



Understanding Spinal Cord Injury

Training for Attendants

THIS TRAINING PROGRAM FOR ATTENDANTS WILL HELP YOU:

- Understand spinal cord injury (SCI)
- Understand the complications people with SCI may face
- Help to identify and address common problems that may come up
- Help people with SCI to live the life they choose.



**SPINAL CORD INJURY ONTARIO
LÉSIONS MÉDULLAIRES ONTARIO**

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The impact of spinal cord injury statistics on page 14 extrapolated from:

Chan, B. et al. The lifetime cost of spinal cord injury in Ontario, Canada: A population-based study from the perspective of the public health care payer. *The Journal of Spinal Cord Medicine* 2019, 42:2, 184-193.

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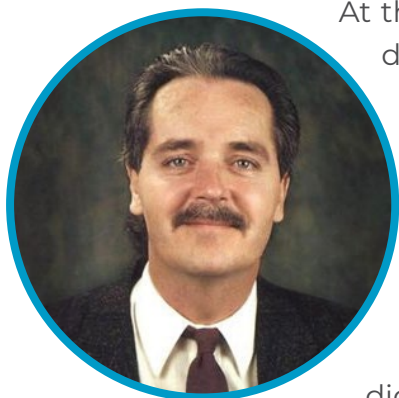
Thermoregulation description on page 33 from Lewis, L., Goldsworth, S., Barry, M. (2006). *Medical-surgical nursing in Canada; assessment and management of clinical problems*, 1622.

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TRIBUTE TO DARREL MURPHY

FOUNDER OF ATTENDANT SERVICES AT SPINAL CORD INJURY ONTARIO



At the age of 28, Darrel sustained a spinal cord injury in a diving accident. It was a complete injury at the level of C4 resulting in quadriplegia. For the next three years Darrel lived in a rehabilitation facility. It was 1980 and there were few options for people with long-term disabilities who wanted to live independently in the community. In rehab, people who didn't have a home to go to most often ended up in a chronic care hospital. That was something Darrel and his friends didn't see as an option. They began working with the Canadian Paraplegic Association, which became Spinal Cord Injury Canada and the provincial organizations, including Spinal Cord Injury Ontario. They made as many government contacts as they could.

After years of hard work Darrel, friends and affiliates introduced the first 24-hour Attendant Care project to people with spinal cord injuries in Canada. In 1983 Nucleus Housing was born.

In 1987, with the help of the Canadian Paraplegic Association Ontario, Darrel secured funding from the Ministry of Health to provide outreach attendant services to six clients living in their own homes. Darrel served as Director of Attendant Services for more than a decade. His knowledge of the business and his determination greatly increased public awareness of the services our organization provided. Darrel worked to increase awareness and access to attendant services until his passing in 2001.

Spinal Cord Injury Ontario continued to provide attendant services for the next 19 years. We served hundreds of clients and built a reputation for providing a client-centered, quality service with unique expertise in supporting people living with spinal cord injury.

In 2020 Spinal Cord Injury Ontario transferred our Outreach Attendant Services program to March of Dimes Canada. We are proud to partner with this large national charity and to carry forward Darrel's vision for training attendants. His commitment, passion and dedication are really the foundation and the drive behind this training.

Thank you, Darrel!

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WELCOME

Welcome to Understanding Spinal Cord Injury. We developed this training program to help you give excellent care to people living with spinal cord injury. With the right rehabilitation and community support, those of us with spinal cord injuries can expect to live long, healthy and fulfilling lives.

This training program will build on what you already know to help you:

- **UNDERSTAND SPINAL CORD INJURY**
- **UNDERSTAND THE COMPLICATIONS THAT PEOPLE WITH SPINAL CORD INJURY MAY FACE**
- **PREVENT OR MANAGE THESE COMPLICATIONS**
- **IDENTIFY AND ADDRESS COMMON PROBLEMS THAT MAY COME UP**
- **HELP PEOPLE WITH SPINAL CORD INJURY TO LIVE THE LIFE THEY CHOOSE.**

This print guide is designed to go along with a series of five elearning modules which you can complete online. It provides tips on what you can do to make a difference in the lives of people you are supporting. We hope that you will keep it after the training and refer to it often.

This guide in no way replaces the advice of the health care providers who work with the person as part of their team. Always follow their directions for the person you are supporting.

THE WORDS WE USE

In the world of providing support with personal care, many different terms are used. At the beginning of each section of this guide, we review key words and concepts presented in each module of the training program. Here are some terms you will often see:

ATTENDANT SERVICES: Non-medical help with the activities of daily living for people with disabilities. This can include things like grooming, bathing, going to the bathroom, getting dressed and undressed, transfers and positioning and help with meal prep or light housekeeping.

ATTENDANT: The person who assists with activities of daily living. This may or may not be a person trained as a Personal Support Worker (PSW).

PERSON: The person receiving the services. Different organizations use different terms, such as client, consumer, or patient. We have chosen “person” as something we can all relate to.

SCI: This is the short form for spinal cord injury.

SUSTAIN: A person has sustained a spinal cord injury. We do not use language like “suffers from” that assumes only bad things about a person’s life.

USE: A person uses a wheelchair. They are not “confined” or “bound” to one. They are in control of it. Using a wheelchair gives a person mobility and choice.

PRESSURE INJURY: This is the clinical term used in Canada. The term “pressure injury” represents both unbroken and open skin. Pressure injuries are also called pressure sores, bedsores, decubitis ulcers or pressure ulcers. While we use the term pressure injury throughout the training, many people use the term pressure sore when describing their experience. You will see this reflected in this training.

YOUR NOTES

Understanding spinal cord injury

PART 1

Module 1: Understanding spinal cord injury



Your **spinal cord** is part of your **nervous system**. The nervous system controls and co-ordinates body functions. The spinal cord is a thick bundle of nerves. It connects your brain to your body. It runs through the vertebrae or backbones in your spine. These go from your neck to your lower back. At each vertebra, spinal nerves branch out to connect with different parts of your body.

LET'S REVIEW THE SPINAL CORD

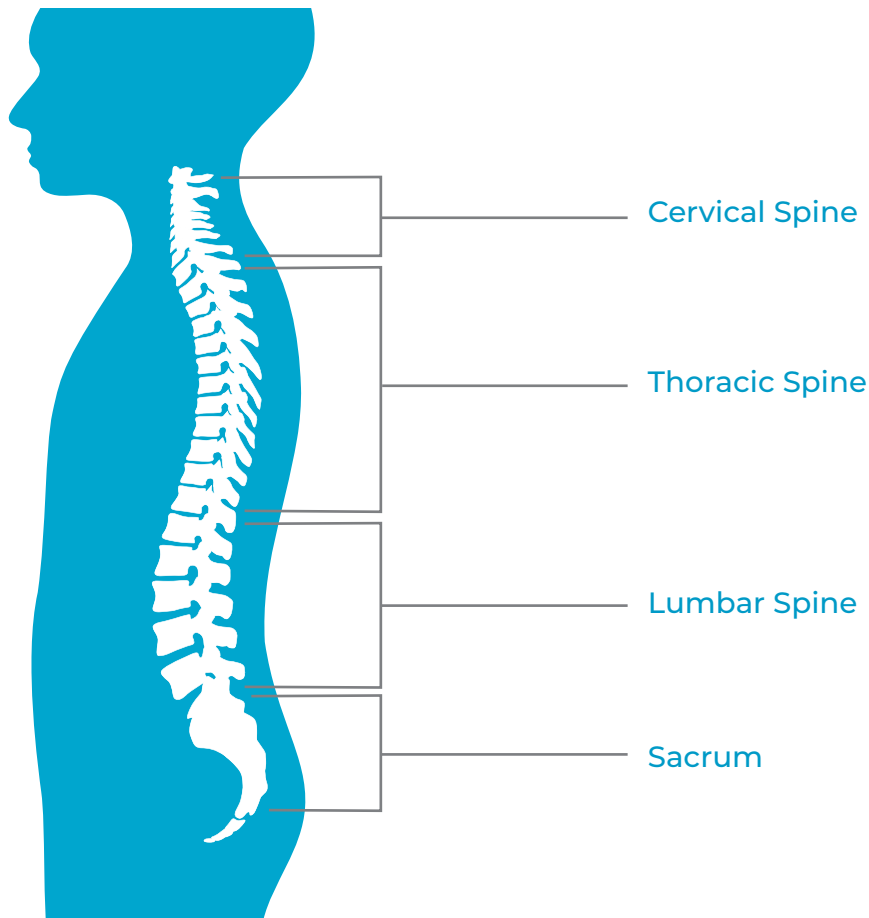
| COMPLETE THE CHART WITH THE CORRECT PART OF THE SPINE | NUMBER OF SPINAL NERVES AND FUNCTION |
|---|--|
| | (8) control your head, neck, arms, diaphragm and hands |
| | (12) control your chest and trunk muscles. |
| | (5) control your hip and leg muscles. |
| | (5) control your bowel, bladder and sexual function. |





KEY POINT

The spinal cord acts as a message highway between your brain and the rest of your body. It sends messages to the body to complete an action or function. It receives messages from the body and sends the information to the brain.



WHAT CAUSES SPINAL CORD INJURY

Spinal cord injury or SCI occurs when trauma or illness damages the spinal cord. It results in partial or complete loss of movement, sensation (feeling) and function of organs like the bowel or bladder. Spinal cord injuries are classified as either **traumatic** or **non-traumatic**.

The most common causes of traumatic SCI are car accidents, falls, sports-related injuries and assault.

The most likely causes of non-traumatic spinal cord injury are degenerative disc disease, surgical or medical complications, tumours, a stroke in the spinal cord, a neurological syndrome such as Transverse Myelitis, or an infection.

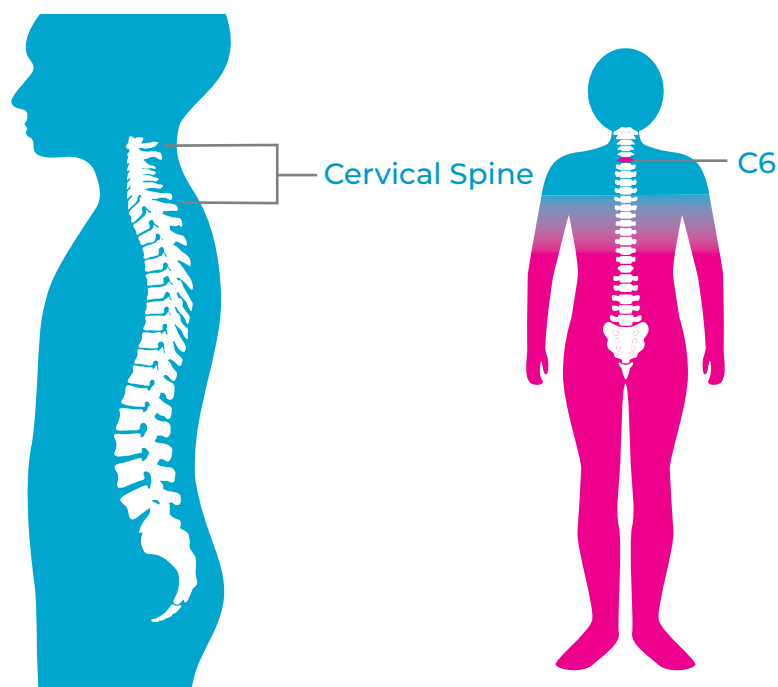
When the spinal cord is damaged, the nerves cannot send messages between the brain and different parts of the body. This results in partial or complete loss of ability to move or feel a body part or muscle group.



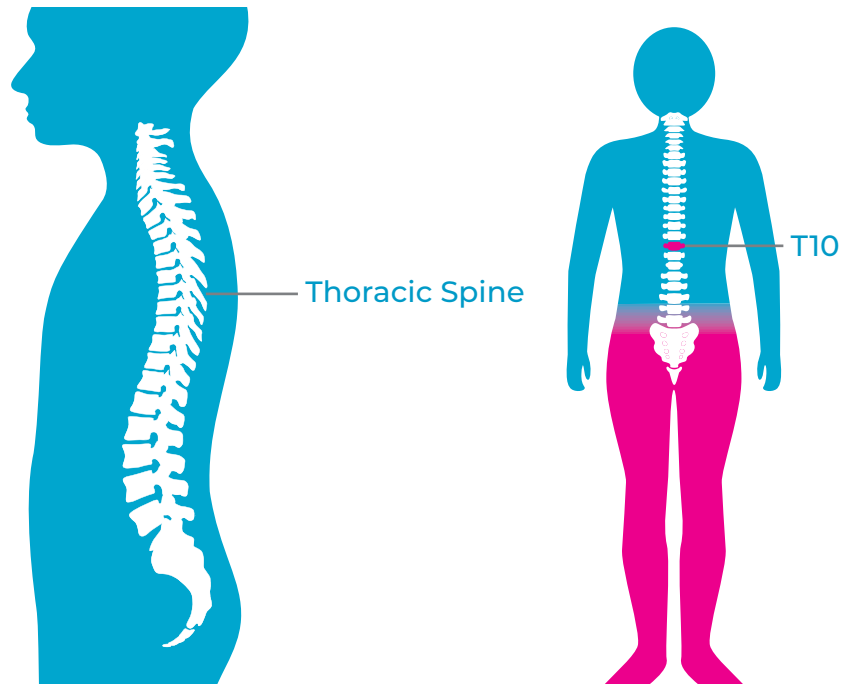
KEY POINT

LEVELS OF SPINAL CORD INJURY

The **level of injury** determines which parts of the body are affected. The higher the injury is on the spinal cord, the more body parts it will affect. For example: A cervical (neck level) injury will affect the upper and lower body. This is called **quadriplegia** or **tetraplegia**.



An injury to the thoracic spine (chest level) will affect parts of the trunk and lower body. This is called paraplegia. Lumbar and sacral injuries (lower spine) can also result in **paraplegia**.



KEY POINT

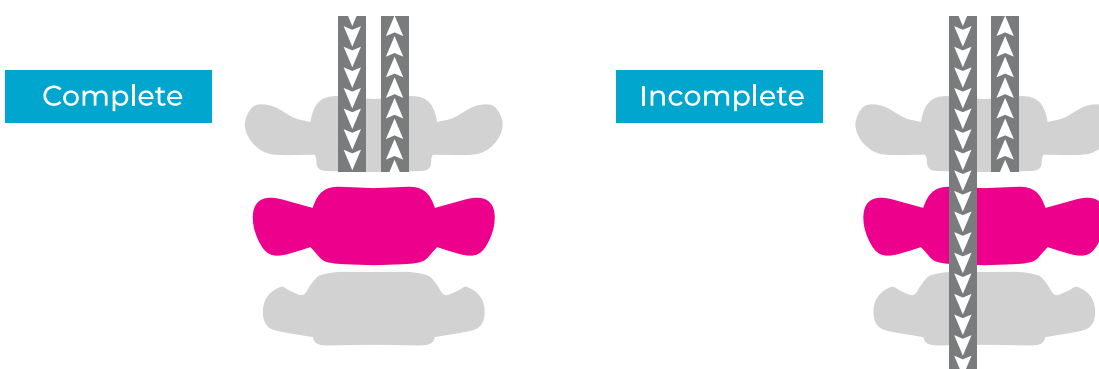
Many people with spinal cord injury describe their injury in terms of the level. For instance, they might say, “I am a C5/6 quadriplegic.” That means that they injured their spinal cord at the level of the fifth and sixth cervical vertebrae.

The level of a person’s spinal cord injury affects the amount of movement and sensation they have below the level of injury. That in turn affects the types of activities they may need assistance with. For example, a person with an injury at the level of C4 may have movement in the neck and above, use a power wheelchair at home and in the community and direct their care for activities of daily living.

A person with an injury at the level of C7-8 may roll over and sit up in bed, transfer independently, perform most self-care, use a manual wheelchair in the community and drive with hand controls. These are general guidelines however, everyone is unique. The best way to find out how you can assist a person with SCI is to ask them.

COMPLETE AND INCOMPLETE SPINAL CORD INJURIES

Spinal cord injuries are **complete** if the person has no voluntary movement or sensation below the level of injury. With an **incomplete** SCI, a person might have some feeling or movement below the level of injury. Or, one side of the body may have more function than the other.



Sometimes an incomplete injury to the cervical spine is called **Central Cord Syndrome**. This is when the hands and arms have lost movement or sensation but the legs are less affected. So, a person with central cord syndrome might be able to walk but not really be able to use their hands. There have been advances in critical and acute care and early surgery to decompress the spine. Today, most people with a new SCI have an incomplete injury.

Remember, every person and every injury is unique. It can happen to anyone, at any time. Treat each person as an individual and follow their direction.



KEY POINT



REVIEW

LET'S REVIEW: THE IMPACT OF SPINAL CORD INJURY IN NUMBERS

| | |
|--|---|
| | Number of people in Ontario currently living with an SCI |
| | Number of people with a new SCI each year in Ontario |
| | Average age at which a person sustained an SCI |
| | Estimated lowest lifetime costs of health care for a person with an SCI |
| | Estimated per cent of people with an SCI who return to hospital due to complications that could have been prevented |

THE IMPACT OF SPINAL CORD INJURY

Using the statistics provided in your training, complete this chart. It shows the impact of spinal cord injury on the health care system and the people affected by SCI.

People with spinal cord injuries are high users of the health care system and community supports. This is especially true of people who have injuries at a higher level in the spine.

The lifetime costs for a person with an SCI start at \$336,000. They can go as high as \$2 million for people with quadriplegia. More than 50 per cent of people with an SCI may have to return to hospital due to preventable complications like pressure injuries.

A person with an SCI may see their doctor every few months and a specialist once a year. But as their attendant, they may see you every day. That makes your role in helping them stay healthy so important.

Sustaining a spinal cord injury

PART 2

ACUTE CARE

When a person sustains an SCI, they stay in hospital, in acute care, for a few weeks. Once they are stable, they usually go to an in-patient rehabilitation centre. Depending on where they live, the centre can be quite a distance away from their home. Some people do not go to a rehabilitation centre. Some people go to chronic care facilities or long-term care. A few will go straight home.

REHABILITATION

Rehab for a person with a spinal cord injury is complex and involved. It involves both their body and their mind (physiological and psychological rehabilitation). With intensive, specialized rehabilitation, they learn to function to the highest level possible. This supports a sense of wellness.

The rehabilitation team is made up of experts. Each plays a role in supporting the person with an SCI. The members of the team may include some or all of these specialists:

- a physiatrist (a rehabilitation doctor who treats illness or injuries that affect movement)
- nurses who help with medical care
- physiotherapists who help with movement and transfers
- occupational therapists who help with seating and daily activities
- speech therapists who help with swallowing and communication
- vocational counsellors who help with returning to work
- psychologists who help with how people with SCI think and feel
- therapeutic recreationists who help with accessible recreation and leisure
- dietitians who help with nutrition, staying hydrated and meal planning
- social workers who help with getting access to the health care system and to services and funding, as well as talking about thoughts and feelings.

Once admitted to a rehabilitation centre, the person is involved in many types of therapy and education. This is a busy, intense time. The focus is on gaining as much recovery as possible and preparing for discharge.



KEY POINT

Preparing to transition out of rehab can be difficult.

Answering the questions that a service provider would ask in a personal care needs assessment is hard. We are trying to come up with answers to questions that we never imagined we would have to answer. That's just one of many things that makes the rehab experience so intense.

Years ago, people used to stay in the rehabilitation centre for months. This allowed more time to come to terms with living with an SCI. Now, the average stay is three months or less, depending on the level of injury and the complexity of need.

When service providers meet with the person and ask these questions, most people are still trying to come to terms with their injury. Their focus is on getting better. They have sustained a loss and they are grieving. Sometimes they are not even ready to accept what has happened.

Now they are being asked questions about support needs, tasks, timing, equipment and accessibility. Many times, the person is overwhelmed and unsure how to answer all these questions.

THE TRANSITION HOME

Many people with spinal cord injuries describe the day they left rehab as the hardest day to deal with. In rehab, they may have held onto hope. Leaving rehab brings a dose of reality. Many people experience feelings of loss. Now you walk in, a stranger, who will be their attendant and help them with intimate care. They will likely need to adjust to you – and this new reality.

A program may have already met with the person and reviewed how the services work. But many people struggle to absorb what was said. They signed the agreement because they need service. But they might not have absorbed the information on how it all works.

CHRIS'S STORY

“THE TOUGHEST BATTLE”

While travelling in Thailand I was attacked and robbed and left for dead on a beach. After 14 hours a couple from New Zealand taking a mid-morning stroll on the beach spotted me and got help. After a very traumatic experience of being transported to the hospital on the mainland it was determined that my fourth cervical vertebrae had been shattered, my C5 and C6 were compressed together. I underwent emergency surgery and four weeks later was finally well enough to travel home to Toronto. I was immediately taken to hospital where I spent eight days and then I was admitted to a rehab centre for 16 weeks of rehab.



As tough as my rehab was, going home was by far the toughest war I had ever faced. The physical challenges were overwhelming, but the mental and emotional obstacles were even worse. I went through all the stages of grief, as well as dealing with loss of dignity, invasion of personal space, loss of control, loneliness, regret and pity. Fighting and defeating these battles took the greatest amount of strength and faith I could muster.

I had bad days. I was dealing with this firestorm of emotional and physical pain and needing to have some energy left to be pleasant and deal with the attendant. How I responded with whatever energy I had left would often depend on how the attendant would walk in the door. I didn't want

them there, but I knew I needed them. Taking a moment to greet me with a cheery voice, engaging in pleasant chit chat helped me so much. Being understanding and patient, not taking things personally, not talking back at me or rushing me. The best attendants took the time to build rapport with me, helped me feel valued. Over time I did find my peace and have regained my purpose and meaning in life.

YOUR NOTES

COMMUNICATION SKILLS AND DIFFICULT BEHAVIOUR

Through the first few months after sustaining an SCI, most people go through several stages – denial, anger, bitterness, depression, avoidance. You may encounter people when they are not at their best. There may be anger, yelling or swearing. There may be efforts to avoid or escape from dealing with the situation. Some people may be abrupt, quiet or withdrawn. Some people may not want to get out of bed. This does not mean they don't need your assistance or that they are not grateful. They just may be in a place where they can't express this to you every day.

It is so important to realize (and always remember) none of this behaviour is about you. It is not personal. Use your communication skills to help your client adjust to having you there to help.

Communication is a combination of words you speak, your tone and your body language. How you say what you say can make all the difference. Use your communication skills to build a strong relationship and provide excellent service.



KEY POINT

TRANSITIONS IN SUPPORT NEEDS

You will be supporting people with new injuries and also people whose support needs are changing. As people with SCI age, they can develop new health problems. Some common ones are:

- increased neuropathic (nervous system) pain
- osteoporosis (fragile bones)
- joint stiffness and arthritis
- muscle spasms
- increased risk for heart disease
- respiratory infections
- decreased muscle strength
- overuse syndrome in the shoulders.

So as they get older, people with SCI may need more help for personal care than they first did. Or, they may need to do things differently. For instance, this can mean that a person who once transferred independently now needs assistance. Or it could mean that someone who used a manual wheelchair now uses a power chair.

Other factors besides aging can affect the need for support. For example:

- becoming a parent
- recovering from surgery
- going back to school or work
- moving to a new home that is less accessible.

FAMILY AND OTHER SUPPORTERS

Spinal cord injury does not just affect the person who sustained the injury. It affects everyone who is close to them. Family members and friends may often be involved in a person's care.

Sometimes you may find that the person defers to a family member to provide direction to you. For you as an attendant, it is important to notice when family and friends give direction that is not the same as what you have heard from the person with SCI. Clarify with the person how they wish to involve others.

Remember to respect the person's privacy. They need to give permission for you to share information with a family member or other supporter.

YOUR NOTES

Living with a spinal cord injury

PART 3

Independence is such a personal experience. When a person sustains a spinal cord injury, independence takes on a whole new meaning. The focus becomes more on adjustment than acceptance. Adjustment is about being able to move forward, living with the limitations that have come with the SCI.

ACTIVITY

WHAT DOES INDEPENDENCE MEAN TO YOU?

In this activity we explore what is most important to us in our everyday lives and the feelings involved in adapting to change.

Think about what independence means to you. Write down three things that are important to you in your independence.



ACTIVITY

Now consider how these may be affected if you were to sustain a spinal cord injury.



RESPECT, CHOICE AND CONTROL

We all like to do things our own way. We all have personal preferences. Attendants help people with SCI with tasks they are not able to do for themselves. Giving this assistance at the direction of the person gives them the sense of control. They are still making their own choices and decisions. They have figured out what works best for them and want to be in control of what is being done.

What works

Here's an example of Sandra helping Ben with his coat.



Sandra asks, "How can I help with your coat?"

Ben says, "First help me lean forward. Put your hand on my chest."

Ben says, "Now work it down my back." Sandra adjusts the coat.

Ben says, "Help me sit up." Sandra helps with positioning.

Sandra asks, "How's that? Are you comfortable?" Ben says yes.

Ben says, "Now take out my arm and place it on the hand rest." ... And so on.

What do you notice about this exchange between Ben and Sandra?

YOUR NOTES

What doesn't work

Now we will consider a couple of examples of attendants providing service that is not respecting the preferences of the people they are assisting.

GABRIELLA'S STORY

"IT'S MY RIGHT TO CHANGE MY MIND."

This happened when I first moved in. The attendant said she was waiting for me to tell her which shoes I was going to wear. I changed my outfit. I planned it out the night before, changed my mind in the morning. So, the shoes I that I originally planned to wear just wouldn't work for my new outfit. But when she asked me which shoes I was going to wear I accidentally said the black and grey shoes even though I meant the all grey shoes. She put them on me and I realized they don't go with my outfit. So I said, "Actually I want to wear the grey ones and not the grey and black ones."



PHOTO CONTRIBUTED BY
GABRIELLA CARAFA

She responded, "You should make up your mind the first time. And you should think about this. And, you know, you can also say 'please can I change my shoes'"

And I said, "Well, it's still my time and I'm not doing it on purpose to waste our time."

There's this misunderstanding that I'm wasting their time, when it's actually my time I'm wasting. "I'm requesting to put the grey ones on" I said, "the all grey ones and not the black and grey ones."

And she said, "I should just learn to make up my mind."

So, I had brought that to management right away. It's my right to change my mind. If I don't like the way something looks on me, I have a right to take it off and put something else on. Like everybody else does in the morning when they change 30 times.

MARILYN'S STORY

“YOU CAN'T SAY PLEASE EVERY TIME”



PHOTO CONTRIBUTED BY
MARILYN STAFFORD

An example of where I have been upset with one of my attendants—and this happened a few years ago. I usually have a shower on Monday, Wednesday and Friday. I was going out on a Tuesday evening, so I wanted to have a shower. So, when my attendant came in in the morning I said, “Good morning, Jay. Today I would like to have a shower.” And her reply to me was, “you ask me if you can have a shower. You don’t tell me.”

And I responded with, “The commode chair is in the closet. You can get it out.”

Because afterwards, when I spoke to her about it, she said, “Well, you were demanding.” And I said, “No, I was not demanding. I said I would like to have a shower today. I did not say give me a shower today!” And I don’t feel like I have to say please because of the way I said it. I find that it’s not in what you say, it’s how you say it. And, when you’re asking for assistance basically 24-hours a day, you can’t say please every single time. A lot of times it’s implied.

What do you notice about the exchanges between Gabriella, Marilyn and their attendants?

YOUR NOTES

HOW YOU CAN SUPPORT PEOPLE LIVING WITH SPINAL CORD INJURY

| | |
|--|---|
| Follow their direction | Respect the person's preferences for how they want to do things. |
| Listen and confirm | If you are not sure what the person is asking for, say it back to them and ask if that is correct. |
| Understand expectations | When meeting a person for the first time, ask them to share with you how they would prefer to work with you. Ask what is important to them. |
| Get to know each other | Getting to know someone or building a rapport makes everything work more smoothly. It helps when things are going well and even more when there is conflict. |
| Be on time | The person receiving service may be lying in bed waiting for you to help with getting up. They may have a ride scheduled for a fixed time. Living a life on a fixed schedule can be a big adjustment. Showing up on time is key. |
| Take your time | Take the time needed to complete all the tasks in a booking. If a person needs more time with you and you work with an organization, speak with the manager. |
| Stay professional | Stay calm. Don't take things personally or react. Remaining professional helps to prevent increasing tensions. |
| Keep your opinions to yourself | You may have an idea about something that may work well based on your experience or what you have seen other people do. It is okay to ask them what they think of an idea or suggestion. If they are not interested, leave it alone and follow their direction. |
| Respect the autonomy of the person you support | Just as you change your mind from time to time, so will the person you are supporting. Respect this right. |

WHEN WOULD AN ATTENDANT NOT FOLLOW A PERSON'S DIRECTION?

The times you would not follow the person's direction is when:

- if you work with an organization and it is against your organization's policies and procedures
- it would place the person or you at risk.

In cases like these, if you work with an organization you should connect with your manager to problem solve. Follow your organization's policies and procedures. Maintain respectful communication with the person you are serving. And remember, how you say what you say can make all the difference.

YOUR NOTES

Preventing autonomic dysreflexia (AD)

PART 4

Module 2: Preventing autonomic dysreflexia

The elearning module on autonomic dysreflexia presents some background on this common health problem some people with SCI experience.



LET'S REVIEW

Fill in the blanks with the information learned in the elearning module on autonomic dysreflexia.



WHAT IS AUTONOMIC DYSREFLEXIA?

Autonomic dysreflexia (AD) is _____.

The SCI prevents the body from _____.

AD can cause _____.

AD can be _____.

You respond to AD by _____.

The most common cause of AD is _____.

There is no hard and fast rule for who will experience autonomic dysreflexia.

Usually AD affects people with an SCI at the level of _____.

AD can be a medical emergency. If the person _____.

WARNING SIGNS OF AUTONOMIC DYSREFLEXIA

Autonomic dysreflexia (AD) is a sudden rise in blood pressure along with other symptoms. Since a person cannot feel their blood pressure rising, it is important for both of you to know the other symptoms of AD.

Usually the person you are supporting will have had AD before and will know what is happening. They can give you direction on what they need you to do. But you might be attending a person when they have AD for the first time. Here are some symptoms they might describe to you:

| SYMPTOMS OF AUTONOMIC DYSREFLEXIA | |
|---------------------------------------|------------------------------------|
| BLOOD PRESSURE INCREASE BY 20-40 MMHG | |
| Pounding headache | Nasal congestion |
| Sweating or flushing of the face | Blurred vision |
| Goose bumps | Seeing spots |
| Increased muscle spasms | Nausea |
| Metallic taste in mouth | Difficulty breathing |
| Feeling of anxiety | Decrease or increase in heart rate |

Autonomic dysreflexia can lead to seizures, stroke, heart attack, or death so if the person is experiencing symptoms it's important to address them right away.

ADDRESSING AUTONOMIC DYSREFLEXIA

Autonomic dysreflexia can be a life-threatening medical emergency. If the person has any symptoms of AD, here are some things you can do.

| HOW YOU CAN HELP ADDRESS AUTONOMIC DYSREFLEXIA | |
|--|---|
| Help the person to sit upright and loosen any tight clothing | This helps lower the blood pressure. |
| Check the bladder | <p>A full bladder can cause AD.</p> <ul style="list-style-type: none"> • If the person uses a Foley (indwelling) catheter or condom catheter with urine collection bag, check to make sure there is urine collecting and the tube is not kinked or blocked. • If they do Intermittant Catheterization (IC) assist with doing an IC. |
| Check the bowel | <p>A full bowel can cause AD.</p> <ul style="list-style-type: none"> • Check for stool by doing a rectal touch. If stool is present follow the person’s routine for clearing the bowel. • It is possible that the bowel program is a trigger for AD. Using numbing gel during the bowel program may help. • Hemorrhoids and anal fissures may also be a cause. |
| Check the skin | <p>Irritated skin and pressure points can cause AD.</p> <ul style="list-style-type: none"> • Check the person’s clothing for folds, creases, or tightness. • For men, check for pressure on the scrotum. • Check the feet – sometimes a toe can be bent inside the shoe, or there may be an ingrown toenail. • Look for sunburn, insect bites, cuts, blisters or other trauma. • Check for extreme heat or cold on the skin. |

If you cannot find the cause of the problem, the person should go to the nearest emergency room right away.

Emergency room staff are not always aware of the special needs of people with spinal cord injuries. The person will need to be assertive and should ask staff to check their blood pressure right away. They may need medications to bring the blood pressure down or heart rate back to normal.

BENJAMIN'S STORY

“I HAVE TO PAY CLOSE ATTENTION”



PHOTO CONTRIBUTED BY
BENJAMIN KWARTENG

My name is Benjamin Kwarteng. I was injured in a motor vehicle accident in 2008 while visiting Africa. I was transferred to France where I underwent surgery, unfortunately after being delayed by a week due to the transfer. I sustained a C4 complete spinal cord injury. I can move my head and lift up my shoulders.

I was transferred back to Canada after a month and stayed in acute for about three months before arriving at rehab.

While in rehab I experienced my first episode of Autonomic Dysreflexia. I had been using a Foley catheter while in the hospital, and then in rehab my doctor switched me to wearing a condom catheter and doing IC. My AD was triggered by my bladder being overactive. I had ongoing issues with an overactive bladder the next few years and in 2012 I did a bladder augmentation surgery.

I have learned since then that my AD can be triggered by an overactive bladder, my bladder being too full, a pressure sore, constipation, discomfort anywhere in my body below the level of my injury – anything bothering my body or hurting. When this happens, I get a fever like feeling, pins and needles, sharp pain in my face and neck, I often break out sweating on the left side of my face and my shoulders.

The first thing that I do is ask for assistance with doing emergency IC. If my bladder is what is causing the AD, I start to feel better within the next 10 minutes. If not, I get the attendant to check my skin, I think about my last bowel routine – what was it like, do I need to repeat my routine. If I am not able to resolve it, I have to go to the hospital. My worst experience with

AD involved missing an IC and my bladder being too full to the point of leakage into my kidney. I went to emergency and stayed in intensive care for a couple months. I do not want to do that again.

Prevention is very important for me. I do ICs frequently, up to seven times a day. I make sure I get my bladder flushed once a week to prevent blockage. I follow my bowel routine at least four times a week and monitor what the results were like. I ask for help from my attendants with repositioning three times during the night and every two to three hours.

I have a wheelchair with tilt, recline and stand up. I change my position frequently throughout the day. I make sure I have the right cushion to sit on and it is in good shape. I have a good pressure relief mattress and I ask my attendant to do a skin check every day when I get up. I have dark skin, so bruises don't show that easily. I have to be really careful and trust my attendant to do a thorough check. I also have a nurse that comes in for other things and I ask her to check the common pressure points when she is here.

YOUR NOTES



Preventing pressure injuries

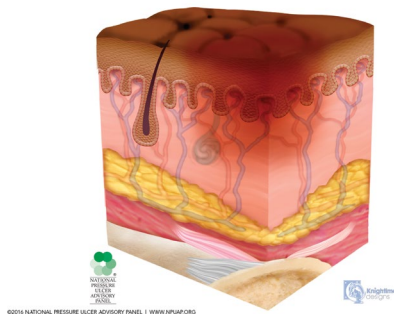
PART 5

Module 3: Preventing pressure injuries

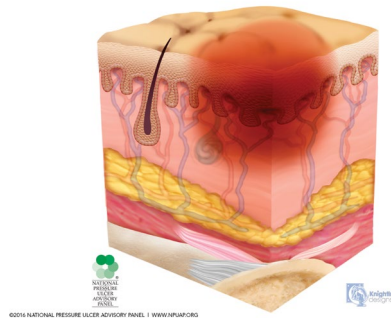
Doctors and nurses classify pressure injuries in stages, based on the depth of the skin damage.



Stage 1 Pressure Injury – Darkly Pigmented



Stage 1 Pressure Injury - Lightly Pigmented



LET'S REVIEW

Fill in the blanks with the information learned in the elearning module on preventing pressure injuries.



WHAT ARE PRESSURE INJURIES?

Pressure injuries are _____.

They are caused by _____ on one part of the body.

They can also be caused by pressure combined with shear.

Shear is when _____.

This can happen when a person _____ or

_____ their weight from one surface to another.

People with spinal cord injury go through physical changes that make getting pressure injuries more common and harder to treat. Unfortunately, once a person has a pressure injury, it is more likely to happen again. Pressure injuries can take a very long time to heal and can be deadly.

The good news is that pressure injuries are preventable. Many factors play a role in maintaining healthy skin: lifestyle and personal choices, access to care, enough money and proper equipment. It makes a huge difference if a person has enough hours of support and consistent support (someone who knows the person and their body). Experts agree on these strategies for prevention:

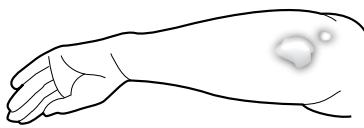
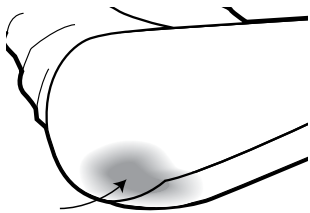
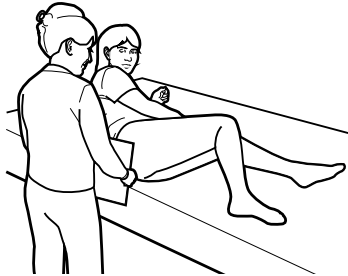
PERFORM REGULAR SKIN CHECKS

The person you are supporting is responsible for directing their skin care routine. You can be really helpful as an attendant by helping with skin checks twice a day. Checking often will help you and the person know what is normal for their skin. It will help both of you to be able to spot any changes.

A skin check involves looking at and touching the person's skin, paying special attention to the areas where pressure could build up.

Skin checks should happen more often if the person:

- is not moving as much as usual, for instance, if they are in bed during the day with a virus
- has already found a skin problem
- is trying out new equipment
- has a change in lifestyle, for instance, they have a new job and are sitting more often, or for longer stretches of time
- has a medical condition that is getting worse.

| HOW TO HELP THE PERSON CHECK THEIR SKIN | | |
|---|---|--|
| Look for | <ul style="list-style-type: none"> • redness, bruising or any change of colour • changes of texture • cracks, scabs and blisters |  |
| Feel for | <ul style="list-style-type: none"> • a difference in skin temperature from the surrounding areas • hardness or softness different from surrounding skin |  |
| Use a mirror or phone | <ul style="list-style-type: none"> • Hold up a mirror to help the person check parts of the skin they can't see. • Some people use their phones to check places on their skin they can't see by having the attendant take photos. |  |

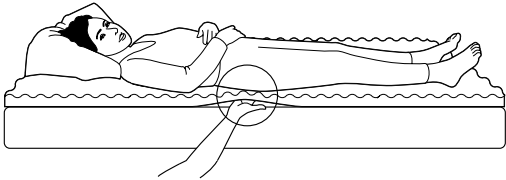
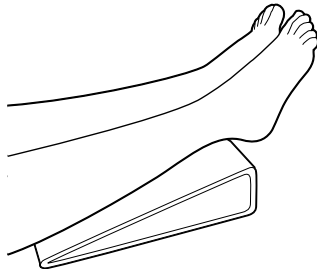
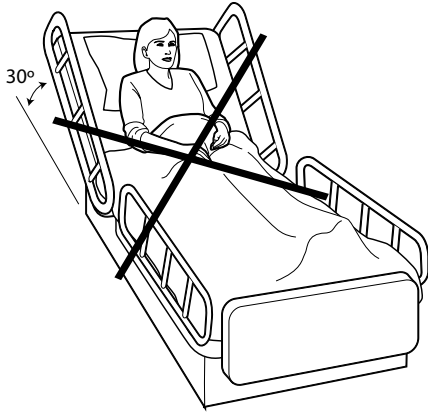
HELP WITH POSITIONING AND WEIGHT SHIFTING

To prevent pressure injuries, a person has to shift their weight regularly. You may be asked to assist a person shift their weight by repositioning them. This could be in their wheelchair or in bed or after a transfer.

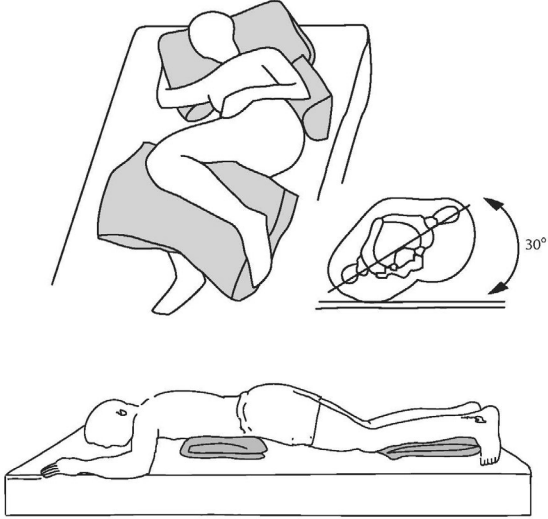
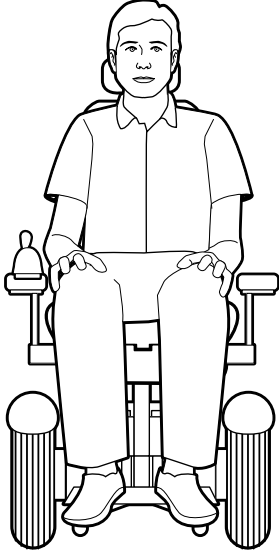
Be patient. A person may ask you to reposition them a few times after a transfer, until they feel it is right. Keep in mind that after you leave, they may remain in this position for the next several hours.

Always ask before helping with positioning. You might suggest that this helps prevent pressure injuries. It is up to them to say yes or no.

HOW YOU CAN HELP WITH POSITIONING TO PREVENT PRESSURE INJURIES

| | | |
|--|---|--|
| <p>Help check under the sit bones</p> | <p>Check the firmness of the mattress in the area where their sit bones make contact.</p> |  |
| <p>Help protect the heels</p> | <p>Lift the person's heels up with a wedge cushion, or let them rest over the edge of the mattress.</p> |  |
| <p>Suggest sitting up in a chair, rather than in bed</p> | <p>Raising the bed more than 30 degrees can increase the risk for pressure injuries.</p> |  |

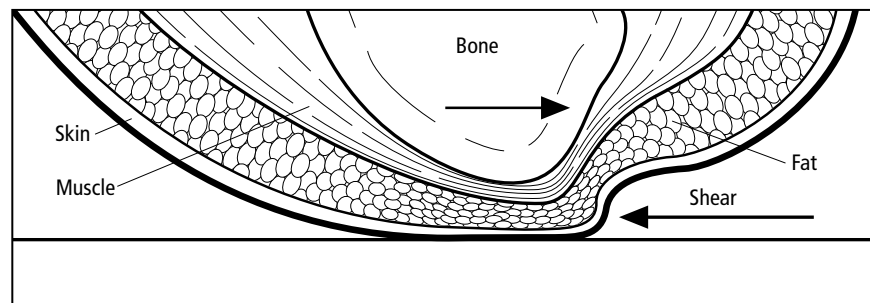
HOW YOU CAN HELP WITH POSITIONING TO PREVENT PRESSURE INJURIES

| | | |
|--|---|--|
| <p>Help use pillows for support while lying down</p> | <p>Assist with placing pillows to take pressure off the person's knees and hips and for comfort.</p> |  |
| <p>Help to maintain good posture while sitting</p> | <p>The person's posture is in a neutral pelvic position. That means their sit bones are flat along the sitting surface.</p> <p>Their weight is supported along the bottom and thighs.</p> |  |
| <p>Use commodes carefully</p> | <p>Commodes often don't have enough surface area to distribute weight. If it takes a long time for the person to finish their bowel routine, you may notice skin issues. Ask them if they have thought about getting a different style of commode – one that distributes pressure better.</p> | |

PROTECT THE SKIN DURING TRANSFERS

Shear causing skin and tissue damage

Shear is when the skin moves one way and the tissue underneath moves the opposite way. This can happen when a person slides down in bed or transfers their weight from one surface to another. Take special care to avoid friction and shearing during transfers and repositioning.



SHEAR CAUSING SKIN AND TISSUE DAMAGE

HOW YOU CAN HELP PROTECT THE SKIN DURING TRANSFERS

| | |
|--|---|
| Take your time | Do not rush during a transfer. A mistake could hurt both of you. Be aware of all parts of the person's body. This helps to prevent bumps, scrapes and other damage to skin. |
| Shorten the distance between the two transfer surfaces | <p>For instance, place the wheelchair parallel or at a slight angle to the transfer surface. This creates the smallest gap.</p> |

HOW YOU CAN HELP PROTECT THE SKIN DURING TRANSFERS

| | |
|-------------------------|---|
| Be careful not to drag | If the person is transferring themselves make sure they are lifting their body away from the support surface, not dragging it. Let them know if you are seeing some dragging. |
| Remove obstacles | Keep the space between the transfer surfaces free of obstacles such as arm and foot rests. |
| Use gravity to help | It is easier if the surface the person is transferring to is slightly lower than the one they are transferring from. |
| Choose smooth materials | People should choose smooth, low-friction, breathable materials for sheets, pajamas, mechanical lifts and slings. If you find the materials may be causing friction or shearing, ask if they have thought about trying other materials. |
| Check skin again | Once the transfer is complete, the person should check their skin or ask you to check. Make sure that it is not stretched or folded together. |

TEMPERATURE CONTROL

Thermoregulation – or temperature control – means how a person’s body temperature adjusts to the environment. A person with a spinal cord injury is less able to regulate their body temperature. This is because they have decreased ability to sweat (release heat) or shiver (contain heat) below the level of the spinal injury.

The higher the SCI, the greater the impact on body temperature control. For example, people with C level injuries are generally affected more than people with L level injuries. As an attendant, it is helpful for you to pay attention to whether the person is clothed or covered to suit their environment.

WHAT HAPPENS IF A PERSON GETS A PRESSURE INJURY

If the person gets a pressure injury, the treatment options range from letting the area heal by itself to performing surgery. The treatment depends on how serious the pressure injury has become, the person's general state of health and whether they have an infection.



KEY POINT

Wound care is beyond the scope of practice for an attendant. It is usually performed by a nurse. An attendant is often asked to assist with transfers or positioning while the nurse attends to the wound.

If you or the person you are attending notice a warning sign of skin breakdown, the first thing to do is to find and remove the cause. The person should keep pressure off the area until their skin returns to normal. Spending most of the day in bed ("bed rest") is not recommended because it can lead to more problems. If the redness does not go away within 24 hours the person should see their skin health specialist right away.

HELENA'S STORY

"IF ONLY I HAD LISTENED"



PHOTO CONTRIBUTED BY
HELENA GRINER

I was injured in a motorcycle accident in 2008 and sustained a T4 incomplete spinal cord injury. I was in the hospital for two months, then at a rehab centre for four months. Initially I had trouble finding an accessible place to live and ended up staying in a hotel for 13 months until I was able to rent an assessable bungalow in Toronto.

I've always been athletic, so getting active again was important as it was always an outlet for me. In 2010 I was introduced to handcycling. I fell in love with it and rode my bike between two and four hours daily. I enjoyed the freedom being away from my chair.

I had never had issues with my skin before however, in May 2013 my

partner noticed what looked like a pink fingerprint on my coccyx. I went to the doctor and was advised to stop riding my handcycle until it cleared up. But I was training for a marathon, so I ignored this advice and kept riding.

This pink fingerprint became a blister and then it became a little deeper. At this point the doctor had ordered a nurse to come in to start packing my wound daily.

In July 2013, I developed sepsis and was hospitalized for three weeks. During my stay, the doctors stated there was a massive hole in my backside and it was full of dead flesh. I literally smelled of dead flesh. The doctors began to clean out my wound and I was discharged from hospital.

I then developed sepsis for a second time and I was admitted to the hospital for another three weeks, where I was then diagnosed with osteomyelitis. I had a PIC line inserted and carried bags of medicine everywhere I went. I was referred to another wound clinic, where the nurse literally snapped off a piece of my coccyx and showed it to me. I was then attending hospital visits frequently for debridement of the bone. I began feeling pain only when the debriding of the bone began and this went on until my surgery date in 2015.

Finally, my surgery date arrived and I had skin flap surgery that went very well. However, while I was in hospital some of the staples popped open and my wound reopened. They used a vacuum pump and packed my wound for four months. The wound was not getting any better and the existing tunnels deepened.

The surgeon redid the skin flap surgery in November 2015 and this time the instructions were strict. I was on an oscillating air mattress and I could only lay on my stomach or opposite side of the wound for the next eight weeks. Eventually, I was allowed to be on my chair for very short periods of time. Over time, I was allowed to spend more and more time on my chair. Finally, my wound and surgery were behind me, however I was left with debilitating neuropathic pain.

Now prevention is my focus. I am lucky as I have the same attendant come to the house, which is nice as she is familiar with my skin and does frequent skin checks. I also use a mirror myself to check my skin weekly and at times I get my attendant to take pictures of any new marks that are seen. I also do my best to remember to offload my weight while on my chair and once at home, I take time to be off my chair. Even after my ordeal, I still forget at times to shift my weight.

In hindsight, I wish I had listened when people told me to stop riding my bike. I wish I wouldn't have let what was initially a pink dot turn into a hole large enough to fit an Apple. I continued to be active and spend a lot of time in my chair when I should have been off my chair allowing for pressure relief. All I can advise is the seemingly harmless marks can turn into something horrific very quickly. Not only is there a possibility of a wound, but other complications such as pain. I would redo everything so differently now as now I continue to have relentless pain which makes it difficult to work and can be very isolating.

Please take the time to assist people check their skin. It is EXTREMELY important to reposition as needed. Some people have altered sensation and some are not able to position or reposition themselves. So again, patience is needed as they may require repositioning multiple times to be comfortable. This will greatly help in the prevention of pressure sores. Any associated or lasting pain, such as complex neuropathic pain can be extreme, debilitating and life altering.

YOUR NOTES

Preventing bowel problems

PART 6

Module 4: Preventing bowel problems

In a complex sequence of events, the digestive system absorbs nutrients into our bodies and then expels the waste. This process is all controlled by the nervous system.



LET'S REVIEW

Fill in the blanks with the information learned in the elearning module on preventing bowel problems.



THE DIGESTIVE SYSTEM

After you chew and swallow food it travels down the

_____ to the _____.

Most digestion takes place in the stomach. The exception is fat.

From the stomach the food enters the _____.

Here, bile from the gallbladder helps to break down fat. Then most of the nutrients from our food are absorbed in the small intestine.

The waste products of digestion continue to the

_____ (also called the colon). It absorbs most of the water and binds the material together to form stool.

Once in the colon, involuntary muscle movement pushes the stool all

the way to the _____.

There it is stored, ready for release through the _____,
the opening through which this waste passes.

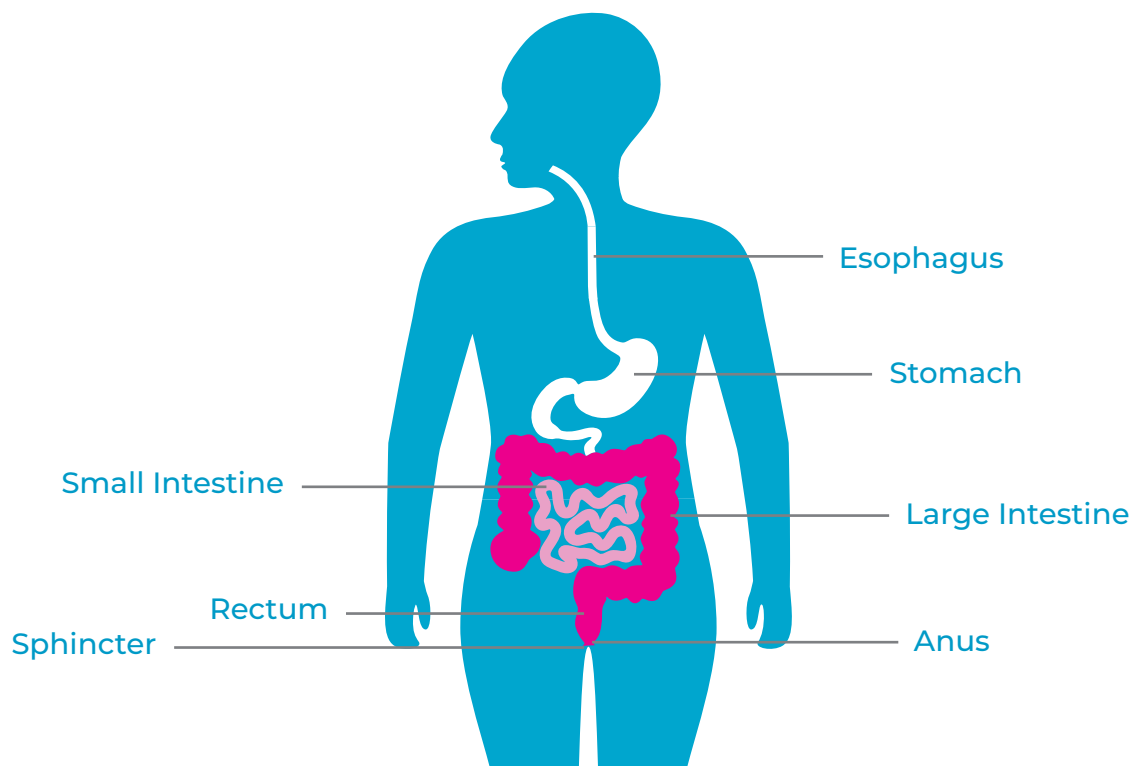
The circular muscle that controls the anus and opens to allow stool to pass
out is called the _____.

When the _____ fills with stool, a sensory message
is sent to the _____ telling us that it is time for
a bowel movement.

When a person goes to the bathroom they relax the
_____ so the stool can exit.

THE DIGESTIVE SYSTEM

This diagram shows the main parts of the digestive system.



DIGESTION AFTER SPINAL CORD INJURY

After a spinal cord injury, the digestive system works differently. The changes depend on the level of the injury and its severity. Here are some things that can happen:

- Movement of food through the large intestine may be slower.
- The person with SCI may not feel the need to have a bowel movement.
- They may be unable to control the voluntary muscles that contract or relax the anal sphincter.
- They may not be able to bear down with the abdominal muscles to help evacuate the stool.

The result is that bowel movements require more time and planning. The risk of accidents is increased.

Fortunately, it is possible to retrain the bowel to empty on a regular schedule and prevent unplanned bowel movements. It is also possible to prevent other bowel problems, such as constipation, diarrhea and impaction (blockage).

Everyone's situation is different. It requires individual evaluation and management.

TASKS YOU MAY BE ASKED TO ASSIST WITH

The types of tasks an attendant may be asked to perform for supporting a bowel routine include:

- assisting with preparing a laxative
- inserting a suppository*
- performing digital stimulation*
- giving an enema*.

***Some of these tasks fall under the Regulated Health Professions Act. Whether or not you can assist with these tasks depends on the policies of your organization and the specialized training you have received.**



KEY POINT

The morning is often recommended as the time of day to do the bowel program. But some people choose the afternoon or evening to accommodate their lifestyle. Some people do their program daily and some do it every other day. The length of time for a bowel program varies with each person.

For best results, the bowel program has to become a routine. It should be done with the same frequency, at the same time of day, using the same method. It is important that the person does not feel rushed.

HELPING TO KEEP THE PERSON'S BOWEL HEALTHY

The person you are supporting is responsible for their own good bowel management. This involves sticking to the program, eating fibre, drinking enough water, staying active and getting regular check ups with their health care team.

As an attendant, you can be really helpful in watching for any signs that something is wrong.

An important part of the service you provide is regular communication. Talk to the person you are supporting about their bowel routine, including details about any possible problems you notice.

SIGNS OF BOWEL PROBLEMS TO WATCH FOR

| | |
|-----------------------|---|
| Consistency | Look for changes in consistency – stools are too hard or too soft. |
| Colour | Any sudden changes in colour of the stool. |
| Quantity | Is their bowel completely empty? |
| Presence of blood | Did you see any blood in the stool? |
| Time | How long did it take? |
| Sweating or spasms | Did they have any sweating or spasms before or during the bowel movement? |
| Autonomic dysreflexia | Were there any other signs of AD? |

TED'S STORY

“IT IS A LIFELONG JOURNEY”

I was injured in a motor vehicle accident in September 2015 on my way to visit relatives in New Brunswick. I sustained multiple injuries to my spine including occlusions at C1-2 (with spinal fixation) and a complete T3 spinal cord injury with spinal fixation.

I was in an acute care hospital in New Brunswick for six weeks. When I transferred to a Toronto hospital, I was unable to secure a bed in a trauma centre so ended up in a general hospital. They had no interest in doing a bowel routine, just relied on diapers. When I became severely constipated, I begged for an enema or stimulation. This hospital just wasn't prepared to deal with this complexity.

My stay lasted approximately eight months during which time I developed severe pressure sores. When I was finally transferred to the rehab centre my stay lasted less than two weeks due to these pressure sores – I was not able to participate in the rehab program. While at rehab they did start a bowel program with me on alternate days using laxatives, a suppository and digital stimulation.

I was transferred to a complex continuing care centre with a focus on healing the pressure sores. I continued with the bowel program on alternate days, initially done in bed due to my wounds.

During the entire time I had been on a G-tube. When the G-tube was removed and I started eating solid foods the change in my diet changed the consistency of my bowel. I was also taking hydromorphone to manage my pain which also affected my bowels.

After a one year stay at the complex continuing care centre I was transferred back to rehab where I stayed for approximately 10 weeks. My bowel routine was performed regularly on alternate days again with the use of laxatives, suppository and digital stimulation. It was here that I got the first taste of how I was going to live the rest of my life.

After finding an accessible place to live, I finally went home in December of 2017 just over two years after my injury. With my return home, attendants came every day to assist with my care, continuing the bowel routine established at rehab.



Eight months after returning home I ended up back in ICU with pneumonia staying just shy of three months. I nearly lost my services as they can only be held for 90 days. During this time my bowel routine was not followed, the hospital relied on diapers. So when I returned home, I had to re-establish my bowel routine again. My service was reinstated and my attendants were very helpful in getting me back on my routine.

In the last few months I have weaned off hydromorphone so need less stool softener. I now experience some bowel leakage. The last eight weeks when I get lifted into bed using a ceiling tract lift I often have a bowel accident. Sometimes a little, sometimes a lot. When I have the suppository the morning of my bowel routine day, my bowels sometimes start to evacuate before I can get to the commode. I have worked with my attendants to figure out ways to manage this – I call it insurance.

Four and a half years since my injury and I am still making adjustments to my bowel routine. It is not something I can take for granted; I have to pay attention. The amount and consistency of my bowel movements are important things for me to track as they are always changing. I know my bowel routine plays an important role in my health, skin integrity and how I feel each day.

YOUR NOTES

Preventing bladder problems

PART 7

The **urinary tract** removes waste and extra fluid from the body. Proper urination requires all parts of the urinary tract to work together in the correct order.

Module 5: Preventing bladder problems

LET'S REVIEW

Fill in the blanks with the information learned in the elearning on preventing bladder problems.



THE URINARY SYSTEM

Let's review how each part of the urinary tract works together:

The _____ expands to store urine that filters in from the kidneys through the ureters. The bladder squeezes to pass urine through the urethra.

The _____ remove waste and medicines from the body. They balance the body's fluid and salt levels. They release hormones that control blood pressure.

_____ carry urine from the kidneys to the bladder.

_____ muscles around the bottom of the bladder close tightly to keep urine from leaking out. Most of the time they stay tight like a rubber band. They relax when the brain tells them to let the urine out.

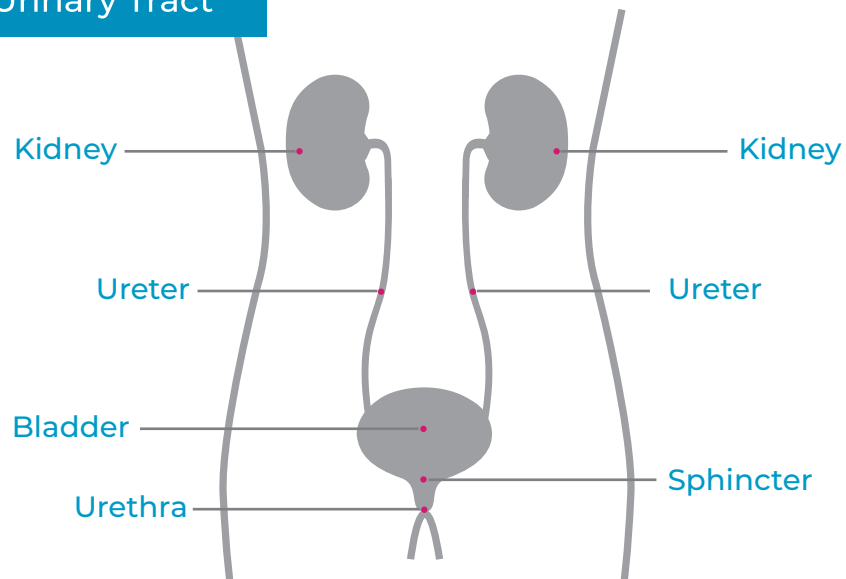
The _____ carries urine to the outside of the body.

When you urinate, the _____ signals the _____ to squeeze and the _____ muscles to relax. This lets the _____ exit the _____ through the _____. All the signals must happen in the right order.

THE URINARY SYSTEM

This diagram shows the main parts of the urinary tract.

Front View Urinary Tract



CHANGES TO THE URINARY SYSTEM AFTER SPINAL CORD INJURY

A person with an injury to their spinal cord may have problems with bladder function, including:

- damage to the nerves in the spinal cord can prevent messages from going between the brain, bladder and muscles
- trouble holding or emptying their bladder
- frequent urinary tract infections or kidney damage
- urinary or kidney stones.

Be aware of any problems the person is having. If they have a urinary tract infection or urinary stones, they may have increased pain, spasms or autonomic dysreflexia. Keep this in mind when providing personal care as some tasks may take longer or need to be performed differently than usual.

TASKS AN ATTENDANT MAY BE ASKED TO ASSIST WITH

Attendants may be asked to support bladder function by:

- gathering supplies
- doing an intermittent catheterization (IC)*
- emptying a leg bag or night bag when half full or every eight hours; wiping connections and drainage spouts with an alcohol wipe
- changing a urine bag, rinsing out and cleaning the bag
- attaching a leg bag to a person's leg
- checking for kinks in the tubing attaching a Foley or condom catheter to a urine collection bag; ensuring that urine is flowing freely.

***Some of these tasks fall under the Regulated Health Professions Act. Whether or not you can assist with these tasks depends on the policies of your organization and the specialized training you have received.**



KEY POINT

Here again, communication with the person is key. Be sure to talk about it if you notice urine that is foul smelling, cloudy with sediment, or dark with blood. This may mean a urinary tract infection or kidney stones.

HOW TO HELP MAINTAIN A GOOD BLADDER ROUTINE

People are responsible for directing their own good bladder management. This involves getting enough fluids, taking medications if needed and getting regular checkups with their health care team. As an attendant, you can be really helpful in the following areas:

HOW YOU CAN HELP MAINTAIN A GOOD BLADDER ROUTINE

| | |
|--------------------------------|--|
| Follow the person's directions | Each person has developed a routine that works for them. Even if it seems very particular, it is important that you do what they ask. They have a reason for asking. |
| Empty the bladder completely | You or the person you are supporting may suspect that the bladder is not completely emptying. If this happens, the person should think about getting a referral to a urology clinic. |
| Be on time for the booking | If you assist with intermitant catheterization (ICs), timing is important for proper, regular drainage. They will have thought about this when they scheduled services. It is important to be on time for the booking. |
| Ask about Foley catheters | If the person you are supporting has a Foley catheter, it should be changed every four weeks by a doctor or nurse. It is okay to ask the person when it is getting changed next. |
| Double-check drainage bag | When you empty or change the drainage bag (used with Foley or condom catheters) make sure it is draining. <ul style="list-style-type: none"> • Check the tubing for kinks or twists. • Make sure the drainage tube is securely closed to prevent leakage. • Make sure the drainage bag is below the level of the bladder. • Follow the person's directions for rinsing out the drainage bag. |
| Practise good hand hygiene | Washing your hands and wearing personal protective equipment when assisting with all bladder procedures is important to prevent infections. If you work with an organization, follow the policies of your organization for hand hygiene and using personal protective equipment in all bladder procedures. |
| Report back | Tell the person about any concerns or changes you see in their urine, such as the presence of blood, sediment, or a foul smell. |
| Plan ahead | Make sure the person has access to fluids to drink when you are not there. |

KATHRYN'S STORY

“PREVENTION IS THE KEY”

My name is Kathryn Drummond and I was injured in a car accident in 1968. I sustained a C4-5 spinal cord injury resulting in complete paralysis from the shoulders down.

Bladder management issues have a significant impact on physical and mental health and sense of well-being. They can interfere with the activities of daily life, social and family life, success in school or work.

Preventing urinary tract infections (UTIs) is very important. I have a small contracted bladder and use a Foley catheter for bladder management. If I have trouble with my bladder emptying properly or get a urinary tract infection, I can experience Autonomic Dysreflexia which may have serious medical consequences.

My attendants support me in minimizing urinary tract infections in several ways: a) by assisting with good hygiene routine to keep the area around the catheter clean, morning and evening; b) cleaning and sanitizing my urinary drainage bags and any other equipment used; and c) checking when I get dressed that everything is in its proper place and the catheter isn't pulled or under pressure causing a blockage.

If my catheter becomes plugged, my attendants are trained to perform bladder irrigation to try removing the blockage, avoiding a potential autonomic dysreflexia episode.

The attendants also help make sure I have adequate fluid intake, important to keep the catheter flowing well. If I participate in an outside activity, my attendant may meet me for a washroom break and give me some fluids or make sure that I have water handy, if I need to get a drink.

Another preventative measure I take to avoid urinary tract infections is taking cranberry tablets to minimize the bladder infections. My attendants make sure that I have a supply available and help me with the taking of them. This also applies to medications if I have developed a bladder infection.

The other important factor in avoiding urinary tract infections is maintaining a good diet. My attendants help me by making sure I have what I need in the fridge and that there's fresh fruits and lots of vegetables on hand.



PHOTO CONTRIBUTED BY
KATHRYN DRUMMOND



Closing: What you do matters

PART 8

A spinal cord injury can happen to anyone. Sustaining an SCI is a life altering event for people and their families. As an attendant you are supporting someone during a time of huge learning and change. Your communication style, knowledge, understanding and empathy make a world of difference.

Thanks to advances in medical care and supports available in the community, people with spinal cord injuries now live long, healthy lives. However people with SCI often have multiple secondary health conditions. Many of these can be prevented.

You can help them to avoid or minimize the occurrence of autonomic dysreflexia. You can help prevent pressure injuries or minimize their impact with early intervention. You can support regular, healthy bowel and bladder routines.

By assisting with their personal care and activities of daily living, you play a big role in helping people to move forward and live the life they choose. Thanks for taking part in this training and for all you do to support people living with spinal cord injuries.



Ted asks, "All good?"
Camille says, "All good."

ANSWER KEY FOR REVIEW SECTIONS

Parts of the spine, p. 9

Cervical; Thoracic; Lumbar; Sacral

The impact of spinal cord injury in numbers, p. 14

36,036; 1715; 46; \$336,000; 50

Autonomic dysreflexia, p. 27

Autonomic dysreflexia (AD) is the body's abnormal response to pain or discomfort below the level of the spinal cord injury.

The SCI prevents the body from responding properly to signals that something is wrong.

AD can cause a rapid rise in blood pressure.

AD can be life threatening.

You respond to AD by removing the stimulus, or whatever is causing the problem.

The most common cause of AD is a full bladder or bowel.

There is no hard and fast rule for who will experience autonomic dysreflexia.

Usually AD affects people with an SCI at the level of T6 and above, but AD can occur for people with lower level injuries as well.

AD can be a medical emergency. If the person experiences any symptoms of AD, address it immediately.

Pressure injuries, p. 33

Pressure injuries are skin and tissue damage.

They are caused by sitting or lying too long on one part of the body.

They can also be caused by pressure combined with shear.

Shear is when the skin moves one way and the tissue underneath moves the opposite way.

This can happen when a person slides down in bed or transfers their weight from one surface to another.

The digestive system, p. 43

After you chew and swallow food it travels down the esophagus to the stomach.

Most digestion takes place in the stomach. The exception is fat.

From the stomach the food enters the small intestine. Here, bile from the gallbladder helps to break down fat. Then most of the nutrients from our food are absorbed in the small intestine.

The waste products of digestion continue to the large intestine (also called the colon). It absorbs most of the water and binds the material together to form stool.

Once in the colon, involuntary muscle movement pushes the stool all the way to the rectum.

There it is stored, ready for release through the anus, the opening through which this waste passes.

The circular muscle that controls the anus and opens to allow stool to pass out is called the sphincter.

When the rectum fills with stool, a sensory message is sent to the brain telling us that it is time for a bowel movement.

When a person goes to the bathroom they relax the sphincter so the stool can exit.

The urinary system, p. 49

The bladder expands to store urine that filters in from the kidneys through the ureters. The bladder squeezes to pass urine through the urethra.

The kidneys remove waste and medicines from the body. They balance the body's fluid and salt levels. They release hormones that control blood pressure.

Ureters carry urine from the kidneys to the bladder.

Sphincter muscles around the bottom of the bladder close tightly to keep urine from leaking out. Most of the time they stay tight like a rubber band. They relax when the brain tells them to let the urine out.

The urethra carries urine to the outside of the body.

When you urinate, the brain signals the bladder to squeeze and the sphincter muscles to relax. This lets the urine exit the bladder through the urethra. All the signals must happen in the right order.

Thank You.

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CORTREE provides training, education and mediation services. People with lived experience are fully engaged in the development and facilitation of our services.

As a social venture owned by Spinal Cord Injury Ontario, all proceeds from our services are reinvested in Spinal Cord Injury Ontario to support new programs and services, education and advocacy campaigns by and for people with disabilities.

Learn more about Cortree here:

cortree.com

SPINAL CORD INJURY ONTARIO (SCIO) is a non-profit organization with offices across Ontario. SCIO delivers and champions excellence in service, support and advocacy for people with SCI. Our vision is people with spinal cord injuries living the life they choose in a fully inclusive Ontario.

Learn more about SCIO here:

sciontario.org



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