

POST SPINAL CORD INJURY HEALTH MAINTENANCE CHECKLIST: FOR PRIMARY CARE

CONSIDERATIONS AT ANNUAL EVALUATIONS

This is a tool to guide the conversation with your patient with Spinal Cord Injury (SCI) because there are common health concerns and complications after a spinal cord injury (SCI). Each section covers a different health issue and serves as a cue for you to ask questions to ensure they are receiving the appropriate best practice care.

We recommend that you review this checklist as a “team” with your patient and have them identify priority areas to be addressed first. Ideally, they can review the checklist in advance of the appointment with supports such as a partner, caregiver, or family member and share this with you as a primary care provider in advance. It may take multiple visits, more frequently than annual, to finish all the sections of the tool relevant to a patient. The patient version of the tool also has space to record important health information and serve as a personal record.

The * suggests priority medical issues to be addressed.

The guide includes information that may not be relevant depending on how long since injury, age, or the type of injury. **Every SCI is a unique journey.** It also assumes an ongoing relationship with your primary care team. In addition to the resources listed below, there is a patient version of the checklist, paired with the Self-Management Guide for People Living with Spinal Cord Injury, which explains some of the issues and the reasons why these are important to consider.

REFERENCES

- ▶ Canadian Spinal Cord Injury Best Practice Guidelines (<https://kite-uhn.com/can-scip/recommendations>)
- ▶ Spinal Cord Injury Research Evidence (SCIRE) (<https://scireproject.com/>)
- ▶ Spinal Cord Injury Canada Consortium (<https://www.sciconsortium.ca/>)
- ▶ Neurotrauma Care Pathways- Ideal Care Pathway for Spinal Cord Injury in Ontario (<https://www.neurotraumapathways.ca/sci>)
- ▶ Paralyzed Veterans of America Clinical Practice Guidelines- including Bone Health and Osteoporosis Management (<https://pva.org/research-resources/publications/clinical-practice-guidelines/>)
- ▶ Bare Bones Podcast series on Bone Health post SCI (<https://www.scifragments.ca/>)
- ▶ Spinal Cord Injury Ontario (<https://sciontario.org/>)
- ▶ Spinal Cord Injury Ontario- CorTree Education Series (<https://sciontario.org/support-services/resources/cortree-online-learning/>)
- ▶ Christopher and Dana Reeve Foundation (<https://www.christopherreeve.org/>)
- ▶ Unite to Fight Paralysis Podcast series (<https://u2fp.org/get-educated/curecast/>)

GENERAL

- Solicit feedback from patient as to accessibility of the clinic and appointment
- Flexible appointment scheduling (i.e., later day, longer appointment, need for personal support, virtual, equipment for transfers)
- Review equity needs (gender identity, Indigenous, housing, food security, income (ODSP), justice-involved, intimate partner violence, veterans)

The * suggests priority medical issues to be addressed.

GENERAL PREVENTIVE CARE

- *Allergies
- * Vaccinations (tetanus; influenza; consider pneumococcal and HPV; COVID)
- *Cancer screening: breast, cervical, prostate, skin, and colorectal cancer (per authoritative guidelines)
- * Measure body mass, height/length; adjust body mass index for SCI (obesity surrogate: BMI \geq 22kg/m²) if possible
- * Measure vital signs and orthostatic hypotension as a SCI-specific health complication
- * Review medications and side effects
- Assess cardiometabolic risk factors ([per Can-SCIP best practice guidelines](#))
- Encourage adoption of nutritious diet ([SCI Nutrition – SCIRE evidence](#)) and exercise \geq 150 minutes/week moderate to vigorous activity ([per SCI exercise guidelines](#))
- For older adults: cognitive screening as appropriate, polypharmacy (consider referral to pharmacy)

SCI-SPECIFIC FREQUENT HEALTH COMPLICATIONS

SKIN

- * Head-to-toe skin examination and assess risk factors for skin breakdown
- Are you doing self- “Head-to-toe” daily skin examination?
- Do you have the equipment (ie. Mirror/phone cameras) or a trusted caregiver/family to complete?
- Consider referral via Ocean to [NW Wound, Vascular, and Limb Preservation Central Intake](#) if wound
- Consider referral to Occupational Therapy to review surfaces, equipment, education

GENITOURINARY

- * Review bladder care/program: method (i.e. intermittent catheterization/indwelling), effectiveness/satisfaction with management, complications (i.e. UTI, stones, incontinence), medications
- * For SCI-specific UTI assessment and management see:
<https://kite-uhn.com/can-scip/en/recommendations/urinary-tract-infection-uti> and
Canadian Urological Assoc guidelines <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6570608/>
- * Ensure has appropriate access/prescriptions to supplies
Resource: Primary Care and SCI Bladder Management: <https://scireproject.com/primary-care/bladder/>
- Consider ordering kidney, ureter, and bladder ultrasound every 1-2 years (to check for hydronephrosis/hydroureter)
- Consider ordering creatinine and lytes yearly (recognizing the creatinine is not great for monitoring kidney function in those with SCI due to low muscle mass)
- Ensure follow up with Urology for those with urinary management issues or UTIs

GASTROINTESTINAL AND NUTRITION

- * Review bowel program: effectiveness, time, diet, oral medication, rectal interventions, complications
- Assess diet. Consider referral to Dietitian
- Weight gain or loss? Consider cause- and refer appropriately
- Ostomy? Supplies, consider Wound and Ostomy clinic/specialist referral

RELATIONSHIPS, SEXUAL AND REPRODUCTIVE HEALTH

- * Review of personal relationships: partner, family (parents, siblings, children), friends
- * Review sexual satisfaction, barriers, and if fertility desired
- Review family planning (contraception, pregnancy, after birth recovery)
- Review menstruation and menopause
- Consider referral to Gynecologist, Urologist, Sexual Health clinic, Relationship Counselling as required

MENTAL HEALTH

- * Depression screen with the PHQ-2, if score >3 complete the PHQ-9
<https://scireproject.com/outcome/patient-health-questionnaire-9-phq-9/>
- * Refer to counselling, groups, peer support, Spinal Cord Injury Ontario, psychiatry
- Review mental health and well-being (mood, anxiety, depression, suicidal ideation, addictions)
- Review dependence on: tobacco, alcohol, cannabinoids, pain medications, other illicit drugs
- Review social supports
- Was the person screened for brain injuries? If yes, integrate local Spinal Cord Injury Ontario – Regional Service Coordinator with brain injury system navigator for supports
(Brain Injury Services of Northern Ontario- <https://bisno.org/>)



AUTONOMIC DYSREFLEXIA

A condition that can affect people with SCI at T6 and above (may occur as low as T10), characterized by transient episodes of hypertension and imbalanced reflex sympathetic discharge in response to stimulation below the level of injury. Symptoms may include heart rate changes, headache, sweating, and other symptoms. AD is a life threatening condition and if not recognised and timely managed could result in significant complications and even death.

- * Review triggers of autonomic dysreflexia e.g. bladder, bowel, skin
- * Review frequency of episodes of autonomic dysreflexia
- Consider home autonomic dysreflexia kit (such as a blood pressure cuff)
- Consider referral or e-Consult to Psychiatrist for consultation, in-person, or virtual appointment:
Dr. Hanan El Sherif, St. Joseph's Hospital
tel. 807-623-9350; fax 807-623-8449

SPASTICITY/TONE

- Review efficacy of non-pharmacological and pharmacological interventions for spasticity
- Consider referral or e-Consult to Psychiatrist for consultation, in-person, or virtual appointment:
Dr. Hanan El Sherif, St. Joseph's Hospital
tel. 807-623-9350; fax 807-623-8449

PULMONARY

- * Surveillance for signs/symptoms of sleep-disordered breathing, shortness of breath, infections
- Consider referral to Respiratory Therapist or Physiotherapist or SJCG Long-term Ventilation Clinic including virtual options for follow-up visits

BONE HEALTH

- Fracture Risk Calculator ([Canadian Fracture Risk Assessment Tool](#))
- History of lower extremity fractures
- DXA Bone Density at 1- to 2-year intervals
- Consider physical modalities (e.g. ambulation, supported weight-bearing/standing frame, functional electrical stimulation)
- Consider dietary (Calcium, Vit D) and pharmacologic management for bone health

MOBILITY AIDS

- Review seating and mobility aids. Refer to OT and PT or Seating Clinic.
- Include wheelchair fit in the differential for acute and chronic health concerns (e.g. pressure injury, shoulder pain)



EXERCISE AND DIET

- Review physical activity plan. GOAL >150 min moderate to vigorous/week.
- Guidelines: <https://sciguidelines.ubc.ca>
- Refer to Physiotherapist or Kinesiologist?
- Weight gain or Loss? Review diet plan. Consider referral to Dietitian?
- Review sports and exercising activities and goals

MUSCULOSKELETAL

- *Screen for overuse injuries (i.e. shoulder, elbow, wrist)
- Changes to ROM/tightness
- Consider referral to Physiotherapist
- Details of any treatment to date

PAIN MANAGEMENT

- *Assess for type (neuropathic, nociceptive), interference in life/function, management
- Review dependence on: tobacco, alcohol, cannabinoids, pain medications, other illicit drugs
- Consider referral to Psychiatrist or Physiotherapist or Chronic Pain Management Program referral at Northwest Access Point: <https://northwestaccesspoint.ca/>

FUNCTION

- *Assess management of Activities of Daily Living (ADL), Instrumental Activities of Daily Living (IADL), food security, fatigue, cognition, finances (ODSP), leisure/work/activity reintegration/spirituality/service dog (Tools: Reintegration to Normal Living Index or Moorong Self Efficacy Scale on SCIRE website and on patient tool)
- Assess any issues with public/assisted transportation, adaptations to personal vehicle, need for parking pass
- Assess need for home renovations or equipment
- Consider referral to Occupational Therapist and/or Spinal Cord Injury Ontario

SUPPORT/RESOURCES/RELATIONSHIPS

- *Assess attendant care and social support
- Assess well-being of patient, family, and friends
- Consider referral to Spinal Cord Injury Ontario (Regional Service Coordinator, peer-support, education)

ADDITIONAL CONSIDERATIONS FOR AGING WITH A SCI

- Assess aging effects on injury progression and evolution of symptoms/comorbidities
- Aging out of existing services or low income. ie ODSP
- Consider referral to Spinal Cord Injury Ontario (Regional Service Coordinator)
- Consider referral to Geriatric Medicine