Abstract. Let p be a prime, F a field containing a primitive pth root of unity, and E/F a cyclic extension of degree p. Using the Bloch–Kato Conjecture we determine precise conditions for the cohomology group $H^n(E) := H^n(G_E, \mathbb{F}_p)$ to be free or trivial as an $\mathbb{F}_p[\mathrm{Gal}(E/F)]$-module, and we examine when these properties for $H^n(E)$ are inherited by $H^k(E)$, $k > n$. By analogy with cohomological dimension, we introduce notions of cohomological freeness and cohomological triviality, and we give examples of $H^n(E)$ free or trivial for each $n \in \mathbb{N}$ with prescribed cohomological dimension.