



Frederick M. Maynard, MD

Ask Dr. Maynard

Send your questions for Dr. Maynard
to info@post-polio.org.

See other questions at
www.post-polio.org/edu/askdrmay.html.

Question: *I am 83 and had polio when I was 6, affecting my right leg. I received the Sister Kenny treatment in St Michael's Hospital in Newark, NJ in the spring of 1942. My leg is 1/2 inch shorter and one of my quad muscles and my calf atrophied. I have led a pretty normal life with one weak leg.*

I started singing in a choir as a Boy Scout and continued in church choirs and in later years a community chorale. While singing I have found that I cannot walk and sing like most of the other singers. I run out of breath. Nevertheless, I have had lung capacity tests that have shown good capacity, and it is only trying to sing and walk that gives trouble. My other activity was as a scout leader for 35 years where I hiked and swam with the boys over the years.

As I have aged, I discovered my left arm and hand also have some palm atrophy. I have no opposing muscle strength with the thumb on the left hand. I am also short of breath when I walk uphill. Is it possible that some of the lung muscle was also affected and is causing the shortness of breath and how can it be checked? I do have a cardiologist. He diagnosed a dilated aortic root, an artery that is 70% blocked and a leaky valve that he is watching. I had the breathing and walking problem prior to the heart problems.

Answer: You pose a difficult diagnostic challenge because your heart problems AND/OR post-polio involvement of your breathing muscles might be responsible for your symptoms of SOB (shortness of breath) on exertion. If it was from the polio, the fact that you are noticing some new atrophy in your left hand/arm suggests that you may be having some weakness involving the left diaphragm because its motor nerve supply is located adjacent to motor nerves to the left arm/hand in the spinal cord where the polio virus caused myelitis and cell death. You could be evaluated by a pulmonologist with expertise in neuromuscular diseases affecting breathing and with testing involving not only breathing capacities, such as Forced Vital Capacity in standing and lying down positions, but also fluoroscopy (moving picture X-ray) of the diaphragm in full inspiration/expiration to see if the left side is weakened/paralyzed. You could show this recommendation to your local doctors as appropriate. If all breathing tests prove normal, your heart problems may be sufficient to explain your symptoms. This could be confirmed with exercise capacity testing on a treadmill with monitoring of your cardiac output. Although your heart problems were only recently diagnosed, they could have been present for a longer time.

Question: *I was diagnosed with a mild case of polio in 1952 when 12 years old. The polio affected my neck and upper back, and both recovered to the point where I didn't have any visible physical problems. Over the years I have encountered a lot of stiff neck and back problems and was treated at pain management facilities. The pain was not alleviated, but they provided enough relief that I could tolerate the pain and maintain a livable life. In 2010, I was diagnosed with autoimmune chronic hepatitis and have been receiving treatment. The treatment means I cannot take any pain medication that goes through my liver, thus I live with a lot of pain.*

Last December, I was sitting at the table addressing Christmas cards and when I finished, I had a stiff neck and back pain below my neck. The pain worsened and I went to see my primary. He thought the pain was caused by muscle spasms. He gave me medication for muscle spasms which had very little effect on the pain. They did a CAT scan with dye but could not determine the problem. I went to the ER with severe pain. They ordered blood and urine lab work, an EKG and ultrasound on my abdomen—all came back negative. One of the doctors suggested trying a pain medication that is made at the hospital pharmacy. After approximately 30 minutes, the pain subsided somewhat, and I was released to go home. I apply the pain medication as

needed. Since this existing problem occurred, I am experiencing more pain and weakness in my arms and shoulders. What can be done for my condition?

Answer: Based on the detailed description of your medical history and recent symptoms, I would agree that it is likely that your pain and increasing weakness through the neck and shoulder are related to your past history of polio involvement with these same muscles. Given your history of a full initial functional recovery of strength in these muscles which lasted for >20 years, unremarkable imaging of your neck for serious anatomical conditions and the trigger of recent pain symptoms in these muscles after unusually prolonged or strenuous use, you are most likely experiencing persistent pain because of ‘myofascial trigger points’ in these muscles. These can usually be alleviated and sometimes resolved with several therapeutic techniques including message therapy and gentle stretching, followed by some toning and gentle strengthening exercises provided by a physical therapist and/or massage therapist through a physician’s prescription. Use of a pain relieving cream or rub (such as the one from your local hospital pharmacy), as well as use of heat and/or cold therapy, use of TENS (Transcutaneous Nerve Stimulation) or acupuncture, can all be helpful adjuncts to controlling the pain levels and permitting the most important aspects of treatment (message, stretching, exercise) to be tolerated long enough to result in satisfactory resolution of symptoms, albeit with a possibly reduced level of activity tolerance or capacity.

To ensure that this approach is optimal, it should be based on a full examination. I would encourage you to obtain a “Neuromuscular Evaluation” by a polio expert in your area, as you have suggested. The Physical Medicine & Rehabilitation Department at Ohio State University in Columbus has a long history of expertise in evaluation and treatment of polio survivors and pain problems. It would be an excellent place to be seen for an individualized treatment plan and for recommended local therapy providers. ■

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