High Cr ferritic/martensitic steels are being considered as a structural material for future fusion and high temperature fission nuclear reactors due to their good mechanical properties at high temperatures and resistance to swelling. It is well known that these steels suffer from irradiation hardening and embrittlement below irradiation temperatures of about 673 K, even at moderate dose. In addition, nanometer-size Cr-rich bcc precipitate phases form in binary Fe-Cr alloys containing more than 7-10 % Cr and martensite containing more than about 11 % Cr, under irradiation. Despite the importance of understanding the hardening and embrittlement mechanisms in Fe-Cr alloys, it is not well known how solute Cr atoms and Cr nano-precipitates contribute to the hardening of these alloys. In this study, the effect of solute Cr atoms and Cr nano-precipitates on edge dislocation glide in Fe-Cr alloys has been investigated using molecular dynamics simulations, using many-body Fe-Cr potentials. The critical resolved shear stress (CRSS) for the edge dislocation glide has been evaluated for various precipitate sizes, and compared with known precipitate strengthening mechanisms. The results show that Cr nano-precipitates are stronger obstacles to dislocation motion in Fe-Cr alloys than solute Cr atoms, as expected. For a constant precipitate volume fraction of 10 %, the CRSS reaches a maximum at about 4 nm in precipitate size.