coping strategy that involves self-kindness, feelings of shared humanity, and keeping difficult emotions in mindful awareness, is hypothesized as such a mechanism. Prior work conducted by our team has shown self-compassion is negatively associated with posttraumatic stress disorder (PTSD) symptoms. It is hypothesized that social support, an external resource, increases self-compassion, an internal resource, to reduce PTSD symptoms. This mediation model was evaluated in the present study. **Methods:** A sample (N=152) of trauma-exposed adults completed measures of PTSD symptoms (PTSD Symptom Checklist), social support (Multidimensional Scale of Perceived Social Support) and self-compassion (Self-Compassion Scale, Short Form). **Results:** Controlling for age, gender, and exposure to multiple traumas, there was a significant total effect of social support on PTSD (C Path: b = -.42, p < 0.001). Social support was positively related to self-compassion (A Path: b = .16, p < 0.001). Self-compassion was negatively related to PTSD symptoms (B Path: b = -.37, p < 0.001). When self-compassion was included in the model, there was a significant direct effect of social support on PTSD (C’ Path: b = -.30, p < 0.001). Using a bootstrapped 95% confidence interval based on 1000 samples, self-compassion mediated the relation between social support and PTSD symptoms (AB Path: indirect effect = -.07; 95% CI: -.17 to -.01). **Conclusion:** Self-compassion was found to partially mediate the relation between social support and PTSD symptoms. Social support may help to reduce PTSD symptoms through increased self-compassion in trauma-exposed adults. Future research should investigate other factors affecting this relation, as well as developing interventions to enhance both social support and self-compassion for trauma victims.