How To Improve Your Side Kick

By Dean Jenkins

1. Introduction

To perform a good side kick, there are many components to get right. In this way, a kick is like a pattern. When we have a few hard moves, we don't run through the entire routine. Instead, we find the hard points throughout the pattern and get them right, and then combine everything.

The position of the leg and body, balance, strength, flexibility, and the dynamics of the load up and execution are all important for the side kick. When teaching or learning the side kick, we usually place a lot of emphasis on just doing the movements: load up to chest, extension and retraction as just a thrust of the leg and body. Many students struggle with the side kick, so it is useful to break teaching kick down into its individual components, with exercises to help the student master each part.

In this essay, I will describe a number of exercises with accompanying photographs that I have used to help my students develop better side kicks. The exercises build on years of careful observation and experimental one-on-one and small group training sessions, and of course on all of the experience and knowledge delivered during countless seminars and training camps.

2. Position

2.1 Leg position and lining up the body

Perform a side kick with body in straight line. The task sounds easy, right? Lift your leg up, body leaning away, balance... Let's back this up. Start small, and then build up to the final side kick position.

Stand in parallel stance [see Fig. 1(a)] and turn your head towards the leg you want to kick with first. Make it your worse leg - the one that is weaker in technique, strength, or any other aspect. I have found that most of the time, people think more and try harder on their weaker side and are likely to commit more mind, body, and focus to each stage.

Next, turn the foot that is to be the supporting foot to have toes facing away approximately 25°, but keep the hips in line [see Fig. 1(b)]. Look over to kicking leg and place your arms into guarding block position. Angle the shoulder on the kicking side slightly back so that the front of shoulder is at least centre of normal shoulder line. This is to encourage the shoulder to remain in line with the hip and foot and to discourage the body rolling over into something between a side kick and a back kick position.

Tense the kicking foot into position so the foot sword (or outside edge) tilted towards the floor and toes are away from the floor [see Fig. 1(c)]. In other words, only the attacking tool for the kick should be making contact with the ground.

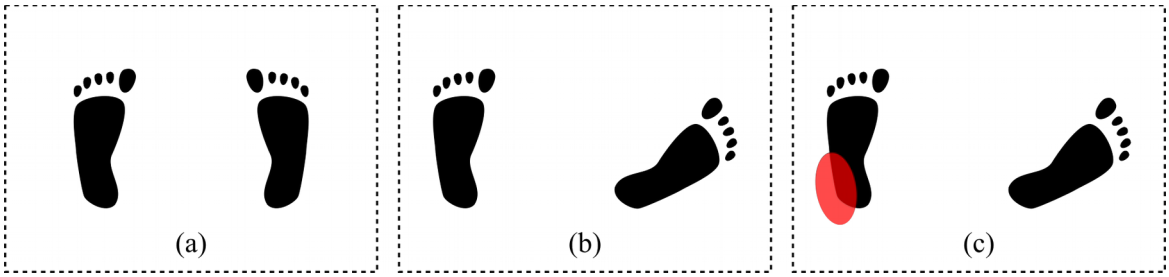

Figure 1: Foot positions for the lining up the foot and body drill. (a) Start in parallel stance. (b) Turn supporting foot away by around 25°. (c) For your kicking foot, lift the toes so only the area circled in red makes contact with the floor.

Now with all this, raise the kicking leg. Don't attempt to tilt body just yet. The main idea is to just learn how the leg position is in a straight line.

Once you are balanced, begin to lift the leg. Lift the leg higher with every attempt. Have the body lean back just a little through the process, keeping in mind that the core of the body needs to engage throughout the lift and lean. Only relax after the leg is back in the beginning position. Do not relax the core when the leg is up or balance will change and the body may sway. See Fig. 2 for an example.

Figure 2: Example of the drill as viewed from the front and from the side. Note that the body is in a straight line from the heel of the kicking foot to the shoulder.

Note: The leg lifting is the main focus of the drill, not the tilt of the body. The students must understand the correct muscles to use for holding the kick position, and not rely on a swing of the body to get their leg up. The importance of leg control and focus will be understood later, and there will be less throwing the body uncontrollably.

2.2 The importance of hip position

Falling while executing or finishing the side kick has many frustrated people looking at balance and power to see where they are going wrong. If the hips are rolled at the start or end of the leg extending, then you will find there's a directional problem, causing the momentum of the person to travel in the wrong direction. Rolling the hips here refers to rotating the hips such that the person is in a position that is part way between a side kick and a back kick.

Rolling the hips brings body and shoulder out of line. The kick now turns into a struggle with the upper body to keep everything in line, drawing focus away from the kick itself. The shoulders turn following the hips, and the body shape becomes incorrect. The line of sight changes as well, and extra effort to return leg and body back after the kick shakes the footing and there's a wobble.

A side kick is first loaded with knee to chest. Strength and flexibility become important here, as will be shown later. Just performing the load up as a drill teaches the body (and person) how to always correctly begin each attempt.

As the leg/knee loads to chest, keep an eye on the hip line. Don't over-push/twist the hips. As the knee rolls through, motion continues the hip thrust in the direction of the extending foot. The hips must stack in a straight up and down position to help keep the body line correct. This helps the top shoulder to stay more back than rolling forward. Fig. 3 shows the difference in body position with the hips stacked and shoulder back versus the hips and shoulders rolling forward.

Figure 3: Held side kick emphasising the alignment of the hips. The right photo shows a slight hip roll. Note that most people tend to roll over more than this.

The overuse of shoulder twist and hip to get power can topple the body. Too much power before learning the technique makes performing the kick much more difficult in the long run. There must be patience.

Note: Try to keep your head as upright as possible. The head is heavy, and when it is tilted away, it can significantly change the body's center of mass and throw off balance. See Fig. 4.

A very important note to always remember is that a low side kick is still a side kick. It's only a height issue. A high attempt which ends up being an unfinished kick with a bent leg and rolling hips, forced shoulder and unbalanced is just a bad technique. Focus on getting the technique correct, and only then focus on improving height.
Figure 4: Student with her head upright (left) and head tilted back (right).

Figure 4: Student with her head upright (left) and head tilted back (right).

3. Balance

A kick is only good with balance. Bending the supporting leg, engaging the core, the body line, point of focus, and a stable finish are only going to happen with them all working together.

To get started with balance, we can do slow kicks with a partner or a wall as shown in Fig. 5. Try lining the body up parallel to a wall (remember the points from the previous section on position). Don't use your hands for support, but just one finger on hand that's on the same side as the supporting leg. Using both hands to support yourself significantly changes the form of the body. One or two fingers for support is ample - it's just a safety net and not an anchor.

Figure 5: Slow side kicks while lightly holding onto a support. Kicking parallel to a wall is also a reminder to keep the body lined up.

3.1 The supporting foot

It is often said that a side kick begins with the load up, but really the kick starts from the stance. The body must be in complete coordination so that the core, hips, legs, body direction and load up are in a coordinated motion, with the grounded foot being more

important than some would think. The foot is so important that looking at it before a powerful kick can show us a number of key points.

The supporting foot needs to be a stable anchor. The foot itself has three grounding points: the ball of the foot, the firm pad that sits behind the little toe and runs along the outside edge of the foot, and of course the heel. These are illustrated in Fig. 6. If all three points of the foot aren't grounded on impact of a patterns or power kick, then there will be problems.

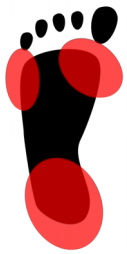

Figure 6: Three points of balance on the foot. Remember that it's impossible to balance on two points alone!

Take some time to examine your supporting foot and its position during a kick. Think about placement of the foot at the correct angle facing away from direction of kick. Lift the kicking foot and feel the pressure on the three points of the supporting foot, and figure out where you find your balance. A better understanding of the foot points will add to the skills of the side kick and other kicks. Know the pivot point for spin on the foot and where pressure goes in the supporting foot during impact of the kicking foot.

Moving to the centre of the foot, we have the arch. Collapsed arches can make the foot a different shape from normal and can cause some to have weakened balance. It is possible to make do with collapsed arch. The foot folds a little towards the inside. Stress on the ankle will show up by forcing the inside of the ankle inwards, meaning that it's no longer above the sole of the foot. An example of my own foot is shown in Fig. 7. This is not something you want. Correct strength exercises like ankle bands to pull in both directions can help. Also, at any time you're standing, try lifting only the tops of your feet while the foot is firmly on the ground. In turn, this forms a good structure in the muscles of the foot and helps the arch sit in the correct form. Strength of the foot and ankle is very important and often overlooked, so do invest time in it.

Moving up the leg, make sure the leg and knee is good and straight. A sideways shift in the knee can cause serious injury. This can easily happen if a movement in the wrong direction where lack of concentration leads to not moving with the body's natural give and take.

Balance starts with the movement into the technique, so when it's said that you relax before extending your foot, it does not mean the whole body is relaxed. Only the leg is relaxed, so you can get a non-resistant knee to chest load up as far through as you can. While all this is happening, you must still have core tension.

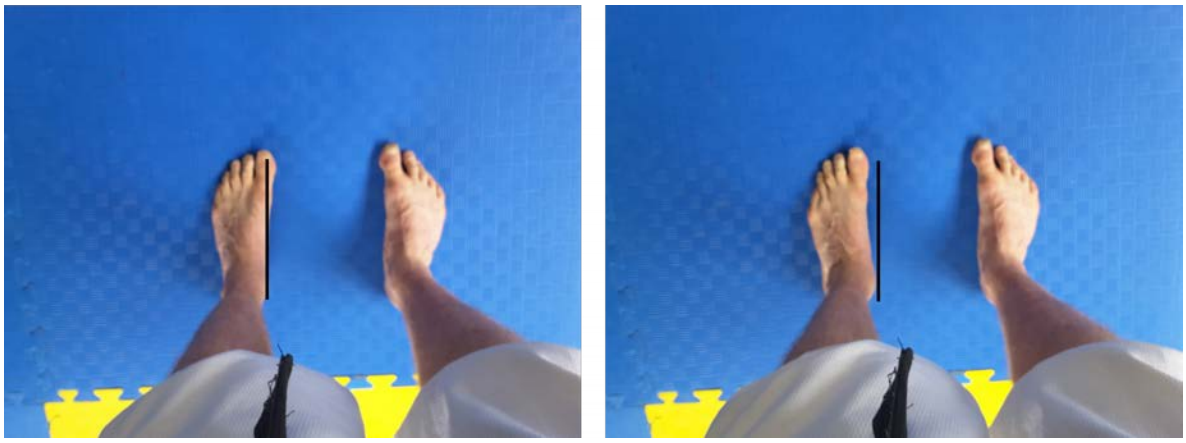

Figure 7: The left images shows a properly aligned ankle, while the right shows what happens when the arch collapses.

The body uses around 300 muscles of different sizes and areas of the body to just stand still. The core isn't really being used at this time, but it should be. When standing in one place, lean to different angles and sides and stop yourself with just core. Then move further over to feel your feet try to take over some of the load. As your core becomes stronger, try the same exercise on one foot. This allows the foot and ankle to stabilise and develops control and strength that is needed for body shifts when kicks are performed. One leg squats and leg presses can be added as technique and learning progresses.

3.2 Balance during dynamic movements

This is a hard point. The torso needs to come up as the leg is pulled back in the load up. If this is not done correctly, then we get the sideways or backwards wobble as the upper leg weight forces the body off in some other direction.

To practice balance in this context, you will need a solid object at your kicking height, or even better, a partner. Placing a side kick on the solid object or your partner's hand. Begin by them lifting your foot slightly and then by either sliding off the hand or lifting, begin to pull the leg back using the thigh. It is important to focus on the thigh and not the foot, as focusing on the foot often results in the heel leading the retraction, followed by bending the knee, and then only retracting the upper part of the leg. You must attempt at the pull back through thigh. When doing so, the lower leg will more often come back with the foot in a better straight line, bringing the knee to the chest again. Practice in slow motion to learn the retraction line and your partner can watch. An example of this is in Fig. 8.

A second drill on same area is to firmly hold the person's foot and as they hold the side kick pose. Begin to slowly pull them forward and off balance to a stretch. When they are where it's still comfortable to hold the kick, they begin to pull you back towards them. See Fig. 9. This must be through hip and upper thigh. The hands are a guide for the foot, encouraging the foot to retract in a straight line, rather than like a reverse hooking kick. This will give you an idea of where the technique is heading.

Figure 8: Slowly retracting the side kick. Your partner should make sure that you are retracting your foot correctly.

Figure 9: The left photo shows the stretching part of the drill, and right photo shows the student pulling their leg back.

4. Strength and flexibility

To perform many of the exercises described to a good standard, strength and flexibility are important. Someone may be very flexible, but they may not be able to hold their leg up, and vice versa.

4.1 Flexibility drills

Rising kicks to a set height of someone's hand are excellent. The set height prevents you from kicking so high that you lose your balance, and it can help correct posture. The partner's hand can also be used to aid balance by first resting the leg on their hand and then lifting your leg under your own power.

Another flexibility exercise is holding a side kick while you have support. Again using a wall for support, hold the side kick position and have someone lift your leg to a comfortable height. Keep the body in line, relax the hip, and allow the leg to rise.

A similar exercise is to hold a side kick position either with a hand on the wall or away. Your partner should place one hand under your leg, just above the knee, and the other high on the waist or on the shoulder, as shown in Fig. 10. Your partner should then gently push their hip into the back of your pelvis to encourage your hips to stack properly and lift your leg up with their hand. This will give a stretch up the side of whole the body and get your into a good side kick position.

Figure 10: Having a partner help you get into the correct position for a side kick. The hand holding the leg up lifts up the leg for a stretch, while the hand supporting the body keeps you from leaning over too far.

4.2 Building strength

The leg will only stay up with enough muscle control and support not from just the leg itself, but also the muscles in the abductors and hamstrings. The core muscles must be trained as much as the legs in order to produce good side kicks. A few strength drills are listed in this section.
Leg lifts on the floor are useful because they allow legs to be trained without having to worry about balance while upright. Lie on your side and support your body on one elbow, lift your leg up and hold it at comfortable height, then lift above this point and drop. Repeat the up and drop movements and then hold again. Repeat sets. Remember to keep your foot in the correct foot shape for a side kick.

Then stand in a widish squat and drop down, as shown in Fig. 11. Shift your weight from one foot to the other while straightening out the other. Keep the foot of the straight leg angled as for a side kick. Hold for ten seconds and repeat on other side. A split stretch is also useful, but doesn't put the kicking foot at the correct angle.

Figure 11: This combines a strength exercise with a stretch.

Once balance is improved, attempt slow leg lifts from parallel stance. Perform the whole movement in slow controlled motion with turning of the foot, lifting of the leg, forming of foot angle and shoulder sitting back, bringing hands to guarding block. It is very important that the core is engaged before leg is lifted and body lean back has begun.

Holding a side kick and practicing side to side motion with the kicking leg can be good for balance, but it should be remembered that the side kick is a directional kick and the student should be in clear control for this entire exercise.

A fun drill to get your kicking height up is “pulling the cable”. It is illustrated in Fig. 12. Your foot is attached to an imaginary pulley, which you pull up with your hand.

Figure 12: Pulling the cable.

5. Loading the kick

Before the explosive action of the kick, there has to be learning to load. The focus here will be loading up for a front leg side kick. Many of the exercises described earlier also incorporate aspects of loading. This section deals with coordinating the movements.

The knee must start as high as possible as it's pulled back to chest. This must be performed without pulling the hip or shoulder back too far, but more loading the leg up through the thigh/knee and pulling the hamstring tight for spring effect. Try to figure out which muscles are pulling and which are pushing as leg starts to fire off to understand where your power comes from. The hip is used, but rolling over too much can cause loss of balance as explained earlier.

Sine wave through knee bend and straightening gives a lot more power in the kick, but if you haven't totally mastered balance yet, the knee load up for when you are ready to kick will be more a bend in body inwards and not an extension of foot and body to opposite directions.

The knee bend of supporting leg will become straight right before the knee reaches the chest. This is not only good for timing, but also encourages the student to spend time getting the knee as far to the chest as possible.

When the knee comes to chest, you start to cross the hands in front and the fist is fired out with the foot and then retracts at the same speed. Remember to coordinate the pivot of the supporting foot with this movement; the pivot happens when the leg extends, not before.

Start attempting the drill with the mindset that both leg and hand are connected. Moving the leg and knee in slow and fast movements with hand to follow will train the student to incorporate both in a smooth motion rather than having to think too much about it. At the same time, technique is important and more focus is put on balance, core, and speed. This is different for side kicks with guarding blocks instead of punches, but for a lower rank who is learning, it can be a handy exercise when getting the finer points in place.

6. Rear leg drills

Most of the drills described so far are built around the front leg kick as it is the base for learning control. What about kicks off the rear leg?

A side kick is a kick and not a thrust of the body. It's a direct result of one's foot being held by a leg and power of load through the hip. The upper body doesn't have much of a need to generate power if the hip is used right. The shoulders only break the balance if you try to roll them for more power. The punch above leg is for style in patterns. In black belt patterns, where a guarding block is held and the kick only uses the hip and knee-to-chest load up as its only source of power and control. So how do we practice a patterns kick off the back leg?

Rolling through the hip in a straight line with the leg coming almost in a half extended front kick and with a twist and stacking of the hip, the leg twists like a corkscrew at the last moment to close the final small distance at the end in straight piercing motion. This technique works well for both hands pulled back or with a punch extended as it keeps a very nice line for balance. The foot travels in a straight line most of the time, so body doesn't have a need to roll over.

If you want to do the side kick from back leg, but are more interested in a full loaded kick where the knee comes up to chest, then you must look at the important points of the hips directing and not the shoulder. Show your backside to the front is a clear sign you have thrown too much into the top of body, causing yourself to turn over too much. The core has to work more for balance, and the leg also rolls over throughout the technique.

Under slow motion filming, we see the knee and leg have a slight motion of a "C" action as the knee comes to the chest. This is very noticeable in a power breaking kick, as the whole body gets in front of the travelling leg, so that the power continuously travels through the boards after the foot has reached its target. The two of these can be confused and used in either way. A power break side kick in a pattern sees body fall forward. Meanwhile, a patterns side kick on boards sees a finished kick on the front of boards, which limits amount of boards the student can break.

7. How does your body work against you?

I want to talk about the human body, its build and size, in relation to performing side kicks.

A side kick or any kick is produced with the leg extending out from the hip area. Most kicks are performed with grounding weight directly down the supporting leg to foot in an almost vertical line. The side kick end position which we all love to see is at shoulder or eye height, with the foot and body in line and leaning away in a way that suits the view/look to the impressed crowd, coach, or instructor. We believe the body angle is roughly 45° away from upright, but is this possible for all practitioners of the art? The answer is most of the time a no! Reasons are the age of the person and how old they were when they started. Flexibility skills vary - not everyone's hips do the same thing, no matter how much they try. Their build, be it large or small - sometimes we just aren't built to do everything picture perfect.

But it's not about that, is it? Someone's effort is judged on their journey to their level, not what the person beside them can do. When furniture is designed, it is built to suit 95% of people. The around about sizing for a chair is 450-450 mm high to the seat. A table is 740-760 mm high. All these are suited to our size that's kind of comfortable for most, whereas the other 5% might find it too high or too low. Also in this body sizing is variation in body shapes.

The belly button is near the mid-point of your body when you hold your arms up high and straight. From finger tip to other tip is your head to toe height. But in all this is a sizing and distance we mostly don't see. Look at a person – man or woman – who is good at patterns and look at their height. Usually, they are not greatly tall, and also not very short. If you measure the hip height of a person, a lot of the time it's just over the halfway point. A longer upper body gives an overall good balance. The leg can be trained to give a very good result, but if you have a person with an extremely long leg, then what happens to the length of leg to the foot which is being held out so far from the central body line and weight leaning away as a counter balance?

Take a look at the theory of power. Remember that a broom stick picked up at the middle is easy to lift, but lifting at the furthest point away from the brush is more difficult. If the leg is longer and further away from core, it’s harder to move leg and control it. You might decide to try adding ankle weights to your legs to build strength, but you will notice that you now must lean away more to compensate.

From here, we look at the load up of the knee, flexibility through the hamstrings and buttocks as well as strength enable easy lift to chest. The higher the knee, the more likely the kick will end at a higher point and finish, rather than a half pull back and what we sometimes see is a half rising kick if too much effort is put in. Add the more aggressive lean and in turn the load on the supporting foot is changed with the three pressure points on the floor losing ground. Then you have a failed kick with loss of rhythm and then loss of the sine wave for the next movement.

A Taekwon-Do student is like a tree, but no two trees are the same. Some are solid in trunk, some are more branch-related. Not all move the same in the wind. Knowing how the wind blows them allows each to understand what direction he/she needs to look so that the finished product they need is grown in them the way their body needs. Understanding size and body type for each person will affect the instructor's direction for getting the finished result.

Acknowledgements

I would like to thank my physiotherapist, Kelly Groot from Les Mills Physiotherapy in Dunedin, for helping me understand ankle strength and foot structure and how that affects balance.

I would also like to thank Jahnas Barbarich, Jelena Rakonjac, and Ruth Madden for posing in the photographs.

Finally, I would like to thank Ana Rakonjac for helping me turn my pages of handwritten notes into an actual essay.