

Improving midline crossing skills

1. For babies and toddlers, seat the child on the floor, either in a cross-legged position, or with legs extended in straddle position. Use a ball that is light weight but large, so the child is forced to use two hands to hold the ball. Sit to one side of the child or sit a small group of children in a circle. Have the children pass the ball around the circle (toddlers) or just to you (babies) and hand it right back to them. With the child sitting on the floor, roll the ball and see if you can keep the child looking at the ball so her eyes follow it as it moves. This important visual motor skill is essential for later function and is especially important for reading.



2. For children ages 3 and up, seat your child on a chair or straddling a bolster. Using a ball that requires your child to use 2 hands to hold, stand to one side of the child, on the diagonal, and roll the ball to your child. She will have to lean down and use 2 hands to pick up the ball and throw or roll it back to you.

After several repetitions, move to the other side and repeat. If there are three of you playing, place yourselves in a triangle formation and have the child roll or toss the ball alternately to you and the third person, facilitating trunk rotation with each toss.

If you have multiple children playing together, place them in a triangle or a circle if there are 4 or more of them. They can roll the ball to the person on their right, who would then lean down, pick it up and lean down on his

right, to roll it to his right-hand neighbor. After a few times around the circle in this fashion, reverse directions, so everyone passes to the left. Encourage attention and listening by using a sound signal to cue the group when to change directions and have them change at random intervals.

3. With the child seated on a chair or straddling a bolster or peanut, place bean bags, small toys, or balls of various sizes and weights on the floor on one side of the child and a target on the other side. The child will then pick up balls or beanbags one at a time and toss them into the target. The target could be a tire, a hula hoop, a bucket or box. The target should be large enough and placed at a distance that facilitates success. Always structure the task for success, erring on the side of a task being too easy initially, rather than possibly too hard.

If it seems that the child is easily making every toss, move the target farther away to increase the challenge. For an older child, you could add a cognitive challenge by assigning a point value to each successful toss and have him do the addition in his head. If you use different items to toss in, each type could be assigned a different point value to increase the challenge further. To support learning skip counting, have each item be 2 points (for skip counting by 2's) or 5 or 10, depending what skill the child needs to work on. Support the child skip-counting by doing it with the child several times and fading the prompt until the child is proficient.

4. Bat and ball, golf, and croquet activities are great ways to promote midline crossing. For baseball, beginners, will benefit from use of a tee, so there aren't so many moving parts. Make sure the child keeps two hands on the bat, golf club or croquet mallet and does not move his feet as he swings.





For this child (left) while her form and grasp are not ideal, she is crossing midline during functional play and I would continue encouraging her and over time, would introduce the idea of standing with feet apart, facing the mallet, with both hands supinated and holding the mallet in front of her body, like a golf club would be held.



For baseball, keeping the bat level throughout the swing is important. This really takes the child through a great trunk rotation movement.

When the child can successfully swing with some degree of control, you can begin trying to toss a ball to the child. You may need to start with a balloon which will move more slowly, then move on to a larger lightweight ball such as a beach ball, and then ultimately, go to a softball sized ball (not an actual softball).

5. If you are working or playing with a group, have the children line up one behind the other and pass the ball along the line by holding it in two hands and passing it over their heads. Once it goes all the way down the line and back over heads, have the children pass it between their legs. Have them pass it around the side by twisting with the ball in both hands and handing it to the person behind them.

A similar game can be played with 3-4 children in a circle, facing outwards. Using a large ball or a medicine ball, have children pass the ball to the right all the way around and then to the left.

6. For older children who have a bit more coordination, try walking with a playground ball, bouncing the ball with both hands, on the floor to the

outside of the front foot just as each step is taken. Initially, it may be slow and halting, but with practice, it should get smoother. Ultimately, the goal is to be able to walk and bounce the ball on either side as you walk.

7. For a complete sandbag and ball program designed to promote midline crossing of the body and the eyes, integrated with the auditory and vestibular (balance) systems, check out the Bal-A-Vis-X program at www.bal-a-vis-x.com. This incredible program, which is evidence based, was designed by Bill Hubert, in the Wichita, Kansas public schools. Mr. Hubert was working with the lowest performing quartile at a middle school. These were kids in 7th and 8th grades who were reading at a 1st and 2nd grade level. Many of them also had significant delays in math, learning to write, spell and express their ideas verbally. He kept data with pretests and post-tests as he developed and implemented this extraordinary program, over the course of several years. In the initial years, the participants gained on average 2 academic years of skill in math, spelling, and reading levels, each year they participated in the program. As the years have gone by, he has continued to modify and improve on the amazing program. Check it out!

One thing that Mr. Hubert does is have the kids stand on a balance board. This is something that can be added to any of the activities described in this book. Doing this challenges the child's vestibular sense (balance) so that this system is "on" in a way that is not necessarily happening when the child stands on the floor. This added vestibular stimulus will help the child perform better. In some ways, it seems counter-intuitive that adding this type of challenge would improve functional outcomes. Yet, time and time again, I have seen this work.

Bal-a-vis-x was also the subject of a study of non-pharmacological interventions for attention and was found to be effective for improving a child's ability to attend. Read the research report [here](#).

Learn more about it: bal-a-vis-x.com

Developing shoulder stability, arm strength, and trunk control

1. Getting the child to bear weight on the hands is a great way to build all of these skills. Have the child engage in activities that require weight bearing on both hands and shifting from both hands to one hand. The shifting of weight across the palm will help develop arches in the hand as well.



2. To build better stability at the shoulder, have your child use a dowel pressed between the palms, held horizontally. See if the child can keep it level and use both hands simultaneously to hit the ball back to you.

If this is very hard, try using a balloon until the child becomes basically proficient and then try the Gertie ball or a tether ball.

When it gets easier, you can move up to using a rolling pin, which is heavier.

To focus more directly on building arm strength, you can have the child do this activity using a weighted bar. Start small, perhaps 1-2 pounds, watch the child carefully and discontinue if you see signs of fatigue.

When your child is ready for more of a challenge, have him/her sit on a therapy ball to play. This will challenge the trunk muscles as you play. Once proficient with this, you can try using the weight bar and the ball as a seat, to build balance and even more strength.

3. Use a medicine ball to play catch- for young children, start with 1 kg or approximately 2 pounds. You can make a game by adding onto a sequence of movements with the ball each time before the ball is thrown back. This will also help to develop sequencing skills and memory.
4. Try having your child hang from a trapeze bar, pull-up bar or monkey bars and use both feet to kick a therapy ball to you. Begin by placing the ball at just the right spot for your child to kick it. Once he can do this comfortably, you can try rolling the ball slowly toward him and see if he can plan when to kick it. As he becomes more proficient, you can roll it more quickly and even try using a slightly bouncy pitch.
5. Try having your child sit with her hands on the floor behind her, and kick the ball back and forth using both feet together. This activity builds abdominal muscles and offers weight bearing on the arms which builds shoulder stability and is a good trunk challenge.