

Stretching and breathing reduce stress. They are also very sensual and joyful experiences; relish in them. Soak it up. Because stretching and breathing calm the nervous system, you are flooding your body with calming anti-anxiety neurochemicals. Stretching the neurons that you activate will send the chemicals associated with a relaxed state of mind into the openings in the synaptic gaps.

### THE STRETCH REFLEX MUSCLE SPINDLES CAN LEARN TO LET GO

*When you get in a tight place and everything goes against you, till it seems as though you could not hold on a minute longer, never give up then, for that is just the place and time that the tide will turn.*

HARRIET BEECHER STOWE

When you stretch, there is a mechanism called the *muscle spindle* that records the change in length. In order to prevent you from overextending a muscle, the stretch reflex is triggered in every muscle of your body to resist the change in muscle length by causing the stretched muscle to contract. The more sudden the change in muscle length, the stronger the stretch reflex will kick in. This basic function of the muscle spindle helps to maintain muscle tone and to protect the body from injury. Without the stretch reflex, our muscles would be like taffy. Your body would end up in a big puddle. Unfortunately, if you don't work past this initial reflex, your muscles will tighten over time.

With regular stretching, the spindle itself learns to relax, which is a key to flexibility. One of the reasons for holding a stretch for more than ten seconds is that as you hold the muscle in a stretched position, the muscle spindle and stretch reflex becomes accustomed to the new length and reduces its signaling to contract. Gradually, you can train your stretch receptors to allow greater lengthening of the muscles. This is the key to flexibility.

With regular stretching, the stretch reflex of certain muscles can be controlled so that there is little or no reflex contraction in response to a sudden stretch. While this type of control provides the opportunity for the greatest gains in flexibility, it also provides the greatest risk of injury if used improperly. You'll notice that dancers usually possess the ability to override the stretch reflex because they stretch so often.

The dynamic component of the stretch reflex, which can be very power-

ful, lasts for only a moment in response to the initial sudden increase in muscle length. This is why you should ease into a stretch. Give the spindle time to relax and send signals back to your spinal cord that it's okay to keep moving.

## SYSTEMATIC AND METHODICAL PROCEDURES ACTIVATE YOUR HABIT BRAIN

*No matter how full a reservoir of maxims one may possess, and no matter how good one's sentiments may be, if one has not taken advantage of every concrete opportunity to act, one's character may remain entirely unaffected for the better. With mere good intentions, hell is proverbially paved.*

WILLIAM JAMES

Stretching should be much more cerebellar than cerebral. Again, make it a ritual by doing it in the same place, and you'll be able to lose yourself and click into automatic performance more easily. You want to activate your habit learning and procedural memory housed in the down brain. This happens with repetition and practice.

Schedule times when you are going to relax, and use your stopwatch, hourglass, or kitchen timer (out of ticking range) just as you would for cardio or strength training. Don't use the timer to rush yourself; use it instead to block out time so that you can totally relax. Make sure that you have a cycle of stretching that you do in a particular order—one that has a beginning, a middle, and an end. Choose ten to twelve stretches and do them in a cycle.

I provide twelve stretches as a starting point, but do some more research on stretching. Draw stick figure sketches in your workbook, and follow the personalized sequence you like. Stick with it for a while, until you master it. If you get bored, mix it up. The stretches here cover the basics and can be done in ten to fifteen minutes. See how long it takes you to do the sequence, but don't rush. If you take a yoga class, remember the sequence there. Write down the order of stretches and make thumbnail figure sketches in your workbook. With stretching, as with everything, consistency and contiguity are key.

*To whom it may concern: it is Springtime. It is late afternoon.*

KURT VONNEGUT