

(Heading) **Respiratory Health & Spinal Cord Injury**

(Heading) **Infocomic Main Characters**

Michelle — An African American woman fifteen years of age with a spinal cord injury. She has an afro puff hairstyle with headband.

Michelle's friend — A Caucasian woman fifteen years of age. She has long light hair with bangs and is wearing a party hat.

Michelle's father — An African American man in his forties. He has dark, receding hair and wears a party hat.

Michelle's mother — An African American woman in her forties. She has short, dark hair and wears a pearl necklace.

Party guest one — An African American man in his mid-twenties. He has short hair, a beard, and is wearing a part hat.

Party guest two — An African American toddler. He has short, curly hair and is wearing a party hat.

Nurse — Young Caucasian woman in her thirties. She has long, dark hair and wears earrings.

Physician — A man in his thirties of Asian descent. He has dark hair and wears glasses.

(Heading) **Infocomic Story Description**

Today is Michelle's birthday. Surrounded by friends and family, she is about to blow out the candles on her cake but cannot get enough air.

She turns to her friend for help and asks, "You know what? Blow out these candles with me." Together, Michelle and her friend blow out the candles.

Seeing her friend's curiosity, Michelle says, "It looks like you're wondering why that was hard for me?" Michelle explains that a spinal cord injury can lead to respiratory muscle weakness and paralysis. This can make it hard to breathe.

Michelle explains that respiratory muscle weakness and paralysis means the muscles that allow you to inhale oxygen into your lungs and exhale carbon dioxide no longer work or are too weak to work well, causing shortness of breath.

A diagram follows demonstrating inhalation and exhalation. Oxygen enters the lungs during inhalation and carbon dioxide exits during exhalation. During inhalation, the space inside the chest increases and during exhalation, the space inside the chest decreases.

Michelle's friend asks, "Does that impact your health?"

Michelle tells her friend that people with SCI who have respiratory problems may develop other health problems. These may include:

Bronchitis, which is an infection in the tubes that lead to the lungs.

For example, Michelle is coughing near a duck pond, startling a duck.

Pneumonia, which is an infection of the air sacs in the lungs.

For example, Michelle is shivering. Her concerned parents are standing behind her and ask, “Are you okay, dear?”

Obstructive sleep apnea, which is a blockage of air flow in the back of the throat during sleep. Obstructive sleep apnea is associated with feeling sleepy and tired, depression, heart problems, and other issues.

For example, Michelle is in bed fast asleep and snoring. Her snores are so loud that she wakes her cat resting at the foot of her bed.

Michelle then explains to her friend that during her rehab stay, she learned ways to actively help her lungs be as healthy as possible, including:

Not smoking or vaping. Avoid secondhand smoke. Cigarette smoke or inhaling smoke or vapors from other sources can harm your health in many ways.

For example, a man is smoking outside as Michelle passes by. Michelle tells herself, “Smoking is gross.”

Avoiding the buildup of mucus in the lungs. A cough assist machine can help keep your lungs clear if your respiratory muscles are too weak to cough. An attendant or family member can also be taught to help you cough.

For example, a nurse is helping Michelle use a cough assist machine. Michelle is sitting up straight in her chair as the nurse applies the mouthpiece over her mouth and says, “Great job, Michelle!”

Stay hydrated!

Drink plenty of water, especially if you have an infection, unless your healthcare provider has told you something different. Be active and keep a healthy weight. Being overweight may lead to lung problems.

For example, Michelle is taking a break from playing basketball with her friends to drink water.

Get a flu shot every year. There are also two different types of pneumonia shots that you should discuss with your health care provider. Stay away from people who may have the flu or a cold.

For example, Michelle is receiving a flu shot from her doctor.

Michelle says that even when she tries her best to prevent respiratory problems, they can still happen. That’s why she always contacts her healthcare provider if she has signs of a respiratory infection or sleep apnea. She also sees her provider once a year for a check-up.

For example, Michelle and her parents are waving goodbye to Michelle’s physician, who says, “See you next year!”

With her family behind her, Michelle then looks at her friend and says, “Now, let’s have some cake!”

(Heading) **Source**

The Content of this infocomic has been adapted from the factsheet *Respiratory Health and Spinal Cord Injury* (<https://msktc.org/sci/factsheets/respiratory>), which was developed by Eric Garshick, MD, MOH,

Phil Klebine, MA, Daniel J. Gottlieb, MD, MPH, and Anthony Chiodo, MD, in collaboration with the Model Systems Knowledge Translation Center. It was illustrated by Grant Corley. Our health information content is based on research evidence whenever available and represents the consensus of expert opinion of the SCI Model System directors.

(Heading) **Disclaimer**

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