Dr. Moise’s Medical Update

Special Considerations for Surgery for People with Spinal Cord Injury

If you happen to have paraplegia or tetraplegia (quadriplegia) due to a spinal cord injury or a disease of the spinal cord (e.g. tumor or MS), and if you need surgery for any reason, there are some special risks you need to discuss with your surgeon and anesthesiologist.

1. Avoid using the drug succinylcholine for general anesthesia: This is a commonly used anesthetic agent to put people to sleep for surgery. Unfortunately, this drug can cause serious side effects for people with spinal cord injury. When this drug is used in a person with decreased muscle mass due to atrophy of the paralyzed muscles in the body, a dangerously high level of potassium in the blood can result. That high potassium level can cause cardiac arrest. Instead of succinylcholine, the drug europium is a safe alternative.

2. Autonomic dysreflexia and spasticity: When a surgeon cuts on the body, there will always be some inflammation and pain in the area of the surgery. If you are numb in the area of the surgical incision, then you will probably not experience any actual pain, but the painful sensory signals still travel up the sensation nerves from the surgical site into your spinal cord. These intense sensory nerve signals can trigger an increase in spasms of the body below the spinal cord injury level.

For those with tetraplegia (neck spinal cord injury) or paraplegia at T6 or above, the incoming painful sensory signals can also cause autonomic dysreflexia. This is a rise of blood pressure due to tightening of the intestinal and leg blood vessels which can be triggered by any painful signal below the level of spinal cord injury. The blood pressure can rise so high the person could have a stroke, heart attack, or epileptic seizure. Typical symptoms are facial flushing, facial sweating, and/or headache.

Most surgeons are not familiar with these potential medical complications (increased spasticity or autonomic dysreflexia) so as the patient, you may need to teach them about these conditions before the operation. That way, the surgeon will know to increase the pain medication if autonomic dysreflexia or worsening of spasticity occurs after the operation.
Dear Dave

Autonomic Dysreflexia

1. You are at risk for Autonomic Dysreflexia (AD) if your spinal cord injury is at the level of:
   A. C5 and below
   B. T3 and above
   C. T6 and above
   D. T10 and below

2. The most common cause of Autonomic Dysreflexia is:
   A. Headache
   B. Not taking your daily medications
   C. Kinked catheter tubing
   D. Lack of sleep

3. Signs and symptoms of Autonomic Dysreflexia include all of the following except:
   A. Headache
   B. Ringing in the ears
   C. Feeling dizzy when sitting up
   D. Blood Pressure
   E. Goose bumps above the level of injury

4. The first thing you should do if you think you are having an Autonomic Dysreflexia episode is:
   A. Apply nitro paste to your chest
   B. Take two Tylenol
   C. Call 911 immediately
   D. Try to find the source of the AD episode and remove it.
   E. Put yourself in a reclined position to get more blood flowing to your head.

Answers:
C, C, C, D

Dave Cox, OTR/L

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St. Luke’s Rehabilitation Institute’s SCI Education and Support Group

Every 4th Wednesday of the month
1 – 2 p.m.
SLRI Boardroom
(located on the lower level, next to the smoking patio)

The Spinal Cord Injury (SCI) Education and Support Group consists of monthly meetings designed to provide a supportive environment and opportunities for you to meet other individual’s with spinal cord injuries, share experiences, participate in social activities, and learn about new medical advances and therapies for SCI related issues. The group will be facilitated by three of St. Luke’s inpatient SCI occupational and recreational therapists, whom will be available to help plan and organize meeting topics and educational events with you. If you have any questions or comments, please contact our Support Group Hotline @ 473-6681.

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Wheelchair Yoga

At Moon Tree Gentle Yoga and Wellness Center
(Located on the lower south hill, about two blocks from St. Luke’s)

All yoga poses are specially adapted to be done from a sitting position **

- Stretch and strengthen shoulders and arms
- Stretch and strengthen neck and upper back
- Relax and reduce stress through special breathing techniques
- We promote laughter and joyful movement

**Must have normal function of arm muscles
Pre-registration required

Call 481-3134

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Power Wheelchair for Sale

We have a red, Jazzy Select 3 Ultra power wheelchair for sale. It was only used a total of about one month, so is just like new. It comes with a seat belt and a pouch behind the seat back. Retail price was over $5,000. Selling for $1,800. If you or someone you know is interested, please call: Tom or Angie Buckley, (509) 226-0287.
Exercises and Fitness in Your Community

Strength, endurance, and overall good health are especially important for those with spinal cord injuries. As an OT on the Spinal Cord Unit, I frequently encounter patients who struggle with exercising after discharge, which can in turn compromise their current level of independence.

Prior to beginning any exercises regimen not otherwise part of your daily routine, one should always consult the physician to ensure no unwanted health problems arise.

Spokane WA, to include the Valley and the North Side, has several health clubs that are not only accessible to those in wheelchairs, but may be covered by insurance, as well as, have assistance and instruction to begin an independent exercises routine. All facilities listed below are not only accessible, but also excited to see the disabled population increase the interest in a healthy lifestyle. All facilities are on main bus lines, have day and night time hours, and allow caregivers to accompany the customer who needs assistance at no extra charge!

Stroh’s in the Valley – This facility offers a 1:1 introduction system, recognizes certain insurance plans as coverage for membership, and offers discounts to those who do not have insurance coverage. This facility was also interested in offering a trainer if enough people were available one night a week for training tips and assistance. The facility has a pool and a Jacuzzi, but no lift to get into either. There are also wet and dry saunas that are wheelchair accessible. The facility has a running track, but no way to get up onto it other than stairs. If you need help, ask because it is a great winter time way to push for miles and stay warm.

Valley YMCA – The information listed here applies to all YMCA’s and YWCA’s. However, accessibility applies only to the Valley YMCA until the new Downtown facilities open up in April and the North Side opens up in June.

The Valley YMCA facility is amazing as far as accommodation goes. The other current facilities (North and Downtown) when rebuilt will be as good if not better than the Valley site, although they currently do not have the best accessibility according to manager, Dan White.

There are two pools at the Valley YMCA that have a lift chair to assist you into the pool, with one pool having a zero grade entry, so if you have the ability to walk in with a device, it is possible. They also have a Jacuzzi that has a lift as well with 3 accessible private bathrooms with dressing and bathing facilities right near the pool area. All pool staff has been educated on how to use the lift equipment. The facility has extensive free-weight and machine-assisted weights, many of which can be transferred to/from a wheelchair level. There are basketball and racquetball courts available and an outdoor skateboard park for those of you who like to challenge gravity in your wheelchair.

Not only is the facility familiar with which insurance plans cover membership, they have several scholarship programs that members may qualify for if funds are limited but not enough to access insurance. The facility is excited about the possibility of creating a focus exercise group for the spinal-cord injured individual with a trainer provided one day a week if ample people are present.

OZ Fitness Valley, South, North, and Downtown – All of these facilities have great accessibility for workouts, basketball, racquetball, and tanning. All facilities, except Downtown, have a pool and Jacuzzi but no lift equipment to get in and out. The facility ensured me that it does not mind getting a person in and out; I suggest you hold the staff to it. There are representatives at each location who have worked with clients with disabilities and are interested in a focus group for spinal cord injury individuals who would like a once a week trainer-guided session. OZ recognizes insurance coverage and also offers discounts on an income scale basis for those who do not have insurance that covers their gym membership.

Staying in shape ensures a decrease in cardiovascular related health problems in those with spinal cord injury. Coronary Heart Disease accounts for approximately 20% of deaths and is one of the leading causes of mortality in chronic SCI. This information was acquired from an article found at http://www.emedicine.com/pmr/topic20.htm

Cardiovascular Concerns in Spinal Cord Injury Article Last Updated: Feb 15, 2008
Written by William McKinley, MD
Any questions regarding this article can be answered by emailing me at riverab@st-lukes.org

Becky A. Rivera OTR/L
Fact or Fiction

Spasticity (the abnormal increase in muscle tension associated with increased reflexes and involuntary muscle spasms/contractions) is always helpful and should not be medicated away because it helps your otherwise paralyzed muscles get stronger.

**FICTION:** While it is true some spasticity can be helpful to assist with transfers, help maintain muscle bulk, stimulate blood flow, and increase bone strength, it is possible to have too much of a good thing. When it comes to deciding how aggressively to treat the spasticity, you have to look at the benefits as well as the negatives. For instance, too much spasticity can interfere with transfers, balance, and sleep. It can also cause pain, contractures, and pressure sores. Talk with your doctor if you are having problems or questions about your spasticity.

Chris Clutter, PT

Team St. Luke’s Athletes Host the 2008 Paralympic Academy!

On Saturday, October 25, Team St. Luke’s and Paralympic Sports Spokane hosted the Paralympic Academy, an annual community event at the Spokane Community College Gymnasium. This event provided an opportunity for youth with physical disabilities to participate in a variety of adaptive sports.

Our very own Team St. Luke’s athletes were onsite to help disabled youth enjoy a variety of sports and events including track and field, quad rugby, wheelchair basketball, power soccer, and boccia ball. Attendees were also able to meet paralympians and hear about their experiences as competitors at the national and international level.

**VISION STATEMENT**
Be nationally recognized as the regional rehabilitation center of choice based upon reputation, quality outcomes and innovative care.

**MISSION STATEMENT**
Our mission is to be a resource for health and wellness in order to optimize the potential for a full and productive life. We serve individuals and their families requiring expertise in medical rehabilitation.

St. Luke’s Rehabilitation Institute seeks to provide value to those served by treating the whole person with regard to physical, intellectual, emotional, cultural, and spiritual needs in order to restore to their fullest potential the capacity for living. Excellence of care will take place in an atmosphere of compassion, reverence and integrity.