

Spinal Articulation

Benefits

Segmental articulation of the spine in the direction of **flexion** is an important component of many dance movements including port de bras, and contractions, among others. Additionally movements that create spinal flexion require abdominal strength and endurance, if done correctly they will increase the strength of the **abdominal muscles**.

Extension of the spine is an important component of many dance movements including port de bras, back attitude, arabesque and layouts, among others.

Lateral Flexion of the spine is used whenever we side bend. In dance we use this in port de bras, side bends, off balance work and many picture lines.

Bringing the spine into flexion requires the abdominal muscles to **concentrically contract** while the **spinal extensors eccentrically contract**. This combination strengthens the abdominal muscles while lengthening the back muscles

Extension of the spine requires the muscles of the spine to concentrically contract while the abdominal muscles eccentrically contract. This movement elongates the abdominal muscles and strengthens the muscles of the back.

Lateral flexion of the spine requires the muscles on one side of the torso to concentrically contract with the other side eccentrically contracts.

The ability to create and control flexion, extension, and lateral flexion of the spine is important to the safety of the dancers. Control helps to prevent vertebral and disc damage while allowing the freedom of movement needed by dancers. Abdominal and back strength as well as the relationship between the two are key components in proper posture and stability of relationship between the torso and the pelvis. If either the abdominal or back muscles are trained out of proportion with the other side compensations will occur throughout the body.

Spinal articulation promotes functional flexibility and stability along the length of the spine.

Cautions

Anyone with a known back or neck condition should seek guidance from a medical professional before working on spinal articulations. If a dancer has an injury or a history of back or neck injury, find out what restrictions on movement are suggested by his or her medical provider. It is also helpful to find out exactly which part of the spine is involved.

Balance

While working on mobility is important for dancers, the development of stability at the same time is just as important. Having a large range of movement without strength and control can potentially cause injury. Functional range of movement is the amount of mobility a dancer has and can use in a controlled fashion.

Spinal Articulation Exercises

Exercise 1 Spinal Flexion

Work up to 5 Repetitions

Forward Roll Down – Standing

Forward Roll Down – Boosted

Forward Roll Down – Sitting Flat

Exercise 2 Spinal Flexion and Extension

Work up to 5 Repetitions

Backward Roll Down

Backward Roll Down and Cambré Up

Cambré Back and Roll Up

Exercise 3 Spinal Flexion with Endurance

Work up to the 10 sets noted in the exercise

100 – Feet Up and Head Down

100 – Feet and Head Up

Exercise 4 Spinal Extension with Endurance

Work up to 10 Sets

Slow Motion Swim

Moderate Swim

Fast Swim

Exercise 5 Spinal Extension

Work up to 5 Repetitions

Hover Pull

Low Arch

High Arch

Exercise 6 Lateral Flexion

Work up to 5 Repetitions each side

Lateral Flexion - Seated

Lateral Flexion – Lying

Lateral Flexion – With Endurance

Backward Roll Down (Exercise 2 – Level 1)

1. Sit facing the barre with your legs out in front of you and shoulder width apart. If you cannot sit up straight atop your sits bones, bend your knees and place your feet on the floor under the barre. If you can sit up with your legs straight, place your feet lightly against the wall. Wrap your band over the barre. Using the top barre provides more support during the roll up portion, but increases the challenge to shoulder stability on the roll down. If you find you cannot sit up straight with your legs straight or that you have tension in your lower back, hamstrings or hip flexors, sit with your knees bent and feet flat on the floor. The tails of the band should be coming out of the pinky side of your hands. Maintain a neutral wrist alignment. Engage your abdominal muscles as you inhale. (picture 1)
2. As you exhale, begin your movement by tucking your bottom under (your pelvis is going into a **posterior tilt**). Imagine wearing a pair of jeans, the movement can be described as pulling your back pockets towards your heels. Your lower back will round as this happens. Maintain stability in your shoulders and length in your torso. (picture 2)
3. Continue to roll down one vertebra at a time using the abdominal muscles to support and control the movement. The head should be the last thing to reach the floor. (picture 3)
4. Once your head has reached the floor, inhale while maintaining the placement of the body. (picture 4)
5. Exhale and begin to roll up, beginning with your eyes looking towards the wall and head following it. Roll up one vertebra at a time until you are in your starting position. (picture 5)



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Backward Roll Down, Cambré Up (Exercise 2 – Level 2)

1. Refer to **Backward Roll Down** directions 1, 2, and 3 for a detailed description of the actions depicted in pictures 1, 2, and 3 below.
2. Once your head has reached the floor (picture 4), inhale while beginning to lift your clavicle and sternum towards the ceiling without increasing the pressure on the skull. (picture 4)
3. Continue to extend your spine into an arch, being careful to maintain the head and neck alignment as a continuation of the spine. (picture 5)
4. Maintain the line of the body while returning your body to the starting position. (pictures 6,7)



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6



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Cambré Back, Roll Up (Exercise 2 – Level 3)

1. Refer to **Backward Roll Down** for the starting position. (picture 1)
2. Inhale while beginning to lift your clavicle and sternum towards the ceiling while maintaining the relationship of your head and neck to the spine. (picture 2)
3. Continue to extend your spine into an arch, trying for an even curve along the length of your spine. (picture 3)
4. Continue to lower your body towards the mat without placing a lot of pressure on your head when it comes in contact with the mat. (pictures 4)
5. Exhale as you lower your chin towards your chest to allow the back of your head to lie flat on the mat. (picture 5)
6. Continue to roll up as described in **Backward Roll Down** direction 5, until you have returned to your starting position. (pictures 6,7)



1



2



3



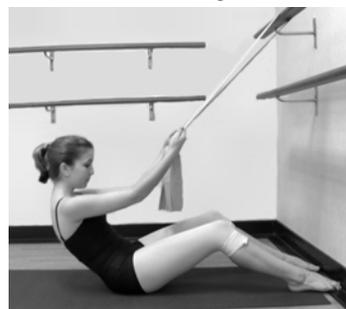
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