

Effects of Clothing on the Aerodynamics of a Mountain Biker

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This study was designed to assess the effects of the fit of a mountain biker's aerodynamics. 1 participant rode a standard entry-level cross-country mountain bike down a one-kilometer segment of the hill twice with skin tight, race cut clothing, and twice with loose cut clothing. The latitude, longitude, elevation, and time elapsed were recorded. The data was processed, G.P.S. noise reduced, and the percent difference in speed was calculated. The speed was higher when the race cut clothing was worn when compared to when the loose cut clothing was worn. This indicated that the drag experienced by the participant when the race cut clothing was worn was less than when the loose cut clothing was worn. The decrease in the drag experienced when the race cut clothing was worn was significant enough that it could mean the difference between finishing first and finishing out of the top five.