

ask the SPIN DOCTOR

Michael from Vancouver Island writes, “Every fall and winter, I get reacquainted with my morbid fear of pneumonia—I think it’s because a well-meaning doctor scared the bejesus out of me during rehab. I’m a pretty low level paraplegic, so I’m wondering: is my fear warranted? And if it is, what can I do to minimize the risk?”

To answer this issue’s question, we turned to Dr. Jeremy Road, Professor of Medicine at UBC and a Respiriologist at Vancouver General Hospital and UBC.



Michael, the short answer to your question is, “Be afraid. Be very afraid.” I don’t want to panic readers of *The Spin*, but your fear is well-founded.

Pneumonia is an infection in one or both lungs caused by bacteria, fungi, or viruses. Pneumonia results in inflammation in your lung’s air sacs, or alveoli. The alveoli fill with fluid or pus, making it difficult to breathe. Only about three percent of the general population will get pneumonia in any given year. However, pneumonia, when grouped along with other respiratory illnesses, is the leading cause of death in people with SCI.

One of the world’s leading experts on pneumonia and its particular risk for people with SCI is my colleague Dr. Stephen Burns, who works just down the 15 as Director of the Spinal Cord Injury Service at Veterans Affairs Puget Sound Health Care System and professor in the Department of Rehabilitation Medicine at the University of Washington. “The average SCI person’s risk of dying of pneumonia is 37 times higher than the general population,” says Burns. This is a sobering statistic.

Some people believe that pneumonia is mainly a problem for people with quadriplegia. That’s not the case. It’s true that people with higher levels of injury have a compromised ability to inhale. But breathing is a two-step process, and expiration is a problem for those with all injury levels right down to T12. The bottom line is that this makes it harder to forcefully breathe out, cough, and bring up mucus from the lungs. Mucus pooling in the lungs is a perfect home for the bacteria that cause pneumonia.

So what can you do during the upcoming cold and flu season to minimize your risk?

- Get vaccinated for pneumonia. The Pneumovax vaccine has been demonstrated to be effective at preventing pneumococcal pneumonia which is a common and potentially lethal form of pneumonia. It’s recommended that all people with SCI should receive it at least once, and every five years after if they are determined to be

high risk. This vaccine has been in use long enough to be considered quite safe. Recently a new vaccine has become available to be used in addition to the Pneumovax: the Prevnar vaccine can further boost the immune system to better prevent pneumococcal pneumonia.

- While you’re at it, get your yearly influenza vaccine—avoiding flu should be a top priority, as it can lead to and exacerbate pneumonia.
- Practice forceful breathing to help strengthen your chest muscles.
- Practice coughing. Strengthening the muscles necessary for a forceful cough will make it easier for you to bring up mucus in the lungs.
- If your cough is weak and you have trouble bringing up mucus, you may need an assisted cough, or quad coughing, which is a procedure that involves pressing down on the chest to force air and secretions out.
- People with a really weak cough due to a high level injury may need chest physiotherapy and/or postural drainage, and, in the event of mucus buildup, suctioning may be required. The strength of your cough can be measured by your physician as your peak cough flow rate. To further assist coughing, the lungs can be inflated with an Ambu bag (or bag valve mask) which, when followed with chest compression, can be very effective at clearing secretions. As another option, there are mechanical devices termed insufflator/exsufflator machines which can be very effective at clearing secretions.
- If you smoke, quit. Not on New Year’s Day, not next week, not tomorrow. Right now.
- Focus on your posture. Sit up straight, and move around as much as possible—this will prevent mucus buildup.
- Be careful while eating to avoid aspiration of material from the back of the mouth into the lung—this is a common cause of pneumonia.
- Eat a healthy diet to help keep your immune system strong, and to stop you from gaining or losing weight, which can lead to lung problems.
- Drink plenty of fluids, preferably water—this helps prevent the mucus in your lungs from getting thick, which makes it more difficult to cough up.

Finally, and most importantly, get to know the symptoms of pneumonia—and contact your doctor immediately if you think you’ve got it. Even a few hours can make a difference. Symptoms include chest pain while breathing or coughing, elevated urge to cough, fatigue, sweating and chills, vomiting or diarrhoea, and shortness of breath. If you exhibit any of these signs, get in to see your doctor stat.