

# When Do You Need a Power Chair?

Lawrence (Larry) C. Becker, PhD, Roanoke, Virginia, lbecker@bookwork.net  
Saul Morse, JD, Springfield, Illinois, SaulMorse@sbcglobal.net

*Larry Becker and Saul Morse, both polio survivors and members of PHI's board of directors, recently took delivery of new power wheelchairs – both, coincidentally, are Permobil chairs made in Sweden. PHI asked Larry and Saul to share their experiences and decision-making processes with readers who may be contemplating a power chair purchase.*

**PHI:** When did you have polio, and what assistive devices have you used in the past?

**Larry:** I contracted polio in 1952 at age 13. It affected my hands and arms, but not my legs and feet – what we called “upside-down” polio. Through college and graduate school and then 20 years of teaching, I used a chair occasionally and had a golf cart to get around campus. I rented a chair in the mid-1980s and finally bought the first of three scooters, which had to be modified with foot controls.

**Saul:** I had polio in 1949 when I was 21 months old. The next two years are a blur. I was separated from my family and isolated in an iron lung. I came home with a manual wheelchair. I have no recollection of a time when I didn't use one. After graduating from high school, I entered the University of Illinois, which had started a program for disabled veterans following World War II. You had to be able to push yourself, and we had to push a mile-and-a-half before breakfast to get in shape. Power chairs were not allowed, and there were no ADA laws on the books. I used a manual chair exclusively until the early 1980s when I traded my van in for another and also got a scooter.

**PHI:** When and why did you first purchase a power wheelchair?

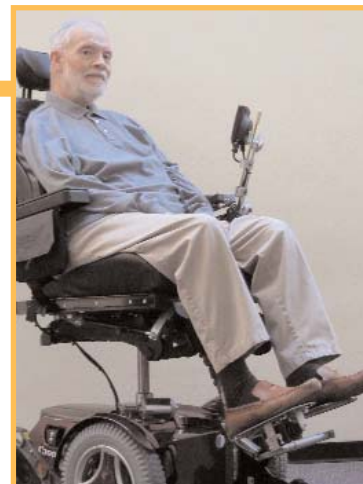
**Larry:** I got my former power chair, which was something like a personal assault vehicle – with foot controls – in 2001. I was having trouble with

transfers at the office, and it was increasingly difficult to transfer at home. I have read all about the late effects of polio, but I have always had a tussle acknowledging new problems as developing problems that might get worse. So I just bought the first power chair off the rack, without any modification other than the foot control, and without getting a thorough evaluation.

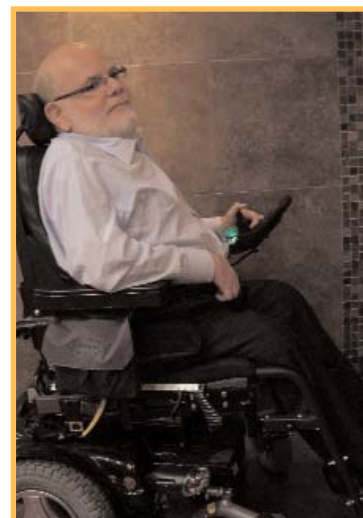
**Saul:** In the late 1980s, I represented an equipment supplier and received two manual wheelchairs as an initial fee and, later, a power chair because I didn't think I would be paid otherwise. At the time, my son was three, and I found that I was able to chase him better in the power chair and could also take him for rides. And I discovered that I was not as exhausted at the end of the day. By the early 1990s, I was using a power chair 80 to 90 percent of the time and, finally, all the time, except for transferring out of bed in the morning (and briefly when I had a mid-life crisis convertible and had to use a manual chair).

**PHI:** What factors did you consider in your recent purchase of a power wheelchair?

**Larry:** I think the crucial considerations in my case were first, what uses I could now make of the chair that would be helpful, and second, what my needs are likely to be for the foreseeable future. Some of the features on the old power chair were not



*Larry Becker with his new chair elevated “to the max.” “The seat puts me on the same vertical plane as the center of gravity so it is very stable, and I am on an eye level with anyone under 5 foot 8 inches or so.”*



*Saul Morse operates his chair with a left-hand joystick. “The controller screen shows me the ‘drive profile’ of the chair, and has a speedometer, odometer, an indication of the charge level of the battery and a clock.”*

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*Detail of Larry's foot control. In drive mode, pushing the toe down produces forward motion, heel down is backward motion, and toes outward or inward turn the chair. "There is a very secure neutral position, so I can actually safely rest my foot in the position shown. Getting back into drive mode just takes a quick rightward flick of my foot."*

always the best ergonomically, and it was not only getting old and unreliable, but also hard to use.

I have full muscle control in my feet and require a foot-controlled chair. In the old chair, the control was mounted on top of the foot pedal, causing me to shift weight onto my left hip. It was also very touchy. I couldn't safely let my right foot fully rest on it, even while I was driving. I talked to a rehabilitation engineer and to an occupational therapist (OT) and an adaptive technology engineer, who observed me in my office to assess my needs. They agreed I needed a new chair, but they insisted that it be a custom chair and that I go through a full evaluation.

**Saul:** I've now had several power chairs. It used to be that insurance companies considered the useful life of a chair to be five years, but not any more. My old chair is a Permobil that is six-plus years old and has been used 14 to 18 hours a day every day of the year. I wanted a new Permobil that was identical because I drive my van in the chair – it rolls in and locks into place. Permobil is reputed to be the world's best mass-marketed chair, perhaps because manufacturers in Europe are required to pay for any repairs during the first five years, so they are built to last.

**Permobil** has been committed to enhancing the lives of people with disabilities for more than 40 years. As a world's leader in developing and manufacturing powered wheelchairs, Permobil is a global company whose products can be found in more than 30 countries on four continents. Its world headquarters office is Timrå, Sweden. Its North American headquarters is in Lebanon, Tennessee. Permobil's products include power wheelchairs, seating operations, accessories and operating systems. For more information, visit [www.permobil.com](http://www.permobil.com)

**PHI:** What was the administrative process you went through to get and fund the new chair?

**Larry:** The first step was to meet with my doctor who wrote an order – in my case to Medicare – saying that I needed a power chair. I made several trips to the Woodrow Wilson Rehabilitation Center, which provides comprehensive medical, assistive technology and vocational rehabilitation services to Virginia citizens with disabilities. I tried out lots of chairs on a variety of terrains. A durable medical equipment supplier (DME), who certifies to the insurance company that a power chair is needed, sent specialists to do a home evaluation. Meshing schedules with all these people meant that this full assessment took about six months with a lost paperwork glitch adding several weeks. Because mine is a customized chair, elaborate specifications were necessary for the factory fabrication. The chair was delivered to the rehab center and various features adjusted for my use. I can't use a hand-controlled joystick, and a foot-controlled joystick is not typical, so a factory representative was involved in getting that installed under the foot rest.

**Saul:** I had a face-to-face meeting with the doctor, who wrote the order. I had an OT evaluation and a DME home inspection. My insurance is through the state of Illinois, as a retired employee, and initially they wanted me to buy a cheaper model. After some negotiation, we reached an agreed price, and the power chair was ordered. People who need a high-end custom chair have to work for it! When the chair was delivered, the OT reviewed my needs and made some adjustments. ▷

## Learning to Drive: One Hand at a Time

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**PHI:** Tell us about your new chair.

**Larry:** It's an astounding chair! The foot control is wonderful – a joystick turned on its side and mounted under the foot rest. The chair has an elevating seat, which helps with transfers, and I can now carry on a conversation eye-to-eye with most people. Getting enough ground clearance for the foot control required putting a slight tilt in the seat, and although I don't need it now, the seat also reclines. The chair also has "attendant control," a joystick usable by someone else. The foot control is equipped with Bluetooth® capability for wireless operation of my computer mouse. An on-board screen that I can operate with either the foot control or a mouthstick indicates seat position, drive speed and battery level. It's a front-wheel drive and weighs 260 pounds. The top speed is 5 miles per hour. The technology is so good now – I think it's the only chair I'll ever need.

**Saul:** My chair has a left-hand joystick. It has a seat elevator, which is great for restaurants, talking to people at eye level and transferring to high beds in hotels. I also got a seat recliner that I use more than I had imagined. It's a rear-wheel drive and weighs 280 pounds. Top speed is 7 to 8 miles per hour. I like speed! ▲

**Stephen Kinstler**, United Access Mobility Specialist, St. Louis, Missouri, [skinstler@unitedaccess.com](mailto:skinstler@unitedaccess.com)

More than half of the modifications we do are non-driver modifications – wheelchair and scooter ramps and lifts, van door and roof extensions, etc., that have to do with mobility issues.

Because Joan needed driver modifications, she had to be assessed by a Certified Driving Rehabilitation Specialist, an occupational therapist who gives us an independent, impartial evaluation of what is needed. The therapist provides on-the-road driver training on hand controls and may be able to develop exercises to strengthen driving muscles. The therapist also observed that, in Joan's case, reduced-effort steering was needed. This reduces the amount of strength required to turn the wheel by half or more and can even to go zero.

Joan recognized that she needed help and she got it. Mobility changes for people who have had polio are often gradual, and they sometimes feel they are giving up something when they get help. I had a spinal cord injury, so, for me, change was instant, but I understand the reluctance to give something up. I say, don't be afraid to need a little help – it's out there if you just look. ▲



Stephen Kinstler

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