"I've often wondered what would have occurred if my stroke had happened in Patagonia. I might be pushing up daises in the pampas."

Frank Lang, on being fortunate to receive medical treatment so quickly

Frank Lang, 74, said he was fortunate after his stroke, thanks to family, friends and medical professionals. His advice for everyone is to "have a plan in the event something like this happens. They should plan where they are going and who to call. No dithering."

TIME IS BRAIN

Preventing brain damage depends on recognizing, reacting to stroke signs

Warning signs of a stroke are easy to spot, says Dr. Oscar Sanchez.

"If the patient has difficulty speaking, a sudden weakness of arms or legs or face, difficulty pronouncing words, difficulty seeing, sudden severe headache or difficulty in ability to coordinate or walk, then call 911," said the neurologist and medical director of Rogue Valley Medical Center's primary stroke center.

The quicker a stroke victim receives professional help, the less brain damage there will be, he stressed.

Recent studies indicate that some people may be genetically predisposed to certain types of strokes, he said.

"But right now the most important thing is to control the risk factors," he said.

Those risks include cardiac rhythm problems, high blood pressure, cholesterol, inappropriate diet and diabetes, he said.

Ischemic stroke

The most common stroke — nearly 90 percent — is an ischemic stroke that occurs when blood clots block the blood vessels to the brain.

Ischemic stroke

More online
For more information about strokes, check out www.stroke.org.

Nearly 800,000 people are expected to die from strokes in the United States this year, according to the Centers for Disease Control and Prevention in Atlanta.

Frank Lang is living proof that a quick, proper response can fight back against the debilitating effects of a stroke

As he often does late at night, retired biology professor Frank Lang rolled out of bed at his home in Ashland to go to the bathroom.

"Old guys get up a lot during the night," he observed with his trademark humor. "So I wake up, get out of bed and suddenly find myself flopping around on the floor."

When Suzanne, his wife of 65 years, called out to him, his reply was mumbled.

"He couldn't get up — and I couldn't get him up," she said.

She called 911.

Frank, 74, who taught biology at what is now Southern Oregon University for more than 30 years and is the author of the popular "A Nature Notes Sampler" book, had suffered a stroke.

It was 1:30 a.m. Dec. 15, 2010. Paramedics from Ashland Fire & Rescue arrived quickly, whisking him to Rogue Valley Medical Center in Medford.

A clot in his right carotid artery had blocked the blood flow to his brain. He could not see out of his left eye, let alone sense the left side of his body. His legs were numb; his thoughts jumbled.

A stroke begins killing brain cells within minutes of striking a victim, said Dr. Oscar Sanchez, neurologist and medical director of the primary stroke center at RVMC.
Stroke

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“If the blood pressure stops in that blood vessel, the blood vessel closes,” he said. “The nerve cells can't be working if the oxygen more than four to 12 minutes.”

In fact, human brains on the average lose an estimated 8.7 hours of life for every second of a stroke, according to stroke experts. At that rate, the brain loss is 3.6 years of life for every hour in which a stroke is left untreated, they estimate.

In Frank's case, swift action by his wife, the ambulance crew and the stroke team at RVMC minimized the adverse effects, according to medical experts at the facility.

While the medical community once did little for stroke patients, it now has the ability to intervene, recognizing that “time is brain,” Sanchez said.

“We are getting more and more aggressive,” Sanchez said. “What we want to act very quickly because we now understand that if we can minimize the length of time the neurons are not receiving blood, we are going to have a better outcome.”

Medical interventions include clot-busting drugs as well as surgery to remove blockages such as plaque in arteries, he said, adding that physical and medical therapy are also essential in the rehabilitation process.

The Langs were told that, on a scale from one to 10 with the latter being the worst, Frank’s stroke was about a six.

“I’ve traveled to places like Argentina and Tasmania,” Frank Lang said. “I’ve often wondered what would have occurred if my stroke had happened in Patagonia, I might be upping daisies in the pampas.”

Only 36 percent of Americans live near a hospital designated as a primary stroke center. Local residents have the facility at RVMC as well as the Eastern Oregon Stroke Program at Providence Medford Medical Center.

Lang, whose relaxing voice is familiar to Jefferson Public Radio listeners as the reader of “Nature Notes,” figures he was in relatively good health before the stroke.

“I’ve always done a lot of hiking and mountain biking,” he said. “I used to run the tail off my students during field trips. I played soccer in my 50s. Of course, I didn’t start until I was in my 40s.

Yet he had a heart arrhythmia problem for years and was taking a blood thinner to prevent a clot in the heart muscle.

“The stroke was pretty shocking,” Suzanne said, noting they had expected the blood thinner to ward off a blocked artery.

“But we were doing the right things,” she added. “It just kind of snuck up on us.

As a couple, they consciously tried to make his stroke a positive learning experience. They had met at Oregon State University, where he received a bachelor’s degree in botany. He earned a master’s degree from the University of Washington, where she graduated with a bachelor’s degree in business. He later achieved a doctorate in botany from the University of British Columbia.

They have two adult children, Amy and Tom, both of whom live in the Seattle area. But the stroke tested the Langs’ mettle.

Frank initially received lifesaving drugs to open blood flow to his brain. Surgery was later performed to remove the blockage in his carotid artery. His recovery was incremental.

When I was first in the hospital, I would eat and I finished eating, then I would sleep for a long time,” Suzanne said. “I just couldn’t move my left arm or left leg.

“My left arm hung for quite a while — I couldn’t move it. My head and see the whole left side of my plate still had food on it,” he said of his initial inability to see out of his left eye.

But full sight gradually returned. He spent three weeks in RVMC’s rehabilitation center working with speech, physical and occupational therapists.

Like most stroke patients, he had trouble with planning strategies, said speech therapist Hilary Anderson.

“Attention — memory, attention, problem-solving, sequencing,” she said. “It is very common with stroke patients.

“Frank did very well in a short amount of time,” she added. “He was also very determined. We find if patients are hardworking, determined and have a lot of support from family and friends, they often do very well in recovery.”

The therapists also pushed him hard, knowing it was crucial to his recovery, Frank said.

“Do you know the difference between a terrorist and a physical therapist? You can negotiate with a terrorist,” he joked.

He acquired an iPad for brain exercises, relying on Lumosity.com and other sites to build his mental muscles.

“I’m a pretty patient guy about stuff,” he said. “That may come from being in the classroom so many years and being asked the same questions countless times.

That patience was sorely needed, he acknowledged.

“A big accomplishment was learning to use a zipper again,” he said. “I can’t say ‘what?’ It never bounces back as high each time.

“Tent recovery for a lot of illnesses is like that as you get older.”

But the ball sometimes bounces all the way back for some stroke patients, Sanchez said.

“In some cases, you can’t believe that the patient after a very large stroke is able to go back and essentially function at the level of the way they were before.”

Back at the comfortable Lang home in Ashland, Frank can often be seen walking — without a limp. Their dog, Rupert, is a West Highland white terrier with a penchant for barking at deer.

“Frank walks the dog two or three times a day,” he said. “He’s a little slower at it but it’s one of the things he’s back doing.

“My legs were no problem for me, it was the driving ability to have his exchange his vehicle with a stick shift to one with automatic transmission. And he is working out in a local gym that caters to folks over 55.

Since Frank’s stroke, the couple have hiked the two-mile, round-trip Plaikin Falls Trail in Crater Lake National Park.

He is back reading and writing, including a column periodically in the Jefferson Monthly and entries for the online Oregon Encyclopedia.

“I’m still considered, I’m doing well,” Frank said.

The Langs know there are still challenges ahead, but they are surmountable.

“One of us is a little stubborn,” Suzanne said with a smile.

“I’m used to calling it persistence,” he said.

Mail Tribune / Jamie Lusch


Damage

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The most common — nearly 90 percent — is ischemic stroke that occurs when blood clots block the blood vessels to the brain.

Both RVMC and Providence Medford Medical Center for the primary center have established protocols to minimize the dead effects of a stroke.

Interventions range from clot-busting drugs to surgery to remove blockages.

“Primary stroke center certified hospitals have better outcomes for noncertified hospitals,” said Charity Barrueta, a registered nurse and program coordinator for RVMC’s stroke center.

A system at RVMC scheduled to be in place Monday will allow emergency staff to contact specialists at the Oregon Health & Science University in Portland within five to seven minutes of a stroke patient’s arrival, she said.

“We’re linking with OHSU through our telemedicine services,” Barrueta said.

“If an acute stroke patient comes into the emergency department, our ER physician will immediately call OHSU and discuss the case.”

If necessary, a telemedicine robot will be brought into the patient’s room.

“This is a mechanism for the OHSU stroke neurologist to visualize the patient through a very fancy robot and do an assessment with the ER physician,” she said. “It is like they are physically there in the room.”

A similar system recently was installed in the Carl Breland Stroke Program at Providence. The “telesstroke” service offers instant video-conference access to neurologists at the Providence Brain Institute in Portland, according to a spokeswoman.

The percentage of strokes is generally higher among the older population because of increased risk factors brought about by age, Sanchez said.

“Not everybody has the same severe weakness and fatigue that can develop,” he said. “But the older we are, the less reserve we have.”

A stroke in our senior years does not mean we cannot bounce back, he said.

“Stroke can last a lifetime, but we die, we die,” he said. “It depends obviously on what area was affected by the stroke. Some of the things we learn are compensatory. And some are learning new activities involving other areas of the brain that could do the same or similar function to help us compensate.

Unfortunately, while the medical community is making great strides in helping stroke victims recover, there likely will be a higher percentage of strokes in the future, he said.

“There is going to be a major explosion of strokes,” he predicted. “Children have different habits than we did as kids. There is a real epidemic because of the high blood pressure, to mention one.”

In two decades, there could be a 30 percent increase in strokes because of health problems among today’s children, he said, citing recent medical research.

“It is really a worrisome proposition,” he said.

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