The Importance of Resistance Training

The addition of strength training to your routine can improve your bone health and reduce your risk of injury.

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Age-related muscle loss occurs much earlier in life than you might suspect. We begin losing muscle as early as the age of 30; individuals who do not engage in regular physical activity may lose muscle mass at a rate of 3% to 8% per decade from 30 years onwards, though that decline becomes more rapid after the age of 60.[1] However, even individuals who do exercise are at risk for muscle loss if they do not engage in strength training.

Benefits of Intentional Movement

The "Movement Is Medicine" series will focus on common areas of discomfort for veterinary nurses in the workplace. 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.[2]

Adults should engage in at least 150 minutes of moderate-intensity aerobic activity plus 2 days of strength training each week.[3] This might feel like an inconvenience 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. In addition to these straightforward movements outlined in this series, try hula hooping, tai chi, fencing, bowling, rowing, dancing, or swimming. Find something that you truly look forward to.

The average age of veterinary nurses who responded to the NAVTA 2022 Demographic Survey was 38.9 years, which means the majority of veterinary nurses are within the age group where muscle loss is a concern.[4] Regardless of age, regular resistance training can aid in maintaining and building muscle to prevent injuries on the job, among other benefits. However, it is vitally important for veterinary nurses over the age of 30.

WHAT IS RESISTANCE TRAINING?

Resistance training is any type of body movement that causes the muscles to work under an applied force. The force may be in the form of weights, resistance bands, or one's own body weight. Each time the muscle fibers are recruited in response to the resistance, then given adequate time to recover, the muscle strength increases. In addition to 150 minutes of aerobic exercise each week, it is recommended that adults engage in at least 2 days of muscle-strengthening activity per week.[5]

BENEFITS OF RESISTANCE TRAINING FOR VETERINARY NURSES

Aside from maintaining muscle mass, there are other benefits resistance training can provide veterinary nurses both in and out of the hospital setting.

Mental Health Benefits

Unfortunately, veterinary nurses are no strangers to stress. Compassion fatigue and lengthy work hours have long affected the profession; however, surveys suggest that veterinary nurses are experiencing higher

than usual levels of stress and burnout.[6] Although exercise is not a cure-all, it can act as a mood booster in times of high stress. Resistance exercise has been linked to reduced anxiety and depressive symptoms.[7]

Injury Prevention

Musculoskeletal injuries are some of the most common injuries within the workplace and at home. Resistance training not only improves muscle strength but also contributes to the strength of connective tissues and bones, as well as flexibility and mobility.[8] These qualities can reduce your risk of occupational injury.[9]

A veterinary nurse's role is often quite physical, including lifting and restraining patients and handling supplies. Practicing proper lifting, pushing, or pulling mechanics in a controlled environment, such as a gym or the comfort of your own home, can allow you to apply these concepts to tasks in the workplace.

Improved Bone Health

Resistance and weight-bearing exercises play an important role in bone health. Bone density peaks between the early and late 20s and begins to decline shortly after.[10] Poor bone density can put you at risk of osteoporosis and fracture injuries. However, when mechanical stress is applied to the bones through resistance training, it slows the progression of bone loss and even stimulates bone growth.[11]

STRENGTH TRAINING EXERCISE

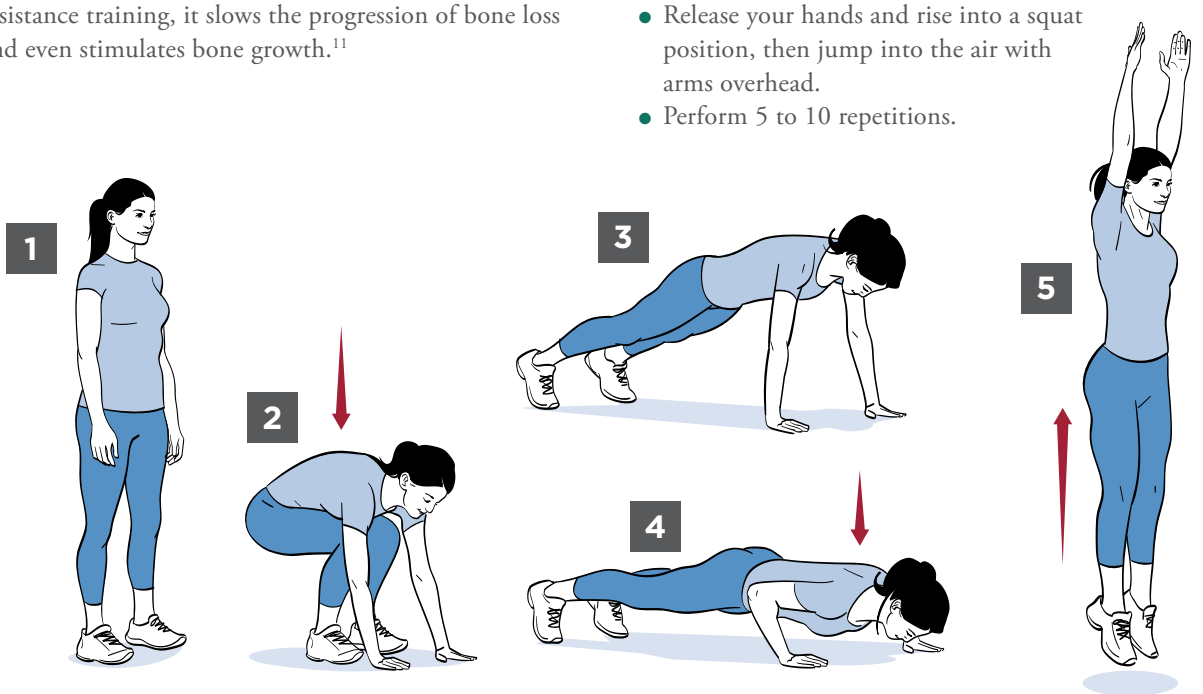
The burpee is one of the most well-known exercises that can be modified to fit any fitness level. It is considered a full-body movement, as it strengthens the legs, lower back, core, chest, shoulders, and arms.

Before attempting this exercise, confirm with your healthcare professional that it is safe for you to do so and seek medical attention if you experience pain or discomfort while performing the burpee.

Full-Body Burpee

Follow the instructions below to complete a burpee.

- Begin in a standing position with your feet about shoulder-width apart.
- Keep your weight in the heels as you push your rear backward and sit into a squat position.
- Maintaining the squat position, bend at the waist, and plant your hands on the ground in front of you.
- Jump your feet backward until your legs are extended and your body is in a high plank position.
- Bend your elbows and lower your entire body toward the ground, keeping your core and lower back engaged.
- Engage your chest as you push up into a high plank position.
- Jump your feet to the outside of your hands, landing on your heels to prevent injury to your knees.
- Release your hands and rise into a squat position, then jump into the air with arms overhead.
- Perform 5 to 10 repetitions.



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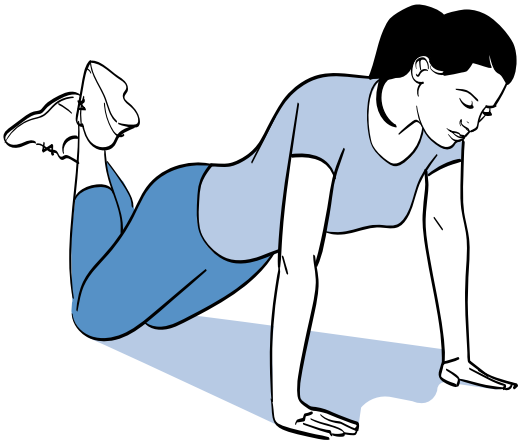
FULL-BODY BURPEE Stages include: **(1)** standing, **(2)** squat, **(3)** high plank, **(4)** low plank, **(5)** jumping with arms overhead.



BURPEE REGRESSION Push-up with knees on the ground.

Regressions: There are numerous ways to modify the burpee. These include stepping your feet back and forward instead of jumping, placing your knees on the ground for the push-up, removing the final jump and performing a squat to calf raise, or performing the exercise against a counter or wall to reduce resistance.

SPECIAL CONSIDERATIONS IN THE VETERINARY PRACTICE

What you do within the workplace can impact the success of your resistance training program. Use these tips to help make your strength training worthwhile.

- **Take rest days.** Muscle recovery is important for anyone who engages in resistance training, particularly veterinary nurses, who are continuously on their feet. Give approximately 48 to 72 hours of rest between resistance workouts.[12]
- **Be mindful of your protein intake.** Even if you are only able to take a few bites between patients, make sure you are fueling your body with enough protein. The recommended dietary allowance for protein is 0.8 grams per kilogram of body weight.[13] Lean sources of protein can include tofu, turkey, Greek yogurt, legumes, eggs, and protein shakes.

MUSCLE: USE IT OR LOSE IT

Unfortunately, if you are not working to maintain your muscle mass, there is a good chance you may lose it. Performing resistance movements with or without added weight has numerous long-term benefits that can help veterinary nurses both at work and at home. You can enjoy peace of mind knowing that your bones and muscles are strong while feeling more confident, too.

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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. Saleema lives out her passion for fitness as a certified personal fitness trainer and group fitness instructor.

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