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## Euthanasia and What Comes Next

By Christy Corp-Minamiji, DVM • Aug 01, 2012 • Article #29503



Photo: Photos.com

*Electing to euthanize is a difficult part of horse ownership, and the hard decisions don't stop there*

The grass had sprouted knee-high beneath the almond blossoms. Clouds dotted the sky as the mare yanked and munched mouthfuls of green blades. It was the perfect spring picture, except that the mare's hooves were too long and her hip-bones were too

prominent. I had repeated the routine hundreds of times in my career--placing a catheter in the jugular vein and filling the syringes with a solution that looks like a melted blue-raspberry popsicle. I nodded to my assistant, and she raised the mare's head from the grass. I attached the first syringe to the end of the catheter, made sure the catheter was working, and depressed the plunger. The second syringe followed the first. And, as Goldie's palomino body crumpled to the ground, my heart and body dropped with her. I had literally just killed my best friend.

*Eu*: Good. *Thanatos*: Death. Euthanasia. Taken from the Greek, a good death.

In its Euthanasia Guidelines (2011), the American Association of Equine Practitioners (AAEP) states that:

- A horse should not have to endure continuous or unmanageable pain from a condition that is chronic and incurable.
- A horse should not have to endure a medical or surgical condition that has a hopeless chance of survival.
- A horse should not have to remain alive if it has an unmanageable medical condition that renders it a hazard to itself or its handlers.
- A horse should not have to receive continuous analgesic medication for the relief of pain for the rest of its life.
- A horse should not have to endure a lifetime of continuous individual box stall confinement for prevention or relief of unmanageable pain or suffering.

The AAEP also states that "Humane euthanasia of animals is an ethical veterinary procedure."

While euthanasia is common and often necessary, the decision to euthanize is rarely easy. Horse owners frequently face logistical challenges, financial dilemmas, and emotional conflict when considering euthanasia.

I chose to tell the story of my own mare's euthanasia to illustrate one point: No matter how experienced you are, and no matter what resources are at your disposal, the decision to end a life can be hard. Goldie was 36 years old. By some accounts, her life should have ended at 35. Other people might believe I could have managed her condition longer. Even though she had lost weight, she was far from emaciated. And although she was so arthritic I could no longer trim her hooves without medicating her, she could still break into a respectable canter in the pasture, and she never stopped eating.

I was lucky. As a veterinarian, I had resources for disposing of Goldie's body. I understood the process. I had the luxury of making a plan rather than being forced into a decision under extreme circumstances. And yet, I held on longer than my common sense told me was reasonable. Ultimately, however, I realized that I was clinging to Goldie's life for my own benefit, not hers.

When it comes to deciding to euthanize a horse, "put the horse first, not yourself or your feelings," stresses Nat Messer, DVM, Dipl. ABVP, of the University of Missouri. While the guidelines listed address situations of pain and suffering, the AAEP acknowledges in the same document that other conditions might warrant equine euthanasia as well. Sometimes those considerations are financial, such as an owner's inability to afford treatment for a condition (i.e., colic surgery or long-term administration of medications) or proper care for the horse.

Though the ideal situation would be a caring home for every horse, that picture does not reflect reality. In 2007 the Unwanted Horse Coalition estimated approximately 170,000 horses become "unwanted" in the United States every year. Considering the economic climate following that estimate, the number could be higher. While Messer acknowledges that a "no kill" philosophy toward healthy animals is a nice ideal, "the reality is that there are too many animals." And sometimes a horse might have behavioral issues rendering him unsuitable for rehoming. Messer states that when a healthy horse is brought to his clinic for euthanasia, he and his staff exhaust every avenue trying to find an alternative home. But, "if all options fail, then I put the horse down," he says. "I look at it as doing that horse a favor by ending its life humanely."

Lisa Sawyer, a California horse owner who has had two horses euthanized in recent years, says euthanasia was by far the easiest decision. Sawyer and her husband, John Lescroart, owned Truffle, an 18-year-old Appaloosa gelding their then-college-bound daughter rode, and Cutter, a retired cutting horse gelding in his mid-20s that their then-teenage son had ridden.

Truffle had equine Cushing's disease that was responding to medication. However, he eventually developed severe and very painful laminitis (inflammation of the sensitive structures connecting the hoof to the coffin bone) and required medication three times a day, Sawyer says.

Despite cooperation between owner, veterinarian, and farrier, the coffin bone of one front foot eventually rotated through Truffle's sole. Sawyer describes the euthanasia at the farm where the family boarded Truffle and Cutter: "Our vet blocked his leg so that we could walk him out behind the barn, so that it wouldn't disturb the other owners and horses. I had a bucket of apple cookies for him." To Sawyer, who grew up with horses and had seen a number of colts anesthetized for gelding, watching Truffle go down wasn't overly disturbing. "The lying down part was a relief. It was okay. It was the right time." However, for Lescroart, who was new to horses, "it was hard watching the horse go down."

## **The Method and Process**

One of the most common euthanasia methods for companion horses in the United States is sodium pentobarbital overdose, as described above. It is easy to control, fast-acting, and painless. The veterinarian administers the drug into the vein, and as it circulates to the brain it causes rapid cessation of brain, respiratory, and cardiac function. Some veterinarians place a catheter in the jugular vein prior to giving the injection. Others simply inject the solution intravenously via a large-bore needle. Depending on the veterinarian's individual experience and assessment of the horse's physical condition, he or she might give the horse a sedative prior to injecting the euthanasia solution.

However, sodium pentobarbital has its disadvantages. Horses with compromised circulation, such as those with severe colic, might have difficult-to-access veins, and the body might take longer to metabolize the drug.

"Depending on the circumstances, horses don't always die quickly," says Messer. "They may have issues with struggling and breathing." Even a horse with good cardiovascular function might display some gasping breaths or spastic leg movements during death by sodium pentobarbital injection. Sawyer says when the family's second horse, Cutter, was euthanized in the wake of a pelvic fracture secondary to equine bone fragility disorder, these perimortem (near the time of death) events troubled her most.

The biggest concern surrounding sodium pentobarbital use, says Messer, involves residues. Because sodium pentobarbital is a federally controlled drug and remains in the animal's tissues after injection, the veterinarian must verify proper carcass disposal. Some disposal methods (described below) are more effective than others at addressing the residue issue.

"There is something to be said for gunshot and captive bolt (the other two primary AAEP-approved methods of humane euthanasia for horses)," says Messer. "If done properly, they produce instantaneous death." Messer acknowledges there is likely "an instant of pain" as the bolt or bullet penetrates the skull, "but not much more than a needle stick in terms of time."

However, Messer emphasizes that euthanasia via either bullet or captive bolt requires expertise in proper technique and placement. Also, he notes that gunshot euthanasia involves human safety concerns, and a captive bolt gun requires diligent maintenance to work properly.

The American Veterinary Medical Association has approved a few [alternative methods of euthanasia](#) to be used under specific circumstances. However, sodium pentobarbital injection and gunshot or captive bolt remain the most commonly used and accepted means of equine euthanasia among veterinarians.

## Disposing of Remains

Carcass disposal is the most logistically challenging, and generally most expensive, aspect of equine euthanasia. Obviously, a 1,200-pound horse is far more difficult to bury or cremate than, say, a 50-pound dog. While an owner's initial focus might be the decision to euthanize and what method to use, proper carcass disposal is equally critical. Options for equine carcass disposal include cremation/incineration, burial, landfill burial, rendering, biodigestion, and composting. Each option's availability and cost vary by region, according to facilities and local regulations.

**Cremation/incineration**, though the most aesthetic choice for many owners, is the most expensive. Prices I found through a variety of pet crematories ranged from \$800 to \$1,500.

**Burial** is traditional and appeals emotionally to many people. However, burying a horse requires significant land and equipment resources. Regulations regarding livestock burial vary according to local ordinances and are usually determined at the county level. Typically, a minimum of three to four feet of soil must cover a horse carcass and the site must be at least 100 feet away from any water source. Some counties have more specific regulations than others, and still other locales might ban burial altogether. Equipment rental costs might factor in as well. For instance, to rent a backhoe in many areas of the country costs \$250-400 per day.

**Removal to a county landfill** appears to be the least expensive option--\$48/ton at one local landfill. However, not all landfills will accept animal carcasses, particularly those of larger livestock. A quick survey of facilities showed only one out of four landfills allowed livestock carcass disposal. At least one explicitly forbade dumping animal remains. Due to slow decomposition under normal landfill conditions, there might be concerns regarding odor, water contamination, and other public health issues such as soil contamination with pathogenic bacteria, human or animal contact with remains, and possible animal ingestion of muscle tissue containing pentobarbital residues if the carcass is not buried deep enough.

**Biodigestion and composting** break tissue down organically with heat and organisms of decay. Under proper conditions, both biodigestion and composting kill many pathogenic organisms. However, biodigestion plants are a relatively new disposal option, so this method might not be available in many areas. While some larger farms and universities might have biodigestion plants, centralized plants are not yet commonly found in the United States; they are more common in Europe. Of composting, Tom Cook, president of the National Renderers Association, says it's not easy to compost a large animal. While guidelines do exist for composting livestock remains privately ([TheHorse.com/16778](http://TheHorse.com/16778)), most horse owners rely on the

practicality and safety of a commercial composting facility.

**Rendering** involves removing the hide and cooking the carcass. Cook explains that the high temperatures kill pathogens and separate fat and oils for other uses. Renderers grind up the remaining bone and soft tissue and use it for other products such as meat-and-bone meal, a high-protein animal feed ingredient. Rendering costs vary (reported fees for rendering a horse range from about \$80 to more than \$500 depending on location, facility, and whether the rendering company picks up the carcass), and it's generally more expensive to render horses than animals such as cattle. Horses do not yield as much fat as other animals, and their hides are too thin to be of use. Cook acknowledges that veterinarians' tendency to euthanize horses using sodium pentobarbital is potentially problematic for the renderer, and some renderers might use the residue issue as a reason not to accept horses.

Most owners select a disposal method for their horse's remains based on their budget, area resources/options, and personal preference. Owners should plan for prompt and safe removal of the body, taking into account public safety and aesthetic (e.g., carcass visibility or odor); large vehicles' accessibility to the euthanasia site if removing the horse by truck or trailer; or burial site location if burying the horse on the property or elsewhere.

### **Take-Home Message**

While no one likes to consider losing their equine partner, ultimately it is the owner's duty as the horse's advocate to ensure the animal meets a humane and dignified end. Says Sawyer of her own experiences with equine euthanasia, "Over the years, I've put it in an okay place. It doesn't feel good, but it was better than leaving a horse in the kind of pain ours were in."

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**Seek the advice of a qualified veterinarian before proceeding with any diagnosis, treatment, or therapy.**

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