

Are You A Dancer? Or Do You Like To Dance?

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I have been fortunate over the years to have had the opportunity to work with a lot of different dancers, of many different skill levels and on varying performance levels. From students to professionals, from teachers and instructors to owners of studios and companies, from ballet to modern, hip-hop and tap, each dancer has a story to tell . . . in their art. In providing rehabilitation or preventative care, performing lectures or pointe screens, or being in the wings of some of the more spectacular shows, I find dance to be the epitome of expression—using your body in the most amazing, athletic, and at times, completely unnatural ways, to help create a flow from one move to another, with purpose.

When I lecture aspiring dancers or treat them when injured, a question I often ask is: “Are you a dancer, or do you like to dance?” I feel it is an important question for them to consider because while one is not “better” than the other, one answer has a lot more to consider than the other. Those that consider themselves a dancer have a responsibility to their body to manage it and take care of its components—to treat it as if it is their most prized possession. While those that like to dance have similar responsibilities, it is on a different level.

A dancer is dedicated to their art, and therefore, their body. They need to be able to understand areas which require extra attention; identify particular positions where they are weaker, less coordinated, or more restricted and discover ways to safely address them; and they need to spend time outside of class working on these things, while also perfecting those moves they are already well-versed in. They have to be able to carry themselves with grace in the studio, as well as outside of that environment, because they represent something bigger. They cannot be showing off what they can do to their friends without proper warm-up or decide to participate in things which would make them vulnerable to injury before a performance. They have a responsibility to themselves—both physically and emotionally—to the studio, fellow performers and to the art itself.

This article seeks to explore some of the factors that I feel are the most important components to participating and progressing in the dance world. After years of working with performing artists, there are some common things which I’ve observed are key elements that anyone who considers themselves a dancer should be addressing. These are my “Top 7” along with some thoughts on how to better manage them. They are in such an order whereby the previous can affect the latter, yet not necessarily in order of importance:

1. Breath work
2. Understanding underlying asymmetrical tendencies and biases
3. Reducing (over)extension
4. Decreasing (over)stretching
5. Optimizing turnout
6. Integrating upper body to lower body strength
7. Quality nutrition, sleep, and recovery

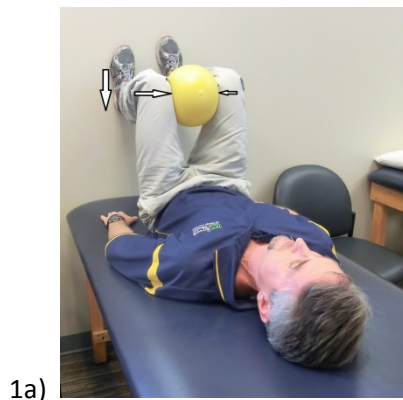
Breath work

This is a biggie and it is first on the list because few dancers and a limited number of instructors truly appreciate its importance. Gaining an understanding of the role that breath control has in improving movement and performance, decreasing the pressure and load onto the system, aiding in recovery and even helping with pre-performance jitters or nervousness prior to a rehearsal or audition, will have dramatic effects on a dancer. This topic alone could easily be a post in and of itself.

The very condensed version of practicing breath work consists of a few key points:

- It is something that should be practiced daily until it becomes subconsciously conscious—that is, able to perform well fairly regularly during the day without thought, but at times be able to do a couple of breathing “resets” to keep it in check.
- During inhalation, being able to maintain a round ribcage and pull air in circumferentially without straining, using the neck muscles or trying to sit up too straight.
- Exhaling more fully, without forcing, taking roughly three times as long to get the air out as in, while feeling the front ribs lower as a result.
- Being able to pause in the exhaled state for a few seconds before re-inhaling, to help relax the diaphragm and aid in improved control.
- Performing in different positions such as supine, on hands and knees, seated and in standing which provides variability for more carry-over to dance and performance.

A great training activity for this is called a 90/90 Hip Lift (1a). Lie on your back on the floor with your knees bent 90 degrees, a small ball or rolled up towel between your knees and your feet flat against a wall or heels on a chair. Gently squeeze the ball and “pull the wall down” (note the arrows in 1a) while lifting the lower pelvis up an inch or so, picturing bringing the knees up towards the ceiling. This position should then be held for 4 full breaths, pausing for a few seconds in the fully exhaled state before re-inhaling, and repeated for 4-5 repetitions. Keeping the hips up should be felt in the upper hamstrings (not quads), keeping the ball between the knees should be felt in the inner thigh muscles, fuller exhalation with pause will be felt in the deep abdominals—but without actively tightening them—and is reflective of true diaphragmatic control. It is also important that this is not felt in the low back or to try to lift any higher, as it is not a strengthening exercise, but a breath training activity.



I also like having them perform some of the breathing activities on their hands and knees (1b). There should be equal weight on the hands and knees, rounding the back while inhaling and rounding a little more while exhaling fully. I find this to be a great way to allow for optimal expansion of the back and thorax. It also aids in better activation of the intercostal muscles (between the ribs), the serratus muscles (between the ribs and scapula), and the deeper abdominals and obliques for improved inhalation and exhalation control.

The next step would be learning how to apply it to dance. A couple of tips I have them work on during class, and in particular practice on their own are:

- Being more aware of keeping their air moving (not holding their breath or forcing it) during warm-ups and as able during class.
- “Exhale with Effort”—that is, when doing something more exertive or that requires lowering or lifting (i.e. plies, jumping), to exhale while performing.
 - During lowering & lifting, exhale on the way down AND up with one breath.
 - When jumping, thinking of a pump plunging up and down and how the force/compression that is exerted aids in stability and control vs holding your breath.
- Spending a couple of minutes performing slow breathing practice, as described previously, after class or performances aids in decreasing tightness, tone and helps with recovery.
- Practicing breath work as described actually changes the way the nervous system responds to stimulus and brings us out of our sympathetic (fight or flight) response and more into a parasympathetic (tranquil) state. This is good for managing nervousness as well.

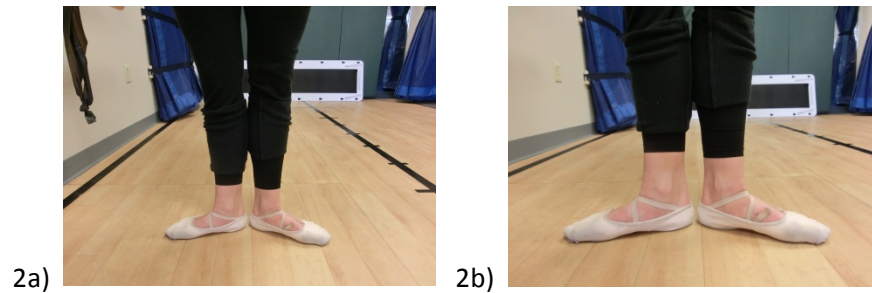
Understanding underlying asymmetrical tendencies & biases

It is important for dancers to understand and appreciate how the body is designed and some of the structural asymmetries inherent in our system. Any dancer will tell you that they notice areas where they cannot do things as well one way as they can the other—from the direction they turn to, the leg they prefer to turn on, or the leg they prefer to jump off of or onto. This is due to a combination of factors such as our very structure, our brain having two sides with each being responsible for different things, our vision, perception, air and fluid exchange and our general habits and day-to-day movement. These together create biases into how we do things and then we try to compensate to make up for it. Dancers in particular are very good at this and this creates what is called a **dominant pattern**. Over the course of time, this regular and repeated way in which we do something can place a lot of stress and torque on the body. It is also important to recognize that dominance is not better or even necessarily stronger—it’s just more coordinated and therefore more likely to occur that way repeatedly.

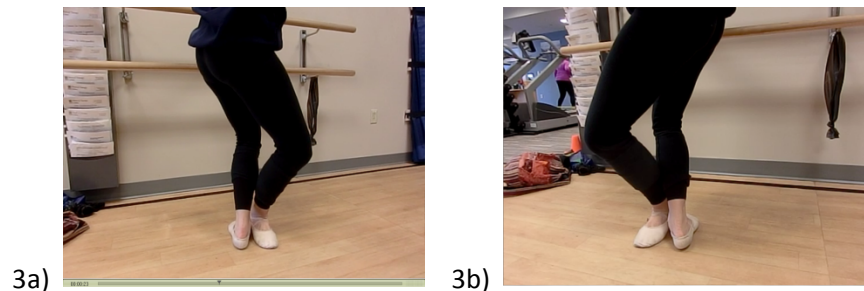
So what does it look when upright? With dancers, they have an incredible ability to be able to make subtle compensations which when looked at by themselves do not seem problematic, but when put into the bigger picture of dynamic movement, that is when it becomes a bigger issue.

The following pictures demonstrate one of these basic mechanisms. What you’ll notice in these two pictures (2a & b), she stands with her left foot more pronated and the heel slightly back of the right and

her right foot more supinated (or “neutral”) and a little forward of the left heel. This is to compensate for what is happening further above in her pelvis, hips and thorax.



These two pictures (3a & b) show what is happening further above. As you can see, when she is in 3rd position with her left leg back (3a), she does a much better job of keeping her knee in alignment with her foot than she does in 3rd with her right leg back (3b). In this second picture, you can see how the knee is anterior of the foot, or is more forwardly orientated and internally rotated. Her supination on the right foot from below was to try and counter this influence from above.

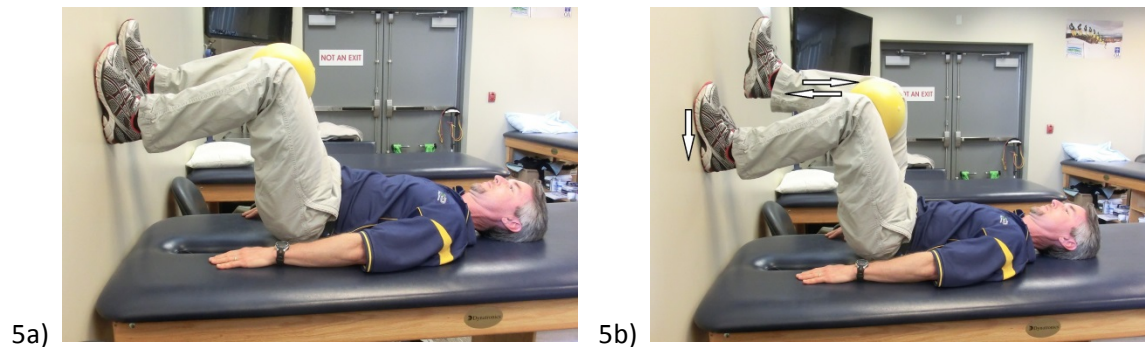
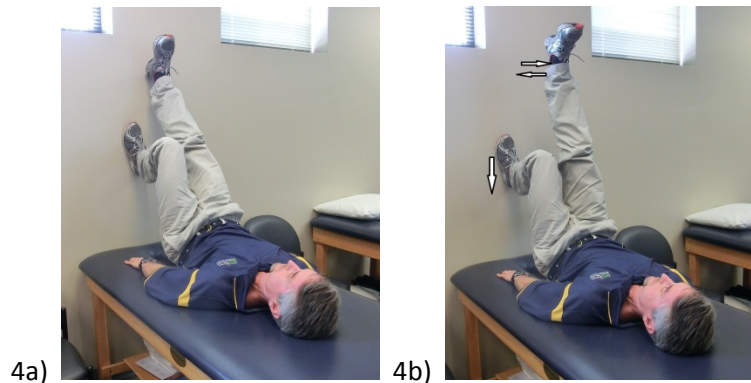


It is important to also recognize areas where these may occur during our days and making a conscious effort to try and perform some things “the other way” to help to retrain our brains and bodies to be able to do things a little more evenly. Since our system, by design, is asymmetrical, the goal is to try and create balanced asymmetry. Some examples of areas where this can be addressed during the day are:

- Sitting and standing more to the left side as we don’t use it as much or as well
- Using the left leg more to get up, sit down and to push off of
- Sidebending the body just a little more on the left, to better engage the left abdominals
- Allowing the upper body to rotate a little better to the right with left abdominals “on”
- Changing the way the head is tilted when reading and writing
- Mixing up day-to-day habits, such as which leg goes in first when putting on pants, which side a backpack would be carried, which way arms are crossed, etc.

Introducing a couple of exercises can also be helpful with decreasing the strong pull into the dominant pattern. By empowering the left side to become smarter and more engaged will help to improve this balance. Using similar principles and positions as described previously, pictures 4a & b and 5a & b are a couple of activities which can help with this further. (These activities are based on the principles of the Postural Restoration Institute®.) The arrows reflect what the activity is that you are trying to accomplish and each of these should be performed while keeping the air moving. (It would be good to note that the

previous picture, 1a, has arrows which are a little different size and one pointing down on the left side only. These reflect the appropriate level of activity for while performing.)



So what are some of the cues I use regularly to address common asymmetrical tendencies?

- Keep the front left rib cage down a little—feel the abdominals holding it down.
- Pull the left leg towards you OR reach the right leg away (depending on what they are doing).
- Round the arms and feel the abdominals and muscles between the shoulder blades working together and think of reaching the arms forward when in the rounded (1st-ish) position.
- Most dancers prefer to turn clockwise and onto their left leg and it is most commonly due to the influence the RIGHT leg has on controlling them while it is in the air. When turning in the opposite direction or performing activities onto the right leg while the left leg is up, they should be aware of what the left leg is doing. Similar cues to “pull the left leg in” can be very helpful.

Reducing (over)extension

Many dancers have developed habits of allowing their low backs to arch too much, keeping ribs and chest elevated too high, locking knees and hips at dance and during the day and overusing their back muscles with both basic and more dynamic movement. This creates imbalances in how the muscles are used in being able to guide our bones and joints, and therefore our body, and with higher level activity this can be a big deal.

So what does (over)extension produce?

- Extension creates a sense of stability
- Extension allows more freedom of movement
- Extension encourages increased levels of tone
- Extension builds more confidence

While each of these things in and of themselves sound like positives, in reality, too much of any of them is not. The *stability* perceived is through joint compression. The *freedom of movement* gained encourages joint torque by bringing areas of the body to end-ranges. The *increased levels of tone* are muscles and tissue that are doing more than they are supposed to and have difficulty turning off to rest. The *confidence* gained, while important and valid, exists at the expense of the aforementioned factors.

Here is a picture of a dancer in 1st position who is overextended in a few areas (6):



Managing this overextension of the system is first accomplished by the two items we've already discussed: breath work and creating balanced asymmetry. By improving the ability of the body to be able to move air through it more effectively, and to be able to exhale more fully, engaging deeper abdominals and pelvic floor muscle activity, helps to pull things into a more balanced, centered position. Further recognizing the asymmetrical tendencies of the body and implementing ways to create a more neutral position decreases the propensity to have to extend too much to compensate. Even little things like not grasping the barre too tightly or hanging onto it, but rather using it for support or to lightly press into can be helpful.

Here is a picture of another activity to teach them to better control (over)extension (7). Holding a band in both hands which is attached behind them and up overhead, press down through the bands keeping arms in 1st and make sure abdominals can be felt holding the ribs down in front and then the muscles between the shoulders blades should be working next. This position is held for a couple of full breaths to tie things together and then perform any one of a number of different dance-type moves (plies, passes, tendu, rond de jambe). It can be lower body, upper body or a combination. This picture reflects a grande plié while maintaining good balance and positional control, but can also bring the arms into fourth or fifth position, leaning the upper body back, or even performing croisé' devant or croisé' derrie're to further challenge this activity.



7)

Decreasing (over)stretching

Stretching is something that is firmly ingrained in the dance culture. The “need” for stretching with dancers, whether it is truly necessary or just a sense that they need to, is a tough thing to try and invoke change with. It is certainly important that dancers have adequate **flexibility**, which is passive motion and reflective of a position of how far something can go (flexibility actually means how much something can bend). But it is equally, if not more important, that they have adequate **mobility**, which is the ability to actively move through ranges. I would also add that the ability to move with a fair amount of control through these ranges is an important part of having adequate mobility.

For example, a dancer lying on their back and someone grasping their lower leg and lifting the straight leg up to see how high it goes is reflective of the ability of the muscle to stretch. Being able to use their muscles to actively lift the straight leg up with control is reflective of the mobility. This is the ability of the hamstring muscle to lengthen eccentrically (under tension) and the associated muscles which aid in the movement to accommodate for it. They are distinctly different and when someone does not have adequate mobility of an area, then it creates a sense of limitation, which can be accommodated for with stretching more.

So when is stretching too much? In an ideal world, each dancer would be screened and have certain baselines established as to what their individual needs are. Do they have enough where they need it? Do they have too much, in particular in some areas and not others? Have they gone past the anatomical limit of what the tissue will allow and now they have started to stretch out their joints? Muscles and tendons which are in need of length will benefit from some flexibility work, but after it has reached its limits, than joint capsules, ligaments and other stabilizing structures start to become stretched out.



There's oversplits, and then there's over-OVERsplits....

Here are some pretty safe guidelines to follow:

- Stretching should be done to the point where *light tension* is felt, held there and not pushed past that limit. Subsequent reps will allow for a little more range each time.
- They should be held for 2-3 full breaths, as described previously.
- A stretch should not be felt in a joint or create a sensation of impingement in any way.
- Partner stretching should be minimal at best and probably avoided altogether. If you need that much help or have to physically help put yourself into a position to stretch something, than it is likely too much.
- Any new range achieved through stretching should then be put through some movement re-education in order to create better mobility into this newly acquired motion.

Optimizing turnout

It is important to note that the words “increase turnout” weren’t used, but rather, optimize. It matters more that the dancer is able to use what they currently have well before trying to strive and achieve more. Classic areas where a dancer gets into what would be called pathological turnout are: anterior (forward) tilting of the pelvis, arching/extending the low back, pronating (rolling in) the ankles, twisting/torquing the knees and overstretching the front of the hip capsule/joint (see picture 6). It is important to note that the reason it would be called pathological turnout is that when any of these factors have happened often and significantly enough that now the tissue is overstretched and some of the key stabilizing structures are now permanently looser than they should be.

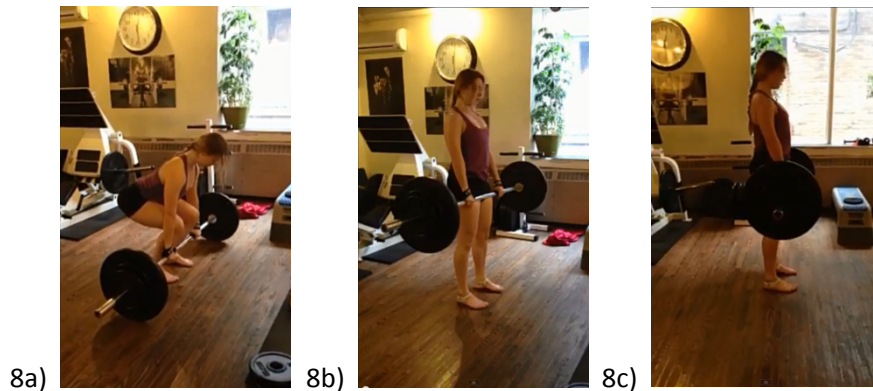
Joints of the body work best when they are centered. This means being able to move through and around a center point, or axis. This is often referred to as joint centration. Muscles which are “centered” means they have the ability to move well through the available motion and are working around its most balanced position, which would be mid-range. When joints and muscles have been working around these nice, centered positions, it gives them the control to be able to manage the more extreme motions—or end-ranges—better, because they are not in those positions as often.

Training around centration principles is what working on optimizing turnout is all about. As the pelvis tips forward more on one or both sides and the back arches, it changes the angle of the socket. This allows for more compensation in the form of the femoral head (ball) to roll forward in the acetabulum (socket)—an easy way to get more turnout at the expense of hip joint stability and control. If allowed to continue, further problems will develop as listed previously. Similar examples can be made to other joints

I have found it helpful to work with changing the way dancers work on turnout and what parts of their body they are using to achieve it. I spend time with them at barre working on breathing sequences with fuller exhalation, cue them on keeping their lower ribs down and to gain length through balanced thorax/rib and pelvis position on the front and back. Picture 7 is also a good thing to aid in optimizing balanced muscle work front to back. Working on all the previously mentioned considerations—breath training, respecting our underlying asymmetrical tendencies and not overstretching tissue to make things too loose—will all aid in optimizing turnout.

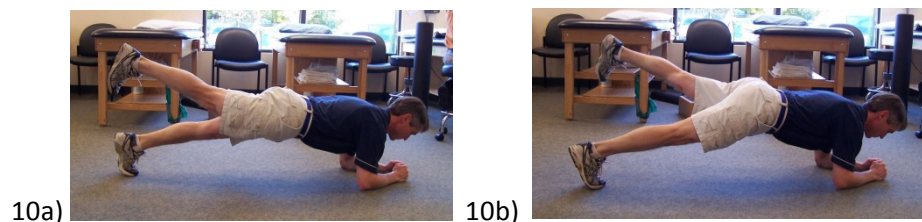
Integrating upper body to lower body strength

This is one area in particular where many dancers, instructors and studios do not incorporate enough in their programs. Having the ability for dynamic movements to occur with adequate strength and control is an essential part of sound dance performance. The following pictures are of Monika Volkmar performing the deadlift as part of her programming. Great exercise and technique! A great example of how a being a beautiful dancer and being strong can go hand-in-hand.



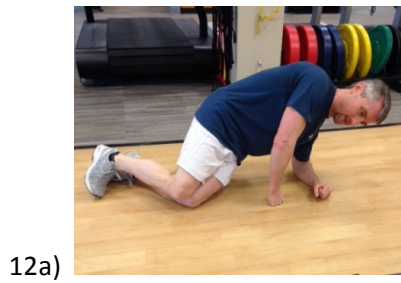
There are many ways to integrate strengthening exercises into programming, and if a particular studio or program does not include any, here are some suggestions that can be integrated:

- Planks—progressions
 - Holds x 2-3 breaths (9)
 - Lifting alternating straight legs (10a & b)
 - Lifting bent leg/extending hip (11a & b)





- Sideplanks (12a & b)—holding 2-3 full breaths (note left knee a little back of right)



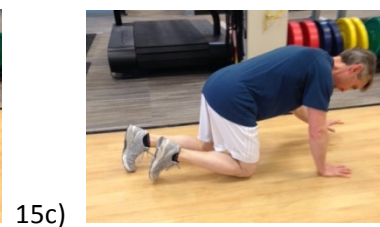
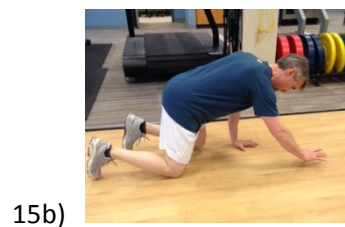
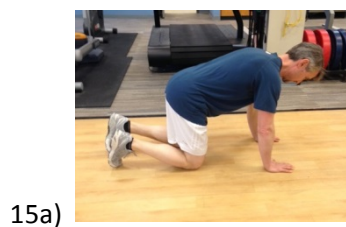
- Sideplanks with trunk rotation (13a & b)—holding for 2-3 full breaths (note left knee a little back of right)



- Planks on hands and toes, lifting one hand at a time as able (14a & b)



- Crawling, super slowly, having opposite hand and knee hover before placing down (15 a, b, c)



- Push-ups progression
 - against a wall

- against a table/back of a couch
- on the ground on knees
- on the ground on toes

Quality nutrition, sleep, and recovery

These factors should be fairly self-explanatory, but they are critical and far too often overlooked components of a healthy dancer. While this is “last” on the list, it should by no means suggest they are not essential for optimal dance performance.

Proper nutrition is critical for being able to feed the muscles, provide energy, perform to the desired level and replenish stores afterwards. Many dancers are taking anywhere from 2-4 hours of dance classes a day, sometimes for multiple days in a row, so it is essential for them to get enough calories to support this not only during the day, but in between classes and afterwards as well. Adequate hydration is another important part of this, not only during dance time, but also regularly during the day.

Sleep is an essential time for us to heal, recover and aids in improving and creating strong memories. It allows us to curb inflammation, decrease the effects of aging, spur creativity and maintain a healthy weight. Key points to getting quality sleep are:

- sleeping in very dark rooms
- creating a routine where you go to bed at a fairly consistent time
- get at least 7 hours of sleep
- no screen time for 1-2 hours before going to bed.

It is through the consistency of good nutritional practices and getting enough quality sleep that the body will be able to recover better. That being said, multiple days in a row of high level dance takes a toll on the body. Make sure to adjust schedules accordingly so that modified levels of intensity can be scheduled into the week so that proper recovery can take place. This can also mean, (gulp), taking a day off occasionally.



To be a dancer is an honor and should be perceived as something which has been earned. Each performing artist has taken the time to practice, grow and develop in their art, and advance themselves individually. Careful consideration for the things which might make a dancer more vulnerable to injury or not be able to perform at their best will result in years of healthy, happy and powerful performance.