

# This Popular Pastime Kills Up to 20 Million Healthy Animals Each Year

People who do this likely don't realize how they're causing very painful and unnecessary deaths to more than 130 species. Anyone who loves animals must know how their perfectly legal actions cause organ failure, brain damage, blindness, paralysis, seizures and death in so many innocent creatures.

**Analysis by Dr. Karen Shaw Becker**

## STORY AT-A-GLANCE

- An estimated 10 million to 20 million animals are killed by lead poisoning every year in the U.S.
- Animals and birds may be poisoned from eating spent lead shot, bullet fragments and lead fishing sinkers or by eating another contaminated animal
- California is the only state that has banned all lead hunting ammunition, which is to be phased out by July 2019

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Lead is a well-known toxin to people, animals and the environment. It's so toxic that after an estimated 2 million ducks were dying each year from eating lead pellets used to hunt waterfowl, the U.S. Fish and Wildlife Service (FWS) made their use illegal.

Unfortunately, lead ammunition is only banned for hunting waterfowl; it's legal to use for hunting all other wildlife, except in California. So many California condors were dying from lead poisoning that the state banned all lead hunting ammunition, which is to be phased out by July 2019.

Animals and birds may be poisoned in a number of ways, from eating spent lead shot, bullet fragments and lead fishing sinkers while foraging for food to eating another contaminated animal.

The Humane Society of the United States (HSUS) estimates that 10 million to 20 million animals are killed by such lead poisoning every year in the U.S.; it's an insidious, often painful way to die. HSUS reported:<sup>1</sup>

*"A single shotgun pellet can cause organ failure and brain damage, inhibiting an animal's critical neuromuscular, auditory and visual responses.*

*Lead poisoning can induce lethargy, blindness, paralysis of the lungs and intestinal tract, seizure and death. Animals who survive often experience long-term negative effects that make them more susceptible to dangers such as predation and car collisions.*

*Animals at every level of the food chain face varying degrees of exposure: more than 130 species from frogs, mice and squirrels to ducks, swans and deer to bald eagles, grizzly bears and people."*

## **Eagles Are Dying From Lead Poisoning**

Eagles and other raptors, such as hawks, are falling victim to lead poisoning across the U.S. The Center for Wildlife in York, Maine reported of once such incident in January 2016.

A juvenile eagle was brought in who was listless and unable to fly. Sadly, he went into severe respiratory distress and had to be euthanized.

Later, his blood work came back showing his lead levels were off the charts (literally higher than the lab could test). Mark Pokras, a retired veterinarian who was formerly the head of the Tufts School of Veterinary Medicine Wildlife Clinic, told Sea Cost Online:<sup>2</sup>

*"When I look at this, I look at it from a medical perspective. I am seeing hundreds of perfectly healthy wild animals who are dying very painful and unnecessary deaths because of lead."*

The Center for Wildlife has established a fund for testing wildlife for lead poisoning, but the test costs \$75 per animal and they're dependent upon private donations.

As such, they're only able to test about 10 percent of the animals and birds that are admitted to the Center each year. Even still, they say they've found evidence of lead poisoning in virtually every species they see.

## **Lead Ammunition Used in Deer Hunting Linked to Eagle Poisoning**

The Raptor Center collaborated with the Minnesota Department of Natural Resources (DNR) to compile data showing bald eagles were being poisoned by eating lead shot-crippled or lead-poisoned waterfowl.

Their study led to the passage of the 1991 Federal law banning the use of lead ammunition for waterfowl hunting. In 1997, the Center conducted additional research that showed eagles were still suffering from lead poisoning, even after the ban.

They then conducted another study, from 1996 to 2009, to determine if lead ammunition used in the hunting of white-tailed deer could be to blame. A significant association was found. According to the Center:<sup>3</sup>

*"A statistically significant seasonal and geographical association ... was established between deer hunting season onset and hunting zones, with the incidence of eagle poisoning."*

*The majority of cases occurred during late fall and early winter, with significantly higher number of poisoned bald eagles recovered from the deer hunting rifle zone.*

*... The kidney copper concentration was significantly higher in lead exposed eagles ... implying the ingestion of fragments from copper-jacketed lead bullets.*

*The results from these four epidemiological parameters strongly support the hypothesis that spent lead from ammunition is an important source of lead exposure for bald eagles."*

## **Lead Bullets Fragment Into Hundreds of Tiny Pieces**

Part of what makes lead ammunition so dangerous is that the bullets don't stay intact. When they strike an animal, the bullets fragment into hundreds of tiny pieces that spread outward from the place of impact. According to the U.S. National Park Service, "Just a few of these fragments contain enough lead to sicken or kill a bald eagle or California condor." They explained:<sup>4</sup>

*"When a lead rifle bullet traveling at almost 3 times the speed of sound strikes animal tissue, it quickly begins to expand and loses hundreds of tiny pieces as it continues its journey.*

*The organs and other bloodshot areas that are trimmed away and left behind are usually contaminated with these lead fragments."*

The fragments not only pose risks for wildlife but also to people who eat wild game. In a study of packaged venison, for instance, 34 percent contained metal fragments that were made up of 93 percent lead.<sup>5</sup>

Not to mention that under certain conditions lead from spent ammunition and fishing sinkers may slowly dissolve and enter groundwater, where it presents dangers for plants, animals and people.

According to Dr. Barnett Rattner, U.S. Geological Survey (USGS) contaminant expert, " ... dissolved lead can result in lead contamination in groundwater near some shooting ranges and at heavily hunted sites, particularly those hunted year after year."

## **Lead-Free Alternatives Exist**

There's no good reason to continue using lead ammunition, particularly since the FWS has approved 13 nontoxic alternatives for hunting.<sup>6</sup> Ammunition made of steel, copper and bismuth, for example, is widely available in stores and online. Even the U.S. Army is taking steps to get led out of many of its bullets.

When the 1991 federal ban on lead ammunition for hunting waterfowl was enacted, major improvements were seen. Within six years, death of mallard ducks from lead poisoning dropped 64 percent and about 1.4 million ducks were saved each year.<sup>7</sup>

While California is the only state with a statewide ban on lead ammunition, 34 states have expanded restrictions beyond the waterfowl hunting ban. Meanwhile, the scientific community is rallying to remove lead from ammunition in order to protect wildlife. HSUS reported:<sup>8</sup>

*"Scientists resoundingly agree that spent lead ammunition poses a risk to human health and wildlife. More than 500 scientific papers published since 1898 have cited the many dangers caused by lead exposure from spent ammunition.*

*And in 2013, 30 national and international experts signed a scientist consensus in support of eliminating the introduction of lead ammunition into the environment.”*

## **Sources and References**

[Sea Coast Online January 10, 2016](#)

<sup>1,6,7,8</sup> [The Humane Society of the U.S., Lead Ammunition](#)

<sup>2</sup> [Sea Coast Online January 10, 2016](#)

<sup>3</sup> [University of Minnesota, Raptor Center, Lead Poisoning](#)

<sup>4</sup> [National Park Service, Lead Bullet Risks for Wildlife](#)

<sup>5</sup> [PLoS One. 2009;4\(4\):e5330.](#)

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