

Provider Portrait

Surgeon Smashed Gender Barriers, Crossed Continents

By Todd Neff

The blue-gray Greenwood Village home looks much like the others on the street, but the two flags keeping guard above the front door offer a hint that there may be more to this particular dwelling than the exterior otherwise suggests. The stars and stripes hold one flank, the banner of South Africa the other, its stark green, yellow and black supplementing the red, white and blue on both.



Spine surgeon Evalina Burger, MD, in the living room with a few of her and husband Christiaan van der Walt's trophies.

And indeed, once inside, one finds a kind of museum, with two dozen or so animal trophies on the walls – many African antelope, but also alligator, American bison, black bear, and even sword-and-sailfish. Atop the grand piano in the entryway, the hoof of an African buffalo supports an ornamental tray holding a turquoise elephant and a pair of psychedelic tortoises. On opposite walls above the piano hangs the Queen of Saturn's embroidered, sequined black train and matching headdress rimmed with ostrich feathers, from the 1990 New Orleans Mardi Gras parade. The swooping headdress is so enormous that wires suspend it to spare the spine of its wearer.

Those who have met [Evalina Burger](#), MD, know her Afrikaans accent, but that's little more than a verbal signature. The story of how the University of Colorado School of Medicine orthopedic surgeon and spine specialist came to Colorado is as rich and variegated as the interior of the home she inhabits.

Beating the odds. Burger was raised in the industrial city of Vanderbijlpark, 40 miles southeast of Johannesburg. Her father, an engineer, had grown up on a farm, and the family spent time there during Burger's childhood. When Burger graduated from high school in 1978, she wanted to be a doctor. She was at the top of her class, but in South Africa at that time, she had little chance of meeting that goal. South Africa admitted perhaps 20 women into medical school a year in those days, Burger said.

"Typically in our culture, women were seen as barefoot and pregnant and in the kitchen," she said. "This wasn't meant to be demeaning. It had to do with just very suppressing Calvinistic roles. Women could be teachers or they could be nurses."

Still, she earned one of those coveted medical school spots. Her father paid for it by selling the farm. "Just don't expect an inheritance," he told her.

In 1984, Burger finished at the top of her medical school class at the University of the Orange Free State in Bloemfontein. She had gotten married, and her husband had found an accounting job in the steel industry back in Vanderbijlpark. They moved, and she spent her internship year in a 600-bed hospital there.

These were the days of apartheid and the time of the African National Congress (ANC) uprising. She worked Friday through Sunday, arriving at the hospital under police escort with anti-landmine vehicles. The

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wounded – Zulus, Xhosa, Ndebele, mainly – came in by the busload. Burger found herself doing combat surgery right out of med school. There were many she couldn't help, she recalled.

"They were so injured," she said. "I didn't have the knowledge."



Surf, turf and a passing duck. The more distant fish was landed by Robert D'Ambrosia, MD, chairman of the CU School of Medicine's Department of Orthopedics.

She wasn't yet 25 years old, but she was burned out to the point that she considered switching to a career in law. She met with the chairman of her university program. He wondered why she hadn't pursued academic medicine. Life had gotten in the way – marriage, the move – she explained.

"You want to be a surgeon," he told her. "That's a very hard life for a woman, but if that's what you want to do, nothing else will satisfy you, and you need to make the sacrifice."

The military. It was 1985 and civil war was raging in Angola. The South African military, heavily involved, was desperate for surgeons. Burger landed at 1 Military Hospital in Pretoria, by chance in an orthopedic clinic, where she spent the remainder of her internship year. She was then given the rank of captain and stayed another two years (South African doctors typically work for two years between their internships and residency, Burger said), sometimes traveling with teams from South African military intelligence, which had trained her in Portuguese.

In 1987, when it was time for her residency, Burger's first choice was surgery. The department chairman at her hospital in Pretoria told her point-blank that they didn't train women. The Plastic Surgery Department chair was more creative.

"He told me, 'Most women are not successful in plastic surgery because patients fall in love with their surgeons,'" Burger said.

Ultimately she was given a single choice if she hoped to stay at 1 Military Hospital: pediatrics.

She refused it and lost her residency spot entirely. Her medical career might have ended then. But the chairman of the University of Pretoria's orthopedic program had heard about her work in the military. He called and offered her a provisional six-month spot starting in July 1987.

Close call. The five-year residency turned into six when, having divorced and remarried Christiaan "Kees" van der Walt, Burger became pregnant. Because she took six weeks off when her son Chris was born in 1990, the department chair extended her residency – by a full year.

"It was really hard," Burger said. "When I listen to med students here complain, I say, 'Let me tell you my story.'"



There are memories in all her decorations, Burger said. The Big Mouth Billy Bass was a gift from a friend in New Orleans; the shot glasses are travel mementos. The stuffed-animal deer head was a gift from a VA patient Burger hunted with; he died a year after he presented it to her.

When her residency ended in 1993, she had intended to return to the military but there were no open positions. At Pretoria Academic Hospital, where she had spent her residency, there was an opening in the Spine section, which nobody apparently wanted to fill. The department chair suggested she take that on temporarily until she found a more appropriate position for a woman.

"They always said, 'for a woman,'" Burger said.

Her office was in an old building with high windows, and she bought drapes for it one weekend. The following Monday, Sept. 20, 1993, she climbed high up a ladder to hang them. She was steadying herself with a hand on a burglar bar when the bar

broke. She fell backwards about 20 feet, smashing the back of her neck on the corner of her desk. A colleague heard the thud. Burger went into cardiac arrest; her left vertebral artery was blocked, throttling blood flow to her brain. When she came to, the right side of her body was paralyzed. Lying there as a patient in her own unit, she made a covenant with God, she said.

"If you let me walk, I will do spine, because I now know what people go through when they're paralyzed," she said.



Burger's latest – and largest – kill remains at the taxidermist: a bull elk taken in January in western Colorado.

Focus on spine. She immersed and subsequently distinguished herself in the field. She had a particular interest in childhood spine deformities such as scoliosis. In 2000, she became the first South African woman and just the third female since 1948 awarded a prestigious American Orthopedic Association [ABC Traveling Fellowship](#). Among the 36 institutions she visited in the United States and Canada was the LSU Health Sciences Center in New Orleans.

After a talk she gave, the head of the Orthopedics Department there "stormed down and introduced himself," as Burger recalls. "He said, 'I'm Bob D'Ambrosia, and I want you to come work with me,'" she recalled. This was [Robert D'Ambrosia](#), MD, today a colleague of Burger's in the Orthopedics Department at CU.

"I thought, 'This is an orthopedic surgeon I would like to have set up a spine unit in New Orleans,'" D'Ambrosia said.

Burger was polite, but declined the offer and returned to South Africa. By then, the AIDS epidemic had brought the South African health system to its knees.

"A first-world medical country became third-world overnight," she said.

Administrators slashed the bed count of her spine unit – one of just two in the country – from 25 beds to 10 beds. They forbade her to do surgery, because, as they explained, "If you have 50 kids dying of starvation and one with a skewed back, the one with the skewed back is not going to die," Burger recalled.

She considered England, but ended up working for D'Ambrosia after all, emigrating hastily shortly after the Sept. 11, 2001 attacks to New Orleans, where she developed LSU's Adult Spine Service. Hurricane Katrina in 2005 was the beginning of the end of Burger's time there, but in 2006, she rejoined D'Ambrosia, who in 2002 had become chair of Orthopedics at CU.

Since 2008, Burger has served as the department's vice-chair. D'Ambrosia chose her because, as he put it, "she has that distinct quality of being able to think about what's best for everybody in the room before she thinks about herself."

She remains an elite spine surgeon, possessing what D'Ambrosia described as "outstanding surgical hands" and the finest surgical skills he's ever seen in a spine specialist.

Burger is also an accomplished clinical researcher with particular interests in fixing deformities such as scoliosis and [kyphosis](#) and removing spinal tumors and reconstructing the aftermath. Her studies have often focused on materials, an interest born with the realization years back that titanium rods bent to the specific postures of scoliosis patients were straightening over time. Her work led to a new high-temperature annealing process that prevents the metallurgical bounce-back.

In 2014, she landed a \$500,000 grant from the The Anschutz Foundation; among other work, it will support an effort to come up with a blood test to predict the ultimate severity of scoliosis in children. Such a test, Burger said, would help physicians know when to intervene early, avoid multiple X-rays, and lessen the anxiety of patients and their families.

Burger has talked through all this while sitting at a U-shaped bar hewn and sanded from black ironwood harvested from South African railroad ties, a zebra skin pelt hanging before her. The question of all the animal heads comes up.

The hunt. Her father had taught her how to use a pellet gun and a small handgun on the farm when she was young, and she carried

one in a shoulder holster under her clothes while living in South Africa. Once, a knife-wielding home intruder stared down its barrel. Wisely, he fled. But she had never hunted until she met husband Kees, an avid sportsman. She went along on a hunting trip on a big-game farm, a fenced-in expanse of thousands of acres. This was, she said, “an absolute no-no, because it’s a man’s activity, and his friends were all balking for him bringing his wife on a hunting trip.”

One of them spotted a [blesbok](#), about the size of a pronghorn, through binoculars, 375 yards away. “Can you get it?” the man asked her, assuming she couldn’t.

“I’ll get it,” she said. She did, right behind the ear.

As her son Chris grew old enough to accompany his father on hunting trips, Burger realized, “I could either stay at home and be miserable or go with them,” she said.

They’ve always consumed their quarry, she said, with the exception of the black bear hanging on the stairway wall. Her most recent prize came in January, during a hunting trip to mark their 25th wedding anniversary: a bull elk that yielded 970 pounds of meat (the Burger-van der Walt basement features five freezers and a meat plant). She had let younger bulls pass; this one, dropped near Grand Junction with a shot through the tip of the heart at 275 yards, had few teeth left, she said. The gun she used had been built by her son, who is now 25 and a competitive marksman. It’s light and easier for Burger to shoulder since surviving breast cancer surgery in 2010.

“Instead of a diamond, I got an elk,” she said.

All these mounted trophies, she said, boil down to bonding.

“I love to hunt once a year because it’s very precious time with my family,” she said. “We don’t watch TV. Time stands still. It’s the hunt.”

Back home, they cut their own steaks, grind their own sausage, and invite the neighbors over for venison-pie feasts.

She said she misses the beauty of her country of birth, adding that Africa “gets into your blood.” One might wonder if she intends to live there again one day. But no, she said.

“I am a proud citizen of the U.S.A. and my life and friends are here,” Burger said.

With a home full of colors, trophies and memories of her ancestral and adoptive homes, she can, it’s clear, be both here and there.