This thesis deals with tests of serial independence for functional time series. The first part of the thesis introduces the issue of serial independence in time series of random variables. The second part focuses on tests of serial independence for functional observations. It examines a test based on autocorrelation and, in particular, a test whose test statistic is derived directly from the definition of independence. This test is modified to a test with a weaker alternative of sub-dependence. The thesis concludes with a comparison of these three tests, which is based on a simulation.