Adenosine receptors are G-protein coupled receptors which have been implicated in the neuropathogenesis of Parkinson Disease (PD). Different components of Adenosine receptors transduction pathway were studied in frontal cortex and striatum from PD cases as compared with age-matched healthy controls. Total Adenosine A$_1$ receptors determined by radioligand binding assay were increased in frontal cortex from PD cases, while A$_{2A}$ receptors were increased in striatum. Western blotting revealed that Adenylyl Cyclase I (AC-I) isoform level was not modulated in plasma membranes from PD. In agreement, basal AC activity remains unaltered in PD as compared with controls, but stimulatory effect of GTP and Forskolin seems to be increased. Responsiveness to specific adenosine ligands was also modified. These results show that Adenosine A$_1$ and A$_{2A}$ receptors pathway are both affected in frontal cortex and striatum from Parkinson disease patients.