

Lessons from Loss

After the Fall - Taking a Chance on Ladder Safety – A Real Life Story

Scenario: I was working to remove some old siding. I got to the highest peak just below the roof line. I debated for a moment if I could really reach this section with the ladder I had. I quickly surmised that I could - maybe with just a bit of stretch. Outstretched, I took a hold of the siding and gave it a good tug. The next few seconds lasted what seemed then like an eternity.

My tug on the siding and my position on the ladder generated enough force to send the ladder and me falling to the ground. I fell about 10 or 12 feet. While I was falling I kept thinking...land on your feet. Well, I succeeded in landing on my feet - mostly on my heels, and was flung backward. How I managed not to break my feet/ankles amazed me and the doctors. The pain came fast and I struggled to catch my breath as I lay on the ground. I was able to quickly get on my knees and started crawling toward the front of the house, hoping for someone to realize I fell. Thankfully a neighbor quickly came to see if I was okay. Almost immediately thereafter, the homeowner was there too - she heard the ladder falling from inside the house. Knowing someone was with me, I got back on the ground still struggling to catch my breath. After a few minutes and reassurance from me that I was okay, the neighbor left.

After about an hour and the pain intensifying, I realized I really had hurt myself and agreed to go the emergency room. LESSON - call the ambulance - I waited more than 3 hours before I was seen. All the while I waited, I kept telling myself the pain wasn't that bad (it was) and I was fine (I wasn't).

After passing some quick "bend this way", "lift that way" assessments, it looked like maybe I would get out of this with just some bruising and a story to tell. Thankfully, the ER physician's intuition was better than mine. I was sent off for x-rays.. then a CT scan... then more CT scans. As it turned out, I had fractured two vertebrae in very different parts of my spine, one severely with part of it actually bursting inward. The next step was to have a surgical neurology consult, during which I was told I would be admitted and needed to have surgery.

Once admitted, I learned I would spend the next several days lying completely flat until the surgical team could perform the surgery. I soon discovered our bodies were not intended to lay flat like this for an extended period of time, especially an injured body! The pain soon became excruciating and let's just say you really can't eat in this position. Thank heavens for the invention of the morphine pump!

After a week of lying flat, I finally was told I would have the surgery. I honestly don't ever remember being told *exactly* what the surgery would entail, nor do I remember being told what post-surgery recovery would be like. I had no idea what was in store for me and my family.

The surgery consisted of opening my entire back from the middle of my shoulder blades down to the base of my spine so they could insert 17 screws into 9 vertebrae, held together with two rods, and "caulk" (my term) my vertebrae with some "super gunk" (again, my term) so they would heal. I spent another week in the hospital, with daily trips to physical therapy to get me moving again. Even with heavy medication, the pain was constant, but the hallucinations were fun!

After leaving the hospital, I spent the next several months convalescing at home, taking lots of pain medication and trying to take care of myself - which I couldn't, I needed a lot of help. I had to wear a back brace and use a walker to be able to support myself and to try to get around. About two weeks after I was home, I began outpatient physical therapy three times a week. It is amazing what surgery and essentially not moving for a long period of time do to your muscles. I spent the next few months working to regain strength so I could take care of myself.

Three months after surgery, I returned to work part-time, still spending time in physical therapy. It was a triumph the day I stopped using the walker and went to cane - not bad for a 45 year old! Six months later, I certainly felt better and could do many things. Now just over a year later, I can say I do feel better, but still experience pain all the time. Thankfully the pain is not always intense, but more of a slow, constant pain that can wear on you after awhile. The sharp pain usually is from overdoing or just because I moved the wrong way. Sleeping remains an issue, my body can't stay in one position for very long. I'm still learning how to properly manage what I do to keep the pain at a minimum. I expect to hear at my next visit with the surgeon that this is as good as it gets.

Lessons: It is always easy to armchair quarterback after the fact but it is considerably better to have the injured person themselves relate the experience and what went wrong so you don't have to repeat it. Often these lessons are lost because people are adverse to asking – not because the injured person is afraid of telling their story! So if your company has had an incident that others might learn from – learn from it!

Consider the ramifications of taking chances with any ladder. Will you be able to return to gainful employment after such a fall, to support yourself or your family in the manner you are accustomed to? Will you have the support needed to help you through your period of convalescence which may take a considerable amount of time? The time to think of these concerns is *before* you use the ladder.

That said, consider using a ladder stabilization device when using ladders to work while on a ladder or when accessing rooftops or utility poles....and also the following best practice measures:

Always place the ladder as close to a 75.5 degree angle with the structure to reduce the amount of friction required to hold the ladder in place. Reducing this angle by a mere 10 degrees can double the amount of friction required to hold the ladder in place. Climbing rapidly up and down the ladder on jobsites can increase the friction force required by another 7%!! Simple rule of thumb is the 1 in 4 rule. For every 4 feet in height – move ladder base one foot from the base of the structure.

There are devices especially made to be attached to ladders that indicate the proper degree of angle a ladder has to the vertical structure. Use them. Some systems allow you to nail your ladder device to the roof – others increase the friction and ensure the proper angle is attained. Make sure the ladder feet have the non slip feet or spikes intact and the ladder is not defective or broken.

Wet surfaces, uneven-bumpy terrain or unsecured ladder bases are common ladder accident causes. Block the ladder base with a 2x4 cradle. Have someone hold the ladder at the base while you ascend the ladder to secure it to the roof or parapet using one of the stabilization devices.

Working alone – make sure the proper ladder angle is attained and that the ladder feet are secured in a cradle before ascending to avoid side-slip or kick-out from the base. Clear all debris from the ladder base to prevent tripping or falling once you are on the ground.

While the common wisdom is for the ladder user to tie off on the structure, it is not always possible to find a sufficiently secure and appropriate spot to do so. Using a stabilization device and ensuring the proper ladder angle can reduce the likelihood of a slipping ladder by 60%.

If your work extends too far past your arms length reach without stretching then you need to adjust the ladder or get one of proper length or consider a scaffold system for extensive work like chimney repairs. Do not over reach and keep 3 points of contact with the ladder at all times.

Carry all tools in a tool belt while on the ladder or raise and lower them with a hand line as needed.

Keep your weight between the ladder supports – do not work by leaning outside the supports.

Check that your boots and ladder rungs are free of grease and mud.

If ladder is positioned in front of a door make sure the door is locked or blocked off to prevent use.

Make sure that the top of the ladder extends over the roof edge by 3 feet but not at the expense of reducing the angle of the ladder less than 75.5 degrees.

If working on the roof personal fall protection methods should be employed to prevent falls.