

## If you use high-velocity lead bullets, here are some ways to remove or reduce lead fragments:

- **Place your shots carefully.** Shots that go through large bones, like the hindquarters of a deer, elk, or bear, will cause more fragmentation.
- Fragments are often found **farther from the wound channel than expected.** This makes it impossible to recommend a safe distance for trimming. However, liberally trimming around the wound channel should remove some fragments.
- **Do not rinse the carcass.** Rinsing the meat will not necessarily remove lead fragments. It may spread lead fragments to other parts of the animal, causing more of the meat to have lead.
- **Ground venison has been found to have more lead fragments.** Venison steaks and chops usually contain less lead.
- Some commercial processors combine several deer. **Venison that contains lead fragments could be mixed into venison that you receive.** Ask the processor not to combine meat from other deer with yours.
- Acids make it easier for the human body to absorb lead. **Avoid using acidic substances** (like vinegar or wine) when cooking venison.

### For more information about lead:

Call 1-800-MI-TOXIC (1-800-648-6942)

or visit [www.michigan.gov/leadsafe](http://www.michigan.gov/leadsafe)



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# Lead Bullets & Venison

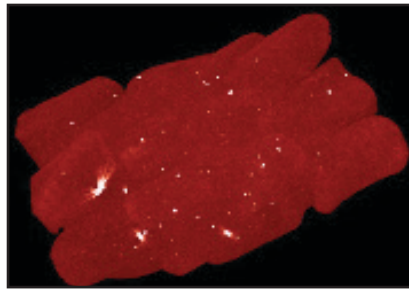
Deer, Elk & Bear



What Every  
Hunting Family  
Should Know

**New studies show that lead fragments are often found in venison shot with lead bullets.**

These pieces of lead are too small to be seen or felt while chewing. Ground venison has the most lead fragments (see photo).



Using a medical imaging device, lead fragments (bright spots) are shown scattered within the ground venison shot with lead bullets.\*

**Choose ammunition that will not leave lead fragments in the meat**

**Worst**

- **Rapidly expanding bullet**
  - Ballistic tip
  - Soft point

These bullets leave the most lead fragments in the meat. The lead can be found throughout the meat, not just along the wound channel.

**Better**

- **Shotgun slug**
- **Muzzleloader bullet**
- **Non-exposed lead core bullet**

These fragment much less due to slower velocity, higher mass, or a metal completely covering the lead. However, there is still some risk of lead fragments.

**Best**

- **Copper bullet**
- **Lead-free bullet**

Copper and lead-free bullets leave no lead in the meat.

**Who is most at risk of health problems from lead?**

- **Women who are pregnant or can become pregnant**
- **Children ages 6 and under**



In pregnant women, lead can cause low birth-weight babies, premature births, miscarriages, and stillbirths.

In young children, lead can cause learning disabilities, lower IQs, and stunted growth. Even the smallest amount of lead can harm children and babies.

**Public Health Advice**

If you harvest deer, elk, or bear with high-velocity lead bullets, women of childbearing age and children ages 6 and under should avoid eating that venison.

Older children and adults should use caution when eating ground venison shot with lead bullets.

It's best not to eat the organs from any wild game because lead and other chemicals collect in the organs.

**Bow hunting does not leave lead in venison.**

More good choices on the back.



\*Photo (top left): Cornatzer et al. 2008 Ingestion of Lead from Spent Ammunition: Implications for Wildlife and Humans. The Peregrine Fund, Boise, Idaho, USA.