Efficient cooling behind strong shock fronts sets the stage for several different instabilities. Some are tied directly to the cooling time scale, and others exist in the limit of arbitrarily efficient cooling. Here I will review dynamical instabilities that appear in the Sedov-Taylor blast wave and the shock confined stationary slab. I will also discuss recent work on an instability which affects a cooling slab. The first is important for understanding the late evolution of blast waves. The latter two may play a role in the early stages of star formation.