Aging and Spinal Cord Injury

Introduction
Life expectancy has improved for people with spinal cord injury (SCI). However, as these people age, they are likely to experience changes in their health and abilities. SCI can worsen the normal aging process. This flyer talks about the effects of aging with SCI and related issues.

Nervous System
- Decreased strength, reaction time, and fine motor skills
- Deterioration of gait or difficulty walking
- Increased cystic changes in spinal cord
- Increased neuropathic pain
- Increase in nerve entrapment/ carpal tunnel syndrome

Things you can do:
- Motor / sensory exam
- Functional assessment (FIM)
- Hand / Upper Extremity assessment
- Gait (walking) assessment
- Pain assessment management
Musculoskeletal System

- Increase in degenerative/arthritic changes; “aches and pains”
- Osteoporosis
- Increased joint stiffness
- Decreased muscle strength
- Overuse syndrome of shoulders

Things you can do:
- Joint assessment
- Equipment usage assessment
- Modification of equipment
- Implementation of protective maneuvers to preserve joints

Cardiovascular System

- Loss of arterial elasticity
- Decrease in stroke volume
- Gradual increase in systolic and diastolic pressures
- Increased orthostatic hypotension
- Increased risk for DVT/PE

Things you can do:
- Increase activity
- Eat a balanced diet
- Cardiovascular assessment

Respiratory System

- Diminished respiratory capacity
- Loss of lung and chest wall compliance
- Loss of vital capacity
- Increased susceptibility to respiratory infection
- Increased incidence of sleep apnea

Things you can do:
- Increase activity
- Get immunizations (pneumonia, flu)
- Respiratory assessment
- Practice deep breathing
- Stop Smoking
Gastrointestinal System
- Increased constipation
- Increased incontinence
- Increased rectal bleeding and hemorrhoids
- 7 fold increase in gallstones
- Increased gastro esophageal reflux disease
- Weight gain

Things you can do:
- Need for a routine bowel program that fits lifestyle/socially acceptable
- Need for routine colo-rectal screening
- Need for adjustments in medication and diet
- Consider need for increased attendant care
- Weight loss program

Genitourinary/Reproductive System
- Decreased bladder capacity and kidney function
- Increased risk of UTI's and urinary tract stones
- Increased risk of bladder cancer
- Increased sexual dysfunction

Things you can do:
- Bladder program changes due to aging/change in functional abilities
- Need for annual cystoscopy for cancer screening
- Potential increase in attendant care needs

Immune System and Endocrinology System
- Reduction of hormone levels (human growth hormone, testosterone, and estrogen)
- Reduction in levels and efficiency of insulin = higher risk for diabetes
- Less effective immune response = higher risk for illness

Things you can do:
- You may be at higher risk for infections if you experience pain or are depressed. Work with your doctor to control chronic pain and get involved in social activities.
Integumentary System

- Decreased collagen, skin elasticity, and skin thinning
- Increased burn injury due to decreased circulation and increased sweating
- Increased skin tears, bruises, and pressure ulcer development

Things you can do:

- Protect your skin from injury
- Wear sunscreen and protect yourself from extremes in temperature
- Evaluate ability to do weight shifts
- Equipment usage assessment
- Modification of equipment

Summary

Addressing the needs of individuals with SCI through education and the development of interventions can be used to modify the aging process and hopefully delay the onset of decline. Comprehensive re-evaluations, performed in a medical system of care that is familiar with SCI and age-related issues, are of great importance.