We consider the contact process with avoidance, a modified contact process, on directed graphs in which each healthy vertex can avoid each of its infected neighbors at rate $\alpha$ by turning off the directed edge from that infected neighbor to itself until the infected neighbor recovers. This model presents a challenge because, unlike the classical contact process ($\alpha = 0$), it has not been shown to be an attractive particle system. We study the survival dynamics of this model on the lattice $\mathbb{Z}$, the cycle $\mathbb{Z}_n$, and the star graph. On $\mathbb{Z}$, we show there is a phase transition in $\lambda$ between almost sure extinction and positive probability of survival. On $\mathbb{Z}_n$, we show that as the number of vertices $n \to \infty$, there is a phase transition between log and exponential survival time in the size of the graph. On the star graph, we show that as $n \to \infty$ the survival time is polynomial in $n$ for all values of $\lambda$ and $\alpha$. This contrasts with the classical contact process where the survival time on the star graph is exponential in $n$ for all values of $\lambda$. (Received September 16, 2019)