Spinal Cord Injury Education

Common Medical Problems Following Spinal Cord Injury
Common Medical Complications Following SCI

• After SCI, your body is vulnerable to various complications
• This presentation gives a brief overview of some of these potential problems
• You will know how to recognize a medical problem and have information about what you should do if you have the problem
• Our goal is to give you information to help you stay healthy!
Spinal Shock

- Occurs in first 6 weeks following injury
- Loss of sensation, muscle tone, function, and reflexes below the level of injury
- Gradually these symptoms may subside. Most improvement in function is seen in the first three months. Some have reported return of function after 1-2 years
What Should You Do about Spinal Shock?

- Be aware of what your body is experiencing
- Communicate with your rehab team about any changes you notice
- Work with your therapists and nurses. They will monitor your progress and assist you at various stages of recovery from spinal shock
- Be patient. Recover from spinal shock occurs one cell at a time.
Weight Loss

• Over 90% of people with SCI lose 10% or more of their body weight
• Tetraplegics lose on average 30-50 lbs.
• Paraplegics lose on average 10-35 lbs
What Can You Do To Prevent Weight Loss?

- Eat a well balanced diet. Work with your Dietician about food choices
- Check your weight weekly. Eventually you should begin to gain weight
- Ideally, you will gain muscle weight, not fat
- Exercise. This builds muscles and improves appetite
Anemia

• Anemia is reported in up to 50% of people with SCI
• Anemia is a lower than normal number of red blood cells in your bloodstream
• Anemia can result from blood loss or immobility
What Can You Do to Prevent Anemia?

• Ask your MD to check your blood count after you have been home about six weeks
• If you are anemic, the MD may prescribe iron tablets
  – This may cause constipation
• To avoid constipation:
  – Increase fluid intake
  – Eat a high fiber diet
  – Change your bowel medications to increase stool softness
Deep Vein Thrombosis (DVT)

- This is a blood clot which occurs usually in the veins of the leg, occasionally in the arm.
- DVT occurs in 12.5%-31% of people with SCI.
- The highest risk is within the first 12 weeks after injury.
- The clot can break loose from the vein and travel to the heart and lungs. Pulmonary embolism occurs in up to 10% of people with SCI.
What Can Be Done to Prevent DVT?

• Know signs and symptoms of DVT (pain, swelling, redness, and/or heat in the leg. Report any symptoms to your rehab staff ASAP

• Medications may be ordered to prevent DVT

• Mobility, with the guidance of your rehab staff

• Compression hose
What Can Be Done to Treat DVT?

- If diagnosed, bed rest with leg elevated
- Medications: heparin, coumadin, or lovenox may be ordered to treat DVT
Heterotopic Ossification (H.O.)

- This is the formation of bone in places where it should not be, usually in the large joints such as hips, knees, shoulders, and elbows.
- Signs of H.O. include redness, heat, swelling, pain, and decreased movement at the affected joint.
What Can Be Done to Treat H.O?

• Rest the affected area
• Continue with ROM exercises in therapy, to your tolerance
• Medications may be ordered
  – Didronel can prevent bone formation
  – Foxamax and Actonel restore calcium to the bone
• In some cases, surgery is needed to restore movement
Immobilization Hypercalcemia

- Bed rest causes an increase in bone loss
- After SCI, urinary calcium excretions I above normal for up to 18 months
- Excess calcium enters the bloodstream (hypercalcemia)
- This affects the ability of the kidneys to filter fluids
What Can You Do to Prevent Hypercalcemia?

- Drink at least two quarts of water a day
- Begin standing in therapy early in your rehab program
- Spend as much time upright as possible
- Medications such as fosamax may be prescribed
Osteoporosis

• “oste” = bone
• “porosis” = porous, thin, or spongy
• The inside of the bone is thin and weak
• Osteoporotic bones are much more likely to break
• Those who can’t bear weight on bones are at highest risk of developing osteoporosis
What Can You Do to Prevent or Treat Osteoporosis

• Be proactive. Ask your doctor about possible tests and treatments, including
  – Bone density testing
  – Calcium supplements
  – Medications (ex., fosamax)

• Maintain a regular exercise program which includes weight bearing if possible.
Spasticity

- People with SCI at T12 or above may develop spasticity
- If spasticity is severe, spasms may interfere with movement and function
- Spasticity does help to prevent atrophy and osteoporosis
What Can Be Done to Treat Spasticity?

• Therapist (or caregivers) can apply a steady stretch on a spastic muscle to relieve spasticity

• Regular exercise may decrease spasticity

• Positioning with devices

• Medications may help
  – Baclofen, Dantrium, Valium
Temperature Regulation

• People with cervical or thoracic SCI may have difficulty regulating body temperature
• If the area is warm, the body becomes warm
• If the area is cool, the body becomes cool
• You may not realize that your body is too hot or too cold
• Severe increases or decreases in body temperature can be dangerous
What Can Be Done to Prevent Problems with Temperature Regulation?

• When it is hot
  – Stay inside in air conditioning
  – Wear hats, drink water
  – Use an ice bag at the neck and under the arms to cool your body
  – Use sunscreen
  – Do not sit in a hot car for long periods of time
What Can Be Done to Prevent Problems with Temperature Regulation?

• When it is cold
  – Wear a warm hat
  – Dress in layers
  – Stay in a heated area
  – Drink warm liquids
  – Warm the car before getting in
  – Wear socks, gloves, etc
Pain

• Most people with SCI experience some pain or unusual sensation below the level of injury
• Pain intensity ranges from mild to severely disabling
• SCI pain in some people is similar to “phantom pain” experienced by people with amputations
What Can Be Done to Manage Pain?

- Increasing levels of activity through exercise may help
- Use of heat to affected areas- with assistance due to decreased sensation
- Use of cold to affected areas, no more than 10 minutes
- Biofeedback may help