



# Move Like a Snake

How does a snake move without any limbs? With their muscles and their scales! Different snakes have also adapted to climb trees, burrow in leaf litter, fling themselves across sand dunes, and even swim.

Move your body to learn more about how different types of snakes move, hunt, and protect their young.

## Activity

1. Snakes use different parts of their body to help them move, hunt, and protect their young. Depending on their habitat and lifestyle, a snake might use one of four main methods of locomotion: serpentine, concertina, rectilinear (or caterpillar), and sidewinding. **Follow along** as we stretch our bodies to learn more about snake movement! Use the pictures and instructions as guidance, but feel free to **adapt** movements as needed.
2. Many snakes move by pushing the curves of their body against the ground as they slither, propelling them forward. We call this type of locomotion a **serpentine** movement. You can remember it because it starts with the letter "S" and when snakes use serpentine locomotion, it looks like they're drawing the letter "S" on the ground while moving side to side.
  - » Let's **warm up** by putting our hands on our hips and slowly wiggling from side to side. Loosen your muscles and stretch it out!



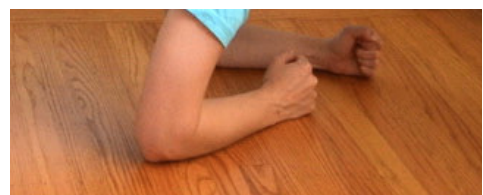
3. If a snake needs to burrow or move through a narrow space, they often use a **concertina** movement. They reach forward, anchor the front part of their body, scrunch up, anchor the back part of their body, then stretch forward. It's kind of like an accordion!

- » **Lower** yourself onto your hands and knees.
- » **Straighten** your legs and ensure your hands are flat on the ground below your shoulders.
- » Next, **lift** one leg and **bend** your knee close to your chest, like you're scrunching up to move through a tunnel.
- » **Lower** your leg and **repeat** with the other side.



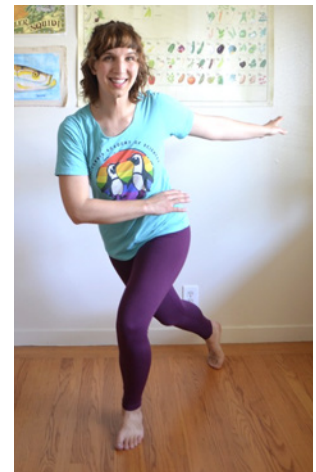
4. Really large, heavy snakes like the green anaconda or snakes that live underground move using a **rectilinear** style of locomotion. This movement is when the snake moves forward in a straight line, also called the **caterpillar** movement. Snakes move this way by moving the loose skin on their belly forward, anchoring it on the ground, then using special muscles to pull the rest of the body forward.

- » Find your way to a **plank** position, with your elbows under your shoulders.
- » **Lower** yourself onto your forearms and **make** a fist with each hand.
- » **Move** one arm forward, letting your leg drag forward too.
- » **Repeat** with your other arm.
- » Can you move forward in a straight line without swaying from side-to-side? Now try moving backward. Is it easier or harder?



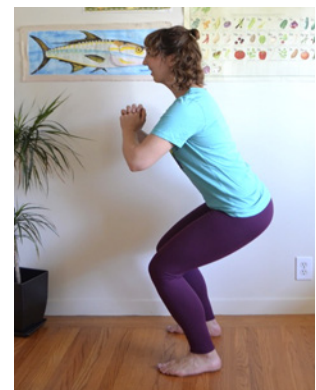
5. The next type of movement is particularly common among snakes that live in the desert: the **sidewinding** movement. It's similar to serpentine because they move their body side to side, but they also lift certain parts of their body off the ground completely and fling themselves forward that way. This is useful in the desert when a snake doesn't want their whole body to touch the hot sand and may be having a hard time getting a grip on the loose sandy ground. This is also the fastest type of locomotion for a snake: Sidewinders can travel up to 18 miles per hour!

- » To move side-to-side like a sidewinder, start with your feet shoulder-width apart and knees slightly bent.
- » **Guide** your left foot behind your right leg while keeping your back straight.
- » **Push** off from your right foot and **hop** to your left, crossing your right foot behind your left leg.
- » Now, use your left foot to push off and **jump** to your right.
- » **Repeat** jumping back and forth a few times. Like a sidewinder, only a small part of your body touches the ground while the rest of your body moves quickly in one direction!



6. Now that we know how snakes move, let's learn how snakes hunt. Most snakes are ambush predators, meaning they lie in wait for their prey to come close. When the prey gets close, the snake **strikes!** Both venomous and nonvenomous snakes can strike. Venomous snakes, like rattlesnakes, strike quickly to inject their prey with venom, then back off to wait for the venom to take effect.

- » Now let's practice sudden movements like a snake preparing to strike.
- » **Stand** with your feet under your hips.
- » **Squat** like you're sitting in a chair, then push down with your feet and **jump** as high as you can!
- » Allow your legs to bend when you land, squat, and jump again.



7. While many snakes strike, only about 10% of snakes are venomous. Most snakes subdue their prey using **constriction**. By squeezing the prey to cut off their circulation, it makes it safer for the snake to eat.

- » Give yourself a big squeeze and **hug** for exercising and stretching and moving today! Next, **take** your arm, **cross** it against your chest, and gently **squeeze** it to stretch. **Repeat** with the other arm.



8. We've learned a bit about how snakes move and how snakes hunt. Next, let's learn how snakes **care** for their young. Some snakes give birth to live young, some lay eggs and leave them hidden, and some lay eggs and **protect** them.

- » **Lay** on your back and **wrap** your arms around your legs, like you're coiling to protect your eggs. **Hug** your knees into your chest and take a deep breath. **Repeat** this a few times, stretching your legs out, hugging them close, and rocking a little to massage your back.



9. With all that traveling, hunting, and protecting their young, a snake's gotta take a break every now and then. Snakes are **ectothermic**, meaning they primarily rely on external heat sources to warm themselves.

- » Let's end our movements today by taking a **rest** and pretend we are basking in the sun like a snake. **Lay down** on the ground and get comfortable (you can grab a blanket to put over your body if you'd like). Close your eyes and take several deep breaths. Good job moving like a snake today!

