

"Most children have a preference for using one hand or the other by the age of about 18 months, and are definitely right or left-handed by about the age of three. If your child is naturally left-handed, don't try to force them into using their right hand. Hand dominance is greatly influenced by genetics. If both parents are left-handed, their child has a 45 to 50 percent chance of being left-handed as well. (About 10 percent of people are left-handed.) And don't bother trying to influence their hand preference. While genetics alone doesn't entirely explain why someone ends up right- or left-handed, hardwiring of a child's nervous system is at least part of the reason. Forcing them to use their right hand when they're really a lefty is unlikely to work in the long run and will only confuse or frustrate them along the way." Hand preference is mainly based on a child's unique nervous system and genetics. If at least one grandparent on each side of a child's family is left-handed, the chances are higher that she/he will be too. If a parent is left-handed, the odds are higher (and even more so if they're both lefties).

## INTRODUCTION

If you write with your right hand, you might also prefer to draw a picture, throw a ball or eat food with the same hand. But have you ever wondered if your right foot is also more dominant than your left foot? What about your right eye and ear—do you prefer to use them more than your left ones? In this activity you'll get to find out whether people have a sidedness—that is, whether they generally prefer to do most activities with one side of their body—and which side that is.

## BACKGROUND

Each person's brain is divided into two sides—the left and right hemispheres. In some cases, one hemisphere may be more active than the other during a certain activity. For example, when someone processes language, one hemisphere is usually more active than the other. Doing this or other activities, however, is not absolutely limited to using one hemisphere or the other, or even certain hemispheric parts. Different brain areas are important and work together for different activities, such as speech, hearing and sight. But if part of a hemisphere is damaged when a person is young, other parts of the brain can often take over doing whatever the damaged regions of the brain used to do.

What do the brain's hemispheres have to do with sidedness? When someone is processing language, one hemisphere is usually working harder than the other. There is also some correlation between the side(s) we use in our brain and the side we use on our body. This preference to use one side of the body over the other is known as sidedness, laterality or left/right dominance. Below is an activity to test for dominance and to see the correlation the brain's hemispheres have with sidedness.

## MATERIALS

- Paper
- Pen or pencil
- A coin
- Paper towel tube or toilet paper tube
- A seashell or phone
- At least five volunteers

## PREPARATION

- Have all of the materials ready so that you will be able to quickly test each volunteer.
- Prepare a small data table on a piece of paper to record your results. Going down the left side of the paper, write: "Hand," "Foot," "Eye" and "Ear." Going across the top of the paper, write your volunteers' names.

## PROCEDURE

1. Ask your first volunteer to write their name on a piece of paper. Which hand do they write their name with? Record the result (writing either “Right” or “Left”) in your data table in the row labeled “Hand,” in the column under the volunteer’s name.
2. Place a coin on the floor directly in front of your first volunteer. Ask them to step onto the coin. Which foot is used to step on the coin? Record the result in your data table in the “Foot” row, under the volunteer’s name.
3. Give your first volunteer a paper towel tube or toilet paper tube and ask them to look at a distant object through it. Which eye do they use to look through the tube? Record the result in your data table in the “Eye” row, under the volunteer’s name.
4. Give your first volunteer a seashell or phone and ask them to listen to it. Which ear do they put the shell or phone up to? Record the result in your data table in the “Ear” column, under the volunteer’s name.
5. Repeat this process with at least four other volunteers. Be sure to record the results under the new volunteer’s name each time. Are more of your volunteers right-handed or left-handed? What about right-footed versus left-footed, right-eyed versus left-eyed and right-eared versus left-eared? What side is the most common overall?
6. How many people that are right-handed are also right-footed? (How about for lefties?) What about for the other possible combinations? Do you see a correlation?

Extra: In this activity you only used one test to check for dominance in your volunteer’s hands, feet, eyes and ears. Using additional tests would help you check and confirm your results. Can you think of other ways to test for sidedness using objects from around your home? Using other tests, are the results the same as the ones you were doing in the original activity?

## OBSERVATIONS AND RESULTS

Were more of your volunteers right-handed than left-handed? If a person was right-handed, did they usually also use their right foot, eye and ear?

You probably already know that most people are right-handed. In fact, roughly 70 to 90 percent of people are right-handed. From this activity, you probably saw that most people who are right-handed are also right-sided overall. That is, they mostly prefer to use their right foot, eye, and ear as well. But there are certainly exceptions, particularly with eyes and ears—a right-handed person may prefer using their right foot and right ear, but prefer their left eye over their right one. Similarly, a right-handed person may prefer their right foot and eye, but prefer their left ear. You may have seen a similar trend with left-handed people. Because the majority of people who are right-handed are also right-footed, in some cases where a person writes with their right hand but prefers to use their left foot, they may have been predisposed to being left-handed but were raised to use their right hand.

Overall, whereas the vast majority of the global population is right-handed, it’s thought that a smaller percentage is right-footed, an even smaller percentage is right-eyed, and yet an even smaller percentage is right-eared (perhaps a little over half), but this trend is unlikely to be visible using only five volunteers. Why might people have a weaker preference for an eye or ear that matches their dominant side? Perhaps one ear or eye is stronger than the other.

There are two stances in skateboarding. When we say 'stances' we are talking about how you stand on the board. One stance is called regular and the other is called goofy foot. Regular is when your left foot is near the front (nose) of the board and your right foot is on the back (tail) of the board. Goofy is exact opposite when your right foot is near the front (nose) and your left foot is on the back (tail). Generally, if you are right-handed, then you are considered goofy footed if you also primarily kick a ball with your right foot. However, it is not true in all cases from what we have found. So, what we have discovered is a method for testing which foot you should put at the front of the board through an eleven-step process we like to call the "CJ11" method. Now, I cannot guarantee this will work in all cases, but it has proven successful in finding which foot you find most comfortable placing near the nose of the board. Sometimes you will find someone is comfortable with either foot at the front of the board. This is great when learning switch tricks, but I usually recommend starting out with the most comfortable stance as it can make a difference down the road.

#### TEST #1:

Ask the student to stand on the ground and close their eyes. Then ask them to jump in the air with both feet (not very high) and land on one foot. In most cases they will land on their prominent foot, which will be the foot at the front of the board.

#### TEST #2:

Have the student facing you with their feet slightly apart, and fall towards you like a tree while leaning forward. Generally, the skater will put their prominent foot forward before falling which is the foot that should be at the front of the board. If the student feels nervous offer reassurance by placing both your hands on their shoulders and ask first to make sure they are comfortable with that.

#### TEST #3:

Ask the student to stand facing with their feet apart. Then ask if you can take both their hands out in front of them. We need to be respectful as some people may not feel comfortable with someone else holding their hands so always ask permission if it is OK if I hold your hands and if they say yes then hold their hand and quickly but gently pull them towards you with both of your hands. The skater's foot moves forward and the 1st should be the front of the front of the board and the same foot proves dominant by the end of test 1 and 2 you should not need to complete the rest of this test that will actually go into 4. If they say yes while holding their hands, quickly but gently pull them towards you with both of your hands. The skater's foot that moves forward first should be the foot at the front of their board.

#### TEST #4:

You're going to need to get a skateboard and put it in front of you on the ground. Now ask the student to jump up on the skateboard with both feet and wait there till you tell him what to do next. After they land on the board successfully you then say ok now we will try something a little harder. So ask them to jump backwards off the skateboard and land on the ground and on one foot. If the same put foot proves dominant by the end of test 1, 2 and 3 and 4 you should not need to complete any of the following steps however it's always best to go to the next one just to make sure but if you've got 3 out of the 4 you can assume that's their prominent foot.

#### TEST #5:

Ask the student to run up a set of stairs and then back down the stairs. The foot they step forward with first (either the landing foot on the first stair or the foot placed on the ground before the first stair) should be the dominant foot and should be at the front of the board. In a perfect scenario, there would be a sign, poster or sticker just beyond the top of the stairs that you would ask them to touch. As kids may mess with you as they figure out what you're doing, this distracts them so they focus on their hand instead of their foot.

**TEST #6:**

Have the student put their right foot on the front of the board (over the front four screws) with their toes facing the nose. Next, slowly walk beside the board with the left foot on the ground for about 20 feet. It is important to keep your front foot in the same position for the whole 20 feet. Then switch feet and put your left foot on the front of the board and repeat the same steps. One way is easier than the other. Whoever is watching should also notice which way looks more comfortable to the student and then ask the student which way feels more comfortable to them.

**TEST#7:**

Find a small or medium-sized ramp or flat bank – a surface where one can slide down. From the top of the flat bank or ramp, have your student get both feet on top of the ramp and slide down with both feet parallel to the Rand have them try it both ways one way will feel much more natural than the other and generally that will be the one that is their front foot.

**TEST #8:**

Ask the student to jump on skateboard while you place one foot on the center of the board to prevent it from moving. Watch which foot lands on the board first. As mentioned above, if the right foot lands first, then they may be goofy footed and if the left foot lands first, they may be regular footed.

**TEST #9:**

Have the student stand on the skateboard with both feet. While holding the skateboarders hands, ask them to move back and forth on the deck and see which way is easier. Whichever way is easier should most likely be the forward foot. Wow, I wish I knew about this when I started!

**TEST #10:**

Ask your student to turn their skateboard upside down on the ground. Then ask them to kick the skateboard with only one foot lightly to move it across the floor.

**TEST #11**

Ask your student what hand they draw with.

As the student becomes more advanced, it is always good to learn to ride a skateboard the opposite way, so if you're goofy, learn regular and vice versa; we call that switch stance. Switch stance was introduced to main stream skateboarding in the early 1990s by professional street skaters. They would do tricks in regular stance, then try to perform them 'switch' to add further challenge. Mastering both regular and switch stances increases your skill and makes you very adaptable to different terrain as well. For certain street tricks, you will want your front foot to be on a slight angle (this is also true if you are a slalom rider).

One thing I often show my students is a simple demonstration of how balance and proper knee bends work. I ask the skateboarder to stand straight on the ground (off of the board). I then push them slightly on their shoulders sideways. They will tend to sway easily. Then I tell them to squat, bending slightly at their knees, while keeping their back straight. When I try to push them while in a squatted stance, they realize that I can hardly make them move because they are lowering their centre of gravity and keeping their core balanced at the same time. This will come in very handy when we talk about riding on ramps and hills with different transitions. Some people will find slightly different ways of getting off the board easier than others; however, your front foot should generally be on top of your front truck which is where the four bolts are. Your back foot should be towards the back of the tail. We will cover this in the next chapter in more detail. As you progress your stance may change. As you get better control of the board and more comfortable your foot placement will likely change as well.