

Mr. Wariner, 73, of South Bound Brook, got tangled in some wild blackberry vines in his backyard while doing yardwork last summer. Thorns punctured the skin on his left leg. Within two days, the leg was red and inflamed. Despite two hospital stays over the next month which included antibiotics and surgical debridements to remove the infected area, the wound would not heal.

"It was an insidious wound that kept getting worse. It was very worrisome," said Jerry Sheen, MD, an infectious disease specialist.

Tests showed Mr. Wariner – the father of two and grandfather of five—had developed gangrene in his leg. Gangrene is a potentially fatal condition that occurs when an infection cuts off the blood supply to tissues, causing them to decay and die.

Following the diagnosis, Dr. Sheen prescribed hyperbaric oxygen therapy at the Center for Wound Healing at Robert Wood Johnson University Hospital Somerset (RWJ Somerset), which opened last October.

For two weeks, Mr. Wariner spent 90 minutes a day lying in a glass-enclosed chamber that delivers 100 percent oxygen with increased atmospheric pressure.

"The high concentration of oxygen penetrates the wound so it kills bacteria and increases tissue growth to promote the healing process," said Dr. Sheen.

Mr. Wariner, who feared that his leg would need to be amputated, said his leg began to feel better after the fourth day in the hyperbaric chamber. At the same time, he was treated with antibiotics and also wore a negative pressure wound vac on his leg 24/7. This vacuum-like device suctioned fluid from the wound.

After completing hyperbaric oxygen therapy, he returned to the Center for Wound Healing for two months for weekly debridements and application of advanced wound products to facilitate healing.

"I consider myself very lucky," Mr. Wariner said. "If I hadn't met Dr. Sheen, I wouldn't be here today. It's a miracle of modern science. The staff at the center was wonderful. They were very attentive and made me feel comfortable."

Hyperbaric oxygen therapy, which is also offered at the Center for Wound Healing at RWJ New Brunswick, has shown to be beneficial for diabetic patients with non-healing ulcers, as well as those with arterial ulcers and other types of wounds that fail to respond to conservative therapy. Hyperbaric oxygen therapy also treats conditions without open wounds, such as radionecrosis and osteoradionecrosis (death of tissue and bone following radiation exposure), osteomyelitis (bone infection) and idiopathic sudden sensorineural hearing loss (sudden deafness).

"Between 5 and 7 million Americans experience at least one form of chronic wounds annually and the incidence of these types of wounds is increasing by

approximately 10 percent each year;" said Brandon Zuklie, DPM, a podiatric surgeon and co-director of the Center for Wound Healing at RWJ Somerset, a title he shares with Robert Segal, MD, an infectious disease specialist. "Many of these individuals suffer from wounds that refuse to heal despite conventional treatment. These chronic, non-healing wounds seldom involve a simple answer."

Patients who are prescribed hyperbaric oxygen therapy typically require two-hour treatment sessions five days a week. Each session requires 10 to 15 minutes to reach the necessary atmospheric pressure before a 90-minute treatment, and then another 10 to 15 minutes to return to normal atmospheric pressure.

Mr. Wariner, who retired in 2007 from Ethicon where he worked for 41 years as a millright doing electrical and masonry work, is happy to be spending time outside again and sharing walks with his wife Diane. He's also looking forward to getting his yard ready for spring.

"I'm an outdoor person," he said. "I always say I'm like a plant – I need my sunlight. And now I'm looking forward to being able to do anything I want with my leg fully healed."

Visit www.rwjuh.edu/woundcare or call I-888-MD-RWJUH.



Shown above: Jerry Sheen, MD, an infectious disease specialist at Robert Wood Johnson University Hospital Somerset, prescribed an aggressive treatment plan for David Wariner's stubborn, non-healing gangrene infection using the therapies and resources available at the Center for Wound Healing at RWJ Somerset.

DID YOU KNOW?

There are 4 RWJ wound healing centers:

Center For Wound Healing at RWJ New Brunswick 48 French Street, New Brunswick 732-418-8084

> Center for Wound Healing and Hyperbaric Medicine at RWJ Rahway 865 Stone Street, Rahway 732-453-2915

Center for Wound Healing at RWJ Hamilton One Hamilton Health Place, Hamilton 609-249-8300

Center for Wound Healing at RWJ Somerset 110 Rehill Avenue, Somerville 908-203-6200