Hitting time for the continuous quantum walk MARTIN VARBANOV, University of Southern California — A new definition of hitting (absorbing) time is formulated for the case of continuous quantum walks. The walk is measured randomly according to a Poisson process with measurement rate $\lambda$. We derive an explicit formula for the hitting time and explore its dependence on the measurement rate. We show that in the two limits of the measurement rate going to 0 or infinity the hitting time diverges, where the second limit is representative of the quantum Zeno effect. Several different conditions for existence of infinite hitting time are proven by analyzing the analytical structure of the formula for the infinite hitting time. A different condition for existence of infinite hitting times based on the disconnectedness of the complementary graph is proven as well.