

January 2011

Youth Recreational Firearm User's Shooting Habits, Use of Hearing Protection Devices and Self-Assessed Auditory Status

Kayla Howerton

Follow this and additional works at: <http://digscholarship.unco.edu/urj>



Part of the [Sense Organs Commons](#)

Recommended Citation

Howerton, Kayla (2011) "Youth Recreational Firearm User's Shooting Habits, Use of Hearing Protection Devices and Self-Assessed Auditory Status," *Ursidae: The Undergraduate Research Journal at the University of Northern Colorado*: Vol. 1 : No. 1 , Article 6.
Available at: <http://digscholarship.unco.edu/urj/vol1/iss1/6>

This Poster Abstract is brought to you for free and open access by Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in *Ursidae: The Undergraduate Research Journal at the University of Northern Colorado* by an authorized editor of Scholarship & Creative Works @ Digital UNC. For more information, please contact Jane.Monson@unco.edu.

Youth Recreational Firearm User's Shooting Habits, Use of Hearing Protection Devices and Self-Assessed Auditory Status

Kayla Howerton

Faculty sponsor: Deanna Meinke

Youth hunters 6 to 15 years of age are estimated to number 1.6 million (U.S. Fish & Wildlife Service, 2006) and the National Sports Shooting Foundation (NSSF, 2009) reports that there are 30.06 million active sports shooters (hunters, cowboy shooters, etc.) over age seven in the United States. The peak sound pressure levels (SPL) of recreational firearms frequently exceed the recommended exposure limit of 140 dB peak sound pressure level for adults (NIOSH, 1998; OSHA, 1983) and the 120 dB peak SPL limit advised by the World Health Organization (WHO) (1999) for children. Consequently, recreational firearm shooters and nearby bystanders are at risk of noise-induced hearing loss (NIHL) and tinnitus if hearing protection devices are not used.

Little is known about the recreational shooting habits of youth. This research study includes interviews of 86 youth shooters, between the ages of 10 and 18 years, regarding their recreational firearm use, hearing loss prevention knowledge and habits, as well as their self-assessed auditory status. Youth begin using firearms at a very early age; 19.7% taking their first shot by age 5 and 56% by age 8. Hearing protective devices (earplugs/earmuffs) are reportedly used "all the time" by 66% of participants while target shooting and only 24% of the time while hunting. Tinnitus is an early indicator for NIHL, 15% of youth reported constant tinnitus and 49% notice tinnitus occurs or worsens after shooting. This research highlights the need for early education and intervention efforts to minimize the risk of NIHL in youth.