



Frederick M. Maynard, MD

Question: *I have been having a LOT of pain through my butt into my lower back. I looked up muscle groups and think I see what is causing the problem. I sit at my desk nine or so hours six days a week in order to survive financially. I never realized sitting in a wheelchair could atrophy some muscle groups. Do you have any words of wisdom for PPSers who use wheelchairs? At night I lie down after supper to watch TV and unwind.*

A: Sitting eight hours or more in a wheelchair – or any chair – can lead to lower back pain. The primary reason is tightness of back muscles and joints from remaining so long in a constant position, especially if the muscles are under constant low-grade contraction in order to hold and maintain the sitting position.

While it is true that prolonged sitting postures can lead to atrophy of the gluteal muscles that make up the buttocks, and atrophy can be associated with the development of back pain, in my experience atrophy is rarely the cause of that pain. This is true for ambulatory people as well as people with neuromuscular disabilities.

If you are sitting in a wheelchair, I presume you do not walk much, if at all. Do you do some standing and walking for even short periods? For how many years have you been using a wheelchair? Part-time or exclusively? Did you ever have much bulk to your gluteal muscles since acute polio?

Your answers to these questions and the duration of your problem with back pain are pertinent to the most likely cause of YOUR

back pain after long sitting and the best solutions.

Based on my experience with post-polio sitters who are developing new back pain after long sitting, especially as they are getting older and are doing more sitting than ever, I would recommend three primary management strategies:

1) Stretching exercises can be very helpful in reducing this type of back pain. You may require a good, detailed examination of your sitting posture, strength and flexibility by a physical therapist to identify exactly what type of stretching exercises and positions will best help your unique tightnesses that are contributing to your pain.

2) Posture breaks every one to two hours, for even five minutes each, can help minimize back pain from prolonged sitting. Standing up and arching your back, if possible, is one simple option. At the end of a long period of continuous sitting, lying down in a horizontal position and doing some simple stretching of the spine and hips is another option. This option may be quite difficult for some people with severe disabilities because of

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the help needed to do this, but it can be very helpful, even if only done once at the end of a long day of work-related sitting.

3) Ergonomic seating is another useful strategy. It may require a certified seating specialist (usually a PT or OT) to evaluate your sitting position in your usual chair. The amount of back support, the firmness/softness of the seat interface, the need for differential height of the seat to correct for asymmetry of buttock size and pelvic obliquity, the depth of the seat and the height of the seat from the floor or footrests are the most commonly needed changes to create an optimal sitting posture for long, pain-free sitting periods.

I hope you will find these suggestions helpful. Please get professional help if the simple suggestions don't help enough.

Question: *Can post-polio syndrome (PPS) be the cause of a nerve ending problem over the stomach region? I have annoying, tingling pains over the stomach region at about skin level or just below. It continues on and off throughout the day but not serious enough to wake me at night. The doctors I have visited can't seem to find a reason for the problem and suggested it may be PPS but don't know enough about PPS so I end up with no solution for the continuing mild pain. Also, temperature appears to affect me and brings the pains on.*

A: A tingling feeling over the stomach would not be a direct result of PPS, because polio never affects sensory nerve function. The only possibility that I can think of that might relate to your post-polio condition is if you have developed a problem in your back that is pinching any sensory nerve that comes out of the spine and runs along the ribs toward the upper abdomen. This is not uncommon

in people with long-existing scoliosis who undergo age-related changes in their vertebrae.

It could be addressed by a physiotherapist with special skills for mobilizing thoracic vertebrae and ribs. It could also represent a "referred pain" from a problem with your stomach or other abdominal organ. It should not simply be attributed to PPS. ▲

Dear Dr. Maynard:

Thank you for responding to my earlier letter about possible rotator cuff surgery. I write to tell you about two things that worked for me in regards to my rotator cuff pain.

One: A PT told me to always push up from a chair with my fingers pointing out. Doing the opposite with my fingers pointing in on the chair arm would damage my rotator cuff. I have found this to be true.

Two: I saw an article by Jane E. Brody in the *New York Times* (August 2, 2011) entitled "Ancient Moves for Orthopedic Problems." After three days of thirty seconds of a yoga exercise recommended by Loren Fishman, a rehabilitation specialist at New York-Presbyterian/Columbia hospital, the pain was almost all gone. Fishman's move is called the "triangular forearm support" and is an adaptation of the yoga triangular headstand.

I rest my forearms and head against the wall with my hands clasped making a triangle and gently push. The explanation as to why it works is that the maneuver trains the subscapularis (a muscle below the shoulder blade) to take over the job of the supraspinatus (muscle that raises the arm from below chest height to above the shoulder).

-Clara Reiss, New York, New York

Editor's Note: Go to www.nytimes.com/2011/08/02/health/02brody.html for a diagram of the "triangular forearm support."