Pain is defined as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” (IASP, 1979). Chronic pain of at least 3 months duration is quite common in children and even in toddlers. Levels and duration of acute pain and distress during medical procedures are high as well. Furthermore, there are significant consequences of both acute and chronic pain, such as an altered pain perception after high acute pain that increases fear and pain in future procedures, and impaired daily functioning and quality of life in children with chronic pain. Thus, it is important to gain understanding of what determinants might affect differences in children’s procedural distress and chronic pain. Theoretical models and previous evidence show various parent factors, such as anxiety, depression, and chronic pain, and child factors, such as temperament, as determinants of pediatric acute and chronic pain. Most studies so far have investigated children aged 3 or older and many have used clinical samples and/or cross-sectional designs. As a consequence, it is not clear what the early longitudinal risk factors are for toddlers’ pain.

The aim of this thesis was to extend existing knowledge on prenatal and early postnatal determinants of young children’s acute pain and chronic pain. The studies presented in this dissertation were carried out within the Generation R Study, a prospective multi-ethnic population-based study investigating growth, development and health from fetal life onwards in Rotterdam, the Netherlands.