

# COMING OF AGE

Is your horse-care regimen stuck in the past?  
Learn to make the most of advances in veterinary medicine.

BY BARB CRABBE, DVM

*ADVANCED TREATMENT OPTIONS: We've come a long way since "Dr. Green" was the best chance for healing a soft-tissue injury. This horse's leg is being treated with platelet-rich plasma.*

AMY DRAGOO/KDRAGOO/PHOTO.COM

**L**ike many of you, I was born in the 1960s. I sat on a horse before I could walk, and before the decade came to a close I'd ridden my first dressage test and been indoctrinated with the age-old rules of horsemanship. I learned how to bandage legs and groom with my *Pony Club Manual* by my side. And I would never, ever let my horse drink cold water after work for fear that he might colic.

Fast-forward to 2013. Even after vet school and 20-plus years as a practicing equine veterinarian, my bandaging techniques haven't changed much, and I still follow the curry comb/stiff brush/body brush rules of thorough grooming.

About that cold water? Well, some things really have evolved. All the research done on thermoregulation before the 1996 Atlanta Olympics, for example, forever transformed our thinking about things like how best to cool a hot horse. Although many principles of horse care endure, I've still had to change my ways.

In this article, I'm going to look at the many changes in areas of equine health care most likely to impact your dressage horse, including preventative care, general medicine, and lameness management. Although good old-fashioned horsemanship is alive and well, veterinary advances have led to new and better tools for keeping your horse healthy and sound.

## Worth a Pound of Cure: Prevention

Up until the mid-twentieth century, medicine focused mostly on treating the sick. But by the 1960s, prevention had become a primary focus of the equine veterinarian. Vaccinations were developed to protect against infectious diseases, such as rhinopneumonitis, influenza, tetanus, and sleeping sickness. Medications were developed and widely recommended for the control of internal parasites, and filing or "floating" the teeth became a routine part of horse care.

One of the first vaccines developed in the early 1960s to protect against rhinopneumonitis (type 1 equine herpesvirus, or EHV-1) was administered intranasally, which was considered a big disadvantage at the time. Horses were described in one magazine article as "understandably vehement in their unwillingness to cooperate." To the dismay of most equine veterinarians, the developers of modern-day intranasal vaccines seem to have overlooked this fact.

An intramuscular vaccine soon followed. That particular vaccine, Rhinommune, continues to be widely used even to-

day and is still considered one of the most effective available vaccinations against the equine herpesvirus. Because of the ease of administration, one author made the prediction in 1973 that "it is not inconceivable that individual owners and trainers might be allowed by their veterinarians to give their horses Rhinommune injections." I remember a friend's physician father teaching me how to vaccinate my horse in the early '80s—he made me practice on an orange. For today's do-it-yourself horse owner, of course, equine vaccinations are available not only through veterinarians but also in local feed stores and through online pharmacies.

It's interesting to note that equine vaccine recommendations haven't changed all that much in 50 years. In fact, the group of vaccinations most commonly recommended today includes tetanus, sleeping sickness, influenza, and rhinopneumonitis—the identical vaccines recommended in a 1974 horse-care article. Then, as now, vaccination for strangles was considered optional (recommended only for horses with high exposure risks) because of lack of efficacy and risks for side effects.

Still, there have been changes. Over the decades we've seen new diseases emerge and new vaccinations introduced. One, West Nile virus, is now a core vaccine recommended for every horse in the United States. We've also seen a wide variety of advances in vaccine technology. Newer vaccine types, such as recombinant and DNA vaccines, utilize parts of disease organisms' DNA and antigens in order to impact the immune system more effectively so as to produce a stronger response.

Parasite control is an area that seems to change with each passing decade. In the 1960s and early 1970s, deworming was recommended once or twice each year, with the veterinarian administering medications directly into the horse's stomach via nasogastric tube. By the '70s, it was commonly recommended to deworm every four to six weeks, usually with a pelleted dewormer added to the horse's feed. By the '80s, orally administered paste dewormers had become the norm.

Today, after several decades of interval deworming with a rotating course of different medications, the face of parasite control has shifted once again. The reason for the change is that parasites are developing resistance to even our most effective medications, and so current recommendations advocate "strategic" deworming that's guided by results of fecal tests for parasite eggs. This approach aims to reduce the frequency of drug administration in order to reduce pressure on the effective medications so that they will continue to work. Do you still deworm your horse every two months, with a different dewormer every time? It's time to make that change! ⇨



**POWER DENTISTRY:** *Use of power tools and advanced techniques have made equine dentistry more sophisticated*

## Medical Marvels: Colic-Surgery Success Stories

**A**ccording to equine veterinarian Dr. Barb Crabbe, “Today a surgical colic is part of mainstream veterinary medicine.” But can dressage horses really return to work—and even compete successfully—after undergoing colic surgery?

We asked USDF members to share their experiences—and the answer to the question is a resounding yes. Read on and prepare to have your spirits lifted.

**I** am currently riding/training a horse owned by William Woods University in Fulton, MO. Raphaelo is a fifteen-year-old Hanoverian gelding who underwent colic surgery for an epiploic-foramen entrapment [a severe form of colic that results when a piece of small intestine becomes displaced and strangulates in the epiploic foramen, a small hole in the abdomen] in May 2011. “Rizzo” was in the hospital for eleven days after surgery, and it was three months of hand-walking and tiny meals of grain before I could do any real riding with him. I utilized carrot stretches, easy cross-training, and careful workloads to build



*Raphaelo, owned by William Woods University (MO), and rider Lucy Fuelle*

back the musculing that he had lost completely.

Almost two years later, Rizzo has made a full recovery. We are successfully competing at Fourth Level and preparing to move up to Prix St. Georges. Rizzo is schooling half-steps and tempi changes up to the ones. He and I travel to clinics and shows all around the Midwest and ride in demonstrations at the university. I will continue his training as far as it will take us. I am so proud of our partnership.

**Lucy Fuelle**  
Equestrian Complex Coordinator,  
William Woods University  
Fulton, MO

Finally, the field of equine dental care has changed dramatically. In the early 1990s, when I started to practice, I often “floated” as many as 20 horses’ teeth during a several-hour visit to a barn. Between then and now, advances in both equipment and techniques have made equine dentistry a much more complicated proposition. A routine dental balancing these days takes as long as an hour for a single horse and utilizes power tools in place of a hand-held rasp. Bite abnormalities that threaten a horse’s ability to chew can now be corrected, and root canals save many rotten teeth that might once have been removed. It’s interesting to note, however, that dental experts of the ’70s warned against too much aggressive filing of the teeth. This very problem indeed became widespread when power tools first became popular a decade ago—resulting in some severe equine dental problems following aggressive dental procedures. The issue is a good reminder not to forget the past: We just might learn something if we remember to look back from time to time.

## Live Long and Prosper: General Medicine

We may have gotten more skilled at keeping our horses healthy, but they still get sick. Thankfully, we also have a

much better understanding of equine diseases and how to treat them. And given the fact that many dressage horses don’t even reach their prime until the teenage years, it’s particularly important to keep them healthy as they age.

A common disease in older horses is a metabolic abnormality known as Cushing’s disease. Cushing’s disease develops as a result of a tumor on the pituitary gland that leads to a hormonal imbalance. Levels of cortisol, the body’s natural stress hormone, are increased in an affected horse’s body; symptoms include a long hair coat that doesn’t shed in summer months, inappropriate shedding, increased susceptibility to infection, dental problems, and laminitis.

In years past, Cushing’s was diagnosed simply based on the horse’s outward appearance, and treatment consisted of basic management to help keep him comfortable, such as clipping his hair coat in the summer and being extra-vigilant about dental and foot care. These days there are a number of accurate diagnostic tests available, as well as a medication for treatment (called pergolide mesylate) that is very effective for helping to control symptoms of this common disease. And our understanding of Cushing’s disease gets better every year, thereby making it possible to successfully manage a horse with Cushing’s for many years, even as he continues to work and compete. ➔



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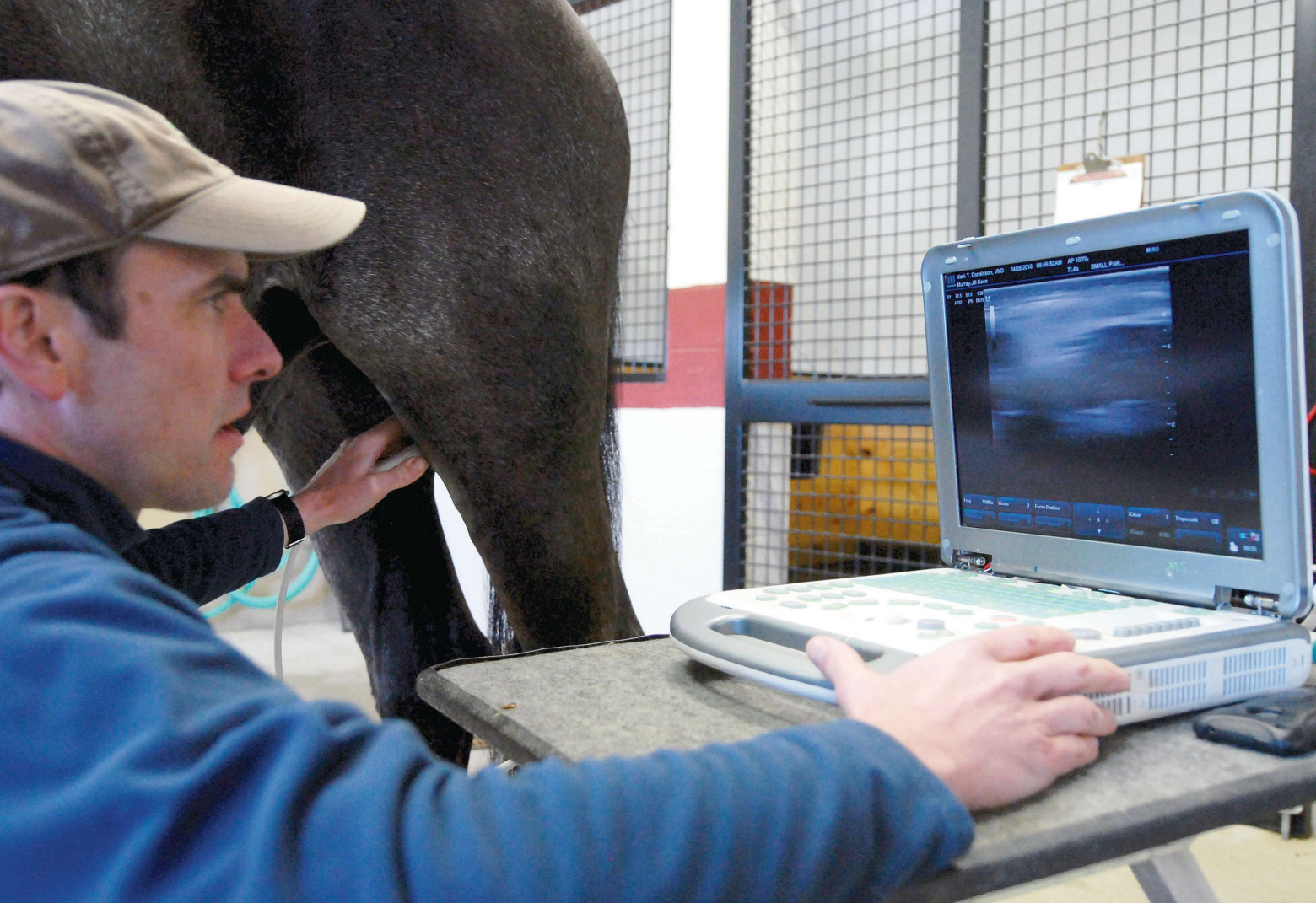
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Alongside our improved understanding of Cushing's disease has come recognition of another metabolic problem that's very common in our often-overweight dressage partners. Insulin resistance, also called equine metabolic syndrome, is a disease similar to type-2 diabetes in humans. Your horse's tissues fail to respond appropriately to insulin, causing altered metabolism of sugar and increased risk for career-threatening problems such as laminitis. Veterinarians once believed that a horse with Cushing's disease was automatically insulin-resistant, but we now understand that each of these problems can occur independently—and there are plenty of insulin-resistant dressage horses out there that don't have Cushing's disease. We continue to learn more about insulin resistance every year, but the key to avoiding this dangerous problem is clearly to keep your dressage horse fit and trim.

Advances in veterinary medicine reach across many diseases and conditions. Perhaps one of the most important developments has been the improvement in our ability to perform surgeries that require general anesthesia. Better drugs, better facilities, and improved surgical skills have all played a role. Whereas even 20 years ago colic surgery was often considered a last-ditch effort with often-disappoint-

ing results, today a surgical colic is part of mainstream veterinary medicine. We've even seen international dressage stars return to the show ring after colic surgery.

On the subject of "belly aches," the recognition of gastric ulcers as an important problem in performance horses living a high-stress lifestyle has been an important development. Ulcers can now be easily diagnosed through endoscopic examination of the stomach, and a very effective treatment (omeprazole, brand name GastroGard) is readily available. We've even learned to take steps to prevent ulcers through better management, such as by increasing turnout and providing continuous access to quality forage, and through the administration of preventative doses of medication during times of stress, such as transport and competition.

## **Sound Body: Lameness Diagnosis and Treatment**

Perhaps no aspect of veterinary medicine has changed as much as the diagnosis and treatment of lameness, and what could be more important for your dressage horse than maintaining his soundness?

## Miracle Horse

I am an adult amateur who found my “dream horse” three years ago. Papparazzi took me from First Level to Prix St. Georges in two years. Six weeks before we were set to make our PSG show debut, “Pops” colicked. At the recommendation of our vet, we rushed him to the nearest surgical center. Pops had the form of colic where the large colon slipped through the epiploic foramen and strangled itself. He had to have 60 feet of intestine removed, leaving him with roughly thirteen feet remaining.

The road to recovery hasn’t been easy, but Pops started back in a training program ten months after surgery. Now we are fifteen months post-surgery and ready for our debut at PSG in June. Pops feels better than ever and is doing great! He is my miracle horse.

**Noell Lacy**  
Waco, TX



*Papparazzi and owner/rider Noell Lacy*

Let’s take a look at problems involving the foot as an example. In 1979, if your horse went lame, you called the vet, who performed a thorough physical exam. Suppose the vet determined that your horse was sensitive when hoof testers were applied across his heels. Nerve blocks were performed, and your horse’s lameness blocked “to his heel.” Ra-

diographs may or may not have shown abnormalities of the navicular bone, but chances are your horse was diagnosed with “navicular disease” no matter how the bone looked. He was treated with phenylbutazone (“bute”) and corrective shoeing. If your vet was pretty progressive, he may have injected the coffin joints with corticosteroid. ➔

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## The Best Was Yet to Come

I breed sport horses for all three international disciplines, and I have had the privilege of owning several internationally successful dressage stallions. One of those stallions, the 1994 Zweibrucker Leonberg (Lonely Boy XX x Romiros), survived an emergency colic surgery and not only returned to upper-level dressage competition, but had the best success of his career after recovery.

In 2006, Leonberg had colic surgery which included a resection of his intestine. In 2008, he returned to the show ring with Mikala Gundersen. From 2008 until his retirement to the breeding shed in 2010, Leonberg and Mikala became one of the top CDI pairs in the USA. During their three years together in the Grand Prix ring, they won several CDIs, including the Palm Beach (FL) Dressage Derby. They also competed at CDIO Aachen and were fifth in the Grand Prix Freestyle at Rotterdam, among other successes.

Leonberg, who is currently standing in Germany and participating in the stallion shows this spring, is still breeding mares today. We are currently on foal watch at my farm and are expecting a Leonberg



Horses Unlimited's Leonberg and rider Mikala Gundersen in Wellington, FL, in the late 2000s

baby out of Pikko del Cerro's full sister any day now. We are also expecting a Pik L baby out of a Leonberg daughter that I bred.

**Anne Sparks**  
Owner, Horses Unlimited  
Albuquerque, NM

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## A New Career in the Small Tour

**M**y now thirteen-year-old Hanoverian gelding, Grand Makana, was the reserve champion five-year-old at the 2005 Markel/USEF Young Horse Dressage Championships. In 2007, as a Third Level dressage horse, "Makana" went through double colic surgery. After twelve and a half feet of gut were cut out and huge hernias were left on the poor boy, the vets said he could maybe do Training or First Level.

He went on to compete in the Grand Prix, although I believe the piaffe work was affected by the hernias. We did make it through many tests, however, scoring into the mid-60s.

I have since dropped Makana down to the small tour. He almost made the 2012 NAJYRC last year for Region 7, and he is now competing at Prix St. Georges and Intermediate I with a new rider!

**Laurie Falvo  
San Marcos, CA**



*Grand Makana and owner/trainer/rider Laurie Falvo in the Grand Prix at the 2010 CDN Thermal (CA)*

Here's how that same scenario might play out today. Your horse's history and physical exam are all identical to 1979: His lameness blocks to the heel but with no abnormalities on his radiographs, and you don't have a definitive diagnosis. Enter ultrasound, nuclear scintigraphy, and MRI.

With these advanced diagnostic tools, your vet is able to identify a small tear in one of the tiny ligaments within your horse's foot. With this specific diagnosis in hand, treatment options such as platelet-rich plasma, stem-cell injections, and extracorporeal shockwave therapy may help stimulate



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## A Double Whammy

I am an adult amateur with a successful Intermediate I horse who had colic surgery at the end of August 2012. Whirlpool was nine years old at the time and had never had colic before, so it was quite unexpected. When they opened him up, they did not find any impactions. We had him scoped the next day and they didn't see any ulcers, so to this day we don't know what caused his colic.

In October, Whirlpool slowly went back to work, with the goal of going to a show in December. As part of routine maintenance, toward the end of November, we had his hocks injected. A week and a half later, one of his hocks had become swollen, and he required surgery for that as well.

After more stall rest and rehab, Whirlpool is back to work again. We showed in April for the first time since his surgeries. With my trainer, Melissa Jackson, riding, Whirlpool won the Prix St. Georges! We plan on being ready for I-I in June.


People need to know that horses can overcome these obstacles successfully.

**Laura Eyre  
Bradenton, FL**



*Melissa Jackson rides Whirlpool, owned by Laura Eyre, to a win at PSG at White Fences (FL) in April*


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healing. More important, knowing that your horse has a soft-tissue injury, the vet recommends rest and rehabilitation. Do bute and corrective shoeing still play a role? You bet—but now there are many other options to help.

The availability of advanced diagnostic technology means that treatments can be better targeted, and long-term recovery is more likely. Particularly with soft-tissue injuries, tailored rehabilitation programs along with regular monitoring of healing progress give horses a much better chance of getting sound and staying sound. No longer does a horse with a tendon injury get turned out in a field for a year to see how he heals. Instead, a thorough ultrasound exam will tell the vet just how much of the tendon is damaged, and careful, controlled exercise helps tissues heal in the best alignment possible.

Perhaps more than any other equine athlete, your dressage horse may not peak until his mid- to late teens. And very few of our equine athletes make it to middle age without some type of musculoskeletal injury. Improvements in

lameness recognition, diagnosis, and management really can improve the chances that your horse will someday canter down the center line with you in tails.

## Modern Horse Care: Tradition and Technology

It's been an interesting time to be a horseman. Most of us learned good old-fashioned horsemanship as children and cling to our grooming protocols and bandaging techniques. Meanwhile, advances in veterinary knowledge over the past several decades have been profound. Pay attention and embrace the change: Your horse will be sounder and healthier than ever before. ▲

*Barb Crabbe, DVM, is a practicing veterinarian and owner of Pacific Crest Sporthorse in Oregon City, OR. When she's not caring for dressage horses, she's breeding and riding them. She has competed through Intermediate I and has won multiple USDF Regional Championship titles.*

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