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As the Summer Travel Season Approaches, Physical Therapists Advise Airline Passengers to Keep Moving During Air Travel

ALEXANDRIA, VA. The dangers of long flights in cramped quarters have been the subject of recent media attention and have prompted both passengers and airlines to examine the pitfalls of air travel. In response, some airline carriers, such as JetBlue, have begun including passenger seat exercises in the seatback pocket on all flights.

"Because of the lack of leg room afforded most airplane passengers, leg cramping, toe cramping, and general lower-body aching are typical symptoms experienced by people who fly," says former American Physical Therapy Association (APTA) President Marilyn Moffat, PT, PhD, FAPTA, CSCS. "Sitting still for long periods may lead to swelling of the feet, which becomes obvious to many passengers when they try to put their shoes back on at the end of their flight," Moffat says.

Moffat suggests that when you have little room to move and stretch, do some simple, seated exercises to keep the blood flowing, the joints mobile, and the muscles relaxed while en route. The APTA "In Flight Fitness Guide," featuring a selection of recommended exercises, follows this release.

Although many of the aches that passengers experience are more uncomfortable than dangerous, there are some potentially serious health risks that can result from sitting for long periods of time on an airplane. Perhaps the most serious risk to those who fly is the development of deep vein thrombosis (DVT), sometimes called "coach class syndrome," which results when blood clots form in the legs during four or more hours of confinement in a cramped seat. When the plane lands, small clots normally dissolve; however, larger clots may not. They might then break loose days or even weeks later, travel to the heart or lungs, and possibly cause death.

APTA suggests that fliers not stay seated for the duration of the flight and recommends that passengers walk up and down the aisle of the plane every hour or so to work the leg muscles and ease the back--that is, if the captain has turned off the "Fasten Seat Belt" sign!

"Performing these exercises will keep the leg muscles from contracting and will help relieve stiffness during the flight. The exercises also will help prevent fluid build-up in the legs," says Moffat. "Stretching the back and the muscles around the torso will prevent stiffening." Moffat notes that if you have an existing back problem, appropriate guidance should be given to you by your physical therapist before any extensive flying.

"Sitting in such a cramped position also puts a lot of stress on the lower back, especially for people who have back problems. If you have brought along hand luggage or a rolling case that fits under the seat, use them as foot rests to elevate your feet so that your knees are slightly higher than your hips when you are sitting."

Physical therapists also recommend wearing compression stockings to help reduce the risk of DVT. "Compression stockings work by applying maximum pressure at the lower-leg area, progressively decreasing in pressure toward the top of the leg. The pressure compresses leg veins, thus helping to prevent clot formation," says Moffat. Another consideration while flying is the dehydration that occurs from the high altitudes at which planes now fly and the dry, pressurized cabin air. These conditions may lead to muscle cramping and aching, so APTA advises passengers to drink plenty of water before and during the flight.

INFLIGHT FITNESS GUIDE FROM APTA

When you have little room to move and stretch on the plane, physical therapists advise doing some simple, seated exercises to keep the blood flowing, the joints mobile, and the muscles relaxed while en route.

Heel Raises – Sit with feet flat on the floor, about hip-width apart. Lift heels so that only toes and the balls of the feet are on the floor. Hold for 5-10 seconds and lower feet back to the ground. Repeat 10 times.

Toe Lifts – Sit with feet flat on the floor, about hip-width apart. Lift toes and balls of the feet so that only the heels are on the floor. Hold for 5-10 seconds and lower feet back to the ground. Repeat 10 times.

Ankle Circles – While sitting, lift right leg slightly off the ground and rotate the foot clockwise, making a circle in the air. Do this 15 times clockwise, then 15 times counterclockwise. Repeat with left leg and foot. Alternatively, trace the letters of the alphabet in the air with the right, and then the left, foot.

Overhead Stretches – Stand and reach arms straight up and stretch. Slowly lean to the left, then right, bending at the waist. Repeat this action five times to each side, holding each for 5-10 seconds. If you are unable to stand and stretch, then reach arms straight up while seated. If you have room, slowly stretch to each side as well.

Back Twists – While sitting, reach the right arm across the body and grab the left armrest. Slowly turn the torso and head as far to the left as is comfortable. Hold for 5-10 seconds, repeat five times, and then switch sides.

Curl Downs – While sitting, pull stomach and chin in $\frac{3}{4}$ and gently curl trunk down very slowly, reaching hands to the floor. Hold for 5-10 seconds $\frac{3}{4}$ then uncurl slowly back up. Repeat five times.

Toe-Heel Walk – When walking down the aisle of the plane, walk on your toes one way and then return to your seat by walking on your heels.

The American Physical Therapy Association is a national professional organization representing 66,000 members. Its goal is to foster advancements in physical therapy practice, research, and education. For more information about APTA and physical therapy, please visit www.apta.org.