**Aim:** Children with Down syndrome have been identified as having difficulty delaying gratification when compared to mental age matched children who are developing typically. This study investigated the association between individual characteristics hypothesized to be associated with ability to delay as well as the strategies children used in a waiting task.

**Method:** Thirty-two children with Down syndrome and 50 typically developing children matched for mental age completed the tasks. Observations of their behaviour while waiting were video-recorded for later analysis. In addition, parents completed questionnaires with respect to their child’s personality and behaviour.

**Results:** Children with Down syndrome were significantly less able to delay gratification than the comparison group. Different patterns of association were found for the two groups between the observational and questionnaire measures and delay time.

**Conclusions:** Children with Down syndrome have greater difficulty delaying gratification than would be predicted on the basis of their mental age. The contributions to delay appear to differ from those for typically developing children and these differences need to be considered when planning interventions for developing this skill.