This chapter emphasizes that crying, first of all, is a reaction of the brain and that there is a connection with stress reactions and emotions that are these all serving our capacity to adapt to changing and demanding situations. This not only concerns real threatening situations, but also adequate social and moral functioning. The necessary equipment for crying includes the brain, the lacrimal system, and the facial musculature. This chapter summarizes the literature with respect to the specific brain structures and possibly relevant neurochemical substances, such as (neuro)hormones (e.g., oxytocin) and transmitters (e.g. serotonin. In addition to a description of the structure of the lacrimal system, an overview is presented of what is known about different kinds of tears and current knowledge with respect to the composition of tears.