

Bats evolved to fix DNA from damage caused by flight

[N]ow, thanks to our ability to sequence genomes, some researchers have provided a new picture of how bats manage to adapt to such distinctive lifestyles. The DNA sequences suggest that all bats share some adaptations that help them cope with the metabolic demands of flight, while individual species have other adaptations that help them handle echolocation and hibernation.

High metabolic exertion [read: flight] tends to produce oxygen radicals, which damage cellular components, including DNA. So, the authors tested whether the genes that are involved in maintaining DNA integrity showed signs of having undergone evolutionary selection (we've explained [how to do that test](#) in the past). Many of the genes involved in repairing DNA damage did show signs of selection, as did genes that help stop cells from dividing if they've picked up too much damage. Both species have also lost a gene that helps cells trigger an inflammatory response when they sense DNA outside of the cell's nucleus.

View the original article here: [Bats evolved to fix DNA from damage caused by flight](#)