



# The Peregrine Fund

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World Center for Birds of Prey  
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## NEWS RELEASE

### **Now available online: Proceedings from conference, “Ingestion of Lead from Spent Ammunition: Implications for Wildlife and Humans”**

BOISE, Idaho – Research on the effects and risks of lead exposure from spent bullet fragments and shot is now available online.

The documents are proceedings from the conference, “Ingestion of Lead from Spent Ammunition: Implications for Wildlife and Humans,” convened May 12-15, 2008, by The Peregrine Fund, Boise State University, Tufts Center for Conservation Medicine, and the US Geological Survey. The conference for the first time brought together professionals in wildlife and human health to share information on the toxic effects of this source of lead contamination.

Conference attendees offered a relatively easy solution: switch to non-lead bullets and shot. Such ammunition is available in most popular calibers and is considered by many hunters to be as good as or better than traditional lead ammunition. Experts said manufacturers will respond to demand, thus solving the problem.

Individual papers may be downloaded at:

[http://www.peregrinefund.org/Lead\\_conference/2008PbConf\\_Proceedings.htm](http://www.peregrinefund.org/Lead_conference/2008PbConf_Proceedings.htm)

An overwhelming weight of evidence presented at the conference shows that:

- Lead is toxic. It sickens and can kill at high levels of exposure, but even near the lowest detectable levels, lead has measurable health effects, including reduced IQ in children and increased risk of death from heart attack and stroke in adults.
- Lead from spent ammunition gets into people who eat game harvested with lead bullets or shot, with clinical effects among subsistence hunters. Effects among recreational hunters have not been adequately studied.
- Lead from spent ammunition gets into a wide variety of wildlife, including doves, swans, eagles, condors, and mammalian scavengers, regularly sickening and killing some.
- Non-lead bullets and shot are available as an alternative to lead for most uses.

The roughly 400 pages of the proceedings consist of more than 60 contributions from scientists and professionals in the fields of wildlife, health, and shooting sports. The conference documented evidence from around the world of:

- Effects of lead poisoning on wildlife that consume lead bullet fragments or lead shot when they forage.
- Lead exposure in people who eat game harvested with lead-based bullets or shot.
- Effects of lead on human health at minute levels that were formerly thought benign and currently are not recognized by many health agencies.
- Lead bullet fragmentation in game meat, extent of contamination of game meat from bullet fragments, and the potential for human exposure to lead from this source.
- Solutions to the problem of lead exposure from bullet fragments in both wildlife and people, with practical examples from Arizona and California where voluntary and legislative measures have been implemented on behalf of the California Condor, and from Germany and Japan on behalf of sea-eagles and human health concerns.
- Exposure to lead from other sources including fishing tackle, paints, and ceramics having significant negative health effects on wildlife and people.

The Peregrine Fund, a conservation group for birds of prey, convened the conference after a decade of research on wild California Condors in the Grand Canyon region of Arizona revealed that lead exposure from spent ammunition is the most important factor impeding the full recovery of the species in the area. The research also suggested that lead from spent ammunition could be a concern to people who eat game harvested with lead bullets or shot shells.

Efforts by the Arizona Game and Fish Department to encourage hunters to voluntarily reduce lead exposure of condors influenced 90% of hunters in the 2008 hunting season to use solid copper bullets as an alternative to lead-based ammunition or remove all remains of their harvest from the landscape. As a result, no condors died from lead poisoning this season.

“If this result can be achieved throughout the condor’s range, our data shows that condors could survive in the wild without the intensive and expensive management needed now to combat lead poisoning,” said Dr. Grainger Hunt, a scientist for The Peregrine Fund and contributor to the conference proceedings.

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