Abstract: We review the recent progress on what is known about the transverse spin structure of hadrons, in particular from observables that can be analyzed within a collinear framework. These effects have been around for 40 years and represent a critical test of perturbative QCD. We look at both proton-proton and electron-nucleon collisions for various final states. While the main focus is on transverse single-spin asymmetries, we also discuss how longitudinal-transverse spin asymmetries offer a complimentary yet equally important source of information on the quark-gluon content of hadrons. We also give an outlook on future directions of research.