

Things to Know About Aging and Spinal Cord Injury

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www.msktc.org/sci/factsheets

SCI Fact Sheet

This fact sheet explains some of the changes in your body as you get older. It lists ways to care for your health with a spinal cord injury.

What Do You Need to Know and Do?

Aging affects everyone. It is just another step along the path of life. But a spinal cord injury (SCI) can speed up the aging process, and other health problems can become more common with age. This factsheet can help you manage your health and SCI as you get older and will explain the importance of maintaining a healthy lifestyle after a SCI, including how to:

- Learn about the issues people with SCI may experience as they age and common health conditions associated with the injury (“secondary” health conditions).
- Follow a self-care routine to reduce health problems.
- Decide what will help you enjoy a good quality of life and seek help when needed.
- Become aware of factors in the environment and how to overcome barriers.
- Work with your doctor and health care providers to spot potential problems.
- Get regular health check-ups from your doctor and keep learning from research.

Why Is Aging an Important Issue for People With SCI?

Our body slows down as we age. Many things that were easy become harder with age. This is true for everyone, including people with SCI. People with SCI are living longer because of better health care. As you age, you may have health problems that you never had when you were younger. “Chronic” health problems are ones that last six months or more and require ongoing medical care. They may limit activities of daily life. They may result from common age-related problems, such as arthritis, which affects many middle-aged and older adults. Chronic conditions may be related to SCI. When chronic conditions are related to SCI, they are called “secondary health conditions.” New health problems may:

- Happen more often in people who are aging with physical disabilities;
- Result from complications from SCI or its treatments;
- Come from over-, under-, or misusing a body system, such as shoulder pain from pushing a wheelchair; and
- Result from lifestyle behaviors and factors in the environment, such as limited transportation options or fewer opportunities to be involved in healthy recreational activities.

We have learned much from research in the past 20 years:

1. People with SCI show signs of aging earlier than those without SCI. Several organ systems in people with SCI may not work as well as those of same-aged people without SCI. Earlier aging is more likely to affect the musculoskeletal (muscles and bones), endocrine (glands), and cardiovascular (heart) systems in people with SCI.
2. People with SCI are more likely than the general population to experience chronic pain, bone loss, pressure injury (pressure sores), and kidney and bladder stones.

The Spinal Cord Injury Model System is sponsored by the National Institute of Disability, Independent Living, and Rehabilitation Research, U.S. Department of Health and Human Services’ Administration for Community Living. (See <http://www.msktc.org/sci/model-system-centers> for more information).



Body Changes From Aging

Some body systems lose function with age. The degree of loss varies for each person. How a person ages after SCI is based on several factors, such as:

- Level and severity of injury,
- Age at injury,
- Family health history,
- Lifestyle behaviors (for example, activity levels, smoking or alcohol use, and diet), and
- Access to community services and social supports.

A symptom or change in a condition may be “normal” aging or the sign of a problem. Discussing your symptoms with your doctor can help you figure this out. The following table describes body changes that come with normal aging and aging with SCI. It also provides ideas to reduce secondary health conditions and help you age well.

Body system	Typical aging	Aging with SCI	What can you do?
Muscles and bones	Reduced flexibility, loss of muscle strength, lower bone mass, higher chance of broken bones, pain, and joint stiffness or pain from arthritis	Increased difficulty performing daily activities such as transfers, injury or arthritis in shoulders, arms, and hands for people who use wheelchairs or bear weight in their arms, chronic pain, and changes within the spinal column itself (such as a scoliosis)	Avoid pain-causing and repetitive movements, avoid weight gain, engage in strengthening exercises to maintain arm strength and improve muscle balance across joints (such as lifting weights in isolation), assess equipment and chairs to reduce pain and maximize healthy posture and positions, maximize technology that reduces the stress on your joints (such as using a lift or sliding board), and lay flat to stretch
Skin	Reduced flexibility, thinner outer layer, longer time to heal wounds	Pressure injuries from being in one position for a long time or not staying dry because of incontinence (a lack of bladder control); injury due to lack of sensation; injury that comes with aging though you may never have had a pressure injury before	Check skin for pressure injuries (pressure sores), perform pressure reliefs, avoid injury, watch for changes in skin and moles, use sunscreen, drink plenty of liquids, and routinely examine your equipment for breakdown or wear and tear that may cause extra pressure on skin
Immune system	Reduced ability to fight infection, reduced benefit from vaccines, and a higher chance of autoimmune diseases	Increased chance of infection, increased chance of resistance to antibiotics and other medicines	Use clean, sterile, or aseptic bladder management techniques, get routine vaccinations, eat a balanced diet, get plenty of sleep and exercise, and reduce stress
Lungs	Decreased lung function	Weaker lung muscles due to chest or abdominal weakness, less physical activity, and a higher chance of infection and blood clots	Test breathing periodically, get routine vaccinations, maintain a healthy weight, and don't smoke
Kidneys and bladder	Decreased kidney and bladder function, higher chance of urinary tract infections	Urinary tract infections, kidney damage from retaining urine, a higher risk of stones in the kidneys and bladder, and urethral damage or limitation from prolonged use of catheters	Drink plenty of water, get regular check-ups of your kidneys and bladder, and discuss alternative bladder emptying method options with your doctor

Body system	Typical aging	Aging with SCI	What can you do?
Gastrointestinal (digestive) system	Decrease in bowel contractions, trouble digesting some foods, and decreased ability to absorb vitamins and minerals	Constipation or incontinence, taking longer to digest food, need for bowel medicines, hemorrhoids caused by older age and longer duration of injury, and gallbladder disease	Maintain a healthy diet and regular bowel program, and consider other options if bowel is hard to manage
Spinal cord and nerves	Slower reaction time; less strength; decreased coordination and reflexes; trouble walking; and increased nerve damage, such as carpal tunnel syndrome	Over- or misuse of muscles and bones leading to nerve damage; changes within the spinal cord itself (such as a cyst)	Refer to transfer guidelines to make sure you are using the correct technique, reduce the number of transfers, make home and work modifications to minimize stress on the arms, use sliding boards, see a physician if needed as surgery may help release trapped nerves, and watch for changes in feeling and strength
Heart and blood vessels	Higher chance of heart disease, high blood pressure, higher cholesterol, and higher glucose intolerance	Obesity, decrease in “good” cholesterol (or HDL), and fewer benefits from aerobic exercise	Get regular check-ups to monitor problems with cholesterol, glucose, weight, and blood pressure; eat a heart healthy diet; and stay active

Feelings and Emotions

People usually live fulfilling and pleasurable lives without experiencing major emotional problems as they age. In fact, most older adults, with and without SCI, are resilient and adjust well to changes in their physical abilities. They also note improved relationships with loved ones, increased appreciation for life, and changes in priorities.

Your doctor plays an important role in your life as you age with SCI. Visit your doctor regularly to get physical check-ups. Talk to your doctor about your emotions and physical independence. High levels of anxiety, depression, and stress are not a normal part of aging. Talk with your doctor or a counselor if you're frequently worrying, losing interest or pleasure, or feeling “blue” most of the day.

Keys to Successful Aging

Everyone ages; it is a natural part of all life. The choices you make as you age with SCI are just as important as earlier life events, such as participating in initial rehabilitation, returning to work, developing relationships, and participating in life's activities. To help handle changes as you age, keep a positive outlook and visit your doctor regularly.

Aging successfully with SCI means maintaining your physical health and independence as much as possible. It also means adapting to new limitations, staying emotionally healthy, and participating in activities that are important and meaningful to you.

To age successfully with SCI:

- Don't be afraid to change the way you do some activities, if needed, for example, having a different diet;
- Use adaptive equipment appropriately—equipment to help you with everyday tasks. Examples include wheelchairs, special beds, cushions, and braces;
- Seek help from others as needed but keep a steady level of independence. Even as you age with SCI, independence of mind is still realistic. You can continue to make decisions and direct health- and care-related issues, such as hiring, training, and firing helpers;
- If possible, find more accessible housing; and
- Take part in social activities that you value.



To keep a positive outlook:

- Connect with others;
- Engage in regular physical activity;
- Participate in enjoyable activities;
- Learn something new; and
- Volunteer or seek services and supports provided by community-based organizations, such as independent living centers, aging and disability resource centers, and faith-based organizations.

Maintaining your physical health is another way to age successfully. Your doctor plays a key role in this process. Be sure to get regular health check-ups from your doctor. Work with your doctor and counselor to find and treat potential medical conditions and problems. Keep learning from research. Follow a health plan as you age. See the Medical Care Guidelines that follow. Discuss these guidelines with your doctor.

Medical Care Guidelines for Aging With SCI

(Recommendations may vary by age, ethnicity, family history, and other factors)

General health maintenance	SCI-specific maintenance
Things to do every month <ul style="list-style-type: none"> • Women: breast self-exam • Men: testicular self-exam 	Things to do every day <ul style="list-style-type: none"> • Self-skin check • Stay active – follow the Physical Activity Guidelines for Individuals with Disabilities • Eat and drink responsibly
Things to do every 1–2 years <ul style="list-style-type: none"> • Physical check-up with your doctor • Fecal occult blood test • Women: mammography, 40 years of age and older • Men: digital rectal exam and PSA (prostate specific antigen) test, beginning at 75 years of age • Comprehensive eye exam, 55 years of age and older 	Things to do every 1–2 years <ul style="list-style-type: none"> • Check weight and blood pressure • Annual flu shot, especially for people with injuries at T8 and higher
Things to do every 2–3 years <ul style="list-style-type: none"> • Complete blood count with biochemistry • Women: breast cancer exam by a doctor • Women: gynecological exam and Pap test 	Things to do with SCI specialist or team each year during the first 3–5 years after injury <ul style="list-style-type: none"> • Full history and physical check-up with doctor • Assess adaptive equipment and posture • Assess range of motion, contractures, and function • Full skin check • Bladder and urethra exam; also do this each year for the first 3 years after any major change in urologic management
Things to do every 5 years <ul style="list-style-type: none"> • CT (computerized tomography) scan or X-ray of the colon • Screening sigmoidoscopy, which allows your doctor to look inside your large intestine, beginning at 50 years of age • Full lipid panel, beginning at 35 years of age for men and 45 years of age for women 	Things to do at least every 5 years with SCI specialist or team <ul style="list-style-type: none"> • Motor and sensory testing • Review changes in life situation, including coping, adjustment, and life satisfaction • Assess lung function, to include how much air you can exhale during a forced breath at 1 second and the total amount of air you can exhale during a lung capacity test

General health maintenance	SCI-specific maintenance
<p>Things to do every 10 years</p> <ul style="list-style-type: none"> • Tetanus booster • Colonoscopy, which allows your doctor to examine your colon, beginning at 50 years of age 	<p>Things to do every 10 years</p> <ul style="list-style-type: none"> • Same as for general population
<p>Things to do one time</p> <ul style="list-style-type: none"> • Centers for Disease Control and Prevention (CDC) recommends 2 pneumococcal vaccines for all adults 65 years or older <ul style="list-style-type: none"> ○ You should receive a dose of PCV13 first, followed by a dose of PPSV23, at least 1 year later ○ If you already received any doses of PPSV23, get the dose of PCV13 at least 1 year after the most recent PPSV23 dose ○ If you already received a dose of PCV13 at a younger age, CDC does not recommend another dose 	<p>Things to do one time</p> <p>Same as for general population</p>

Authorship

Things to Know About Aging and Spinal Cord Injury was developed by the SCI Aging Special Interest Group of the SCI Model Systems in collaboration with the Model Systems Knowledge Translation Center and investigators from the University of Washington Healthy Aging Rehabilitation and Research Training Center.

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