

Anatomy & Asana

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Balancing the Pelvis in Adho Mukha Svanasana

Introduction

“Balance” of the pelvis is achieved when everything is in its rightful place: the bones are situated so the muscles attached to them function as they were designed, where no single muscle group is neither too short nor too long and no muscle group is over- or under-engaged. The pelvis is balanced using the breath, as via the breath we create a combination of tone and freedom of the thoracic diaphragm and its surrounding muscles which frees the pelvis from its typically anteriorly tilted and stuck position. This article intends to use Adho Mukha Svanasana (Downward Facing Dog, AMS) to describe the pelvis in its ideal and most balanced state.

Anatomy

Listed below are the main muscles which connect to the pelvis and control its anterior and posterior motion. Those in red help to anteriorly tilt the pelvis (“pelvic flexors”) and those in green help to posteriorly tilt the pelvis (“pelvic extensors”).

LOCATION ON PELVIS	ANTERIOR	POSTERIOR
SUPERIOR	<ul style="list-style-type: none">• internal obliques (IO)• iliopsoas• external obliques (EO)• transverse abdominus (TA)• rectus abdominus	<ul style="list-style-type: none">• spinal erectors
INFERIOR	<ul style="list-style-type: none">• rectus femoris	<ul style="list-style-type: none">• hamstrings (balance anterior pull of IO)• gluteus maximus/medius/minimus

If the pelvic bones are excessively anteriorly tilted, the pelvic flexors will be short and overtoned and the pelvic extensors will be long and strained. This results in what I consider a local imbalance of muscular energy (ME) and organic energy (OE): in an overly tilted pelvis there is too much local ME of the pelvic flexors and too much local OE of pelvic extensors. The spinal erectors will also be short and over-toned from excessive lordosis of the lumbar spine. This hyper-lordosis will cause the ribs to be externally rotated and will result in a hypertonic thoracic diaphragm (too much local ME). The result is compromised breathing, as the diaphragm won't have a chance to relax between breaths. If both local ME and OE are balanced, however, the pose can be strong, expansive and safe.

Practice: Adho Mukha Svanasana (AMS)

AMS done mindfully manifests balance of strong engagement (ME) of the hamstrings, gluteal muscles, IO and TA with a lengthening (OE) of the spinal erectors and hip flexors (iliopsoas and rectus femoris). Exhaling strongly manifests First Principle by enabling the student to relax their thoracic diaphragm and thus keep their nervous system in a parasympathetic (relaxed) state. Below are the steps to achieve a balanced pelvis in AMS followed by an explanation of key cues.

1. Start on all fours with your knees under your hips and shoulders over your wrists, commonly known as Table Pose. For the duration of this sequence, all inhales will be through your nose and all exhales will be out of your mouth. Make your inhales shorter than your exhales and strongly sigh out your exhales, as if blowing to fog up a mirror. Pause briefly after the full exhale to maintain First Principle.
2. Next, shift slightly forward so your nose is just over your fingertips (Figure 1); notice the increase in tone through your lateral belly. Maintain this tone as you inhale and fill out your back body which will manifest Kidney Loop. Notice the engagement of your hamstrings.



Figure 1: Table Pose

3. Exhale and lift your knees away from the floor a few inches (your knees will still be bent; Figure 2); notice the additional tone through your lateral belly and hamstrings.



Figure 2: Hovering knees from Table Pose

4. While maintaining the belly tone you've already achieved, inhale through your nose without expanding your belly and then exhale into Plank Pose (Figure 3).



Figure 3: Plank Pose

5. After one inhale through your nose in Plank, exhale through your mouth as you lift your hips to full AMS (Figure 4).



Figure 4: AMS

6. Continue to breathe in full AMS and notice your belly tone and hamstring engagement (areas of local ME). Notice the lengthening of your lumbar spine and softened rectus femoris (areas of local OE). This is a strong pose, so soften your jaw to bring ease to

your neck and pause briefly after each exhale to help you stay in a parasympathetic state (First Principle). Keep this balance between tone, openness, and ease as you continue inhaling through your nose and exhaling through your mouth.

7. When you are ready to come out of the pose, exhale and descend to Table.

Explanation

Here is an explanation of key cues from the above sequence:

- Move your nose over your fingertips in Table Pose: This helps you better engage IO and TA and reduces excess lumbar lordosis.
- Exhale through your mouth: This helps engage ME of IO and TA to support the anterior pelvis which positions the hamstrings to engage and support the posterior pelvis. Exhaling also helps reduce excess lumbar lordosis by reducing the muscle tone of the spinal erectors, preventing a backbend-like shape and reducing spinal compression. Finally, exhaling through your mouth internally rotates the ribs which relaxes the thoracic diaphragm and enables you to stay in a parasympathetic state (First Principle). If you can maintain lateral belly tone you could switch to more classic Ujjayi breath.
- Maintain belly tone on your inhale: This keeps the thoracic diaphragm working efficiently, allowing it to flatten from its domed shape. If the diaphragm is working appropriately (meaning it flattens on the inhale and domes on the exhale), you will remain grounded even while experiencing strong ME. In this balanced state, the inhale will fill your whole thorax (chest, back, and abdomen) rather than just your abdomen. This also prevents your lumbar spine from moving into extension which would subsequently strain the hamstrings.
- Exhale through your mouth upon lifting hips to AMS: This specific exhale maintains the muscular engagement you developed from the start of the sequence as you organically expand into the full pose of AMS.

Teaching

Once you have practiced this sequence and have manifested the principles in your own body, the following are common cues you might use as you teach it to students.

Subjective focus (what the student might feel and report to you):

- You may feel intense power at your belly and hamstrings. If this intensity is spread over the length of your muscles it is a safe intensity (versus a focal or pinpointed sensation).
- If you don't feel your hamstrings engage during the sequence, try this supplemental pose: Modified Reverse Table (Figure 5).



Figure 5: Modified Reverse Table

Start seated with your legs out in front of you with your knees bent to about 90 degrees and hands behind you on the floor, fingers facing any comfortable direction.

- o Inhale through your nose and, as you exhale through your mouth, press your heels into your mat (as if dragging them toward your fingers) and float your hips upward.

- o Stay here and take several rounds of breath, breathing in through your nose and out through your mouth (with a pause before your inhale).

- o Exhale to come down to your mat and exit the pose.

- You will manifest strong inhales and exhales during the sequence, but the exhales should feel longer and stronger.
- Pay attention to any stretching sensations at your hamstrings; this sequence is meant to tone (local ME), not stretch (local OE), your hamstrings.
- Sigh out the breath so that the rectus abdominus does not over-engage. Over engagement of the rectus abdominus can result in lumbar spinal compression. If you

have clear permission from the student, place your hand both at the center and then at the lateral aspects of their belly. The center (rectus abdominus) should feel softer than the lateral aspects (IO and TA) during the sequence.

Objective focus (what you might see):

- Your student's neck should not appear strained during this sequence; if it does, confirm they are breathing and not holding their breath.
- Their back should be neutral, meaning with neither a hyper-lordotic curve nor a flattened or rounded spine. If your student does flex their spine while in Table (i.e., they move toward Cat Pose) make sure it is with a very strong exhale and that they move back to a neutral spine as they progress to AMS.

Summary

Entering and exiting AMS in this way is an example of how we can cue students to balance the muscle forces acting on their pelvis to manifest a strong and healthy pose. In AMS, "balance" means engaging strong hamstrings (local ME) to unload pressure at the lumbar spine (local OE). It also means using the thoracic diaphragm as designed so they can experience a strong pose like AMS and remain in a parasympathetic nervous state and embody First Principle. I hope this information is useful for your practice. If this information raises any questions I would be happy to provide additional information. Until then, here are several resources which have informed my understanding of the body and the logic for describing the position of the pelvis in AMS:

- Orthopedic Physical Assessment, David J. Magee, 6th ed., 2013.
- "Essential Anatomy 5," an application produced by 3D4medical for Apple products.
- Postural Restoration continuing education courses (<https://www.posturalrestoration.com/programs-courses/primary-courses>): Pelvis Restoration, Myokinematic Restoration, and Postural Respiration courses