

Terra Hall
Get the Lead Out

The purpose of the experiment was to determine if different types of lead based bullets affected the lead concentration in wild game shot with these bullets. The hypothesis of the experiment, the hollow point bullet would give the meat the highest lead concentrations, was not supported by the data.

To carry out the experiment, twelve 50 gram pieces of venison were placed 5 ft. from a shooter, who then shot three pieces of meat with a solid lead bullet, three with a copper plated bullet, and three with a hollow point bullet. The samples were then sent to a lab and analyzed using ICP-Mass Spectrometry.

The highest lead concentration was in the solid lead bullets, they contained 11.5 ppm of lead, and the hollow point bullets contained 2.3 ppm of lead. The copper plated round nosed bullets (solid copper) had an average lead concentration of 0.95 ppm. The control's lead count amounted to 0.069 ppm.

This experiment could be used in a variety of situations. For example, the charity Hunters for Hunger often donates poached meat to soup kitchens and this information could help prevent lead poisoning in the homeless consuming the meat. Hunters often use this meat in everyday life, and this information could help persuade them to be more careful in processing their meat. Also, while it is common knowledge that lead is a toxic element, it remains, by far, the most popular material for ammunition. Further research in this area may help fully push this material out of the market or allow consumers to make safer choices.