

KHOUTURE'S STORY

A filly with a broken leg is making a remarkable recovery

By Barbara Breckenfeld

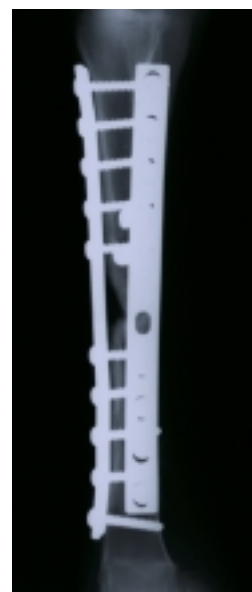
There was a time when a broken leg was a death sentence for any horse. Things have changed dramatically since then. The current capabilities of modern veterinary medicine provide alternatives that did not exist 25 years ago. While we don't have the technology to treat every fracture, there are more options than ever before. Today, the successful treatment of a fracture depends upon the location of the fracture, the type of fracture, the size of the horse, whether there is an open wound, and how well the horse accepts treatment. Even when the prognosis is good, horses don't always survive surgery and recovery—the very treatment intended to save them.

Khouture's story is one about a foal with a catastrophic leg fracture peopled with a risk-taking team of equine surgeons, a visionary and dedicated owner, a talented support team of caregivers, and a patient who was willing to be treated. Khouture turned one year old in June 2000. A black Arab filly with one white sock, she stands 13.1 hands and looks like a normal yearling, but in her owner's eyes, Khouture is already a champion for surviving the rigors of treatment, while remaining a sensible and loving creature.

As a one month old foal, An Khouture and her dam, An Fashionette, were boarded at Puget Sound Equine Reproduction Center (aka Puget Sound Farms) to ensure excellent care while their owner, Janet Neal did some professional traveling. One day during July 1999, the filly broke her leg while running in the pasture. The farm's manager, Mike Rainwater, saw the filly standing at the gate, and thought it odd, so he looked more closely. His experienced eye caught the dime-sized spot of blood where the bone was protruding. He immediately immobilized the leg, and called Pilchuck Veterinary Hospital for a doctor. The left front cannon bone had shattered from the inside while the foal was running around. His quick response saved her life.

Although it was a big risk, Khouture's owner was committed to saving the filly she had waited so long to have. After discussing the relative merits of surgery versus rebreeding the mare, a team of two surgeons, a veterinary anesthetist, an intern veterinarian, and two veterinary technologists began the journey to save Khouture's leg. In a surgery lasting nearly three hours, they installed two plates front and side to support the fracture, held in place by 21 screws, and created a weight bearing cast that reached from her shoulder, down her leg, and enclosed her hoof.

Long bone fractures are very serious injuries, and are difficult and complicated to treat. The process involves significant unknown factors. We can immobilize a horse's limb with plates and casts, but we can't immobilize the horse the way we would confine a human to bedrest; horses need to move around. In addition, the filly would grow several times her size over the course of treatment. There were numerous concerns about abnormal growth of the injured limb, as well as the uninjured one from compensating for the cast. It also was not known until the surgery began whether Khouture had severed the artery in her leg when the bone fractured. If the artery was not intact, the filly would not have survived. In addition, if the fracture had caused a dirty open wound, the risk of infections and complications could have been insurmountable.



Six months after injury, the fracture is still clearly visible.

Khouture's support team included Dr. Nancy Korenek, an equine surgeon who thought it possible that the filly could make a full recovery. Dr. Conrad Boulton also contributed his considerable expertise to her surgeries and to creating her casts and splints. Puget Sound Farms' Mike Rainwater provided knowledgeable care through each phase of the treatment. Khouture also benefited from the care of a chiropractor, and a farrier who fitted her with special shoes to correct her lax tendons and contracted hoof from being in a cast. Pilchuck's doctors worked in close partnership with Khouture's owner throughout the recovery process. For Janet Neal it was a crash course in equine anatomy, veterinary technology, and improvised physical therapy. Her dedicated work with her filly has paid off. Khouture would not be where she is today without the dedication of her owner, and her own level-headed nature. Dr. Korenek notes, "The team included the horse herself. Khouture made it easy to treat her. Treatment would not have been possible without her."

KHOUTURE'S MILESTONES

The first month was filled with questions and uncertainty. Would she develop an infection? She never ran a fever, and after five weeks at Pilchuck Veterinary Hospital, she went to Puget Sound Farms for continued recovery. The most critical time was six to eight weeks after the initial surgery when the risk of bone infection from the plates was highest.

Follow-up cast changes were made every two to three weeks for three months, also requiring general anesthesia. Three months after the injury the cast was removed and replaced with a splint. Khouture and her dam traveled the few miles from Puget Sound Farms to Pilchuck for the procedure.

Khouture's second long stay in hospital lasted for four weeks for the transition from cast to splint. The recovery was phased, exposing each weight-bearing joint gradually and slowly. The original cast covered her hoof and was designed to bear the weight of her leg. Stage one partially exposed her hoof; next her whole hoof was exposed, followed by the coronet band, and the fetlock. Last of all the knee was freed of the cast and was supported by a splint.

Some experimentation was needed to fit Khouture with a series of splints designed to allow progressively more weight on the leg and limited movement. At one stage a human orthopedic brace with Velcro was used so it could be removed for progressively longer periods of time each day. Her tendons were weak from disuse, and she required special shoes to correct dropped heels from weak tendons. They finally went to cotton and vet wrap, and after five weeks with no other support on her leg they began the surgeries to remove the plates.

Removal of the plates actually took place in three surgeries. Because bone is living tissue, it had adapted to the plates bearing weight, and it needed a gradual return to weight bearing, then gradual stress to prepare the bone to bear weight. Surgery to remove the first plate took place in January 2000. In the second surgery half the screws of the remaining plate were taken out, and finally the second plate and remaining screws were removed on April 11, 2000.

Weaning Khouture without injury presented another set of challenges. It was a traumatic event for mare and foal, even though they put Khouture with a miniature horse for company.



Remaining plate and screws after first surgery to remove.

The story continues. Now a yearling growing by leaps and bounds, the next milestone for Khouture is to be free of pain and moving with complete soundness. She and Fashionette live at home with Janet and go trail walking regularly in the nearby park.

For Janet Neal, Khouture's owner, the past year presented an ongoing series of new challenges. As soon as the filly was injured, she put much of her own plans on hold in order to dedicate herself to Khouture's recovery. All of her energy was focused on the day-to-day tasks and next steps of the healing process. She drove to Puget Sound Farms twice a day for physical therapy, and spent hours hand walking the filly, massaging and bending her knee. She says that what kept her going (besides lattes) was the clear image of Khouture running healthy and sound. The daily care provided a focus for her energy and a hands on expression of her love for the young horse.



Khouture at home, May 2000.

On the whole experience Janet comments, "I can't say enough about Pilchuck and Puget Sound Farms. There aren't words to express my gratitude, my respect for their ability, and the way they dealt with me and my horse." She finishes with a quote, "This story proves that triumph is a product of determination, of dedication to a dream, and most of all it is a product of love." A dedicated owner's love teamed with quality medical care, that is.

First published in *Flying Changes*, August 2000