

Pressure Sores Are Painful, but Preventable

Excruciating!” That’s how Rose Marie “Rosie” Benecke describes the pain she experienced from a pressure ulcer she developed on her right buttock early last year. “I’d had them before but was always able to get over them in a few days,” she said. “This time the pain was so bad that the only comfort was to lie down.”

The risk of developing pressure ulcers, also called bedsores or pressure sores, is ever present for people who spend their days in a wheelchair or in bed. They are caused by sitting or lying in one position for too long, which puts pressure on certain areas of the body. This pressure cuts off blood supply to that area and can cause the skin and underlying tissue to die, which leads to the formation of a pressure sore.



“The Most Remarkable Woman I Know”

That’s how Beth Hughes introduced her mother, Rosie Benecke, to Peabody Energy colleagues at the company’s United Way kickoff rally that featured Rosie and Lewis, the service dog she received through Support Dogs Inc., a United Way agency.

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In the earliest stages, the skin looks red and may burn, hurt or itch, but remains intact. As the pressure sore develops, the skin breaks open and looks like an abrasion or a blister. As the sore worsens and extends beneath the skin surface, it takes on a crater-like appearance as the wound deepens. In the fourth and most serious stage, severe damage to deeper tissues may affect muscles, bones, tendons and joints. Risk of infection increases, and serious complications such as osteomyelitis (bone infection) or sepsis (infection carried through the blood) can occur.

Rosie said she regularly uses A+D® ointment, which contains lanolin, to moisturize her skin, but because of the pain, she began applying Neosporin® + Pain Relief ointment to the pressure sore. Her husband fashioned a foam rubber cushion, cutting a hole out for the affected area, and a wheelchair-user friend loaned her a Roho® seat cushion, but it proved unwieldy to

use. She realized that she needed a long-term solution.

Both her internist and a plastic surgeon confirmed that the sore was in an early stage and appeared to be improving. Anxious to speed the healing process and avoid future painful episodes, Rosie saw a physiatrist who recommended she contact United Seating and Mobility, a company offering a variety of products and services to wheelchair users.

“They recommended a Quadtro® Roho cushion [a cushion with a “memory” that adjusts itself when the user shifts positions] that I use in my power chair, but it was too squishy for my manual chair when transferring,” she said. “I don’t use the power chair in the house – it’s like driving a tank. Plus the manual chair gives me some arm exercise. A technician came out and did a seating evaluation, and a custom cushion was designed.”

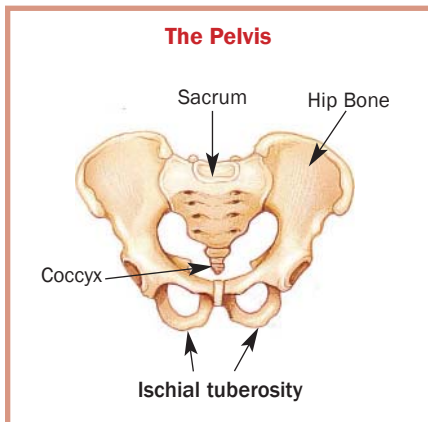
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Jamie Patton was the assistive technology professional who evaluated Rosie's seating for her custom cushion. Certified by the Rehabilitation Engineering and Assistive Technology Society, he is trained to evaluate complex mobility problems.

"Rosie's problem was in transferring laterally," Patton said. "The seating evaluation was accomplished by 'pressure mapping,' using a sensor pad linked to a laptop screen. It measures downward pressure when seated and shows exactly where the 'hot spots' are. These are typically the ischial tuberosity, the two lowest bones in the pelvis, and the coccyx or tailbone. Our solution was a Roho surrounded by a flat cushion that provided stability.



"When someone sits on the sensor pad, we see a dynamic readout on the screen and begin troubleshooting, using different cushions – gel, foam, Roho, etc. – and keep testing until the pressure is relieved and the 'hot spots' disappear," Patton said. "We also teach people

Prevention and Treatment of Pressure Ulcers

Prevention of pressure ulcers is critical because treatment can be difficult. If you spend most of your day in a wheelchair or in bed, you are at risk. Being overweight or underweight and having bladder and/or bowel incontinence also increase your chances of developing a pressure sore, as do having diabetes or a stroke, which may have numbed or decreased sensation in a certain area of your body.

You or your caregiver should check your body daily, looking carefully at areas where pressure ulcers may form – heels and ankles, knees, hips, spine, tailbone area, elbows, shoulders and shoulder blades, back of head and ears.

If you use a wheelchair, make sure it is the right size for you and have your doctor or physical therapist check the fit once or twice a year, particularly if you gain or lose weight or if you feel pressure anywhere. Sit straight and upright and shift your weight in the chair every 15 minutes by leaning forward and moving side to side.

If you transfer yourself, lift your body up with your arms and do not drag yourself. This will prevent "shearing" that removes protective layers of your skin making it more prone to break down. Avoid clothing with thick seams, buttons or zippers that press on your skin. Don't wear clothes that are too tight. Keep clothes from wrinkling or bunching up in areas where there is any pressure on your body.

Maintain a healthy diet and drink plenty of fluids to keep the skin well-hydrated. Don't smoke, and limit caffeine. Both smoking and caffeine cause constriction of the blood vessels, which decreases the blood supply to the healthy body tissues.

Take care of your skin. Use a soft sponge or cloth when bathing and don't scrub hard. Don't use talcum powder or strong soaps and use moisturizers every day. Clean and carefully dry areas beneath your breasts and in your groin. After bladder or bowel movements, clean the area immediately and dry it well. Ask your doctor about creams to help protect the skin.

If you suspect that you are developing a pressure sore, consult your health care provider right away to get specific treatment and care instructions. If the skin is broken, he or she can instruct you on proper cleaning and care to prevent infection as well as recommend special gauze dressings made for pressure sores. Medicines that promote skin healing can also be prescribed. ▲

Sources: U.S. National Library of Medicine, National Institutes of Health; *Journal of the American Medical Association*

how to keep the pressure under control. Unlike people with spinal cord injuries who have a loss of sensation, most polio survivors can feel pressure and shift their weight to redistribute it."

Even though she is still wrangling with Medicare to cover the cost of the custom cushion, Rosie is happy with the solution and has not had any pressure sores since she began using it. ▲

“The Most Remarkable Woman I Know”

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Rosie contracted polio at age 11 in 1951. “I was paralyzed all over,” she recalls. After being hospitalized and on a Monaghan respirator for six months, she came home in a wheelchair, which she’s used ever since. She received a bachelor’s degree in 1962 from Webster University in St. Louis and a master’s degree in special education from the University of Missouri–St. Louis in 1983. After a 25-year teaching career, including 19 years as a special education teacher for the St. Louis Special School District, she retired in 2002. She is married and the mother of two children.

“I have used a ventilator with nasal mask at night since 1990, and I also lie down twice a day and use a vent with a mouthpiece,” she said. “I received my first service dog, Clancy, in 1991. She really increased my independence. She pulled me in my manual chair in and out of the high school where I taught, through shopping malls, grocery stores and any other place I needed to go. She’d help me fold up my chair and pull it into the back seat of the car. She opened doors for me with a door hook and picked up my glasses, pencil, shoes or whatever I dropped.”

Following the deaths of Clancy and Omni, another beloved service dog, Rosie got Lewis in 2009. “Because of post-polio syndrome, I experienced more weakness and could no longer pull my chair in and out of the car, so now I use a power wheelchair from which I can drive my van. Since I have retired from teaching, Lewis doesn’t have to do quite so much for me. Service dogs have increased my independence and added much joy to my life.” ▲



Beth Hughes, senior administrator at Peabody Energy, her mother, Rosie Benecke, and service dog, Lewis, at the company's United Way kickoff in St. Louis' Forest Park.

Photo: Brishen Combs, Obata Design.



PHI Executive Director Networks in Copenhagen

PHI Executive Director Joan L. Headley (right) participated in a panel discussion “Improving Worldwide Networking to Improve the Lives of All Survivors” at a recent conference on **Post-Polio Syndrome – A Challenge for Today** in Copenhagen, Denmark, organized by the Danish Society of Polio and Accident Victims and the European Polio Union. To see photos, PowerPoint presentations, abstracts and posters, go to www.poliocconference.com. Fellow panelists pictured with Joan are Johan Bijttebier of Belgium and Els Symons and Addje De Groot from the Netherlands.