Avoiding Back Pain: Addressing Posture

Keeping your body in balance with strength and stretching exercises can help you break the cycle of poor posture that leads to lower back pain.

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In the veterinary practice, you likely discuss various perpetual cycles: the itch-scratch cycle, flea infestation cycle, and osteoarthritis cycle, to name a few. Unfortunately, veterinary nurses can become stuck in a similar cycle of poor posture. Within this circuit, muscle imbalances can cause poor pelvic posture, which results in lower back pain. This then leads to worse posture, which provokes more pain, and so on. However, by addressing the common imbalance responsible for this alignment and rectifying incorrect standing and sitting positions, you can help break this cycle to find relief.

WHY DOES MY LOWER BACK HURT?

Considering most daily tasks involve forward repetitive motions (e.g., walking, restocking cabinets, bending down to pick up a patient), the anterior portion of the body becomes overactivated, whereas much of the posterior chain, the muscles that run along the backside of the body, tends to be underutilized and weakened in comparison. Sitting for extended periods of time, particularly in a slouched position, further contributes by shortening the anterior muscles. This pattern of muscle imbalances is referred to as lower crossed syndrome (LCS). Individuals with these cross-body imbalances commonly suffer from an excessive anterior pelvic tilt (APT). This pelvic alignment occurs when the anterior portion of the pelvis tilts forward and down, typically pulled downward by the hip flexors. This condition increases curvature of the lumbar spine and leads to sacroiliac pain and generalized lower back pain. The hamstrings muscle group, which originate at the pelvis, can also feel tight due to excess tension on the muscles from the tilted posture.

While this pelvic alignment isn’t present in all individuals (and some may experience the opposite, posterior pelvic tilt), it is very common. Studies suggest that as many as 85% of men and 75% of women experience some degree of APT. If the above symptoms apply to you, a fitness or healthcare professional can complete a series of assessments to determine whether you have a pelvic tilt.

Benefits of Intentional Movement

The “Movement Is Medicine” series will focus on common areas of discomfort for veterinary nurses in the workplace, including the back and neck. Although this series will primarily discuss how intentional movement can protect your body on the job, it’s important to note that physical activity can also boost mood, elevate confidence, improve focus, increase energy, reduce stress, and improve quality of life.

Adults should engage in at least 150 minutes of moderate-intensity aerobic activity plus 2 days of strength training each week. This might feel like an inconvenience—the last thing on your mind after a long shift—but think of it as an exercise prescription. You would want your clients to comply with prescribed recommendations, so aim to hold yourself accountable for 30- to 45-minute sessions 5 times each week. The key to adding fitness to your routine is to discover a modality of movement that you enjoy and look forward to.
STRENGTH TRAINING EXERCISES

Strengthening the hamstrings and gluteal muscles can work to combat APT. It can also reduce the anterior-posterior imbalance to minimize risk of injuries to the lower body, including the knees. Confirm with a healthcare professional that these movements are appropriate for you to perform before attempting them and seek medical attention if you experience pain.

Standing Hamstring Curl
- Standing in front of a chair or wall for support, shift your weight to one foot.
- Keep your knees in line as you bend the opposite knee, activating the hamstring while bringing the heel toward your rear.
- Pause at the top, then slowly lower your foot to the starting position.
- Repeat 12 times, then complete on the other side. Complete 2 to 3 rounds.

Progression: Add an ankle weight or resistance band.

Glute Bridge
- Begin in a supine position with the soles of your feet firmly planted on the ground and knees bent at 90°.
- Engage the gluteal muscles as you raise your hips toward the ceiling, keeping the shoulders and heels in contact with the floor. Avoid hyperextension of the spine.
- Pause at the top, then slowly lower your hips to the starting position.
- Repeat 12 times and complete 2 to 3 rounds.

Progression: Add weight or a band over the hips to increase resistance.

STRETCHING MOVEMENTS

These movements focus on stretching potentially shortened hip flexors. While all veterinary nurses can benefit from these stretches, those who sit for long periods of time in particular should aim to perform them at least 2 to 3 times weekly.

Standing Quadricep Stretch
- Standing in front of a chair or wall for support, shift your weight to one foot.
- Bend the other knee to bring the foot behind you, grasping the top of the foot or ankle in your hand on the same side.
- Keep your knees in line and guide the heel toward your rear while maintaining a neutral pelvis to deepen the stretch.
- Hold for 20 to 30 seconds, then repeat on the opposite side. Complete 2 to 5 repetitions.

Regression: Place a strap or towel around the raised ankle to assist in bringing it toward your rear.

Kneeling Hip Flexor Stretch
- Begin with one knee on the ground directly below the hip (use padding under the knee for support) and
the opposite foot planted in front of you. Both knees should comfortably represent 90° angles.

- Engage your core to keep the pelvis level, then glide your body forward slightly to activate the stretch.
- Hold for 15 to 30 seconds, then repeat on the other side.\(^2\) Complete 2 to 5 repetitions.\(^8\)

**Progression:** Raise the arm on the side of the knee that is in contact with the ground and extend it overhead.

**Regression:** Lift your knee off the ground and perform the same stretch in a standing lunge position.

**SPECIAL CONSIDERATIONS IN THE VETERINARY PRACTICE**

Even with a strong posterior chain and improved hip flexor mobility, there are scenarios within the veterinary practice that can put you at risk for lumbar discomfort. Despite being fatigued at the end of a long shift, aim to put these simple techniques into practice.

- **Alternate sitting and standing:** Sitting for prolonged periods has been linked with numerous negative health consequences. However, solely standing may be hard on the body as well.\(^9,10\) Data suggests that the ideal ratio of sitting to standing may be somewhere between 1:1 and 1:3, which translates to sitting for 15 to 30 minutes out of every hour.\(^11\) While this can be challenging in the veterinary practice setting given the nature of patient care, do your best to alternate when you can. Bring a stool with you while monitoring anesthesia and switch positions every few readings or sit while working on records after each patient if you’ve been standing throughout the exam. Practices can assist by offering staff members a combination of seated and standing desks.

- **Realign your pelvis while standing:** It’s easy to allow your body to slump and find a “comfortable” position when you’ve been standing for a long period. And if you have shortened hip flexors, your pelvis may naturally fall into an anterior tilted position. Aim to remain cognizant of your standing posture, especially when fatigued. If you feel your lower back begin to curve, realign your pelvis to find a neutral position while engaging your core.

**IT’S ALL ABOUT BALANCE**

Among the numerous things veterinary nurses must balance, it’s important to balance the muscles of the body. Doing so can improve your mobility, reduce your risk of injury, and elevate your overall comfort. \textit{TVN}

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Since entering the veterinary field in 2009, Saleema has held a variety of roles and positions. This diverse experience led to the discovery of her true passions for patient care, education, and mentoring. Saleema is currently part of the Boehringer Ingelheim Tech Champion team, delivering continuing education presentations to veterinary nurses, and practices in a high-caseload small animal practice. Saleema lives out her passion for fitness as a certified personal fitness trainer and group fitness instructor.

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References


