



**A Stay-Fit  
Guide for the**

**MIDLIFE**

**EQUESTRIEN**

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## Ride down the centerline for years to come with health advice from this FEI-level rider and physician.

By Donna Richardson, M.D.

**W**ho is the midlife equestrienne? I am—a female rider, somewhere between 40 and 60 years of age—and I am legion. Please note that I did not say middle-aged. Middle-aged is a state of mind. Middle-aged conjures up images of chubby women obsessing endlessly about their weight, conservative executives who would never dream of showing their knees at work or worried mommies who are risk averse to anything more dangerous than crossing the street. Well, that's not me. I honestly have no idea what I weigh, I still wear short skirts and tight jeans, and while I have not yet jumped out of a functioning airplane for fun, I wouldn't rule it out. If you have read this far, I suspect middle age is not for you either. Midlife, on the other hand, is just a chronological fact. It's a number. It's neutral. It's what you make of it.

That said, there *are* certain undeniable physical changes that occur to our bodies as we age. Many of them can be prevented or delayed; others can be managed. In this article, I'm going to look at the three systems that most affect our ability as equestriennes: the cardiovascular, the musculoskeletal and the neurologic.

### Cardiovascular Health

To ride well, you need a strong heart, good lungs, flexible muscles, stout bones, a sharp brain and quick reflexes. Let's start by examining the heart. Anyone who thinks riding is not an aerobic activity has not spent 30 minutes sitting the trot of a big moving horse. Your heart and respiratory rates rise; you sweat. As we get older, our ability to increase heart rate decreases. The amount of blood pumped per beat—the stroke volume—decreases. Our lungs also become less efficient. After age 25, maximum oxygen uptake decreases by 5 to 25 percent per decade. Cholesterol and risk for heart



### Steps to Ensure your Cardiovascular Health

**Cardiovascular challenges:** The ability to increase heart rate decreases in midlife. The amount of blood pumped per beat decreases, and the lungs become less efficient. After age 25, maximum oxygen uptake decreases by 5 to 25 percent per decade. Cholesterol and risk for heart attack rise along with blood pressure.

**Solutions:** Do three, 30-minute sessions of aerobic exercises per week, such as swimming, biking, jogging, race walking—exercises that involve continuous use of your major muscle groups. Do the workout hard enough to get up to 60 to 70 percent of your predicted maximum heart rate (see chart “Your Exercise Target Heart Rate,” p. 58).



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**MIDLIFE EQUESTRIANS & SPORT:** Dressage is one of the few Olympic sports where it's possible to succeed at the highest levels for many years. In the top photo, members of the 1999 Pan-American Games gold-medal team were all midlife equestriennes—(from left) Betsy Rebar Sell, Debbie McDonald, Donna Richardson and Lynda Alicki-Gilchrist.

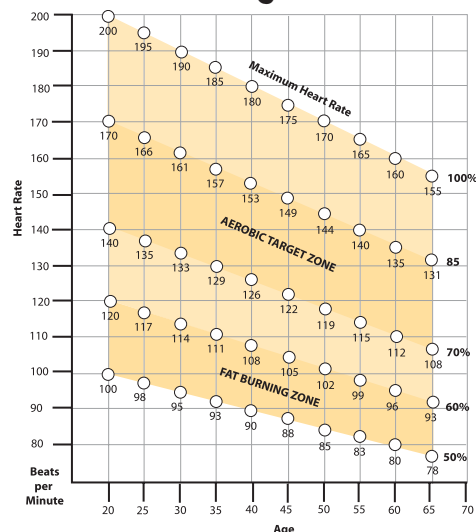
**BUILD CARDIOVASCULAR HEALTH:** Friends go for a run (from left: Katy Barglow, Richardson, Linda Barone, Valerie Cheatham, Skyler Evans). Skyler checks her heart rate monitor. She wants to be within her aerobic training zone. Linda and Valerie use the talk test: Be able to converse but not sing, or you need to speed up; if you're gasping for breath, slow down.

attack rise along with blood pressure. Sounds pretty grim, doesn't it? But wait. Before you hang up your spurs and buy your rocking chair, remember that with appropriate exercise, these changes can be postponed by *decades*. An active, physically fit 50-year-old can maintain the functional level of a 20-year-old.

How much exercise does it take to achieve this level of fitness? And how often must one do it? Surprisingly, it does not take much to stave off the decline of cardiovascular functions: three 30-minute

sessions per week will do. What you do doesn't matter: swim, bike, jog, race walk, whatever exercise you enjoy that involves continuous use of your major muscle groups. Do it hard enough to get up to 60 to 70 percent of your predicted maximum heart rate (see chart "Your Exercise Target Heart Rate," above, right). Ideally use a heart rate monitor to check your level of exertion. The chest strap/wrist watch models are unencumbering and surprisingly affordable. The Polar f1™ Heart Rate Monitor retails for \$59.99; you can get

## Your Exercise Target Heart Rate



**Exercise hard enough to get up to 60 to 70 percent of your predicted maximum heart rate to ensure cardiovascular health.**

one at most sports equipment stores or at the Web site [bodytrends.com](http://bodytrends.com). But if you simply can't afford the cost, watch your breathing. If you are panting so hard you can't talk, slow down. If you can sing a song, you'd better speed up. If you are using aerobic exercise to control your weight, more frequent sessions (five to six days a week at lower intensity, about 50 percent of your maximum heart rate) will burn more fat. Aerobic exercise will:

- lower your total cholesterol and raise your good, high-density lipoproteins, which are associated with decreased cardiac risk
- lower your blood pressure and decrease the incidence of depression.

It may not be the fountain of youth, but it's the closest science has yet come to it. And it's the *only* way you will come down the centerline for the final passage/piaffe/passage tour in the Grand Prix with enough wind left to halt and salute at G.

### Musculoskeletal Health

The second most important body system for the midlife rider is the musculoskeletal. In a sport where 125-pound females are attempting to direct 1,500-pound horses, we need strong but flexible muscles. And

since unplanned dismounts can occur any time, we need strong bones to withstand the inevitable impacts.

A woman's bone mass peaks around age 30, decreasing 0.5 percent a year thereafter. At menopause, the rate of bone loss skyrockets to 2 to 3 percent a year. An estimated 30 percent of white American women have dangerously low bone mass, a clinical condition known as osteoporosis (OP). Low bone mass by itself is not a problem, but the associated increased risk of fracture is critical, especially for riders.

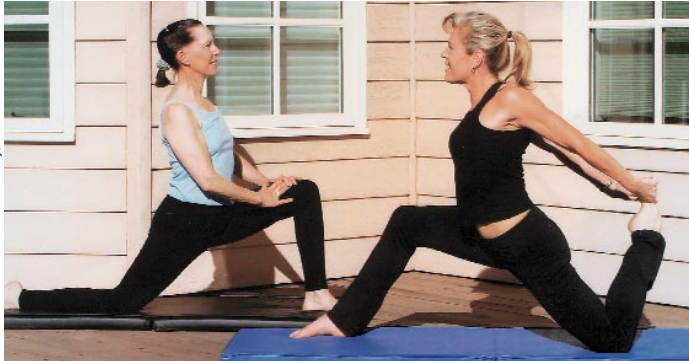
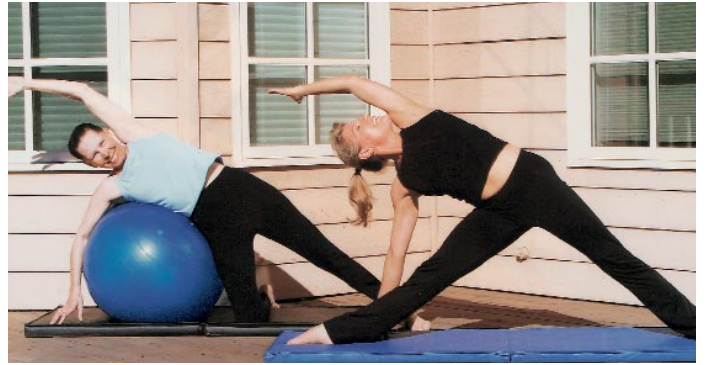
How do you know if you have OP? Risk factors include ethnicity (whites higher than blacks, Asians, or Latinos), heredity (OP runs in families), post-menopausal status, smoking, low-calcium diet and the long-term use of corticosteroids. The gold standard for diagnosing OP is the CT (computed tomography) scan, but an accurate diagnosis can be made by dual X-ray absorptiometry (DEXA). DEXA scans use a much lower dose of radiation than CT scans and are much less expensive. Newer, and even less expensive, is ultrasonography. All tests can predict fracture risk and the need for preventative therapy.

Most HMOs will pay for bone density assessment because, in the long run, it costs less to do 1,000 ultrasounds than to treat 10 hip fractures. If your doctor does not suggest a bone density screen, speak up ladies! If testing show your bones to be in good shape, congratulations! But now you must work to maintain them.

Whether exercise alone can prevent age related bone loss is questionable. The combination of hormone replacement therapy (HRT) with exercise is definitely effective. Unfortunately, high-dose HRT (0.625 milligrams of estrogen per day) has recently been shown to be associated with increased risks of heart disease and breast cancer. Early studies on low-dose HRT (0.3 milligrams of estrogen per day) appear to show preservation of bone without the undesirable side effect of

**BUILD HEALTHY MUSCLES:** Richardson and Danielle Dorsey (right) demonstrate two versions of the side stretch, with and without the PhysioBall.

**FLEXIBILITY:** Below, left and right, Richardson and Dorsey demonstrate equally good versions of the groin stretch. Dorsey is just starting dressage, but she has been practicing and teaching yoga for years so, of course, she is more flexible than the average midlife equestrienne. However, stretching is not a competitive sport. Stretch within your own limits and save your competitive fires for the show ring. Your body will thank you.



Photos courtesy, Donna Richardson

high-dose HRT, but the verdict is still out. Until the evidence is concrete, the midlife equestrienne should be wary of committing herself to lifelong estrogen/progesterone therapy.

Exercise for maintaining or strengthening bone is different from exercise for the heart and lungs. Bones need stress—weight bearing—to get stronger. Walking does not load the skeleton enough to build bone mass, nor do swimming or cycling. Equestrian athletes can run, jump rope, climb stairs, do step aerobics and lift weights. Sitting the trot is actually an

excellent “impact activity” for the spine. With every stride, the horse’s upward swinging back meets the rider’s downward moving torso. The result, as any beginner knows, is concussion transmitted from the buttocks all the way up the spine to the neck. Concussion—weight bearing—builds bone! You do not have to belong to a fancy gym to gain the benefits of resistance training. Free weights ( barbells and dumbbells) and machines found in health clubs are convenient, but you can get an excellent workout at home using improvised weights (large cans, heavy books)

and your body weight. Monthly magazines such as *Shape*, *Self*, and *Fitness* publish excellent articles on how to work out at home.

The bone-building effects of exercise occur only in individuals ingesting 1,000 milligrams of calcium daily (see sidebar “Build Strong Bones” below). If you take supplements, don’t take more than 500 milligrams of calcium at one time—the excess will just be excreted. And don’t take your calcium with iron or fiber because it will not be well absorbed.

If your bone density test shows you



## Build Strong Bones

**Challenge:** A woman’s bone mass peaks at about age 30 and decreases 0.5 percent thereafter. At menopause, the rate of bone loss skyrockets to 2 to 3 percent a year.

**Solutions:** Weight-bearing exercises: Running, jumping rope, climbing stairs, doing step aerobics and lifting weights or sitting the trot.

**Sources of calcium:** Bone-building effects of exercise occur only in individuals ingesting 1,000 milligrams of calcium daily from an 8-ounce glass of milk (contains 300 milligrams of

calcium) and juices, cereals and breads that are “calcium fortified.” Calcium supplements, such as calcium carbonate, should be taken with food to increase absorption. Calcium citrate and calcium phosphate (more expensive) absorb better and do not need to be taken with meals.

Vitamin D is needed for the body to absorb calcium from the intestine. The skin makes Vitamin D following sunlight exposure. Most riders get enough sunlight exposure to make adequate Vitamin D. However, if you live in Alaska or if you’re riding exclusively indoors during the snowy months, take a 400 IU (international units) supplement.





**STRENGTH:** (top) Richardson and Dorsey show that strong abdominal muscles are possible at any age. In Pilates, this position is called the Hundred; in yoga, it is the Boat. You will need incredible strength in even the deepest abdominal muscles to maintain this position for long.

**STRENGTH:** (above) Another strength pose is the Plank. Richardson works on the ball, Dorsey on the floor. Holding this position develops the back muscles, the arms, the deep abdominals and the gluteals. If you can maintain good posture in this position for a full minute, congratulations! Regardless of your age, you are stronger than 95 percent of the U.S. population.

already have thinning bones, think about adding alendronate (Fosamax), a prescription treatment, at menopause. Alendronate works by decreasing the rate at which bone is broken down. It is convenient; it can be taken in a 70-milligram, once-weekly dose. It is effective because it reduces the risk of fracture by about 50 percent compared to an untreated population. And it is FDA approved for the prevention and treatment of osteoporosis. Other drugs effective in preventing bone loss are the selective estrogen receptor

modulators (SERMs). These drugs act like estrogen on the bone and are estrogen antagonists on the breast and the uterus. In a 24-month trial, raloxifene (Evista) produced a 2.4 percent increase in bone mass in treated women. Unfortunately, the drug (also a prescription) must be taken every day and about 25 percent of women on it will develop significant hot flashes.

Exercise strengthens our hearts and bones but does eventually take a toll on our joints. The most common cause of

age-related joint pain in both humans and equines is osteoarthritis (OA). The fluid that normally lubricates the joints thins with age and the cartilage that coats the bones wears away with time. The result is bone rubbing on bone, a very painful situation. Perhaps we can delay the onset of OA with agents that allegedly promote cartilage rebuilding and thickening of the joint fluid, such as glucosamine and chondroitin. Heaven knows how many of us are feeding it to our horses in hopes of prolonging their careers. The recommended dose for humans is 1,200 milligrams chondroitin and 1,500 milligrams glucosamine. There are no scientific studies proving its effectiveness in humans, but the drugs are relatively inexpensive and nontoxic.

Once OA has taken hold of a joint, you have several treatment options. In mild cases, you can simply treat the pain with acetaminophen (Tylenol). The nonsteroidal anti-inflammatories aspirin, Motrin and Aleve, so effective in rheumatoid arthritis, are harder on your stomach and offer no advantage over acetaminophen in a noninflammatory arthritis like OA. Decreasing but not stopping joint stress and hot and cold applications also help.

When this is no longer enough to control your pain, you can, like your horse, have your joints injected with hyaluronic acid (Synvisc), corticosteroids, or both. Synvisc works best in large joints such as the knee and hip, is expensive, and should be given once a week for three weeks. There is no human equivalent of Adequan IM. When all else fails, you have one last option not available to your horse: joint replacement. Hips, knees, shoulders, elbows and even finger joints have all been successfully replaced. The procedure involves major surgery and extensive post-op rehabilitation. But it can get you back in the saddle when nothing else can. One 80-year-old rider here in southern California has worn through *three* total hips, but she's still out





## Recommended Reading

- *An Anatomy of Riding* by H. and V. Schusdziarra; a detailed study of the muscles involved in riding. (Limited quantities available.)
- *Yoga over 50* by Mary Stewart; inspirational photos of very senior citizens demonstrating how flexible one can stay with practice

- *Stretching* by Bob Anderson; the bible of stretching exercises
- *Pilates on the Ball* by Colleen Craig; a fun and challenging Pilates with a PhysioBall
- *Perfect Parts* by Rachel McLish; Ms. Olympia shows you how to strengthen your muscles using machines, barbells, dumbbells and your own body weight
- *The Total Rider: Health and Fitness for the Equestrian* by Tom Holmes; the book to buy if you can buy only one

Find these books at the Web site [amazon.com](http://amazon.com). The Total Rider also is available through The Equine Collection at [TheEquineCollection.com](http://TheEquineCollection.com), along with wall charts from the book.

there on her horse every day, and she is even competing!

Now let's turn to the muscles themselves. Those most important to dressage riders are the "core muscles," the abdominal and back muscles that stabilize the torso. Only with a strong core can you maintain an effective, elegant position. Those just learning to ride need to spend hours off the horse strengthening the core. Working those muscles on a large, firm rubber ball called a Swiss or PhysioBall is not only more fun than endless crunches but also more translatable to what we actually do on a horse. Those of you experienced riders who have no difficulty sitting the trot are off the hook. You are working your core to tremendous effect just by riding. All women, however, can benefit from increasing their upper body strength.

We cannot neglect stretching. The muscles and tendons become less elastic as we age and hence more susceptible to tears. In your off-the-horse workouts, ideally you will stretch every muscle after you have trained it. Stretch to the point of mild discomfort, then hold. Breathe. You will find after 30 seconds you will be able to stretch just a little further. Yoga practitioners maintain incredible flexibility into their 90s. But even a little regular stretching will keep you riding in comfort a long time.

### Neurologic Health

Finally, we come to the neurologic system. Contrary to common knowledge, we do not get dumber as we age. We do lose some brain cells, but there are as many cells in a human brain as there are people on the earth, so the loss of a few bits of gray matter should not have a major effect. And it doesn't. IQ remains relatively stable throughout life. What does change is the speed with which we process new ideas or access stored information. The midlife equestrienne may take longer than her daughter to memorize a new test, but memorize it she can.

With age comes knowledge. Part of that knowledge is an awareness of our limitations. The midlife equestrienne has been around long enough to know that she is not immortal, that bones break and that the quietest schoolmaster can turn into a bronc after a bee sting. In our 40s, 50s and 60s, we can no longer ride harder. Hopefully, with our years of experience, we have learned to ride smarter. We have learned how to train our horses without provoking resistance. We have learned which battles absolutely need to be fought and which can be finessed. And we've learned to admit that, when war is inevitable, maybe we are not the best ones to fight it. When the flying changes become too flying or the resistance to going forward becomes a rear, we can step

aside without shame and let someone else—not necessarily someone younger—give temporary assistance.

Most of all, the midlife equestrienne has learned to listen more to her own inner voices than the noise of those around her. The voices whisper, "I will teach my 3-year-old horse to be balanced. I will ride my Arabian at Prix St. Georges. I will wear a miniskirt. I will not let anyone tell me I'm too old to do whatever I want to do."

Midlife is not a time to be giving up our dreams or "acting our age." Having established careers or raised our children, we have earned the right now to seek our own goals. If we train ourselves as carefully and continuously as we train our horses, our bodies will function athletically well into *old* age. We can sit on our butts, complain about our aching backs and eat bonbons. Or, like other women in their 50s and 60s, we can climb Mount Everest, trek solo across Antarctica, ride in the Olympics and win gold medals for U.S. dressage. The choice is ours.

I close with the words of English poet Alfred Tennyson:

*Though much is taken, much  
abides; and though*

*We are not now that strength  
which in old days*

*Moved heaven and earth, that  
which we are, we are.*

*One equal temper of heroic hearts  
... strong in will*

*To strive, to seek, to find,  
and not to yield.* 🐾

U.S. Equestrian Federation "R" judge Donna Richardson won a team gold medal and finished sixth individually at the 1999 Pan-American Games on the Dutch Warmblood gelding Jazzyman. She currently is riding Mondeo, who was the USDF Fourth Level Champion, and Domino, the 2002 FEI 6-year-old Young Horse Regional Reserve Champion. She continues to juggle teaching, training and judging with an emergency-room medicine practice in San Marcos, California.