2025 NEW EDITION
of Esther Gokhale's Amazon Bestseller

8-STEPS to a PAIN-FREE BACK

Special Preview Chapter

Inner Corset

5

USING YOUR INNER CORSET

Using your muscles to protect and lengthen your spine

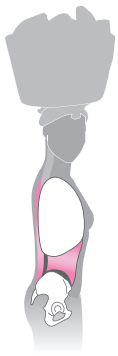
This Samburu tribesman in Kenya engages his abdominal muscles to help him elongate his torso and protect his spine against the impact of jumping. Notice his rib cage is anchored, the front lower border flush with the contour of his abdomen, not jutting out.

In the lessons so far, you have learned several effective ways to lengthen and protect your spine:

- Using an external object like a back rest or bed to put your spine in traction (stretchsitting, stretchlying).
- Positioning your pelvis so the vertebrae stack above it without tightening and shortening the surrounding muscles (stacksitting).
- Breathing with the muscles around the spine relaxed, to further lengthen the spine with each breath (page 72).

In this lesson you will learn a more powerful technique that gives you added length, is available to you at all times, and provides strong support to protect your elongated spine. The technique involves contracting certain muscles in your abdomen and back to make an "inner corset." This contraction causes the torso to become narrower and taller, thus lengthening the spine (fig.5-1).

fig.5-1



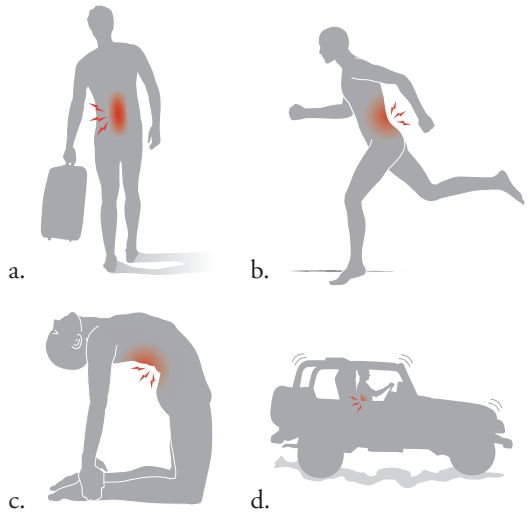
The muscles of the inner corset include the intrinsic back muscles and the abdominal transversus and obliques.

The inner corset is important in situations where your discs may be challenged, such as:

- Carrying a heavy back pack, suit-case, or other object (fig.5-2a).
- Running, jogging, or engaging in other high-impact aerobic activities (fig.5-2b).
- Playing almost any sport–tennis, volleyball, basketball, or even swimming.
- Performing Yoga poses that involve twists, side-bends, or backbends (fig.5-2c).
- Dancing in a way that involves impact, spinal twisting, or bending.
- Riding on a bumpy road in a vehicle with poor shock absorbers, riding a mountain bike, or sailing in rough seas (fig.5-2d).

When an African or Indian village woman carries a heavy weight on her head (fig.5-3), she is not

fig.5-2



Activities where not using your inner corset can result in damage.

fig.5-3

(Burkina Faso)

(India)

(Burkina Faso)

(Burkina Faso)

These women are actively using their inner corsets to elongate and protect their spines as they carry substantial weights on their heads.

passive under that weight, which would cause her discs to compress. Rather, she actively engages her inner corset; her torso becomes more slender and her spine becomes longer. In this way she protects her discs from the weight she carries. Periodically, when carrying a burden for a long time, she may lift the burden above her head with outstretched arms (fig.5-4). This action stretches her back muscles and re-engages her inner corset.

Medical literature documents that in certain populations, such as the Bhil tribe of Central India, the discs of a 50-year-old look very similar to those of a 20-year-old (fig.5-5).[29] The proper and frequent use of the inner corset muscles is perhaps why these populations experience virtually no disc degeneration as they age. In industrialized societies, on the other hand, it is considered normal to have significant disc degeneration by age 50. By using our muscles to protect our discs as the Bhils do, we can avoid the deterioration and damage that we have erroneously come to accept as normal.

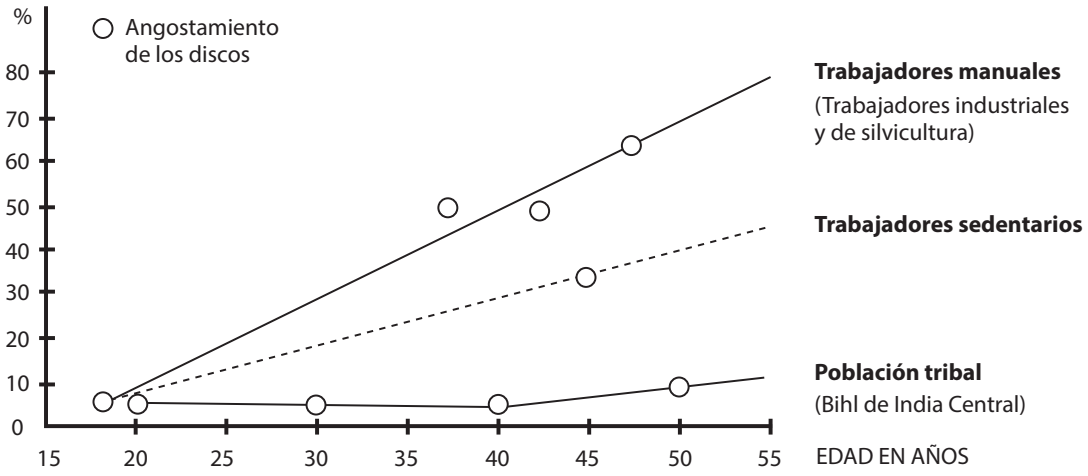
In the Gokhale Method, as in conventional approaches, there is an emphasis on using and strengthening the abdominal muscles. However,

fig.5-4

It is common among people who carry weights on their heads to stretch their back muscles and re-engage their inner corsets periodically.

Placing laundry basket on head (Burkina Faso)

fig.5-5



This graph [30] shows a large difference in disc narrowing with age in three different populations. There is very little disc narrowing in the Bhil tribal people of Central India,[29] more disc narrowing among Western sedentary workers,[30] and high levels of disc narrowing among Western industrial and forestry workers.[31]

fig.5-6

a. Many common abdominal exercises involve tucking the pelvis and rounding the shoulders inappropriately.

b. Doing conventional abdominal exercises may result in long-term unhealthy posture changes.

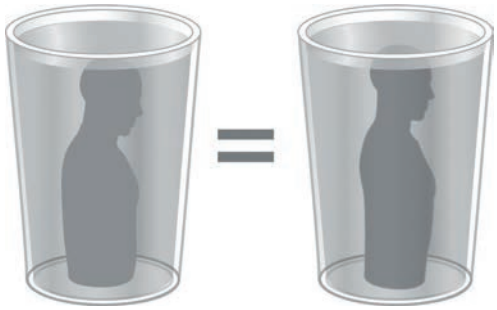
in contrast to many conventional approaches, the Gokhale Method teaches you to isolate the abdominal *oblique* and *transversus* muscles from the *rectus abdominis* muscles so that you can lengthen and support your spine without distorting it (fig.5-6). Learning this can be challenging, especially for some highly trained athletes who must overcome firmly ingrained habits in order to isolate the different abdominal muscles.

LENGTHENING BY CONTRACTING

You might ask how you can lengthen your spine by contracting your muscles. The answer is two-fold.

First, contracting the abdominal muscles causes the abdomen to become narrower. Since the abdomen has a fixed volume, it must become taller, changing its shape from a short, squat cylinder to a tall, thin cylinder (fig.5-7). This action elongates the spine, easing the vertebrae apart and decompressing the discs. The low back feels braced, as though you were wearing the support belt commonly used by workers who carry heavy burdens. You use an inner corset made of your own muscles.

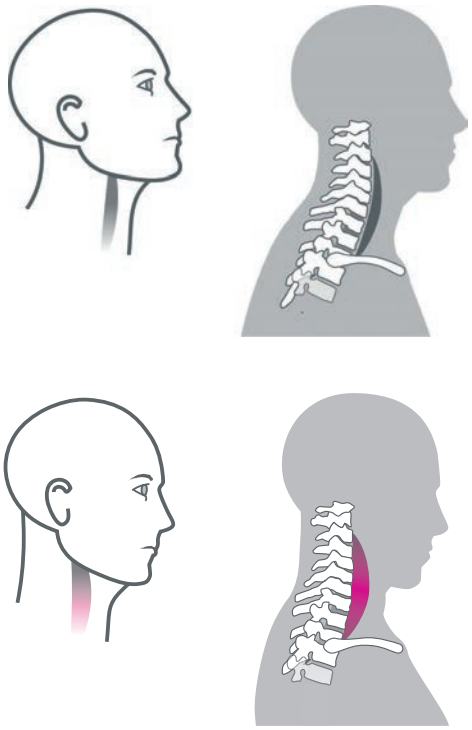
fig.5-7



As your torso gets more slender, it must get taller because its volume stays the same.

Second, certain muscles, because of their geometry, cause the spine to lengthen as they contract. For example, the *longus colli* muscles are located in front of the cervical spine. When these muscles contract, they force the cervical curve to straighten, thus lengthening the cervical spine (fig.5-8).

fig.5-8



The longus colli muscles attach to the front (anterior) part of the neck (cervical spine). When they contract, they cause the neck to straighten and, therefore, lengthen.

The deepest muscles of the back (*rotatores* and *multifidus)* have a more complex geometry. When used unilaterally (that is, on just one side of the spine), the rotatores muscles cause the spine to rotate. When used bilaterally, these muscles contribute to spinal rotation. It is difficult to envision how this works but we know from electro-myelographic studies that these muscles are involved in lengthening the spine.

The best way to strengthen and maintain these muscles is to use them in the course of daily activities. When you are first learning to use your abdominals in this new way, try to exercise your inner corset up to 20 times a day for a minute each time. This will help you establish the new pattern and reach a threshold level of muscle strength. It will also give your long back (*erector spinae)* muscles a periodic stretch and your discs a periodic decompression.

When you have integrated this new pattern into your daily life, you will find that many activities traditionally considered harmful for the back are actually healthy challenges for the muscles of your inner corset.

BENEFITS

- Protects your spine in actions that involve compression, impact, or distortion
- Stretches your spine more reliably and with a stronger action than any other technique
- Stabilizes your spine in case of injury
- Provides a stable platform enhancing the power of arm and leg actions
- Improves the tone and appearance of your torso

Until I met Esther Gokhale, I had lost hope in finding relief for my constant pain caused by a severe, multi-level back injury. I had spent years working with numerous physicians and physical therapists, received a number of cortisone injections, tried virtually every available prescription anti-inflammatory medication, and endured painful diagnostic and therapeutic procedures to curb significant pain and avoid surgery. I was convinced I had explored every treatment option, but I hadn't. Upon receiving independent endorsements of Esther's technique from trusted friends, I decided to see her for pain relief.

Initially I resented her advice to revisit the way I positioned and moved my body. I felt betrayed because I had faithfully followed my prescribed physical therapy and home exercise regime. Nevertheless, I was taught and slowly relearned how to sit, stand, walk, and even lie down.

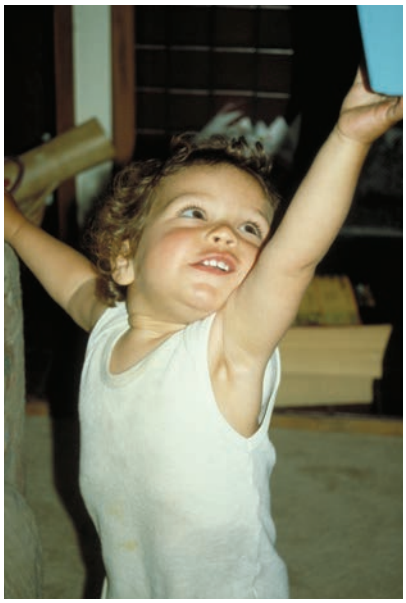
I found and strengthened areas I didn't even know needed attention. With Esther's guidance, I worked out in new ways. Friends started telling me I looked great. Thank you, Esther, for relief from pain and a new awareness of my body.

Patti Fry
Menlo Park, CA

Carrying baby on back African-style

Watering crops (Burkina Faso)

Wrestling game (Burkina Faso)



My son reaching up for a toy (USA)

Gladiator sculpture (19th century, France)

Carrying a fish trap (Thailand)

Carrying baby, bucket, and tub (Burkina Faso)

Tennis serve (Germany)

EQUIPMENT

You will need the following:
• A full-length mirror

1 SET UP IN A "READY POSITION," WITH SOFT KNEES AND KIDNEY BEAN-SHAPED FEET

It is important to start with a healthy standing position before engaging your inner corset.

2 ANCHOR YOUR RIBS

Rotate your rib cage forward to flatten your lower back (page F-18).

3 PLACE THE FINGERTIPS OF ONE HAND SO THAT THEY CAN MONITOR YOUR SPINAL GROOVE

Use a light touch to check the entire lower back. Ideally, you will have an even groove from top to bottom (see pages 77 and 133).

4 CHOOSE ONE OF THE FOLLOWING WAYS TO RECRUIT YOUR INNER CORSET MUSCLES

A. Reaching Up

With one hand, reach upward and a little forward, as though you were reaching for the top of a high cabinet. Find the direction of stretch that gives you length in your back rather than your front. Using feedback from your fingertips, don't allow your spinal groove to deepen.

Now reach up with your other hand, too. Stretch upward as far as you comfortably can.

B. Pushing Yourself Tall

Push down on the rim of your pelvis with your hands to lengthen your spine. Envisage yourself going up and over an imaginary bar at chest height (see sidebar).

C. Imagining Entering Cold Water

Imagine walking into a cold lake or ocean. As the water level rises around your middle you pull your torso up and away from the icy water. Take care not to sway.

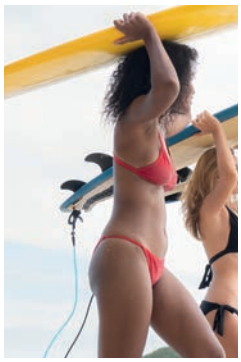
Imagine reaching up and over a bar at chest height to help engage the inner corset muscles correctly.

The lean abdominal area of a greyhound provides a useful image to help you engage your inner corset.

EXAMPLE OF ENGAGING THE INNER CORSET WHILE REACHING UP

(Indonesia)

USING THE INNER CORSET TO PROTECT SPINAL STRUCTURES



Carrying a surfboard (Brazil)

Hunting with a spear (Tanzania)

Hanging wares in stall (Brazil)

A coat rack provides a useful image to help you maintain a stable torso while relaxing your shoulders and arms.

5 BECOME AWARE OF THE MUSCLES IN YOUR ABDOMEN. ENGAGE THEM STRONGLY SO THAT YOUR ABDOMEN FEELS SLEEKER THAN USUAL

6 RELAX THE REST OF YOUR BODY, INCLUDING YOUR SHOULDERS

The goal is to restore your arms and shoulders to a relaxed position while maintaining all the abdominal support and extra length in the torso that you established in the previous step.

It is difficult to isolate the inner abdominal muscles. You may find, as many beginners do, that when you relax your arms and shoulders, your abdominal muscles relax too. If so, start again and proceed with care. Imagine that you are a coat rack: The spine is the sturdy, tall central support and the shoulder girdle is a coat hanging from it.

A common mistake is to sway the back while reaching upward.

A common mistake is to tuck the pelvis.

7 PRACTICE MAINTAINING YOUR INNER CORSET AS YOU MOVE

You may feel a bit like a marionette; the torso is relatively still and stable, while the limbs are available for movement.

8 PRACTICE RELAXING AND ENGAGING THE INNER CORSET MUSCLES REPEATEDLY

With time and practice you will no longer need to use your arms to find this action. Your body will learn to do it very quickly when needed.

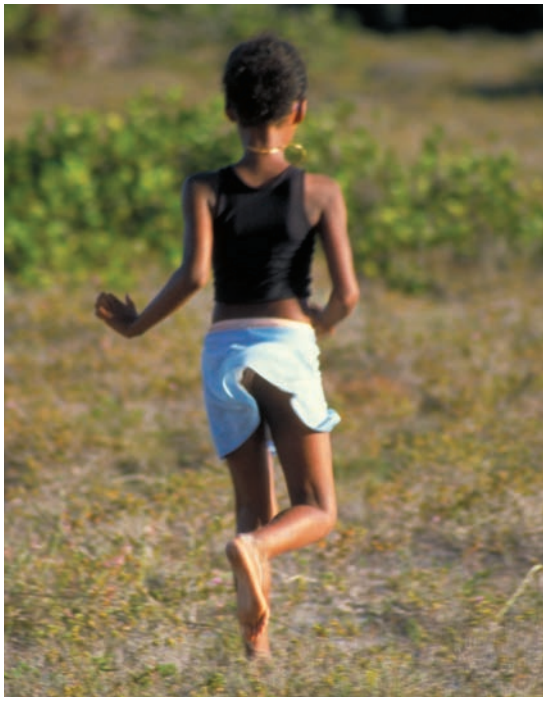
Imagine you are a marionette or doll with a stable torso and freely moving limbs.

EXAMPLE OF MOVING THE LIMBS WHILE KEEPING THE TORSO TALL AND STABLE

Grinding millet (Burkina Faso)

EXAMPLES OF ENGAGING THE INNER CORSET:

EXERCISING



PERFORMING MANUAL LABOR
(Brazil)

"PLAYING" CAPOEIRA,
A CHALLENGING MARTIAL ART
(Brazil)

INDICATIONS OF IMPROVEMENT

Using the inner corset can be difficult to learn because your abdominal muscles may not be strong, you may not be used to isolating them, and the long muscles of your back (*erector spinae*) may resist the action due to chronic tightness. With practice, as your inner corset muscles get stronger, and as your long back muscles become more limber, the pattern will be easier to maintain. You will also no longer need any arm action to help engage the inner corset.

Once you start using your abdominal muscles during your daily activities, they become toned very quickly. After some time, you may be able to see their contours on your abdomen even when you are not flexing your muscles (fig.5-9).

fig.5-9

The contours of this worker's abdominal muscles are apparent even when he is relaxed (Brazil).

TROUBLESHOOTING

SWAYING THE LOWER BACK

This is the most common mistake when learning to elongate your torso (see page 117). Keeping your ribs anchored and monitoring your spinal groove with one hand as you start to lengthen your back will help you detect any sway and prevent it from happening. If your abdominal muscles need strengthening, you will find suitable exercises in Appendix 1. I recommend doing those exercises regularly until your abdominal muscles reach a threshold level of strength.

DIFFICULTY BREATHING

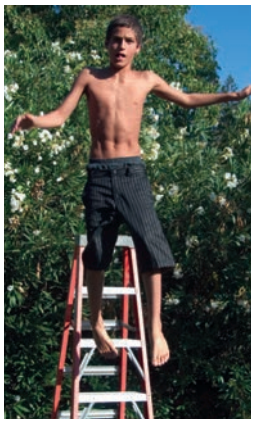
If you are accustomed to breathing with your abdomen and not your chest, you may find it difficult to inhale deeply while engaging your inner corset. As part of your inner corset, your abdominal muscles are contracted and resist abdominal expansion during inhalation. But the muscles between your ribs (*intercostals*) may be stiff from a lack of action in the past, and resist chest expansion during inhalation. You will therefore be hampered in your ability to inhale easily. By forcing a few deep inhalations, you stretch your intercostal muscles, making subsequent inhalations easier. Soon you will be able to breathe deeply and easily while engaging your inner corset.

FURTHER INFORMATION

WHEN TO USE INNER CORSET

Although using your inner corset may seem like a contrived action, you automatically use it whenever your spine is subject to extreme stress. For example, when you jump down from a significant height, you instinctively tighten your inner corset to protect your spine (fig.5-10).

fig.5-10



The inner corset muscles automatically contract in high-stress situations like jumping.

In situations of moderate stress, however, such as carrying washing baskets, weeding, or twisting, most people do not have the instinct to use the same protective mechanism. Failure to do so can lead to cumulative damage of spinal structures, damage that we have come to consider a normal part of aging. By learning to use the inner corset in these situations, you will protect your back from this damage. At the same time, you will be exercising your abdominal muscles.

We used to teach that the inner corset is only needed when the spine is subjected to such unusual stresses. However, over the years, seeing that people are showing up with less and less abdominal tone, we've changed our guidelines; we now teach to use the inner corset at 10–20% capacity throughout the day. When faced with additional challenge, ramp up the inner corset engagement correspondingly.

REACHING ABOVE YOUR HEAD

A conventional guideline for patients with lower back pain is to avoid reaching above the head, as when reaching for a glass on a high shelf or placing luggage in an overhead compartment. If done carelessly, this is indeed a dangerous maneuver. However, by anchoring the rib cage and engaging the inner corset, you can reach up more safely with the additional benefit of strengthening the abdominal muscles (fig.5-11).

fig.5-11

Reaching upwards can be a helpful way to engage the inner corset muscles.

PROTECTING YOUR NECK

Just as the inner corset protects the vulnerable lumbar discs, engaging the *longus colli* muscles protects the fragile cervical discs. People in traditional cultures do this when they carry significant weight on their heads. To learn this action, place a soft, light weight, such as a folded towel or Gokhale Head Cushion, on the crown of your head (fig.6-13a on page144). A common mistake is to place the weight too far forward on your head, causing the chin to rise and the neck to compress (fig.6-13c). Imagine this weight is heavy and actively push up against it (fig.6-13b). Be moderate in this pushing action and only sustain the push for a few seconds.

USING AN EXTERNAL CORSET

Many people assume that corsets are uncomfortable and unhealthy. In fact, some corsets, such as those used in the 18th century, protected and supported the back (fig.5-12). It is true that in Victorian times, some corsets became extreme and unhealthy (fig.5-13). Yet a moderate corset remains a healthy device; weight lifters regularly wear back support belts, as do workers who carry heavy objects (fig.5-14). The medical profession also prescribes corsets for back pain patients to correct distortions or protect damaged tissues. Simple versions of these are available at medical supply stores and can be useful if you are injured.

fig.5-12

This early corset is moderate and healthful.

fig.5-13

Some corsets in the Victorian era (19th century) became extreme and compromised health.

fig.5-14

Modern back belts provide support for performing heavy manual labor or in case of injury.

With inner or external corsets, some people fear loss of flexibility and spinal health. Interestingly, among the Dinkas of Southern Sudan, young people wear corsets with rigid metal ribbing to show their status (fig.5-15). These corsets are worn day and night for years. The only way to remove a Dinka corset is to cut it, which is done only when a larger size is needed. The corsets permit no appreciable flexion, extension, lateral bending, or twist in the spine. The excellent physique of the Dinka is testimony to how little spinal movement is truly needed to preserve good musculo-skeletal health.

Note that the Dinka corset stops at the level of the L5-S1 disc. It is interesting to contrast the Dinka corset with some of the more extensive modern medical corsets and devices. In my experience, most people, if they need a corset at all, do best with a corset that leaves the pelvis free to settle in an anteverted position. Unfortunately, many of the available medical devices, such as the TLSO body cast (fig.5-16), not only restricts movement of the pelvis, but fixes it in a retroverted position. The TLSO, according to medical literature, has failed to demonstrate any substantial positive outcome.

fig.5-15

A Dinka corset from Sudan. These are worn day and night for years. Note that the L5-S1 area is allowed to assume its normal curvature.

An interesting case study from my teaching involves K, who became my student at age 13. She suffered from *kyphoscoliosis*, a condition in which her spine had excessive curves, both side-to-side and front-to-back. Her father, a physician, had been proactive in arranging care for his daughter. However, after seven months of physical therapy and two custom TLSO body casts supposed to be worn 20 hours a day for two years proved unsuccessful, doctors recommended surgery. The family was not keen on this route. I taught K how to sit, lie, stand, bend, and walk in the ways described in this book. Re-establishing pelvic anteversion and learning to hip-hinge were particularly important elements in her training. The immediate feedback in comfort and improved appearance motivated her strongly. Within two months, her outlook was radically different (fig.5-17). There was no further talk of surgery or body casts. Now a grown woman, K is thriving and has given me a standing offer to be a spokesperson for the Gokhale Method.

fig.5-16

An example of a TLSO, a body cast used for children with scoliosis. Notice the flattening effect on the L5-S1 area.

fig.5-17

K (age 13 and disguised) with TLSO body cast not producing satisfactory results

K after 3 months of training with much-improved appearance and outlook (note the slight sway in the second photograph that she subsequently corrected).

ADDRESSING SCOLIOSIS

If scoliosis persists into adulthood, the effects of gravity, and increasing strain and muscle fatigue can cause the curvature to become more pronounced over time. The Gokhale Method teaches how to elongate and straighten the spine in both passive positions (see Chapters 1, 2, and 4) and actively, using the inner corset. This elongation can lessen the severity of scoliotic curvature (fig.5-18) and prevent it becoming more exaggerated over time.

fig.5-18

a. Without inner corset

b. With inner corset

c. Without inner corset

d. With inner corset

Engaging the inner corset muscles can have an instantaneous and profound effect on scoliotic curvature.

RECAP

a. Start with soft knees and bean-shaped feet

b. Anchor ribs

c. Monitor spinal groove while…

d. …lengthening torso by:

- **reaching up or**
- **pushing against the pelvic rim or**
- **imagining entering cold water**

e. Engage inner corset muscles

f. Relax unnecessary tension in rest of body