



Running never felt this good.

Instructor Training Manual

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INSTRUCTIONS TO CHIRUNNING INSTRUCTOR CANDIDATE

Welcome to the ChiRunning and ChiWalking Instructor Training (CRCWIT) Program. Thank you for joining our growing network of like-minded people who want to teach energy efficient, injury-free technique to the running community. There is a major groundswell of interest in our program and we're happy that you've chosen to become a part of it.

A 12 week self-study plan will be emailed to you along with the due dates for the 3 online quizzes for your CRCWIT. Each lesson in this manual is divided into 3 parts: (1) The script; (2) Additional Tips and Tools; and (3) Your Journal. Read through the scripts of all the lessons to get a feeling for the flow of information. Then study and practice each lesson one-at-a-time to get a clear sense *in your body* of what to say and how to demonstrate each lesson.

The Script helps you teach ChiRunning clearly and succinctly. Using too many words is like over-spicing a meal... it doesn't make it taste any better. We urge you to always follow the script and keep it simple.

Additional Tips and Tools in the appendices are tips and extra exercises to help you and your students body sense the material. They can be included in longer workshops or privates. Practice these so that you'll know when it is helpful to include them. Additional resources are listed too.

Your Journal in the appendices is a place to record observations of your form, your teaching and your students. Learning to teach this material and feeling it in your own body follows the principle of Gradual Progress. Use friends/spouse/partner, etc. as your practice students – people who will understand that you are learning and practicing. Body Sense what is happening in each lesson by observing how you feel. Pretend you're a detective and you're gathering information. When you're running or walking, listen and observe the feelings or sensations that are happening inside you.

Improving your ability to Body Sense will help you be a better teacher. Do this without judgment, the same way you would speak to your students. When teaching, put yourself into the shoes of your students and make learning a discovery process that is fun and interesting.

At the CRCWIT: Come prepared to teach lessons 1-8 and to take a written test on lessons 1-8 the first day. The written test will be similar to the three online quizzes you'll take during the self-study, except that they won't be open-book, so be well prepared. You'll take a written test on lessons 9-16 on the last day along with a practical test, where you'll be teaching one of the lessons. See the CRCWIT agenda for more details. Our goal is to make it a fun, non-pressured process.

A Lifelong Practice: Learning the ChiRunning and ChiWalking method can be part of a lifelong study to learn about your own body and your capacity to generate and move chi energy. Becoming a great teacher is also a skill that can be cultivated throughout your life.

We hope that you enjoy the process,

Danny and Katherine Dreyer and the Chi Living team

LESSON 1: INTRODUCTION

Lesson Outline

- Overview and Main Themes:
 - Energy Efficiency & Injury Prevention
 - Based in T'ai Chi Principles
 - Alignment & Relaxation (Needle in Cotton)
 - Moving from your Center (Dantien)
 - Cooperating with Forces: Pull of Gravity & Force of the oncoming road
 - 2 Types of Alignment: Postural & Directional
 - Gradual progress
 - Begin each class by welcoming participants to your ChiRunning Workshop, discuss any paperwork, venue logistics (restroom locations, etc.) and teaching schedule for the day.
 - Introduce yourself and have your students introduce themselves.
 - Ask about their current running program, their goals, and if they have any current or chronic injuries, so you can tailor the class to their specific needs.
-

Overview

Energy Efficiency and Injury Prevention

The two main themes underlying all the ChiRunning materials are: **Energy Efficiency and Injury Prevention**. When you can run pain-free and with less effort, the joy of running naturally increases and can grow into a lifelong **practice**. ChiRunning combines the central movement principles of **T'ai Chi** with the sport of running by shifting the workload to your core muscles, and away from your legs, giving you more efficiency with less injuries.

Needle in Cotton – Alignment and Relaxation

Energy efficiency and injury prevention are achieved through the T'ai Chi principle of "Needle in cotton." The Needle refers to the structural support along your centerline, or rotational axis, and "cotton" represents the relaxation of all the moving parts... your shoulders, arms, hips and legs.

Energy efficiency and injury prevention are best learned by studying the two ChiRunning principles: Alignment and Relaxation. These two principles always work together and should be considered as two sides of the same coin. Let's begin by talking about Alignment.



2 Types of Alignment

In ChiRunning there are two types of alignment: postural alignment and directional alignment.

1. **Postural alignment** is **alignment with the pull of gravity**. This creates energy efficiency because during the **support phase** of your stride, your body weight is supported by your bones, ligaments and tendons, rather than by your muscles.
2. **Directional alignment** is **alignment with the direction you're headed**. This creates energy efficiency because any body part that is not moving in the direction you're headed is, in some way, reducing your efficiency and can sometimes cause injury.

- **Rule of Postural Alignment:**

"What you're shooting for is a straight line running through your shoulder, hip bone and ankle... when you're standing, and when you're in your support stance."

- **Rule of Directional Alignment:**

"Have as many of your body parts as possible heading in the same direction you are."

Moving from your Center (Dantien)

In T'ai Chi all movement originates from your center. This allows all parts of your body to work proportionately and insures that the larger muscles do the big work and the smaller muscles do the least work.

Cooperating with Two Forces

In T'ai Chi, the best way to work with a force is to cooperate with it, not oppose it. If you oppose a force you give it more power. If you move with a force, you neutralize its power, and it can even become your ally. In running, there are always 2 forces acting on your body: the **downward pull of gravity** and the force of the **oncoming road**. In ChiRunning, you cooperate with the pull of gravity by leaning into it; and you cooperate with the force of the oncoming road by swinging your legs rearward.

Gradual Progress

The best way to prevent injuries is by applying the principle of Gradual Progress to any changes in form, mileage, speed or shoes. This principle states that when growth happens gradually, each step forms a stable foundation for the next step, protecting you from overuse injuries.

ChiRunning focuses can be done anytime: The beauty of the ChiRunning focuses is that you can practice them all day long, not just while you're running or walking. The body learns best by repetition, so the more often you practice the ChiRunning focuses when you're not running, the easier and more quickly you'll be able to instate the focuses when you are running. You can practice sitting aligned and relaxed whenever you're working at your computer or driving your car, for example.

It's a Holistic Practice: We urge you to begin thinking of your running as more of a practice than a sport. Like T'ai Chi and yoga, ChiRunning becomes more of a holistic practice that is process oriented rather than goal-driven. All of the ChiRunning focuses can be practiced during your everyday life and not just when you're running. If you practice them all the time, they'll be that much easier to instate while you're running and walking.

Four Basic Components

We'll begin with the four basic components of the ChiRunning form: (Pantomime each component as you say them and demonstrate with a controlled fall.)

1. Posture
2. Arm swing
3. Ankle lift
4. Leading with your dantien

Key Points

- Keep it simple with no details in the introduction.
 - Elicit interest on what's about to happen
 - Introduce the key principles and concepts so they have a structure to absorb the details in the coming lessons.
 - Remember to put yourself in your student's body. Make it experiential. "Try this. How does it feel?"
-

Test Yourself

- Define the two types of alignment?
- What is the difference between conventional running and ChiRunning?
- What Tai Chi principle is represented by alignment and relaxation?
- What two forces does ChiRunning cooperate with?
- What is Newton's first law?

LESSON 2: POSTURE

Lesson Outline

- Importance of Alignment and Posture.
 - Postural and Directional Alignment
 - Steps to Posture Alignment : 1. Align Feet and legs, 2. Lift at the crown of your head, 3. Feel your core engaged, 4. Find your Dantien and Body Sense it in the center of your column.
 - 3-Step Check-in: 1.Bottom > 2.Top > 3.Middle
 - Posture Exercises
 - Weight-Shift: Side-to-side alignment
 - Flop-over: Front-to-back alignment
 - Pull-down: Top-to-bottom alignment
 - One-Legged Posture Stance Exercise
-

Without good body alignment you'll never move as easily, or run as efficiently as you could. When your posture is aligned properly, your body weight is supported by your bones, ligaments, and tendons. Running with your posture out of alignment makes your body work harder than it needs to. There are two types of alignment:

Postural alignment is a straight line that runs through your shoulders, hips, and ankles. We'll call this straight line your Column. Whether walking or running, this is the alignment to have during your support stance.

Directional alignment refers to having as many body parts as possible aiming in the direction you're moving. This primarily improves your efficiency but also helps prevent injuries. We'll begin by aligning your feet and legs.



(Play video) <http://youtu.be/yotAuGqDdjY>

Step 1: Align your feet and legs

- Align your feet so that they are pointed in the direction you're headed, parallel and hip width apart. If your feet turn out, and don't naturally point forward, pick up your whole leg with your hands and rotate it medially until your foot points forward. Pointing your feet forward by using your upper leg will strengthen your adductors and relax your piriformis. If your feet 'splay out' when you run, it can cause knee, IT band and hip injuries. If pointing your feet forward is uncomfortable for your knees, relax the rotation a bit until the discomfort goes away.



- **Feel your "Tripods"**

Balance the pressure evenly on the soles of your feet:

Picture a tripod under each foot with one point under the first metatarsal head, one point under the 5th metatarsal head, and the third point under the calcaneus (heel bone). These are the contact points during the support phase of your stride.



When standing, balance the pressure evenly on the three points of each tripod, and also balance your weight between both legs. Next, soften your knees. Many people have a habit of locking their knees, so you want to keep them soft and relaxed at all times.

When running, you should roll off of both front points of the tripod at the same time. This distributes the load-bearing to all 5 metatarsal heads and can prevent metatarsal stress fractures.

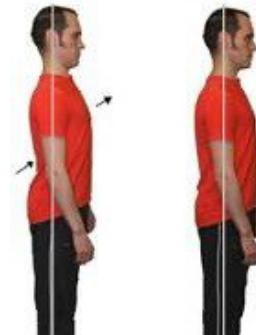
- **Soften your knees... don't lock them**

Soften your knees and always keep them soft throughout every phase of your stride. Locking knees increases impact to your feet, knees, quads and lower back.

Step 2: Lift at the Crown of Your Head

Straighten your posture by holding your hand ½ inch above the crown of your head and try to touch the crown of your head to your hand. Feel your spine lengthening from your tailbone to the crown of your head. Then, relax into your normal posture again and feel the difference. Repeat. As you lift at the crown of your head, notice that your chin drops. Your head position will insure your posture line stays long and straight and that your head is balanced on top of your shoulders, not forward or back. Notice how your core muscles engage when you lengthen your spine.

Repeat this motion “hands free”: Imagine that the crown of your head is lifting you taller, while allowing your shoulders to relax and drop. Lifting through the crown of your head lightens your step and creates a force in the opposite direction to coming down onto your feet. You can practice this anytime you're walking or running.

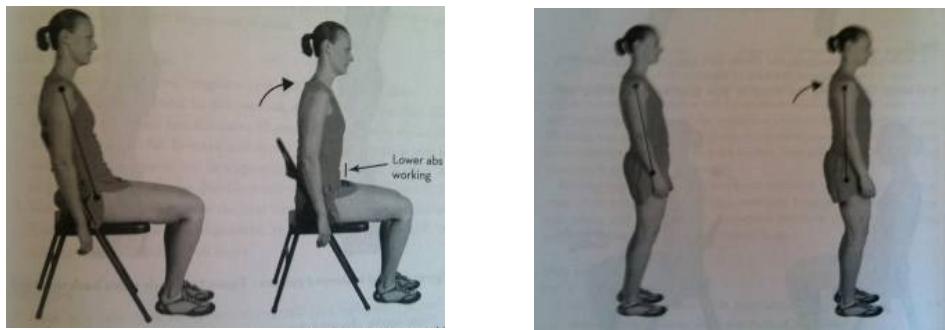


Lifting at the crown of your head lifts your collar bone, opens your chest and allows you to breathe more fully. Running with your upper body hunched over can reduce your oxygen intake by up to 30%. As you lift, keep your knees soft and check that your back is not over-arch or it creates tension in your spine. Relaxing your chest by dropping your ribs downward will soften your spine and bring you into *relaxed alignment*.

Step 3: Engage your Core

Now, we'll connect the upper and lower body by engaging your *Core*. As you lift at the crown of your head you should feel your lower abs engage. This is what I mean by, "Engage your core." In ChiRunning, this is the predominate muscle group used to keep your column aligned as you fall forward. So, lift at the crown of your head and feel this group of muscles tighten. That's the right amount of core engagement. It's not like doing a crunch or actively tightening your core. It happens *because* you're lifting at the crown of your head. The lift does it all.

Your core muscles are engaged to stabilize the torso during walking and running. Many people have lost touch with these muscles due to our cultural habits of sitting and standing out of balance. Here's an exercise to get back in touch with these muscles.



The "Sit up in your chair" exercise:

1. Sit on a chair, in your best posture, with your back not touching the chair back. You should feel your weight on your sitz bones. Feel what this feels like.
2. Now, allow yourself to relax and lean against the back of your chair. Relax your entire upper body as you do this. Feel what this feels like.
3. Next, very slowly sit back up to your original position and body sense which muscles are working to pull your body into an upright position. (Your lower abs.) Repeat this several times and memorize this motion of sitting up in your chair. The *motion* of sitting up is what you want to memorize. Feel what this adjustment feels like and repeat it five times.
4. Now, stand up. If you let your posture slump a little you'll feel your hips shift forward and your shoulders shift rearward. This puts your upper body in the same position as when you were leaning back in your chair. Then, pretend you're sitting up in your chair and *feel* the same forward movement of your shoulders that you did when you were slumped in the chair. Feel your lower abs working to bring your shoulders directly over your hips. Notice how your lower abs need only a small amount of tension to hold you in alignment. It's not a hard crunch. Repeat this motion as many times daily as you can. This develops a mindful pattern of engaging your core all day as well as when you're running.

Step 4: Column check

(Play video) <http://youtu.be/BHzYfPZsllw>

The 4 sequential steps to align your body.

- Step 1: Align your feet and legs
- Step 2: Lift at the crown of your head
- Step 3: Feel your Core (sit up in your chair).
- Step 4: Self-Check your Column for proper alignment



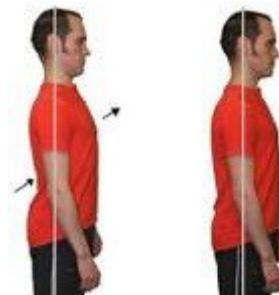
ALWAYS align your column in this order.

Connect the Dots

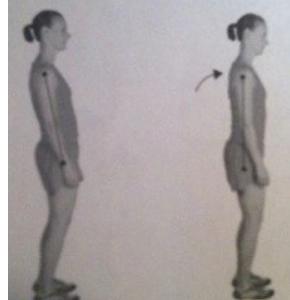
What you're shooting for with good posture is to have your shoulders, hip bones and ankles aligned. This is called "connecting the dots." After you've aligned your Column, look down to see if you can see your shoelaces or look sideways into a full-length mirror to see if there is a straight line running vertically through your shoulders, hip bones and ankles. You can also have a friend check to see if your dots are aligned.

Common corrections:

If your hips are too far forward, “sit up in your chair” until they are on a vertical line between your shoulders and ankles. At first this may feel odd, as if you’re bent at the waist or falling forward. Keep checking in with yourself, making sure your feet are balanced. Soften your knees, your hip flexors and your glutes. Relax into this alignment.



If your back is over-arched, relax your shoulders and torso and feel the pyramid that begins at your dantien and ends at your feet. You want to be aligned and relaxed – like a needle inside a ball of cotton.



If your pelvis has an anterior tilt, level your pelvis, but don’t lock your knees or stiffen your body.

Memorize the feeling of moving into an aligned and relaxed Column. Then shake yourself out and practice the 4 steps several times until you can move right into a straight Column.

- Step 1: Align your feet and legs
- Step 2: Lift at the crown of your head
- Step 3: Feel your core engaged (Lower Abs)
- Step 4: Column check: Make the corrections necessary to connect the dots

Next we'll do three before and after exercises to demonstrate the importance of core strength and aligning the body side-to-side, front-to-back, and top-to-bottom.

3 Ways to check the effects of good alignment and core engagement

1. The Weight-shift Exercise for side-to-side alignment

(Play video) http://youtu.be/Uoh_IVBfDt0 0:49

Stand with your feet together and relax your core.

Shift your weight from one foot to the other. Notice the side-to-side hip movement.

Now align your column. Again, shift your weight from one foot to the other and notice that your pelvis no longer moves side-to-side. Engaging your lower abs reduces side-to-side motion which protects you from IT band and lower back pain.



2. The "Flop-over Exercise" for front-to-back alignment

(Play video) <http://youtu.be/mRCVmOVUpbU>

Stand with your feet hip width apart.

Relax your core and flop over at the waist. Feel how easy it is to flop over at the waist when your core is relaxed.

Now, align your column and feel for that light tension in your lower abs. Now when you try to flop over you'll see that you can't. When your core is engaged, your Column will stay straight when you lean.



3. "The Pull-down Exercise" for Vertical Alignment:

(Play video) http://youtu.be/ta7d2m_D688 0:47

Relax your posture...even slouch a bit. Have your partner pull down gently on your shoulders to see if they can feel any lack of integrity in your posture. You'll probably notice that your hips move forward slightly.

Now, go through the 3 steps to engage your column and check that you've connected the dots. Have your partner pull down again. You should feel much more solid in your Column.

Switch places with your partner and repeat the exercise.

This exercise shows how your body weight is supported by the alignment of your column, not by your muscles. Imagine your alignment effortlessly supporting your body weight during every stride.

The One-legged Posture Stance

(Play video) <http://youtu.be/Azjy64NBAes>

Once you have a clear body sense of good posture in your body, alternately support your weight on one leg, and then the other. Simply lift one heel off the ground so that your weight shifts onto one leg. Hold this for five seconds and then switch legs and support yourself with your other leg. Keep your knees soft. Repeat several times with each leg. Feel the internal sense of your column supporting your body, and feel your feet at the bottom of your column.

This will train your mind to recognize when your weight is correctly supported during your mid-stride. This is the one-legged posture stance. Memorize this feeling in your body.

(Demo this and take a few running steps as a conclusion to the Posture lesson)



When we add a slight lean, this is the position your body is in when running. ChiRunning is simply a series of one-legged posture stances with your dantien falling ahead of your feet.

Key Points

There are 4 steps to align your posture :

1. Align your legs and feet (**BOTTOM**)
2. Lift at the crown of your head (**TOP**)
3. Feel your core engaged (**MIDDLE**)
4. Column check

Make it experiential. "What are you feeling when you do this? How does it feel now?"

Test Yourself

1. What are the three points of the tripods under your feet?
2. List in chronological order the 4 steps to aligning your posture.
3. Write down as many individual details as you can for each of the above steps.
4. What is the exercise to demonstrate top-to-bottom balance?
5. What is the difference between anterior and posterior tilt?

LESSON 3: ANKLE LIFT AND CHIWALKING

Lesson Outline

1. Find Your Dantien
 2. Lift Your Ankles
 3. Move from Your Dantien
 4. ChiWalking Armswing
 5. 4 Steps of ChiWalking
 6. ChiWalking at different speeds
-

1. Find your Dantien

Your **dantien** is the storage center for chi or life force and it's located near your body's center of mass. Place your thumbs in your belly button with fingers resting on your lower abs. Make a heart shape with your thumb and index fingers. Then, place one of your index fingers in the middle of that heart shape and imagine a location one finger-length in towards your spine. Put your mind there.



IMPORTANT NOTE: Your Dantien is not a group of muscles. It is the **location** of your moving center. Your mind moves your dantien and your dantien moves your body. Your core, on the other hand, is **physical** and consists of a group of muscles that support your upper body and keep your posture aligned feeling of being grounded.

Imagine a pyramid formed by your feet at the base and the dantien at the apex. Place your mind on your dantien, relax your legs, soften your knees and feel your weight balanced over your feet. Feel this strong pyramid supporting your body.

Your Dantien moves your body

- Stand in your posture stance (lift at the crown of your head and feel your core)
- Place your feet hip-width apart
- Put your mind on your dantien and locate yourself there. Pretend you're holding your dantien with the invisible hands of your mind.
- Keeping your feet where they are, move your dantien side-to-side and notice that your whole body sways as you move your dantien back and forth. Wherever you move your dantien, your body will follow (as long as your column is engaged). Practice this for a minute.
- Now, with your mind, again, move your dantien forward and rearward. Notice that your body sways with the movement of your dantien. Practice this for a minute.
- Now, turn your dantien and notice that your whole body turns with it. WHATEVER you do with your dantien, your body will follow.

2. Lift Your Ankles

The Psoas Lift exercise:

(Play video) <http://youtu.be/gtqROrOZrZc>

When your posture is aligned properly, your psoas muscles are perfectly positioned to lift your legs.



Try this exercise: Lift at the crown of your head and walk in place by simply picking up your feet. Feel how minimal your muscle usage is.

Now bend slightly at the waist, and walk in place. Feel your quads and lower back working harder? When your psoas muscles are shortened, your quads have to lift your legs, your lower back muscles have to support your torso and your neck muscles work harder to support your head. When you lift at the crown of your head, all of these muscles can work less!

The psoas muscles attach from the spine (T-12 to L-5) to the lesser trochanter of the femur. When you bend at the waist, these hip flexor muscles no longer lift the legs and other muscles have to do the job.

3. Move from your Dantien

Align your posture (Lift at the crown of your head and feel your core engaged); find your Dantien and then practice lifting your ankles while walking in place, keeping your ankles relaxed and peeling your feet off the ground. Keep picking up your ankles as you move your Dantien forward, ahead of where you feel your feet hitting the ground. Notice that you start moving forward! Walk by leading with your Dantien, while lifting your ankles, keeping your lower legs relaxed.

Walk around this way for a couple of minutes. If you need to change direction, simply turn your dantien and your body will follow by changing direction. Keep moving around this way, by lifting your ankles and leading with your dantien. If you want to walk faster, simply move your dantien even farther ahead of where you feel your feet touching the ground and you'll notice that you pick up speed.

4. The ChiWalking Armswing

In both ChiWalking and ChiRunning, the emphasis in your arm swing is to the rear, not forward. This acts as a counter balance to leading with your upper body and helps prevent over-striding. It also allows your waist to turn as you walk, creating pelvic rotation, which we'll get to later. At faster walking speeds, if your elbows swing in front of your torso it creates over-striding and increases the impact to your heels.

As you walk faster, adjust your armswing by holding your hands a little higher to match your increasing cadence. When you're walking at your fastest speed your arms will be bent at 90° and swinging more quickly. Keep your stride consistent but allow your cadence to increase to a faster rate as you move your dantien more forward.

5. The 4 Steps of ChiWalking

1. Engage your Column
2. Start walking in place
3. Move your dantien ahead of your feet to move forward
4. Bring in your Arm Swing after you start moving (swinging with a *rearward* emphasis) and allow the position of your hands to adjust with your speed. (Faster speed = Higher hands)

6. ChiWalking at Different Speeds

When you're walking slowly, your hands can drop down and swing at your sides. But, as you begin to walk faster, and your cadence increases (as it should) allow your elbows to bend and carry your hands higher, so that your arms swing faster. When you're walking your fastest speeds, your elbows should be bent at 90°.

1. Check in with your Column and lift your ankles as you walk in place.
2. Keep walking in place as you let your dantien fall ahead of your feet to begin walking, swinging your arms to the rear.
3. To walk faster, sit up *more* in your chair and hold your dantien slightly *more* ahead of your feet.
4. As you pick up speed, allow your elbows to bend more and swing more rearward as you hold your hands higher. As you reach fast walking, bend your elbows to 90° and swing your arms faster (and more rearward) to match your increasing cadence.
5. Keep your stride length *the same* to allow for a quicker cadence.
6. Swing your elbows rearward to create counter-balance as you move your dantien forward.
7. Your leading knee should be bent, and the contact point should always be on the *front of your heel* (not on the rear of your heel, as in conventional walking).
8. **Pelvic Rotation:** A faster cadence helps you discover your pelvic rotation and makes the eventual transition to running much easier. As you walk faster, allow your stride to open up rearward, not forward. Swinging your elbows *more rearward* as you walk faster will allow your pelvic rotation to increase, creating a smooth, fast gait.

Conventional Walking

Now, walk as you normally do... without thinking about how you're walking. You *should* notice a few differences; that your knees straighten as your legs swing forward; your foot strikes in a distinct heel strike; you feel a pressure under the balls of your feet; and your stride is longer than when you were ChiWalking. Now, let's compare conventional walking to ChiWalking and see how it feels in YOUR body.

Step 1: Conventional Walking

First, walk how you always walk.

Here's what you'll notice:

1. Your stride is longer
2. You straighten your lead leg
3. You land on the **back** of your heels
4. Feel pressure under the balls of your feet
5. Feel tension in your feet, ankles & lower legs
6. Your core is not engaged
7. You feel yourself pushing with your legs

Step 2: ChiWalking

After 30 seconds, switch to ChiWalking

Here's what you'll notice:

1. Your stride is shorter
2. You lead leg is always
3. You land on the front of your heels
4. You feel less pressure under the balls of your feet
5. You feel no tension in your feet, ankles and lower legs
6. Your core is engaged by "sitting up in your chair"
7. You no longer feel yourself pushing with your legs

Student Observations

1. Did they begin with aligning their posture?
2. Was their lower leg so relaxed that their toes dropped as their foot came forward?
3. Were they landing with their foot below their knee?
4. Do they look light on their feet? Are they quiet?
5. Are they allowing a pelvic rotation, or will this need to be added later?

Test Yourself

1. Define the psoas muscle and describe the origin and insertion points.
2. List 5 common differences between conventional walking and ChiWalking.
3. In ChiWalking, the emphasis of your arm swing is to the _____.
4. With ChiWalking, as you walk faster, your _____ stays the same and your _____ increases.
5. List the 5-step process in ChiWalking

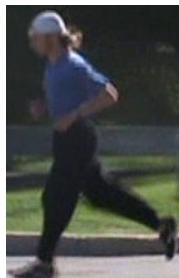
LESSON 4: CHIRUNNING ARMSWING

Lesson Outline:

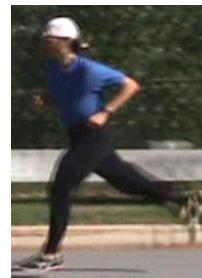
- Arm Swing Focuses
 - Arm Swing Exercises
 - Hands on Shoulder
 - Wrist to Rib
 - Against the Wall
 - Y'Chi Drill
-

In ChiRunning, your upper body and lower body act as a team, working together as you run. If your arms are not swinging freely or your shoulders are tense, your legs will have to work harder and you'll tire more quickly. On flat ground, arms and legs share 50/50 in overall effort.

When running on level ground, your arms should always be bent at a constant 90° and swinging rearward. Regardless of your speed, your elbows should *never* swing in front of your ribs, or you'll over-stride.



Aerobic pace = wrist to rib



Race pace = fist to rib

Arm Swing Focuses

(Play video): <http://www.youtube.com/watch?v=vZRNb9OsDTY> 0:53

- **Fingers relaxed and curled** in with your thumbs on top, like you're holding a butterfly you don't want to crush. Your palms should be facing each other, not downward (show difference in muscle usage with palms facing each other vs. Facing down)
- **Wrists straight**, not bent forward or back.
- **Don't cross your center-line** with your hands or you'll create too much upper body rotation.
- **Swing arms in a "V" shape**. Pretend you're holding a volleyball with your hands in front of your body. This will give you the correct angle of your arm swing. (*play video*) <http://www.youtube.com/watch?v=Vw1yYfwMaxQ> If you swing your elbows around behind your back, you'll create shoulder rotation which lowers your overall efficiency.
- **Elbows swing rearward** and then relax and allow them to return to neutral. Think "back... relax." Swinging your elbows rearward counter-balances your forward-moving Dantien.
- **Elbows never swing in front of your ribs**, it creates overstriding and a heel strike.

- **Elbows bent at a constant 90°** for an efficient arm swing. Don't pump your arms by flexing at the elbows or you'll be wasting energy.
- **Keep your shoulders relaxed** and low and let your arms swing from the shoulder joint. Both shoulders should *always* face forward without rotating, like the two headlights of a car. This stabilizes the upper torso and promotes pelvic rotation.



Exercises:

Hand on shoulder: (*play video*) <http://youtu.be/qFuLh0YCayg>

Put one hand on your opposite shoulder and practice your arm swing. Body sense what it feels like when the shoulder is not involved with the arm swing.

Wrist to rib: (*play video*) <http://www.youtube.com/watch?v=trz99NVBYu0>

Have one student stand behind the other. The student in front practices their arm swing by letting their elbows touch the hands of the student behind them to body sense a "wrist to rib" arm swing.



Against the wall: Stand facing a wall, with your fists touching the wall and your elbows are at your sides. Practice your rearward arm swing to a 180 beep of the metronome. This quickly fixes an arm swing that swings in front of your ribs.

Push Hands: Stand in a staggered stance with arms bent 90° and elbows at your sides (the beginning position for your arm swing). The instructor stands facing the student and pushes their hands into a rearward armswing. It is **important** that the instructor pushes the student's arms along the lines of the "V" shape made by the forearms. This exercise allows the student to feel their arms only swinging rearward (then relaxing back to beginning position) as well as swinging in the direction of the "V" shape. Ask the student to feel how relaxed their shoulders are during this exercise.

Describe Y'Chi: "Y" means *intent* and "Chi" means *energy*. Y"Chi = To direct one's energy with intent. Visualize a pyramid with your "mind's eye" in the middle of your forehead and "eyes" on the front each of your shoulders. Spot something in the distance about 30 – 40 meters ahead and focus on that spot with all 3 "eyes." Direct your energy toward that spot and feel yourself being "pulled" forward. This will help keep your shoulders facing forward like the two headlights of a car.

For the most powerful results, your eyes, shoulders and Dantien can *all* be connected with your target to pull you forward.

Practice your arm swing while running, with elbows swinging rearward, and let your Y'Chi pull you toward your focal point. (*This sets up the conditions to allow a pelvic rotation later in the workshop.*)

Test Yourself

1. At what angle should you bend your elbows while running on a flatsurface?
2. If your elbows swing too far forward, what tends to happen to your legs? What is the exercise that addresses this issue?
3. Does your arm swing have gears? Explain.
4. Why do we introduce Y'Chi during the arm swing lesson?
5. Describe the exercises students can do on their own to reduce shoulder movement.

LESSON 5: MOVE FROM YOUR DANTIEN AND BEGIN RUNNING

This lesson is similar to the ChiWalking Lesson where we had you:

1. Align your posture, feeling your core engaged and finding your dantien
2. Then, lift your ankles
3. Then, move your dantien ahead of your feet
4. Then, bring in your armswing

We'll follow 4 similar steps for running to get you to feel that same forward motion happen as you *lead with your dantien*, instead of push with your legs.

Step 1: Align your Posture

- Align your feet and legs
- Lift at the crown of your head
- Feel your core engaged, and find your dantien

Step 2: Begin Running in Place

- Bending your knees as you lift your ankles. Knees down, heels up.
- Come all the way down onto your tripods (whole foot landing) with each landing

Step 3: Place your mind on your Dantien and do the following as you run in place

- Allow your Dantien to gently fall in front of where you feel your feet hitting the ground
- Keep lifting at the crown of your head
- Keep bending your knees
- Keep feeling your core engaged and your column straight, as you fall forward

Step 4: Once you begin moving, bring in your armswing

- Bend your arms 90°
- Swing elbows rearward
- Keep shoulders facing forward as you swing your arms rearward

Just as with ChiWalking you can see that when you move your dantien, your body follows? Then, all you have to do is keep lifting your ankles to keep up with your dantien. Notice that if you bring your dantien back in to where it's directly over your feet... you stop moving forward.

Run slowly to begin with. Begin at an easy warm-up pace (*Instructor running in the middle [NEVER in front of the group], or to the side of the group, watching the students and repeating the 5 focuses as the group moves.*)

- "Pretend you're not running. You're just moving your dantien ahead of your feet and lifting your ankles to keep up with your dantien."
- "Feel your feet at the bottom of your Column and feel your one-legged posture stance every time you land in in your support stance."
- "Feel your Dantien falling ahead of where you feel your feet hitting."
- "Feel the Crown of your Head falling slightly ahead of your Dantien."
- "It doesn't matter how small your wheel is, as long as it's a wheel."

Changing Speeds

(Check in with your group and repeat above as needed. When ready, do one last repeat of the focuses and then ask them to move their dantien slightly more forward.)

- "While running in first gear... check in with your Posture again."
- "Lift at the crown of your head and feel your core engaged as you lift."
- "Let your dantien fall a little farther ahead of your feet."
- "Let your elbows swing a little farther rearward."
- "Relax and balance yourself in this new angle of fall (It's only slightly more forward)."
- "Allow your ankles to float a little higher as your feet leave the ground."

(Run for a couple of minutes, switching between 1st and 2nd gear every 15 seconds.)

(Ask students if they feel any tension or soreness in their lower legs. If they do, they're likely leaning too much and tensing their lower leg muscles. Remind them to not move the dantien as far forward).

(Repeat several times to give everyone a chance to feel that their Dantien is their gas pedal.)

"Remember, your Dantien is your gas pedal. If you want to run faster, lead more with your Dantien. If you want to run slower, bring it back in."

Yoga Strap Exercise:

Two ways to help your students feel Pelvic Rotation and Dantien leading the body:

1. Lead with Dantien with the yoga strap around their hips. Have the student pull you forward by solely moving their dantien ahead of their feet. Let them run this way, and then without them knowing when... let go of one end of the strap to allow them to feel their forward fall.
2. Combine forward fall (yoga strap) with PR, with instructor manually generating PR. Run behind your student with them in 1st gear as you gently pull on alternate sides of the strap, creating a sense of Pelvic Rotation in the student.

Key Points

Conventional runners run upright and push with their legs. ChiRunners run by moving their dantien ahead of their feet and lifting their ankles. Propulsion come from their forward fall.

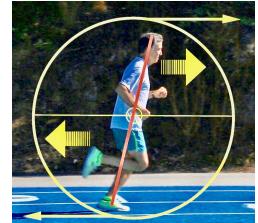
Your mind moves your dantien and your dantien moves your body. To run faster move your dantien further ahead of your feet.

Test Yourself

1. Gravity is a downward pull, so how can it help propel us forward?
2. What are the three steps to engaging your lean?
3. What do you tell a person who experiences tight calves while running?
4. What do you tell a person whose heels come off the ground during the leaning exercise?
5. Why don't people lean (before learning the ChiRunning technique)?
6. What is the main muscle group responsible for holding your lean?
7. What is the most important area of your body to relax when you're leaning?
8. What is meant by finding the "window of balance" or the "sweet spot" in your lean?

The "Window of Balance"

Your Crown is ahead of your dantien...
and, your dantien is ahead of your feet.



Once you can feel that your Dantien is your gas pedal, your practice becomes finding the “Window of Balance” – where the position of your Dantien is the most efficient for the speed you’re running.

Your column should not be so upright that you have to push with your legs. And, not leaning so far forward that you engage your lower legs to sustain your lean. Practice refining your “window of balance” between these two extremes. When you find the right balance, the **only** place you should feel any muscle engagement is in your **lower abs**.

Picture balancing a broomstick and then begin to walk, still balancing the broomstick. You’d have to give it just the right angle of lean to match the speed of your walk.



Nod Your Head... for Balance

One of the easiest ways to find that perfect balance point for any speed you’re running is to use your head. Once you find the speed you’re looking for, simply nod your head by either lifting or lowering your chin. You’ll notice right away that any slight movement of your head angle will affect your angle of fall.

Key Points

- Keep it simple with the 4-Step process.
- In the 4 steps your mind moves your dantien, and your dantien moves your body.
- To run faster, move your dantien further ahead of your feet
- Your dantien stays ahead of your feet... and the crown of your head stays ahead of your dantien!
- Sit up in your chair more and allow your ankles to float higher behind you

Test Yourself

- Why is it helpful to practice the one-legged posture stance at the beginning of this lesson?
- Define the 5-step process for beginning to run.
- What is the “take-away” point for this lesson?
- If you’re leaning too much, you’re likely to feel tension or soreness in _____.
- Define the “window of balance.”

LESSON 6: GEARS AND STRIDE LENGTH

Lesson Outline

1. Explanation of Gears
 2. Stride Length and Ankle Lift
 3. Pelvic Rotation
 4. Hip Swivel Exercise
 5. Pool Running Drill
-

Gears: Stride length is to running as gears are to a car or a bicycle. When you're running slowly, your feet will move in a small wheel, just like a small sprocket on a bike. When you're running faster in a higher gear, your feet will move in a larger wheel, like a large sprocket on a bike.



1st Gear is a slow warm-up pace, where your breath rate hardly changes.

2nd Gear is the comfortable training pace you would do for most of your runs. It is an aerobic pace and you should be able to easily carry on a conversation.

3rd Gear is race pace at your aerobic/anaerobic threshold. You are running aerobically but talk is limited to short sentences.

4th Gear is a fast, anaerobic sprint pace – like you're about to miss your bus!

It is important to find balance in your body with each gear. You change gears with the position of your dantien, but the amount is probably less than you think.

Stride Length and Ankle Lift:

Your feet move in a circular path as you swing your legs. This circular path helps you bend your knees and land in a mid-foot strike. As you lean more, you bend your knees more to let your ankles float higher which creates a bigger wheel. Think "heels up... knees down!" *Bend* your knees more as you go faster, don't *lift* them more.



In ChiRunning, your legs actually swing from T-12/L-1. This translates into a longer stride length and a faster running pace, by increasing your level of relaxation. Here's a demonstration:

Stride Length – Pelvic Rotation Demonstration

(Play video) <http://youtu.be/MZaxQAg5yzU>



I'm going to stand with my pelvis locked in place and reach as far out behind me as I can, with my toe. (*mark the spot*)

Now, I'm going to allow my pelvis to rotate to the rear along with my leg and I'll make another mark. Notice that, as my hip swung rearward along with my leg, I gained about 3-4" in my stride. And, all I've done is *relax more* to allow my pelvis to rotate and my leg to swing rearward. As you relax your lower back and rotate your pelvis, you will find that your pelvic rotation originates at

the mid-point of your spine. (T-12/L-1). So, if your cadence remains steady and you're getting 3-4 more inches with every stride, that equals... Speed! And, all you've done is relax more.

Swing legs from T12/L1: Imagine that your legs swing from T12/L1 instead of from your hips.
 (play video) <http://youtu.be/HNSFJf-8lio>

To find this point, reach behind you and place your fingers just below your lowest ribs. With your fingers, follow your ribs to your spine. This is your Pivot Point. In ChiRunning it is the dividing point between your upper body and your lower body. Everything below that point rotates and swings as you run, while everything above that point remains relatively stationary, with the exception of your arm swing. Allowing your spine to twist at the pivot point will allow your head and shoulders to face forward and your pelvis to rotate as it should. This increases your stride length as you increase your lean.



Hip Swivel exercise – To feel your pivot point: Have your student stand in a staggered posture stance facing a wall. Put hands on the wall to keep the shoulders still. Start with a slight bend in both knees. Now, turn your waist with your dantien and notice that everything below T12/L1 is turning with your dantien. Keep your pelvis level. Switch legs and repeat the exercise.



Relaxing your hips and legs is the key to having a fluid running stride. Pelvic rotation will help prevent hip flexor and hamstring injuries. Without pelvic rotation, your legs are swinging from the hip only which leads to a bouncy or choppy stride. With pelvic rotation, your legs are swinging smoothly from the T-12/L-1 pivot point. Practice this drill often to get the movement in your muscle memory.



Think about what it means to cooperate with the force of the oncoming road. As your foot lands, your knee should be bent. As the road swings your leg rearward, it pulls your hips with it and rotates your pelvis. Your legs should *always* move *with* the force of the oncoming road. As you increase speed, relax your hips and legs *more*. In this way your stride will lengthen naturally and you'll gain speed without feeling like your legs are working harder. While your upper body is cooperating with gravity by leaning into it, your legs and lower body cooperate with the road by swinging rearward.

(Demonstrate how the force of the road can go on by you as you allow your hips to rotate.)

Pool Running Drill: (students line up on one end) In this drill, you get to be 8 years old and barefoot. Remember when you were a kid at an outdoor pool and wanted to be first in line for the diving board? What did you do? As you started running for the diving board, what would the lifeguard say? "Stop running!!!"

Run to walk:

I'll be the lifeguard and I want everyone to start running for the diving board and when I say "Stop running!" *remember*... I'm not saying "Slow down!" Drop from a fast run into a very fast walk.

(Repeat this drill as needed and ask if they can feel their pelvis rotating.) Don't force a pelvic rotation. Relax... and *allow* it to happen and *feel* it happen.

Walk to Run:

(Play video): [http://youtu.be/BMP7nk0oNLs 0:16](http://youtu.be/BMP7nk0oNLs)

This time start with a very fast walk and a short stride to body sense your pelvic rotation. Have your elbows bent at 90°. In a fast walk, the elbows go back farther and the hips compensate by rotating more. Keep some bend in your front knee and allow your rear leg to rotate your pelvis. When you can clearly feel your pelvis rotating, let your dantien fall ahead of your feet and transition into a run... and bring all of that pelvic rotation with you into your run. Repeat several times.



Y'Chi: Add Y'chi as an additional focus and repeat the "walk to run" drill.

Visualize a pyramid with your "mind's eye" in the middle of your forehead and "eyes" at each of your shoulders. Spot something in the distance directly ahead and focus on that spot with all three "eyes." Direct your mental focus toward that spot and feel yourself being "pulled" forward. This will help keep your shoulders facing forward and allow your pelvis to rotate below.

*(Note: As you go from ChiWalking to ChiRunning, your cadence increases to about 170-180 strides per minute and you land midfoot vs. the heel-to-ball roll-through that you do in ChiWalking. Also, in ChiRunning, your Column now tilts from your **ankles** as your dantien falls ahead of your feet.)*

Summary: As you go from 1st gear to 3rd gear...

- Allow your dantien to fall ahead of your feet and increase the engagement of your lower abs while allowing an increase in pelvic rotation. Remember, the crown of your head should always fall slightly *ahead* of your dantien, as your dantien falls ahead of your feet.
- The more you lean, the more you relax your legs and let go of them
- Bend your knees more and let your ankles float higher
- Allow your elbows to swing more rearward to "load the spring" behind you. This is balanced by increased pelvic rotation

Key Points

1. Check back to the 5 steps
 2. To move to higher gear, move your dantien further ahead of your feet. Naturally your core engagement will increase, ankle lift higher and arm swings rearward more.
 3. The more you move your dantien forward, the more you relax your arms and legs.
-

Test Yourself

1. According to ChiRunning, where do your legs swing from?
2. Why is pelvic rotation important as you lean more?
3. Describe each of the four gears.
4. Stride length is to running as gears are to a _____
5. How big is your wheel in 1st gear? 2nd gear? 3rd gear?

LESSON 7: CADENCE

Lesson Outline

1. Define cadence
 2. Optimal Cadence
 3. Use of metronome
 4. 1st through 3rd gears at 170-180 spm cadence
 5. Metronome exercise: match elbows to 175 beep (average between 170 & 180)
-

Cadence: Our bodies love rhythm: Our bodies work more efficiently when they maintain certain rhythms – like heart rate, breath rate, and eating and sleeping schedules. Similarly, running is most efficient when the cadence is consistent.

Optimal Cadence: Running cadence refers to your number of strides per minute and is measured in strides per minute. The metronome is a great tool for practicing to hold a steady cadence. The optimal cadence for most people falls between 170–180 strides per minute (depending on leg length). Taller runners should aim for an optimal cadence of 170 spm or higher, while shorter runners should aim for an optimal cadence closer to 180 spm, or lower.

Cadence is Constant: (*Play video*): <http://youtu.be/3MHvdP1R8IQ>

In ChiRunning, your cadence stays the same whether you are running at warm-up pace, training pace, or race pace. As your speed increases, your stride lengthens and your "wheel gets bigger," but your cadence never changes. If your cadence is slower than optimal, your legs have to support your bodyweight for a longer period, thus increasing your muscle work. At an optimal cadence, you'll spend less time on your feet which saves valuable energy. A slower than optimal cadence usually indicates that you're over-striding, resulting in a heel strike and a braking motion. A faster than optimal cadence indicates a lack of pelvic rotation. Holding your cadence close to your optimal stride rate is always best.



Using a metronome is the best way we've found to adjust your stride length to your speed. It is the single most important training tool for ChiRunners. Knowing your cadence helps you optimize your stride length so that your Perceived Rate of Exertion stays within a very small range and doesn't go through the roof whenever you run faster.

Cadence Demonstration (*by instructor*):

- Set metronome to 175 or 180 and have one student hold the metronome for all to hear.
- Start in 1st gear and run at a 175 cadence. Shift to 2nd gear and then 3rd gear, maintaining the constant cadence. If you're running back and forth in front of your group, be sure to drop down into 1st gear as you turn around.
- Repeat several times by running back and forth in front of the group at different speeds... but ALWAYS match the metronome with your feet.



To the Students: "Notice, as I fall forward more my speed increases, but cadence remains the same."

Metronome exercise:

This is a great exercise for people who have a cadence below 170bpm.

Step 1: Have everyone run in place at 175 bpm and ask them to run in place (for 15 secs.) and ask them to feel what it feels like.

Step 2: Then, increase to 220 bpm and have them run in place for 5-10 secs. Running in place at this fast of a cadence pre-fires the neural transmitters to the muscles moving your legs.

Step 3: Then, drop back to 175 bpm and let them feel how much easier it is than the first time.

Step 4: Then, have them run at 160 cadence to show how hard it is to run with too slow of a cadence.

175 Cadence Running Drill: in 1st, 2nd and 3rd gear

Now, we'll begin running in 1st gear. This should feel easy... and very doable. Run with your students and watch the size of their wheels. Coach them if they need to relax more and run with a smaller wheel in their low gear.)

(Encourage your students to find a relaxed 1st gear.)

If you can run relaxed at a slow pace with your optimal cadence, you'll be able to run more relaxed at a faster pace.

Use the 3-step process to increase your forward fall (1. Column check, 2. Find your Dantien, 3. Move your Dantien ahead of your feet) and continue matching the 175 beat. Let up on your gas pedal to return to 1st gear, keeping your cadence constant.

Use the 3-step process to increase your lean to 2nd and then to 3rd gear, and again take off the lean. Have fun running in different gears for about 2 minutes at a constant cadence. You should always feel yourself slow down when you let off the gas pedal.

(Check in with your students. Repeat as needed.)

By doing this, your body will get used to always running at your optimal cadence regardless of the speed.

Measuring your student's cadence: This establishes their current cadence and lets them know how they stand relative to the ideal cadence range.

How to do it: Have your students run together as a group and have them count their total number of steps for 30 seconds and then multiply that number by 2 to get their strides/minute rate.

Test Yourself

1. What is the one thing that remains constant as you run?
2. What is the ideal cadence range?
3. What is the relationship between stride length and cadence?
4. How does one measure their current cadence?
5. How does one build up to their ideal cadence if it is currently too low?
6. A faster than optimal cadence indicates a lack of _____.

LESSON 8: BODY LOOSENERS

Lesson Outline

- Intro to Body looseners
 - Demonstrate with students
 1. Ankle Circles
 2. Knee Circles
 3. Hip Circles
 4. Pelvic Circles
 5. Pelvic Rotation
 6. Spine Rolls
 7. Spinal Twist
 8. Shoulders w/shoulder rolls at the end
 9. Grounding Stance
-

Intro to Body Looseners:

In ChiRunning body looseners are used before running to loosen your joints, which allows chi to flow through your body like water through a pipe, so that your muscles won't have to work as hard. We recommend stretching *after* you run, when your muscles are nice and warm. Too many people have injured themselves by over-stretching cold muscles.

Body Loosener Demonstration:

Ankle Circles: (*Play video*) <http://youtu.be/VpLVn1ZhJgI>



Put your toe on the ground just behind your opposite foot. Move your knee in a clockwise circle while relaxing the ankle. Allow your knee to do the work of the movement so your ankle can relax and loosen. Do ten clockwise circles and ten counter-clockwise circles. Repeat with your other leg.

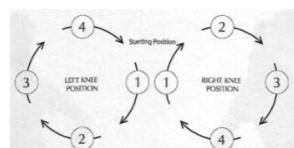


Knee Circles: (*Play video*) <http://youtu.be/xickw3nBdj0>

Place your feet together and your hands on your knees. Move your knees around in clockwise circles. Don't let your knees extend in front of your toes. Keep your upper body as still as possible. Do ten circles in each direction.

Hip Circles: (*Play video*) <http://youtu.be/OF1juIN1OrQ>

Stand in your best posture stance. Rotate both knees in a clockwise direction but $\frac{1}{2}$ cycle out of sync with each other. Keep the soles of both feet in contact with the ground and keep your upper body as still as possible. The knees are doing the work of the circles and you want to feel relaxation and movement at your hip joints. Do a minimum of 10 in each direction. This may take a bit of practice. If you find it difficult, you can warm up by rotating one knee at a time and by starting with smaller circles.



Pelvic Circles: (*Play video*) <http://youtu.be/BtBQEicaSBk> 0:32

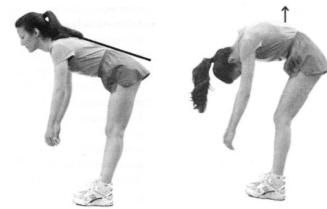
Place your hands on your hips. Rotate your pelvis forward, side, back, side, forward etc. in smooth circles, like a belly dancer. Move only your pelvis, keeping your upper body as still as possible. Do a minimum of 10 in each direction.

**Pelvic Rotations:** (*Play video*) http://youtu.be/4Uq_5wNhvEs

Stand in a staggered posture stance with a level pelvis. Bend your elbows to 90° and pretend your forearms are resting on an armchair. This will help keep your shoulders still. Rotate the hip of the back leg to the rear and release back to neutral. Feel how the pelvic rotation begins at T-12/L-1. Repeat 10 times and switch legs. You can also do this loosener facing a wall with your hands against the wall to keep your shoulders still.

Spine Rolls: (*Play video*) <http://youtu.be/C8ygmyxJNgk>

- Soften your knees and bend over as far as your hamstrings allow, keeping your back straight. Put your palms on your upper thighs and push your tailbone rearward while you stretch the crown of your head in the opposite direction. Be sure to keep your neck in the same alignment as your spine and hold for 5 seconds.
- Soften your knees and flop over, hanging like a rag doll.
- Slowly raise your upper body as you uncurl one vertebra at a time starting at your lower back. Repeat three times.

**Spinal Twist:** (*Play video*) <http://youtu.be/5exCs0L5zFo>

Start by standing in your best posture. Put your hands behind your head and intertwine your fingers. Without moving your hips, turn your upper body 45° to the right, then dip your right elbow to the ground and lift your left elbow to the sky. Twist a bit more and look for the backs of both heels on the ground.

Rotate in the opposite direction and do 3 repeats on each side.

Shoulder Looseners:

Stand in a staggered stance with your weight a little more on the front foot. Keep your spine straight and let your neck, shoulders and arms totally relax. Rotate your pelvis back and forth and let your arms swing loosely. Allow your elbows to bend as your arms swing around your torso. Use the motion of your pelvis to swing your arms. Do 10 rotations and then repeat with your other leg forward.

**Shoulder Rolls:**

Stand upright and roll each shoulder rearward one-at-a-time. Then, let your head drop back as far as it will go. Then, lift at the crown of your head to bring your head in alignment directly over your shoulders.

**Grounding Stance:** (*Play video*) <http://youtu.be/lPI330hnokw>

Stand upright with your best posture. Place your feet a little wider than hip-width apart.

Soften your knees and let your arms hang at your sides. Feel your dantien connected to the earth through the bottoms of your feet with an imaginary line, and let your feet support your dantien without tension. This will have the effect of rooting you to the earth. Hold this for 30 seconds.

Helpful Tip

Have your students briefly run (before doing any Body Looseners), then stop and do any one of the Body Looseners. Then, have them run again and feel the difference Body Looseners make afterwards.

Test Yourself

1. Why is it helpful to do Body Looseners *before* you run?
2. Why is stretching recommended *after* you run?
3. In the ankle circles, which body part does the work of the movement?
4. In the hip circles, which body part does the work of the circles?
5. Describe the 3 steps to Spine Rolls

LESSON 9: SAND PIT EXERCISE

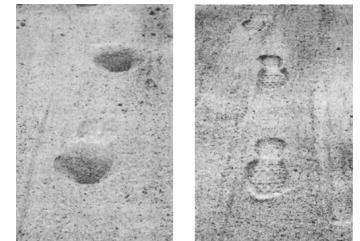
Lesson Outline

1. Sand Pit Exercise as immediate feedback
 2. Compare two sets of footprints
-

Running in sand is one of the best ways to learn to relax your lower legs through every phase of your stride. It teaches you to lift your ankles rather than push off with your feet. You'll get immediate feedback, as you read your footprints in the sand to discover more about your walking and running habits.

Sand Pit Exercise: (*Play video*) <http://youtu.be/RYKaD7IxWEs>

1. Have students walk across the sandpit until they can leave clean, undisturbed footprints.
2. Once they can do this, have them run in 1st gear across the sandpit and see if they can leave clean, undisturbed footprints.
3. Point out any splay of feet, dishing of toes, over-striding or heel strike
4. Have them practice more to see if they can correct whatever you pointed out
5. Compare the two sets of footprints (Before/After)



ChiRunning in the Sandpit

Once you can leave clean, flat footprints in the sand while walking, try running across the sand in first gear. Run as lightly as you can. Practice until you can feel in your body what it takes to leave clean, pristine footprints.

Tips:

1. Use any image or focus that helps you stay light on your feet:
 - a. Running barefoot across a hot parking lot
 - b. Running across thin ice
 - c. Sneaking up on someone
 - d. Lengthen the back of your neck to stay light
2. Run at your optimal cadence
3. Run across the sand and continue onto a firm surface. Run as if it were another stretch of soft sand. Feel how light your footsteps feel along the hard surface.

Key Points

- Always provide positive feedback on what the student is doing right first. Then provide feedback on how they can improve.
- Look for any divots, foot splay, footprints aligned forward and stride length.

Test Yourself

1. What is the first thing the student should do when they step into the sandpit?
2. List 3 things to look for in the footprints.
3. List 3 images that might be helpful in staying light on your feet in the sandpit?
4. What is the goal of this lesson?

LESSON 10: KNEE BENDING DRILL

Lesson Outline

1. Run in place
 2. Lead with your Dantien
 3. Add arm swing
-

This drill helps to reprogram your muscle patterns so that your legs will move more like a wheel and less like a pendulum. This allows your feet to land under your center of mass, rather than ahead of it. It also teaches you to land in a mid-foot strike. The exercise moves progressively through 3 phases, with each phase building on the last. Do this exercise regularly and especially if you feel like your “wheels” have come off.

Step 1: Run in place... bending your knees (*demonstrate*)

Stand in good posture. Hold your hands on the sides of your quads, reminding them not to lift as you bend your knees. Run in place by bending your knees and lifting your ankles, keeping your feet and lower legs relaxed and your Column straight. Don’t bend at the waist; don’t lift your knees; and don’t push off with your toes. It’s ankles up... knees down.

Add your metronome and run in place to a cadence between 170–180, keeping lower legs relaxed. Feel yourself landing on your mid-foot, not your toes. Imagine you are doing this on top of a towel on a gym floor. Try to not move the towel as you run in place. Each time you land, you are in a one-legged posture stance.



Step 2: Move your Dantien ahead of your feet (*demonstrate*)

Repeat Step 1, and while your feet continue to land at the bottom of your Column, shift your dantien ahead of your feet. Relax into the pull of gravity and move forward about 10 yards.

Repeat several times and practice falling into the pull of gravity. Don’t push yourself forward, simply run in place, bending your knees and allow your body to fall forward as you move your Dantien ahead of your feet.

Step 3: Add arm swing (*demonstrate*)

- Repeat Steps 1 & 2 and, after 10 yards, add in your arm swing. ***Exaggerate the rearward swing of your elbows*** when you bring in your arm swing. Keep your feet landing at the bottom of your Column. Using an exaggerated rearward armswing will activate pelvic rotation in this step.
 - Feel your legs moving rearward as soon as you contact the ground. Relax from T-12/L-1 and let the ground sweep your leg back and your leg take your hip back.
- ...



- Repeat as many times as needed to feel the pull of gravity, the bending of your knees, and the lift of your ankles.
- Add Y'Chi during one of the repeats. Focus on a spot directly ahead. As you go through the steps, direct your Y'chi toward that spot with the focus of your eyes. Keep your chin down by lifting at the crown of your head.

Key Points

1. Purpose of the knee bending exercise is to “Bend your knees.” It is to teach the student to stop shuffling and pick up their ankles higher.
2. “Ankles up and knee down”.
3. The exercise moves progressively through 3 phases: Run in place, then add lean and then arm swing.

Test yourself

1. What is the main purpose of the knee bending drill?
2. List 2 additional advantages of the drill.
3. Why is it important to keep the drill in three distinct steps?
4. What do you want the student to feel in Step 2?
5. What “aha” moment do many students feel?

LESSON 11: BREATHING

Lesson Outline

- Why people become short of breath while running?
 - Belly Breathing to exhale/inhale completely
 - Force air out to exhale... Relax to inhale
 - Breathing focus while running
 - Metronome
 - Nose Breathing
-

When people are short of breath, it's often because they are not breathing *out* enough. If you exhale passively, you don't get all the old air out of your lower lungs to make room for a full exchange of new air. You might be breathing rapidly, but if your breathing is shallow (Chest Breathing), fresh oxygen is not getting deep into your lungs where most of the oxygen exchange happens.

Belly Breathing

When you exhale, purse your **lips** (like you're blowing out a candle) while actively pulling your navel in towards your spine. When you've completely exhaled, simply relax your abdominal muscles, close your lips and breathe in through your **nose**. As you do this, notice that the abdomen expands on the inhale, and then the chest. (demonstrate) Make your exhale the active phase and let your inhale happen by relaxation.

When you Belly Breathe, the new air gets to the bottom of your lungs where the alveoli exchange oxygen into blood oxygen and deliver it to your muscles. Pay close attention to your posture. Notice that with good alignment, you increase your lung capacity. Notice that it is much harder to belly breathe through your mouth. "Noses are for breathing... mouths are for eating." - Patrick McKeown

In 1st and 2nd gears, exhale for two strides and then inhale for three strides (2:3). Example, Out, Out, In, In, In.

Practice this 2:3 breathing rhythm and notice that all you have to do is relax your abdominals to let the air in.

When running in 3rd gear, uphill, or at faster speeds, experiment with a 1:2 breathing rhythm where you are actively exhaling through your lips for 1 step and inhaling through your nose for 2 steps. Practice breathing effectively in a faster rhythm and practice changing to a slower rhythm as you shift to slower speeds. As you practice nose breathing it will become increasingly easier to nose breathe at higher speeds.

The Metronome

You can have fun combining your running cadence with your breathing rhythm when you run with a metronome.

Have your group stand in a staggered stance and practice their belly breathin/nose breathing to the following rhythms:

- For a 1:2 rhythm, a 3-count, have them exhale through their lips on the downbeat and inhale through their nose during the remaining 2 beats. Set the metronome for 60 bpm ($180 \div 3 = 60$) so that the metronome beeps 60 times per minute. Have them swing their arms to the rhythm.
- For a 5-count beep have them breathe out through their pursed lips for 2 beeps and breathe in through their nose on the next 3 beats.

Nose Breathing

We've covered Belly Breathing and Rhythmical Breathing... and now we're going to explore Nose Breathing, which has been around for thousands of years as a practice of yogis, but has only recently been introduced into health and fitness exercises.

When we talk about Nose Breathing it means inhaling *only* through the nose as a way to improve your conditioning, increase your aerobic capacity, calm your mind, and increase your VO₂ Max (oxygen uptake) for better performance.

When you belly breathe, it's more difficult to do if you're a mouth breather. Belly breathing is a natural fit for nose breathing. When you breathe out, you have the option of breathing out through your nose or mouth.

Make sure you're very well warmed up before trying this. Run at a an easy pace where it's easier to breathe only through your nose. Try to keep your breath steady and relaxed if you can. Only run as long as you can until you have to breathe some through your mouth. Go back and forth between breathing through your nose only... and breathing through a combination of your nose and mouth. Try to avoid mouth-only breathing. And, as much as possible, inhale through your nose.

Gradually, over a period of weeks, you'll notice that it gets increasingly easier to nose breathe. As your oxygen uptake improves you'll be able to run at race paces without running out of breath. Eventually you'll be able to run at a much quicker pace and still be able to nose breathe.

You can sometimes use Breathe-Rite nasal strips to facilitate easier nose breathing.

Key Points

1. Purse your lips to exhale completely to clear the lungs to received new air.
 2. 1st and 2nd gear breath at a rhythm of 2-3, exhale 2 steps and inhale 3 steps.
 3. For running uphill or faster speed breath at a rhythm 1-2, exhale 1 step and inhale 2 steps.
 4. Practice nose breathing to help you to relax as you run.
-

Test Yourself

1. How is posture related to lung capacity?
2. Where in the body does the air oxygen – blood oxygen exchange occur?
3. When running, the active phase of breathing should be the _____.
4. Describe belly breathing.
5. Describe the 2 types of rhythmic breathing. (3-count and 5-count)

LESSON 12: HILLS

Lesson Outline

- Gradual Uphills
 - Steep Uphills
 - Gradual Downhills
 - Steep Downhills
-

Many people struggle with hills because uphills as more work and downhills have more impact. This doesn't have to be the case. Hills can be fun when you run them using *technique* instead of *leg strength*. The key to running hills is to adapt your technique to hills and regulate your effort level by using your gears. If you're going uphill on a bike, you change gears to keep revolutions per minute constant. We suggest you do the same with running by shortening your stride for a "lower gear" while climbing a hill. When running on level ground, your upper body and lower body contribute about 50/50 to the overall workload. But on uphills, those percentages change for ChiRunners.

Gradual Uphills

To reduce the work of your legs on uphills, increase the work of your upper body while relaxing your legs. Even when running uphill, the legs are used primarily for support, not for propulsion.

- **Shorten your stride and keep cadence constant**

When running uphill, drop your stride length to 1st gear. This allows you to maintain a constant cadence. The main rule on uphills is to *never* step past your hip. As the hill gets steeper, shorten your stride even more. Allow your legs to relax as much as possible. Remember to maintain a mid-foot strike.

- **Fall into the hill**

Your lean is relative to the downward pull of gravity and not the ground. Don't let an uphill incline throw you backwards into an upright position or you'll be pulling yourself uphill with your hamstrings.

- **Change your armswing**

Tighten the angle at your elbows to about 45°. This will allow your arm swing to be both forward and upward. Also, pull your elbow back farther (fist-to-rib) and then drive your arms forward and up to create upward momentum. This will help you engage your obliques to drive your hips, to drive your legs. This is called Active Pelvic Rotation and is done with your forward/upward armswing.

- **Use Y'chi**

Pick out an object up ahead and lock your eyes onto it with the intention of not breaking your focus. Let this mental/visual focus pull you up the hill. As you approach the object of focus, switch to a new one and repeat.

Steep Uphills

On a steep hill, there's a tendency to stay on the balls of your feet as pull on the Achilles tendon increases. If you sense tension in your Achilles tendon, switch to a Lateral Stride technique which allows your heels to stay down and does not overwork your lower legs.

- **Turn your body sideways to the hill**

Gradually turn your whole body towards one side until you can land full foot without excessive tension on your Achilles tendon. The steeper the hill, the more you will turn to the side.

- **Lean your uphill shoulder into hill**

Lean your uphill shoulder into the hill ahead of your feet. Keep your stride extremely short and don't let either foot land ahead of your hip. Keep your column straight, without bending at the waist or hips.

- **Downhill arm swings across your centerline**

Bend the elbow to 45° and allow your arm to cross your centerline close to your chest. Reach toward your uphill shoulder. This allows your arm to swing uphill in the direction you're going. Your uphill arm swings lightly with no effort driving it, since it is swinging sideways to the direction you're heading.

- **Change directions if the hill is not canted**

After taking 6-10 steps, turn to your opposite side, so that you don't overwork your lateral muscles on just one side. Again, lean your uphill shoulder into the hill and swing your downhill arm upward and across your body. Continue changing directions about every 6-10 steps. If there is a cant to the hill, your heels are always on the high side of the cant.

Gradual Downhills

Running downhill is a chance to really take advantage of the downward pull of gravity. The key to reducing impact to your body is to allow your pelvis to rotate and keep your wheel behind you. Maintain your Column while you are running downhill. It can be intimidating at first, but once you get the hang of it, you'll love it.

- **Increase core engagement**

"Sit up in your chair" while running downhill. This helps to keep your core engaged and your wheels behind you.

- **Regulate your speed with your lean**

Lean slightly and keep your knees well-bent. Control your downhill speed with your lean. If you start running beyond your comfort level, ease up on your lean.

- **Use pelvic rotation for shock absorption**

Allow your stride to open up behind you by rotating from the T-12/L-1 pivot point. As your leg swings out behind you, let your hip go with it. This will dissipate the shock of the oncoming road. Let the road pull your leg back and let your leg pull your hip back.

- **Relax your shoulders**

Relax your shoulders and let your arms swing freely. Running downhill requires very little effort from your arms. Your elbows are back to a 90° angle and your arms swing rearward. This keeps your shoulders facing forward and allows your lower body to rotate.

- **Land full foot**

Downhill running often creates a tendency to dorsiflex and land heel first, creating a lot of impact to your muscles and joints. To avoid a heel strike keep your knees down, let your heels float up high behind you, and land full-foot directly below your knee.

Steep Downhills

A steep downhill is one that you're not comfortable leaning into at all. This is where ChiWalking and ChiRunning meet. It is the one time we don't turn on the metronome as your cadence can increase as you increase your speed.

- **The Grounding stance**

Connect the dots of your shoulders, hips and ankles. Bend your knees slightly and imagine an invisible line of support between your tailbone and your heels, as in the grounding stance.

Keep your upper body over your feet. Bring your column to an upright position and resist the tendency to lean back. Staying aligned allows your feet to land under your center of mass which increases stability.

- **Shorten your stride**

Lift your knees and allow your feet to roll heel-to-toe. Keep your stride so short that your feet always land under your center of mass.

- **Increase your cadence**

If you want to increase your speed, just pick up your feet faster. You have a lot of stability in this position and your cadence can increase above 180.

- **Balance with your arms**

Because your cadence is fast and your stride length is short, your arm swing is minimal. You can use your arms for balance.

Key Points

1. Running uphill – lean into the hill, arms swings forward but never let elbow goes beyond your ribs. Work more the upper body and relax your lower legs. Encourage vertical displacement uphill by lifting your leg.
2. Running downhill – let the road pulls your leg, let your leg pull your hip back and use pelvic rotation. Gradual pelvic rotation is your shock absorbers.
3. Steep downhill – pick up your feet to cooperate with the road.

Test Yourself

1. List three adjustments to your form when running up gradual hills.
2. Does your cadence change on gradual uphills? On gradual downhills?
3. Does your cadence change on steep uphills? On steep downhills?
4. How do you reduce impact when running downhill?
5. What adjustment do you make to your lean when going from a gradual downhill to a steep downhill?
6. What additional tool can you use when changing from a gradual uphill to a steep uphill?

LESSON 13: VIDEO ANALYSIS

The main goal of video analysis is to see if what you're sensing is actually correct. Watching in slow motion can often be very revealing. For example, many runners dorsiflex (*demonstrate*) but if this motion feels natural to you, you may not be aware that you're doing it.

Step 1: Capture video from 2 angles

Side view: Set up your camera (or smartphone) so that you are looking perpendicular to the path your student is running. Be close enough that their body fills the screen top to bottom. Have them run back and forth in front of you so you can video left side and right side. Then have them stop at one end of their path and run directly towards you (front view) and then turn around and run away from you (rear view). Have student run in 2nd gear... NOT fast!



Alternative side view: Pick out a large flat area for the video analysis. A track is excellent, but you can also use a tennis court or a parking lot. Ideally, use the outside lane at a track and have your students run the curve. Stand in the middle of the curve (usually by the goalpost) with your iPad, video camera, or cell phone so that you can video a continuous side view. Have student run in 2nd gear.

Front and Rear view: Have your students run in 2nd gear directly toward you and directly away from you.

Step 2: Review the video

- Always point out the *positive* first (what is consistent with ChiRunning). Then, point out areas where they can improve their form.
- Don't think in terms of right and wrong. Think in terms of: "This is what I see...this is what I'd like to see..." or "This is inefficient and here's how to make it more efficient."
- Stop the video at key points to discuss what you see. The best time to check postural alignment in the one-legged posture stance is to pause when the runner's knees are next to each other.

Side view: Watch the video in both real time and slow motion.

Check for:

- Head position: Lifting at crown of head (neck extended and chin down)
- Posture: shoulders/hips/ankles in a straight line when knees are together (support)
 - Bent at the waist (is their pelvis level or tilted)
- Footstrike: Upright vs. Falling forward
- Leg motion: Lifting ankles vs. pushing off (excessive vertical motion, calves engaged)
 - Heel striking: Dorsiflexion, Full-foot landing, shins vertical upon contact
 - A circular leg swing vs. a pendular swing
 - Amount of ankle lift relative to speed
- Arm swing: elbows at 90°
- Shoulders: relaxed and not rotating
- Cadence: measure with a metronome running in real time

Front/Back view:

Check for:

- Body symmetry – any differences between the left and right side
- Shoulders: rotation or side-to-side drift
- Arm swing: "V" shape, elbows close to body, hands crossing center-line, pumping
- Foot strike: Pronation or splaying out of feet
- Pelvis: Lateral hip movement, pelvic rotation (pause when knees are together)
- Feet land on either side of a tightrope; unsupported knee swinging below knee of the support leg.

**Advanced video analysis:**

In a private workshop or in an advanced class, you might want to video 1st, 2nd and 3rd gears. You can do this easily at a track by having your students run the curve of the track in the outer lane and have them run in 1st, 2nd and 3rd gear.

When reviewing the video, check whether they keep their cadence constant in all 3 gears. If their cadence increases as they run faster, it is often a sign that they lack pelvic rotation.

Test Yourself:

1. Side view: Name 5 things to check for when reviewing the video.
2. Front view: Name 4 items to check for when reviewing the video.
3. Why is it helpful to stop the video when the runner's knees are together?
4. When reviewing a video with a student, your first comment on what is _____.

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LESSON 14: PROGRAM DEVELOPMENT

Points to consider when designing your training program:

- Gradual Progress is one of the most important rules for program development.
- Let each step form a stable foundation for the next step.
- Have your vision or goal in mind, then start out small and doable.
- If you are an advanced runner looking for speed, back off on your present program and build good technique before adding back speed workouts.
- FDS: Form first, then distance, and then speed.
- Maintain a high level of consistency.
- The general guidelines for upgrading are as follows:
 - No more than 10% additional mileage per week.
 - No more than 2 upgrades per week. Upgrades include: additional weekly workouts, speed, distance, time, hills, and number of repeats.



Designing a program

1. Consider your needs, time constraints, and capability
 - a. How many days/week do you want to run?
 - b. What days do you want off?
 - c. How much time/day can you realistically allot? Include warm-up, cool-down and travel time to your workouts.
 - d. What time of day is best?
2. Lay out a program that is workable and interesting, and allows for the greatest chance of success
3. Keep a running journal
4. Include an assessment process so you can check, and compare, your results periodically

Types of workouts

Intervals: Speed intervals are not recommended until you are comfortable and accurate with the technique

- Speed intervals
- Track workouts
- Surges
- Fahrtleks
- Hill repeats
- Form intervals
 - work with 1 - 2 focuses at a time set count-down timer for 1 min. on/1 min. off repetitions

LSD Run (Long Slow Distance): Increases aerobic capacity. Do once per week. When training for a longer race add 5-10 minutes every 2 weeks.

Hilly Run: Add distance, time or steepness every 2 weeks

Tempo Run: Shorter than the race you're training for, but at race pace with negative splits: start slower than average and finish faster than average. Do it on technique... not strength!

Fun Run: relax, play, explore

Suggest to students to go to www.chirunning.com for the following resources:

1. The ChiRunning App for iPhone and Android phones.
2. Final Surge Training Programs available at www.chirunning.com.
3. Beginner and Intermediate 5k, 10k, Half Marathon and Marathon Training Programs in our Store..
4. The ChiRunning School: 104 Lessons spread over 2 years - to Learn the Chi Techniques
5. Watch ChiRunning DVD lessons.
6. Log workouts.

Test Yourself

- Why is “Gradual Progress” important for program development?
- What is the main benefit of running Long Slow Distance?
- What are the general guidelines for upgrades?
- What is a tempo run?

LESSON 15: CLASS CONCLUSION

Suggestions to make learning ChiRunning easier:

Be patient: Don't feel like you have to learn this quickly. It's not meant to be learned overnight. You are basically rewiring your nervous system, so be patient... but persistent.

Be consistent: Try to remember to do something every day to practice one of the focuses. Many parts of the ChiRunning technique can be practiced even when you're not running. For example, you can be remembering your posture at all times no matter what you're doing.

Work one focus at a time: Pick one focus and hold it in your mind to practice during your workout. If you have a countdown timer on your watch, set it to beep at one minute intervals. Then while you're running, alternate between focusing and not focusing for one minute intervals.

Continued learning opportunities: We want this to be something that you enjoy for the rest of your life. If you need further clarification on any of the points we covered in this class, please contact me. (*Announce any follow-up opportunities and products you have available for sale or that can be purchased from the website.*)

Any questions? Make sure each participant knows what to work on as their top 2 focuses.
Thank you for attending!

The conclusion to your workshop is just as important as the introduction. It should bring all that you have taught into one brief message. They have gained a lot of information at this point, so keep the conclusion simple and enthusiastic.

Keep your ChiRunning practice easy and fun:

- Be gentle with yourself
- Be consistent
- Work one new focus at a time
- Join the ChiRunning School

Thank you for attending and contact me if you have any questions.

APPENDIX 1 INTRODUCTION - ADDITIONAL TIPS AND TOOLS

The introduction to the ChiRunning technique will set the tone of your classes, so be sure to let the students know in what ways ChiRunning is different from conventional running. Speak from the *logic* behind what you're saying and demonstrating. You should **always** approach **every lesson** with the following four questions in mind:

1. **What** is the lesson about?
2. **Why** is it necessary?
3. **How** do you do it?
4. How do I **demonstrate it?**

Mirror Talk

Stand in front of a mirror and practice the introduction script. Each time you practice, you may want to pick a different part of the script to present. Watch for necessary and unnecessary hand movements, eye contact, pausing, emphasis on words, pacing, etc. Note your observations in your journal and review your notes before your next practice session.

Tip #1: Practice slowing yourself down when you speak. Your talking should be at a very easy, conversational pace—not rushed. When you can speak in a relaxed way, your students will feel much more relaxed.

Tip #2: Always practice good posture when speaking... tall and balanced on both feet, and practice speaking from your belly instead of your throat and your voice will carry much better in any teaching space.

Tip #3: ChiRunning was built almost entirely on word of mouth, so practice your presentations until they sparkle! Always strive to refine your technique, whether it's running or teaching... treat your teaching as a Practice. Once you can present an entire lesson, video yourself teaching.

Your Journal

Personal Observations

Watch your video and record your observations. How long did it take? How well did you use your body and your words to demonstrate the information? How can you improve? Present the Introduction to your practice students. Ask for their feedback. Were you clear? Any suggestions for improvement? An example spreadsheet to record observations for both you and your students is given in the Posture lesson.

Student Observations

What did you observe about your students during your introduction? Describe their sitting or standing posture.

APPENDIX 2 POSTURE - ADDITIONAL TIPS AND TOOLS

The main objective of the posture lesson is to give the student a clear understanding of the importance of having their body aligned correctly so that their structure supports their body weight, taking work away from the muscles. This is important in terms of injury prevention because any misalignment of one's structure leads to unnecessary wear and tear on the ankles, knees, hips, sacrum and spine. Having your posture aligned over our feet allows your legs to be used only for momentary support between strides and not for propulsion. Cooperation with gravity, not the legs, propels the body forward. This is the ChiRunning approach to energy efficiency that sets it apart from conventional running.

Be diligent about practicing your own posture and be sure that you're a good example of how to stand aligned and relaxed, especially when you're teaching in front of a group. **Lead by example.** If you're aligned when you're teaching, you will feel more stable in yourself, your words will come across more clearly and powerfully, and you'll be an example of the effectiveness of having good posture.

Take your time learning each of the four steps thoroughly and understand how and why each step is an important component of good posture. Practice each exercise in the script along with these additional exercises so that you can more clearly teach your students.

Additional Exercises

Rope exercise – to engage, strengthen, and isolate lower abdominals. (Can be covered at lunch time during an all day workshop, or included as a hand-out in a ½ day workshop.)

- Lay on your back with knees bent. Slide a thick rope or yoga strap under the small of your back. Lengthen your spine and align your neck.
- Pull your *dantien* towards the floor, pinching the rope against the ground with your lower back. Keep your head, shoulders and tailbone on the floor and pull on the rope to test for tension.
- Belly breathe: Actively exhale, relax and inhale. Keep the rope pinched to the ground with your lower abdominals and relax the upper abdominals to inhale. Also check that your glutes are relaxed.
- Walk your feet farther away and body sense the extra engagement needed to keep tension on the rope. Stop where it becomes challenging.
- Do 3 x 30 seconds of this walking motion several times per week to strengthen and isolate your lower abdominal muscles. As your strength increases, walk your heels farther away and repeat. Work towards straight leg raises with only your lower core engaged.

(Note that the focus of this exercise is to feel lower abdominal engagement while relaxing the upper abdominals and the glutes. We're not trying to get rid of the natural curve of the lower spine when standing or running. Watch that your students don't over engage their core, tuck their pelvis, or "sit into their posture.")

1. Feel the stability of engaging your core:

- Have student stand with their posture relaxed and their chin up. While facing them, push lightly on their shoulders. Because their core is not engaged, they'll be easy to push off balance and they'll fall backwards.
- Next, review the posture steps. They will be much harder to push over with the same amount of force.

2. Aligning your feet while moving:

Go to a track and walk along one of the lines separating the lanes. Line up your feet so that the insides of your feet are straddling the line. Get into your posture stance and walk the line, taking small steps. Create balance with each step. You should be feeling your one-legged posture stance. Be patient with this as you move along and really sense what it is like to create that balance. Repeat while running in first gear. Use the beginning of every run to practice your one-legged posture stance with each stride. Train yourself to feel that instantaneous alignment that happens with each footstrike.

3. Grounding Stance:

Practice until you get a clear sense of feeling grounded. Practice on both flat and sloped surfaces (facing down the hill) and practice with your eyes closed. Are you feeling any tension? Correct your posture to feel centered and balanced without the tension. Pay particular attention to your foot alignment and how your feet are touching the ground. Keep your feet relaxed and with even pressure on the bottoms. Check that your posture is aligned, especially if facing down hill. Feel an invisible support link happening between your tailbone and your heels.

Roll each shoulder back. Then, let your head fall back, followed by lifting at the crown of your head. This will get your head in a balanced position over your shoulders. Poor neck posture leads to a Forward Head Position which is one of the most common causes of neck, head and shoulder tension and pain.

Your Journal**Personal Observations**

Video yourself teaching and watch it: Was your posture aligned and relaxed while teaching? Look through old pictures to observe your posture habits.

- Posture: aligned, relaxed, centered, balanced
- Feet parallel, knees soft, weight over the center of the tripod
- Neck alignment in line with your spine
- Engaging your dantien, sitting up in your chair
- Hips forward or back over-arched, any excess tension in glutes or quads, anywhere else

- Self checks with shoe laces or a mirror, can you relax into alignment or is it an effort?
- One legged Posture stance with weight over the center of the tripod
- Grounding stance

Student Observations

What can you observe about your students using the above list? Give a brief description of your students and the type of runners they are. List observations and challenge areas. Are they self-aware? Do they know which parts of their posture can be improved? Here's an example of how you might document your observations:

Example Documentation

Student	Lesson	Time	Description of runner	Notes for improvement	Teaching observations
Marcia	Intro, Posture	1 hr	55 yr. 3 miles 4x per wk.	Alignment of feet & legs, core engaged	Use body to demo more, speak more slowly
Sally	Intro, Posture	1 hr	47 yr. 20-25 miles per wk.	Lengthen back of neck, right foot splays	Work on flow of intro, remember one-legged posture stance
Jeff	Intro, Posture	1 hr	25 yr. triathlete, several ½ marathons, 3 marathons	Chin down, hips back to connect dots	Improve confidence to teach without notes, remember soft knees

APPENDIX 3 CHIWALKING - ADDITIONAL TIPS AND TOOLS

Optional Exercises for Teaching ChiWalking:

Walk backwards

Have your students walk backwards the way they would naturally. Then have them stop and “freeze-frame” their position. Have them walk forward as a mirror image - keeping the same alignment of torso over forward leg and same stride length. Repeat several times. This exercise can be a great shortcut, as many people walk backwards in alignment and with a shorter stride. It helps them relax into the feeling of having their shoulders farther forward than they are probably used to.

Walk Toward Outstretched Arm

Walk conventionally toward your partner’s outstretched arm and feel how easily you can be knocked off balance. Then, align your Column, and engage your lower abdominals. ChiWalk toward your partner’s outstretched arm and feel the power of leading with your dantien.

Psoas stretch: Begin in a lunge position with your right leg behind. Raise your right arm, lock the elbow and twist your upper body to the left, creating a stretch on the right psoas. Repeat on the other side.

Additional Exercises

The Window of Balance... with a broomstick:

Find a pole that you can balance (4'-6' long). Hold one end of the pole in the palm of your hand and balance it on end. Once you’ve mastered this, start walking. Notice that you have to allow the pole to lean a little forward as you walk. As you walk faster, you must allow more lean. If the pole leans too much for the walking speed, you have to hold it. This helps to explain the window of balance, allowing gravity to pull you forward. It is the balance between not enough lean and too much lean. It is the Zen moment of “be the broomstick.” Lean forward enough to engage the pull of gravity, but not so far forward that the lean is held by the legs.

Tip: Remind your students that we all leaned naturally as children. Watch children on a playground and notice their natural forward lean. Children also fall often. That’s why we lose our lean as we get older. Our instincts and our experience teach us that it’s less likely to fall if we’re upright. ChiRunning turns our run into a controlled fall and we’re teaching adults to consciously adopt and control the lean they had naturally as children.

Your Journal

Personal Observations

- Can you feel the “window of balance” of your lean in 1st, 2nd and 3rd gears?
- Video yourself in each gear and watch it in slow motion, pausing it when your knees are together.
- Are you leaning too much? Too little?
- Is your lean coming from your ankles?

APPENDIX 4 ARM SWING - ADDITIONAL TIPS AND TOOLS

This lesson is to show you that your upper body is just as important to your running as your legs. The way you swing your arms is critical to the way your upper body stays stable and relaxed and the flow you feel while running. Having stable, but relaxed, shoulders is crucial to an efficient arm swing. Your arm swing has gears, just like your legs. On flat ground, the gear of your arm swing matches the gear of your leg swing.

If you haven't already emphasized the idea that the division between upper and lower body for ChiRunning is at T-12/L-1, this is a good time to do it. Y'Chi is now introduced in this lesson as it helps keeps the shoulders still and provide stability to the upper body.

Additional Exercises

Practice in front of a mirror: Hold a volleyball in front of you and practice your arm swing with one arm at a time. Then practice with both arms emphasizing the swing to the rear. At the beginning and end of each arm swing cycle, your elbows should be bent at 90° and hanging directly below your shoulders, next to your ribs. Memorize how this feels so you can reproduce it on your run.

Back ... Relax: To reduce shoulder rotation and pumping.

Your Journal

Personal Observations

Watch a video of yourself running towards the camera and observe your arm swing. Are you pumping? Any excess shoulder movement? Do you leave room for the volleyball? Any differences between the right and left sides of your body? Is your momentum to the rear? Do your elbows come too far forward?

Student Observations

- Watch for any tension in the arms, shoulders, neck, and upper body.
- Are the elbows swinging to the rear?
- Are the elbows too far out, too far in or too high?
- Are the shoulders down and relaxed?
- Any excessive shoulder movement or rotation?
- Are the arms swinging freely from the shoulders?
- Are their arms pumping?
- Did the arms swing too far forward or across the center line?

APPENDIX 5 BEGIN TO RUN - ADDITIONAL TIPS AND TOOLS

Create a positive experience for your students, and remember to keep it simple. The “take-away” from this lesson is to Body Sense how your dantien is your gas pedal. Encourage your students to relax. They are often overwhelmed with all the focuses to remember, so reassure them that they can relax and you will remind them of anything they need to do. You will be talking them through this sequence so there is really no need for them to do much thinking. If they’re not in their head they’ll have a much easier time Body Sensing. Take them completely through the exercise and repeat several times, watching them closely and coaching them as needed.

Tip #1: Practice the one-legged posture stance a few times on each leg before starting to run. This is a good shortcut to finding good alignment and engagement of the lower abs.

Tip #2: Run in place and don’t worry about using a metronome. That will come later, once they’re running with the technique.

Tip #3: Start them running in place as talk them through the posture focuses (lifting at crown of head and feel your core engaged) and finding their dantien. Keep them running in place and *then* have them move their dantien ahead of where they feel their feet hitting the ground. Run at the side of your students so you can observe them.

Your Journal

Personal Observations

Video yourself teaching this lesson and watch it in slow motion. Is your pelvis level? Are your dots connected with each stride? Are your feet moving like a wheel? Is the size of your wheel appropriate for the gear you’re running in? Is the angle of your lean appropriate for the gear?

Body Sensing: Could you feel your structure supporting your body weight? Were you able to maintain limp lower legs throughout the 3-stage process? Did you feel any pressure on the balls of your feet? Could you feel your Window of Balance? Did you notice how little you need to lean to create forward momentum when you’re relaxed?

(Note: The quality and accuracy of your ChiRunning technique is one of the criteria we’ll use for your certification and subsequent annual recertification as a Certified ChiRunning Instructor.)

Student Observations

- Could they feel their one-legged posture stance?
- Was their stride too long for first gear?
- Could they Body Sense a full foot landing?
- Did they hold their posture?
- Did they naturally increase their speed as they increased their lean?
- Did they automatically slow down when they took off their lean?
- Did they engage their lean using gravity or did they bend at the waist/hips?
- Were they leaning too much and feeling any discomfort in their lower legs?

APPENDIX 6 GEARS & STRIDE LENGTH - ADDITIONAL TIPS AND TOOLS

This lesson helps the student understand how their speed and stride length is directly related to the position of their dantien. Everything *above* the Dantien is always moving forward, while everything *below* the Dantien is always moving to the rear. As you move your dantien further ahead of your feet, your wheels gets bigger and you cover more ground with each stride. When you start running in 1st gear, Body Sense how short your stride is before going onto the next gear. Note: Observe your students as they change gears and watch closely for any changes in their posture when they move to the next gear.

Pelvic rotation is what creates fluidity and allows increased speed without increased impact. **Be able to demonstrate this to your students.** With pelvic rotation, you can finish every run feeling like you received a lower back massage. It is a very distinct feeling, so if you're not sure whether or not you're doing it... you're probably not.

Additional Exercises

Body Sensing Gears: Practice running in different gears and notice how your stride opens up behind you the more you lead with your dantien. Notice, that as you increase the lead of your dantien, that making your legs "invisible" keeps your legs relaxed. Maintain your posture, but allow your stride to open up behind you. This is your main focus.

Running Downhill: Practice running down a gentle hill without letting your cadence increase. Feel your pelvis rotating with each stride. As the terrain levels out, decrease your speed and notice the reduction in pelvic rotation. Repeat this several times. Pelvic rotation is happening in each gear. In first gear the rotation is slight. Remember, it's not something you DO, it's something you ALLOW. If you TRY to rotate your pelvis, you could throw off your stride mechanics.

Personal Observations

Video: Tuck your shirt in and run towards or away from a video camera. Observe the wrinkles in your shirt. If your shoulders are still and the wrinkles are going towards the hip of your rear leg, you are likely rotating your pelvis.

Body Sensing: Find where T-12/L-1 is on your spine so that you can demonstrate to your students. Do the pelvic rotation body looseners in front of a mirror. Observe your movement visually while also body sensing it. Can you keep your shoulders and upper body relaxed as you lean more? Can you feel your pelvis rotate more as you lean more? Were you able to maintain a level pelvis while allowing it to rotate?

Student Observations

Watch your students to see if their pelvis is rotating. If it's not, their stride will be choppy and their cadence will increase with speed. If it is rotating, you'll notice that as their leg swings to the rear, their hip will go with it and you can often see diagonal wrinkles in their shirt.

- Could they keep their wheel motion in all gears?
- When they changed gears, did they lose their posture line?
- Did they begin dorsiflexing in the higher gears
- Could they rotate their pelvis in a fast walk? Could they body sense it?
- Could they transition smoothly from a fast walk to a run?

APPENDIX 7 CADENCE - ADDITIONAL TIPS AND TOOLS

Your goal in this lesson is to get the student to understand the effectiveness of having a steady, optimal cadence which allows their feet to always move rhythmically, and with a circular stride. At a slower speed, it is a smaller wheel. In ChiRunning, your lean is your gas pedal and your wheel gets bigger at higher speeds. If you are running aerobically, your cadence (spm) is constant.

The tendency is for the conventional runner to run at too slow of a cadence, especially in the lower gears. The longer the foot is in contact with the ground, the more muscle usage there is. With ChiRunning, a steady cadence is always the same. Watching your cadence can leave you with a sense of steadiness no matter what distance or speed you're running. That sense of consistency can be the "friend" that helps you through difficult runs or races regardless of your skill level.

(Many people are rhythmically challenged, especially if we are sedentary or as we age. The metronome forces the brain to organize itself in a beneficial way that can increase mental focus and lower anxiety. Metronome therapy is effective with Parkinson's Disease, ADD, ADHD, cognitive brain function, and stroke recovery. For some, the metronome will improve the functioning of their brain in addition to teaching them about stride length. The use of the metronome is good for anyone from stroke victims (walkers) to elite runners and everyone in between. The metronome is an objective measure of accuracy and we highly recommend using it regularly.)

Additional Exercises

Cadence Demonstration: A demonstration that you want to perfect as an instructor is to smoothly transition between the gears at a constant cadence. Practice this at your optimal cadence and have a friend video you so that you can critique yourself.

Gradual Progress: If your optimal cadence feels like too much effort, use gradual progress. Let the metronome match you and practice running in 1st, 2nd, and 3rd gears at this steady cadence. Then increase the beep of the metronome by one per week until you are at your optimal cadence. Doing the "220 drill" frequently and emphasizing lifting rather than pushing off can also quicken the progress towards optimal cadence.

Different cadences: Practice running at different cadences so that you can match your students where they are or at their optimal cadence for their leg length.

Run with your students: Spend time running beside your students with the metronome set at their current or optimal cadence. If you're in a group, run in the middle of the group so that everyone can hear the metronome... and any instructions you're giving. Keep a steady rhythm while you take them through 1st, 2nd and 3rd gears. Pay particular attention to your student's stride length as they change gears. Be an example of shortening your stride without changing your cadence, as you slow down. It is often easier for your students to imitate you than to follow a "beep."

Treadmill: Practice running with a metronome on a treadmill. It is a good opportunity to body sense the perceived effort level of keeping a constant cadence at different speeds. In conventional running, as you run faster, your cadence increases. This makes your legs work harder because it takes more muscle to make your legs turn over at a quicker rate. Thus, your perceived effort level often goes up significantly as you run faster. With ChiRunning, your cadence remains the same.

What does change is your stride length, which lengthens behind you as you go faster because you're relaxing more as you're leaning more. This method doesn't cause as much of an increase in muscle usage which often reduces your perceived effort level.

Elbows: Practice matching the beep of the metronome to your elbow moving rearward.

Lift to the beat: Practice matching the beep of the metronome to the lift of your heel. You don't want to match the metronome to your foot landing as you want to emphasize being light on your feet and matching the lift instead.

Your Journal

Personal Observations

Video: Video yourself running in 1st, 2nd and 3rd gears without using a metronome. Then watch your video in real time and estimate your cadence. Is it optimal? Did you keep it constant as you changed gears?

Student Observations

- What is their current cadence? What is their optimal cadence?
- Could they change their stride length while keeping a steady cadence? Are they keeping rhythm with their elbows?
- Are they forcing their legs to hold the cadence?
- Are they pushing off or are they lifting by bending their knees?
- If a faster cadence feels like more effort, it is often because they are either pushing off, or they're just not used to picking up their feet quickly. Do the 220 cadence drill to "wake-up" their lifting muscles. Then, drop the metronome back down to 180 bpm and have them experience how "slow" it feels. That's because you're waking up their neurons which are, in turn, firing their muscles much more quickly.

APPENDIX 8 BODY LOOSENERS - ADDITIONAL TIPS AND TOOLS

The goal of this lesson is to give the student a feeling of looseness in the joints and relaxation in the muscles. Begin each loosener by checking in with your posture. While teaching these exercises, ask your students to notice where they feel tension in their bodies. Be thorough with your explanations but be succinct. *Do* the looseners while you are explaining what to do as your students will imitate you.

Additional Exercises

Loosen your lower legs by shaking your thighs. Let your lower legs get really floppy and loose. If you feel that your lower legs are tense in any way while running, stop and shake them out. Body Sense how your calves feel when they're relaxed so you can reproduce this feeling during your run.

Your Journal

Personal Observations

Go through each loosener for yourself and see where you hold tension. Do all of the looseners slowly in front of a mirror so that you can see what the student will see. Compare this to the DVD section on Body Looseners and make any needed corrections. Understand how the movement works in your body so that you can translate to your students.

Student Observations

Ankle Circles: Are their knees parallel? Are the knees doing the work of the circles? **Knee Circles:** Is their upper body stationary? Are they starting with small circles?

Hip Circles: Are the knees doing the work of the circles? Are the circles symmetrical?

Pelvic Circles: Is their upper body stationary while they isolate the movement in their pelvis?

Pelvic Rotations: Do their shoulders move with the pelvic rotation? Can you see the wrinkles in their shirt going towards the hip of the back leg?

Spine Rolls: (1) Is their back flat with their neck in the same alignment as their spine? (2) Do they let their head flop over too? (3) Do they take their time rolling up? Is the head the last part to straighten?

Spine Twist: Are their hips pointed forward? Does their elbow point toward the sky? Do they feel the rotation at T-12/L-1?

Shoulders: Does the motion originate with their torso? Are the shoulders and arms relaxed? Are they allowing their arms to bend at the elbows.

Grounding Stance: Are their dots connected? Do they look and feel rooted to the earth?

APPENDIX 9 SAND PIT EXERCISE - ADDITIONAL TIPS AND TOOLS

The goal of this lesson is for the student to Body Sense what it takes to leave clean, flat, undisturbed footprints in the sand. Be able to demonstrate both conventional and ChiRunning and Walking forms to point out the differences in what you see in the sand. Watch your students carefully so you can correct their movements to help them be successful in this exercise.

Additional Exercises

Sand Pit Walk

Start by checking in with your posture. Lift with your psoas muscles and take small steps. Play with the stride length and notice when the stride length is coordinated with clean footprints. How small is the stride length? Notice how your legs and ankles can stay relaxed when you lift from your psoas muscles. Your feet naturally peel off the sand.

Chi Run as if on Ice

Check in with your posture. Pretend you are standing on ice in a large ice rink. Let your dantien fall slightly ahead of your feet and run in 1st gear paying particular attention to lifting your ankles. What would you have to do if you were really on ice? Check your footprints. Did you break through the ice? Continue to make corrections in your body until you can leave clean, flat, undisturbed footprints.

Barefoot Beach Run

Find a long stretch of sand and run in the “sweet spot” where the sand is wet and smooth enough to run naturally yet soft enough to see your footprints. With really good sand, you can read more detail. For example, you can see the difference between a “push off” which leaves a dishing mark and a “toe off” which will leave a deeper print only by the toes. You can also see if there’s more pressure on the inside or outside of your foot and if there’s a difference in pressure between your right and left feet. Run for a stretch of sand and read what the foot prints say. Is there any splay to either foot? Can you pull a tightrope between the left and right foot prints? Practice the knee bending drill and run again. Is there any difference in your foot prints? Stay in first gear until your footprints are flat and clean. Slowly move into 2nd gear and then into 3rd gear. Keep playing with this until you have clean, flat footprints in each gear. Body Sense any adjustments. What changes did you make moving from one gear to another?

Your Journal

Personal Observations

Where did you feel tension as you were going through this exercise? What did you do to relax the tense areas? Practice this exercise until it becomes second nature to leave clean, flat, undisturbed footprints. Understand the changes you made to your stride to accomplish this so you can better coach your students.

APPENDIX 10 KNEE BENDING DRILL - ADDITIONAL TIPS AND TOOLS

The purpose of the knee bending drill is to *bend* the knees rather than *lift* the knees. Bending the knees takes less energy and helps keep your wheel behind you and allow for a full foot landing under your center of mass. Lifting the knees often leads to dorsiflexing. This drill also teaches how to relax the lower legs, lift the ankles and be powered by gravity. Many students get a big "aha" from this exercise, so it's important to set up the conditions for this to happen by keeping the drill in three distinct steps. When a student really gets this exercise, they'll find themselves running much faster and easier than they have ever experienced. This is especially true for beginning runners.

Additional Exercises

One-legged posture stance: Check in with your Column and lift your ankles one at a time, keeping your knees close together. It's just a knee bend and an ankle lift. Get the feeling of relaxing your lower leg, letting it fall with gravity, and land mid-foot. Next, run in place with ankles up, knees down, and knees close together. Relax your lower legs, feel the mid-foot landing, and the one-legged posture stance. Be sure that all the components of your best posture are intact. Stop yourself on every 3rd count in the midst of running in place and check that you're landing in a balanced one-legged posture stance.

Brick Wall: A cure for "knee lifters." Stand in front of a wall and do Step 1 of the knee bending drill. This also helps those who tend to bend at the waist/hips during Step 1.

Towel: Practice Step 1 on top of a towel spread out on a smooth floor. If you're only lifting, the towel will remain undisturbed.

Knee-Bending Drill Tips:

Tip #1: In Step 1 of this drill, observe your students from the side to watch for any lifting of the knee. Practice the "Brick Wall" drill if needed.

Tip #2: Keep the 3 Steps distinct. In Step 2, *only* the lean is added. This allows you to observe if they are falling into the lean or pushing into it. Watch for relaxation and repeat the first 2 steps until they are falling. Don't let your students add their arm swing until Step 3.

Tip #3: Tell the students to feel their column engaged, their Y'Chi engaged and their dantien ahead of their feet. They should also feel the crown of their head ***ahead*** of their dantien in this drill.

Tip #5: Notice that in Steps 1 & 2, your feet are never ahead of your knees and it's pretty difficult to dorsiflex. When you add your arm swing and hip rotation, still don't let your feet get ahead of your knees. This will help eliminate dorsiflexing and allow a full foot landing.

Tip #6: Encourage your students to practice this drill frequently and to Body Sense when their former muscle patterns return. Just about every runner can benefit from this drill as it brings together so many focuses: knee bend, ankle lift, lifting rather than pushing off with your feet, leaning forward with gravity, adopting a wheel motion, and landing lightly on your mid-foot.

Your Journal

Personal Observations

Have a friend video you doing this drill. Did you maintain a good Column throughout the drill? Are you falling into the pull of gravity or are you pushing yourself forward? Can you keep the lean and full foot landing in Step 3? Could you find the window of balance and a 2nd gear size wheel in Step 3? Could you feel the stretch and recoil of your core in Step 3? Can you Body Sense the extra speed when you allow yourself to be powered by gravity?

Student Observations

- Did they align their posture and maintain it throughout the drill?
- Were they landing mid-foot with their lower leg relaxed?
- Did they wait until Step 3 to use their arms?
- Did old habits come back during Step 3 (dorsiflexing, knee lift, landing too far forward)?
- Did they take at least a few strides landing mid-foot?
- Could they relax into a 2nd gear size wheel during Step 3?
- Could they maintain their lean in a “window of balance”?
- Could they Body Sense being powered by gravity and not their legs?

APPENDIX 11**BREATHING - ADDITIONAL TIPS AND TOOLS**

The purpose of this lesson is to understand the benefits of breathing fully and rhythmically. When you are short of breath, it's often because you are not breathing out enough. If you are Chest Breathing, only the top third of your lungs are being used where little oxygen exchange happens, making it difficult to oxygenate the entire body.

Additional Exercises

1. Nose Breathing: Practice breathing in and out through your nose while running. This can help you self-regulate your speed to find a comfortable, aerobic pace.
2. Faster breathing rhythm on uphills and at higher speeds: Practice running faster, or uphill, while breathing at a faster rhythm, such as 1-2 (1 stride outbreak... 2 strides inbreath). This would also match the "Waltz beat" to your metronome. It may take practice to exhale and inhale completely in fewer steps, but it is a great tool for racing uphill efficiently.

Your Journal**Personal Observations**

1. When running, do you actively inhale or actively exhale?
2. What is your breathing rhythm in 1st gear? 2nd gear? 3rd gear?
3. Do you consciously change your breathing rhythm as a tool of efficient running?
4. Do you breathe through your mouth or nose, or a combination of mouth/nose?

APPENDIX 12 HILLS - ADDITIONAL TIPS AND TOOLS

A goal of this lesson is to get the student to relax when it comes to running hills. Instead of seeing uphills as more work and downhills as more impact, give them confidence to enjoy varying terrains with hill technique. Good technique will make any hill easier and can even substitute for a lack of physical strength. Comparing hill technique to changing gears on a bike makes sense to most runners.

Additional Exercises:

Arm Swing for uphills: Face your partner and hold your arms straight out at the height of their shoulders. Have your partner stand in a staggered stance and practice their arm swing while they tighten the bend at their elbow from 90° to 45°. They still draw their elbows behind them, but the emphasis of the armswing is now both forward and up. As the bend at their elbow tightens, they should be hitting your hands with their fists, almost like an upper cut in boxing.