The thesis describes the approach of sensory integration of Jean Ayres, summarizes a basic neuroanatomy knowledge related to this approach and deals with sensory processing disorder, their diagnosis and therapy. There is a case study in the thesis containing an examination, assessment and the suggestion of therapy according to the approach of sensory integration theory. The sensory processing disorders are functional disorders of perception, filtering and organizing of stimulus coming from sensory systems. On this basis the sensory modulation processing and sensory discrimination disorder in different sensory system occur or sensory – based motor disorder can occur too. Sensory processing disorders may occur simultaneously with another diagnosis, for example the Down syndrom, syndrom ADHD. We create diagnosis from history, clinical observation and tests and from standardized tests. The therapy uses a number of different tools and special equipped rooms to provide adequate sensory stimulation, especially for vestibular, touch and proprioception. The approach of sensory integration is a part of integrated look at an individual and his problems and it is a part of the whole rehabilitation too.