Spinal Cord Injury BC

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Heartburn, Gastroesophageal Reflux Disease (GERD) and Chronic SCI

Acid Reflux is a common stomach condition in which "stomach acid and juices flow from the stomach back up into the tube that leads from the throat to the stomach (esophagus). This causes heartburn. When you have heartburn that bothers you often, it is called gastroesophageal reflux disease, or GERD." (HealthLink BC). Occasional acid reflux or heartburn is common but frequent symptoms of dry cough or burning pain behind the breastbone especially at night or after eating that last longer, or are more severe are considered GERD. HealthLink BC recommends seeking treatment when you experience regular symptoms like these as GERD can lead to ulcers, or damage to your esophagus.

Why should people with Spinal Cord Injury know about GERD?

Some research indicates that GERD may be considerably more common among people with spinal cord injury (SCI) than in the general population, although there is conflicting evidence. However, the research does suggest that common complications of SCI are known risk factors for GERD, and that GERD is poorly diagnosed and often found at an advanced stage among people with SCI. Impaired sensation may also prevent individuals with higher injury levels from detecting symptoms of GERD. It's useful to understand GERD, especially its symptoms and risk factors specific to SCI so you know how to respond if you need to.

Individuals with SCI may have specific risk factors for heartburn, acid reflux and GERD:

- Slow Motility: The gastrointestinal system with chronic SCI moves twice as slowly as that of someone without SCI, and the time to clear the GI tract can be even longer the higher the injury level. In turn, this slow motility means delays in stomach emptying, which can in turn lead to reflux of stomach contents into the esophagus, causing esophagitis, GERD or other complications.
- Positioning: Spending more time lying down or reclined in your wheelchair (such as to relieve pressure on your skin) can make symptoms worse. Remaining sitting for at least two hours after a meal is an important way to prevent esophageal reflux.
- Abdominal Pressure: Increased pressure in the abdominal space due to abdominal muscle spasticity, chronic constipation, and bearing down for bowel care routines. This adds pressure on the stomach that forces stomach acids into the esophagus that may lead to damage to esophageal tissues, chest pain, inflammation, and some more serious concerns after repeated long exposures.

Continued on next page

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- Medications: Many common medications taken by individuals with SCI for chronic pain or spasticity may put them at higher risk for GERD. Opioids, a class of medications commonly used to treat chronic neuropathic pain cause constipation and may delay stomach emptying, leading to or exacerbating GERD. Anti-inflammatories like naproxen or ibuprofen are also often used for post-SCI pain and inflammation and when used routinely are known for causing or worsening GERD, irritating the stomach and esophagus (WebMD).
- Inactivity: Physical activity aids gastrointestinal motility, which in turns aids in emptying the stomach and preventing reflux. Many common forms of routine movement are difficult or impossible with paralysis.

In general, the same advice for managing GERD in the general public applies to individuals with SCI so have a look at the excellent general resources on dyspepsia and GERD from HealthLinkBC.

Specific suggestions for individuals with SCI who are concerned about GERD, based on research and clinical information:

- Avoid eating before bed or before you need to be horizontal. If you take medications that require you to eat along with them, eat small amounts over a period of time to avoid stimulating your stomach to produce a lot of acid to break down a larger amount of food.
- Remain upright in your chair, bed or couch for 2-3 hours after eating. For pressure relief, try to use vertical pressure relief lifts, or more frequent side-to-side lifts rather than reclining or laying flat.
- Work to reduce your body weight to help reduce pressure on your abdominal cavity that forces acid reflux into the esophagus and prevents effective stomach emptying. Losing weight can be particularly difficult for individuals with SCI, so seek support and advice from a rehabilitation specialist or exercise physiologist familiar with SCI.
- Discuss options for managing spasticity in the abdominal area if this is an ongoing issue for you that may raise your abdominal pressure, a risk factor for GERD. A discussion with a rehab specialist may be helpful to help balance needs for function, use of anti-spasticity medications and therapies, and managing GERD.
- Discuss medication for GERD with a physician aware of SCI complications. Doctors may prescribe a limited course of a class of medications called proton-pump inhibitors (PPIs) or H2 inhibitors that can help treat GERD. Make sure to discuss the risks and benefits of this class of medication as chronic use can lead to increase in osteoporosis and fractures, complications that those with SCI are already at high risk of. A short course of PPI medications can also be a less invasive and more manageable way to diagnose GERD in individuals with SCI than an endoscopy procedure.

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- Take care to remain active. Even low-impact regular activity can help with motility, but the key is regular and routine activity. Swimming, stretching, and moving arms and abdomen regularly can assist with motility of the gastrointestinal tract. Try the SCI Action Canada Get Fit Toolkit with SCI for some ideas on how to get enough physical activity.
- Talk to your physicians and SCI specialists: As GERD tends to be under-diagnosed in people with chronic SCI, have a conversation with your family doctor if you experience symptoms of acid reflux or GERD, and with your rehab specialist if you are concerned about how to recognize the symptoms of GERD and what those might look like in your condition.
- Address slow gastrointestinal motility with your physician or rehab specialist – you might be a candidate for medications that can help improve your gastrointestinal motility which can in turn improve the delayed stomach emptying that contributes to heartburn, acid reflux and GERD.

For Further Reading:

Gastroesophageal Reflux Disease and Dyspepsia. **HealthLinkBC.ca** Last edited, May 5 2017. © 1995-2017 Healthwise, Incorporated, and the Province of British Columbia. https://www.healthlinkbc.ca/health-topics/hw99177

Nutrition for Gastroesophageal Reflux Disease. An excerpt from *Eat Well, Live Well with Spinal Cord Injury*. © 2013 Joanne Smith and Kylie James, pp. 1.12-1.13. Accessed online: www.eatwelllivewellwithsci.com

SCI Get Fit Toolkit. © 2015 SCI Action Canada Team. www.sciactioncanada.ca.

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