

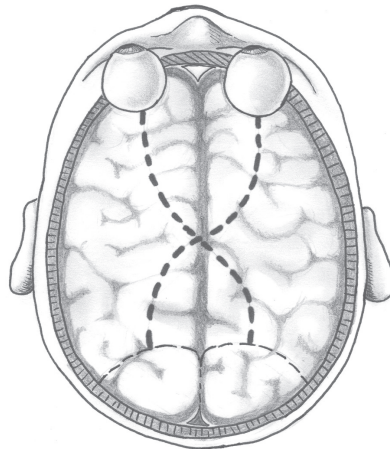
## Cross-Crawl - Eyesight is in your brain

'Seeing' takes place in your brain, not in your eyes. Your eyes receive the visual information, but it is your brain that processes this information into useful images. Alterations in your eyesight indicate something happening in the brain, either a shut off or switch on. In addition, there are two separate but connected halves of your brain, each of which is usually responsible for different specific functions and abilities.

When we understand what those functions are, and what happens when we 'switch-off' one side or the other, we can begin to see the importance of having both brain hemispheres 'switched-on' to bring us to a state of clear vision at all distances.

► *Often those with poor vision from childhood experienced an interruption in their 6 to 12 month old crawling activity.*

*This important crawling phase is the stage at which babies learn to use both sides of the body and brain together. But it's never too late!*



*Vision takes place in the eyes and brain.*

Most **myopes switch off the right hemisphere** of the brain. Most **hyperopes switch off the left hemisphere**. Our goal is for you to have both hemispheres switched-on and performing their best for you as much as possible.

First lets look at what each side of the brain does. Following is a 'left brain' list of hemisphere qualities. Create your own 'right brain' list by drawing a map of the brain with images rather than words to represent the qualities.

<b>The Left Brain</b>	<b>The Right Brain</b>
In General:	
Thinking (logic and rationality) Language and talking Numbers Counting/calculating Judgement Time (awareness of) Alertness Worry Effort- 'trying' Competition Shallow Breathing New Learning - Short Term Memory Right side of the Body	Imagining Images/visualizing Music & rhythm  Intuition Timelessness (meditation etc) Peacefulness 'Just being' Relaxing and doing my best'  Deep Breathing Long Term Memory- Habits (body memory) Left side of the body

In relation to eyesight:	
Seeing up close Tightening or 'shortening' of muscles  Details Accuracy Staying alert 'in control' Trying and straining to see Right eye	Seeing in the distance Relaxing or 'lengthening' of muscles  Movement through space (the whole body) 'The big picture'- overview Spaciousness Calmness, 'letting go' Letting everything come Left eye

This knowledge may help you to understand that certain parts of your behavior, or personality, are actually related more to how you use your brain than necessarily to your character or 'self'.

**Myopes** are excellent 'left-brainers'! They tend to be shy, introverted, academic or 'bookish'. They are often very concerned with details, appearances and may tend away from large physical activities. They are often anxious, perfectionist and always try very hard at anything they do.

**Hyperopes** are great 'right-brainers'! They tend to be extroverted and need a lot of physical activity. They may have had trouble sitting still behind a school desk as a child and this could be one reason for the tendency towards temper tantrums when young. Hyperopes are often openly creative and artistic in temperament and may dislike 'left brain' type activities such as record keeping and close work.

Be aware that these are generalizations. Students will say, "But I am a myope and a dance instructor! How can this be?" This person may be using their right brain for whole body movement, but switching it off when it comes to seeing.

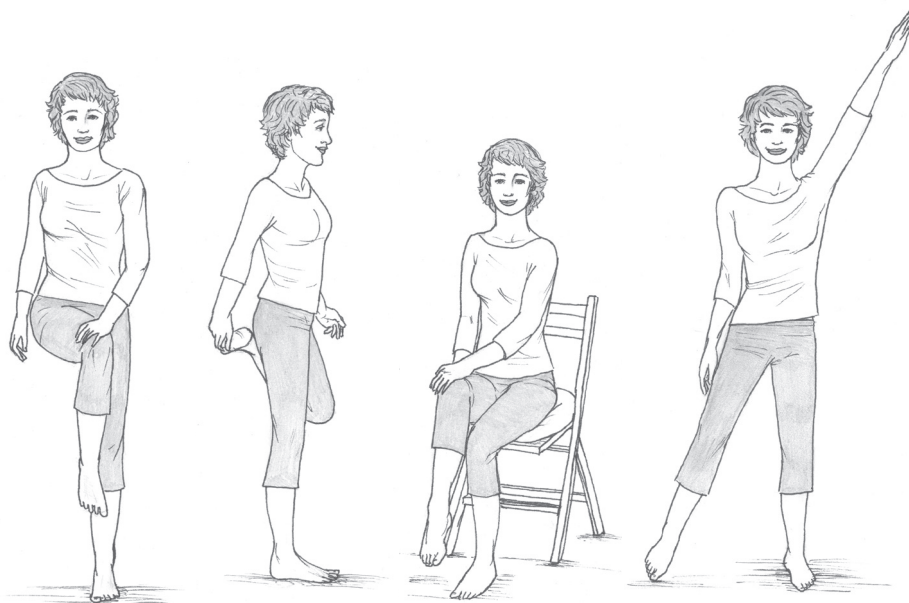
It is quite normal to switch from one side of the brain to the other as we engage in activities that each side of the brain specializes in. It is when we get locked into one side or the other that our functionality starts to reduce. When we put ourselves under prolonged stress of any kind, the two hemispheres may stop working together. This can result in poor memory, unclear 'thinking', inability to visualize and blurred eyesight!

The Cross-Crawl activity re-trains the two sides of the brain, and the brain and body, to work together. It re-creates the physical instructions to the body and brain that we undertook during our crawling stage in infancy. It is not uncommon for those with strong refractive error from childhood to have missed out on a good infant crawling phase for one reason or another. However the brain will still respond well to bringing in this process at any age.

### **How?**

The Cross-Crawl is a simple movement of the body that uses opposite limbs together. The basic movement is to bend one leg, and tap the raised knee of that leg with the opposite hand. Then return those limbs to their starting position and do the same with the opposite limbs. This can be done standing, sitting or lying down.

This movement, using the arm of one side and the leg of the other, then changing sides, can be done with the whole body, moving your arms and legs, or it can be done small, with just a wiggle of the fingers and toes of opposing hands and feet. Those with babies and small children can benefit from getting down on the floor and crawling with them just as they would have done as an infant.



*Cross-Crawl can be done in a variety of ways.*

Remember to breathe and blink while doing these movements. It's also a beneficial practice, once you have your balance and comfort with the movement, to move your gaze around, taking it right out into the distance and also right up close, while Cross-Crawling. This helps to switch-on both sides of the brain for seeing at these various distances, even if there is blur there.

It is recommended that your Cross-Crawl be large, whole body and fun wherever possible and especially in the first 6 weeks. Do it with music, move your whole body and make it into a dance!

Throughout your daily routine, use the tiny (fingers and toes) Cross-Crawl at the bus stop or in the boardroom, whenever you wish to keep your brain awakening activities to yourself!

### **When and How Long?**

In the first 6 weeks Cross-Crawl should be done for a minimum of 10 minutes before doing specific vision games. After that time you may shorten this to 5 minutes if you wish.

Like our other preparation activities, it is also a new habit to learn to do at any time when you want to remember, think and see clearly!

As an expansion activity, do Cross-Crawl for 20 to 30 minutes every now and then.

### **Students comment that after 20 minutes they really notice a difference!**

Yes, going for walks does bring in the Cross-Crawl. Provided that you are swinging opposite arms and legs together in a balanced manner, unimpeded by bags etc.

If you ride a bike or push a pram, see how it feels to squeeze the opposite hand on the handlebar as you push or step with the opposite foot.



*You can integrate Cross-Crawl into other physical activities.*

For some people, the Cross-Crawl is immediately effective and brings about noticeable changes in memory and coordination. For others, there may be a situation of being 'switched', a kind of reverse effect where the Cross-Crawl may not assist with connecting the two hemispheres. If you

have a friend who can do 'muscle-testing' you can ask them to assess whether the Cross-Crawl is helping you to switch on. (Muscle testing is a process used in kinesiology to ask questions of the body using an individual muscle to achieve a 'yes' or 'no' answer.) If you cannot find someone to do muscle-testing for you, then you may need to use your awareness and feeling about the Cross-Crawl to decide if it is helping. If you feel you are not benefiting from the Cross-Crawl, do the following process.

### **The Dennison Laterality Repatterning (DLR) <sup>2</sup>**

This process is named after Paul and Gail Dennison, the founders of Educational Kinesiology and Brain Gym®.

Before doing your regular Cross-Crawl activity, do the movements with the following variations:

- 1) Do your Cross-Crawl movement and at the same time look up and to the left. Hum or sing a song out loud while doing this. Continue for a couple of minutes.
- 2) Do a Homolateral-Crawl – that is, move the right arm and right leg together, then the left arm and left leg together. Tapping the knee with the hand, move only limbs on the same side of the body at the same time. While doing this movement look down and to the right, at the same time counting, multiplying or adding numbers, out loud in a dull monotone voice. Continue for a couple of minutes.
- 3) Return to the Cross-Crawl, opposite limbs moving together, now looking in all directions as well as near and far, and humming or singing out loud once more. Continue for a couple of minutes.

After this process those who have muscle-tested as switching off with the Cross-Crawl will usually now test as switching on. Do this process before your normal Cross-Crawl movements for 3 weeks, then it should no longer be necessary. If you have any doubts its OK to go ahead and do the DLR, as it will only reinforce good switching-on, even for those who have it already.

<sup>2</sup> From *Edu-K for Kids!*, Dennison, Paul E. and Gail E. *Second edition*, Ventura, Calif.: Edu-Kinesthetics, Inc., 1987.