



Navasana

Description

Navasana resembles a boat floating in the water. The arms form the gunwales, and the legs and torso form the hull. This pose flexes the trunk in an “open chain” fashion, strengthening the psoas and quadriceps muscles at the front of the hip, thighs, and abdomen.

NAVASANA (11 MOVEMENTS)

7	SAPTA	Inhale, jump through, legs up, reach forward
8	ASTAU	Inhale, lift up
		repeat SAPTA ASTAU 5 times
9	NAVA	Exhale, jump back, Chaturanga
10	DASA	Inhale, Upward-Facing Dog
11	EKADASA	Exhale, Downward-Facing Dog

Anatomy

I place navasana in the forward-folding section because it flexes the trunk. This is a forward bend that requires constant muscular effort to maintain. For this reason, the main story in the pose is an isolated strengthening of the core abdominal muscles and not so much a focused stretch, as with the other forward bends. Moving outward from the abdominals, several steps can be taken to stabilize the pose. For example, squeezing the knees together isolates and engages the adductor muscles of the thighs. Contracting the quadriceps straightens the knees and engaging the pelvic muscles flexes the hips. Similar subplots exist in the arms and shoulders. This type of co-activation produces the phenomenon of recruitment. For example, note that if you squeeze the knees together, you can more forcefully engage the abdominals.

BASIC JOINT POSITIONS

- The hips flex.

- The knees extend.
- The ankles plantar flex.
- The feet evert.
- The trunk flexes.
- The shoulders flex, adduct, and externally rotate.
- The forearms are neutral.

Synergizing/Activating

- The psoas, pectineus, sartorius, and rectus femoris muscles bend the hips and flex the trunk, raising the legs about 30° off the floor.
- The rectus abdominis, stretching from the chest down to the pubic bone, bends the trunk.
- The quadriceps firmly contract to straighten the knees.
- The adductors along the inner thigh draw the knees together.
- The gastrocnemius muscles in the calf bend the ankle slightly to bring the soles of the feet perpendicular to the floor. The peroneus longus and brevis slightly evert the ankles, opening the soles of the feet.
- The erector spinae and quadratus lumborum lift and slightly arch the back.
- The trapezius muscles (spanning the back) combine with the rhomboids (connecting the shoulder blade to the spine) to draw the shoulders back and down.
- The pectoralis minor, located under the pectoralis major, lifts the rib cage through a "closed-chain" contraction, opening the chest.
- The triceps straighten the elbows.

Preparation

Begin with the knees bent, and flex the hips. Hold the backs of the thighs with the hands to support the legs. Get a feel for squeezing the knees together. Activate the hip flexors and tense the abdominals. Then straighten the knees. Finally, extend the arms and arch the back slightly to take the full pose. If you're unable to achieve the full posture, use one of the intermediate variations shown. As you gain strength, work toward the classical variation of Navasana.

STEP 1 Contract the rectus abdominis at the front of the abdomen. You will activate all layers of the abdominals when you do this, including the transversus abdominis and both of the oblique abdominals. This is fine. They all flex the trunk. The psoas and its synergists, the pectineus and adductors longus and brevis, activate to flex the hips and draw the legs up. To feel the psoas engage, bend the knees with the feet on the ground and place your hands on the thighs. Resist with the hands while you attempt to draw the knees toward the chest. Look for this same feeling while in the full pose. People tend to round the back in Navasana because they rely almost entirely on the abdominals to flex the trunk. Engaging the psoas flexes the hips and tilts the pelvis forward. The psoas major draws the lumbar spine forward into lordosis; this counteracts some of the lower back rounding caused by engaging the abdominals. It is important to combine both the psoas and the abdominal muscles to obtain the optimal form of the pose.

STEP 2 Activate the quadriceps to straighten the knees. Synergize the action of the quadriceps by engaging the tensor fascia lata. A cue for this is to place the hands on the outsides of the legs and try



to draw them apart (abduct). Isolating the tensor fascia lata and gluteus medius have the added benefit of internally rotating the thighs. Contracting these muscles counteracts the external rotation component of the psoas and turns the kneecaps to face upward.

STEP 3 Squeeze the knees together to engage the adductor group. Note that the more anterior of these muscles, the adductors longus, and brevis, also have fibers that externally rotate the thighs. This action is countered by the tensor fascia lata, as described in Step 2.

STEP 4 Arch the back to engage the erector spinae and quadratus lumborum. The quadratus lumborum acts synergistically with the psoas major to support the lumbar spine.

STEP 5 Extend the elbows by contracting the triceps. Use the pronators teres and quadratus to turn the forearms until the palms face the outer thighs. Activate the infraspinatus and teres minor muscles to turn the upper arms outward. This produces a helical “wringing” effect from the hands to the shoulders, stabilizing the elbows. Engage the anterior deltoids to lift the arms parallel to the floor.

STEP 6 The rhomboids draw the shoulder blades toward the midline and stabilize them, opening the front of the chest. Once the scapulae are constrained in this position, contract the pectoralis minor and serratus anterior to expand and lift the ribcage. A cue for engaging these muscles is to hold the shoulder blades back and then attempt to roll the shoulders forward. The shoulders won’t move but the contractile force of the pectoralis minor and serratus anterior is transmuted to the ribcage, lifting it upwards as shown.

STEP 7 Plantar flex the ankles to point the feet. This activates the gastrocnemius/soleus muscles of the calves (not shown). These muscles connect to the heel via the Achilles tendon. Use the peroneus longus and brevis muscles on the sides of the lower legs to evert the ankles, turning the feet outward and opening the soles. Balance this action by engaging the tibialis posterior, which spans the tibia and fibula bones of the lower legs. The tibialis posterior inverts the foot and dynamizes the arch. Co-contract the peronei and tibialis posterior to stabilize the ankle joints. Flex (point) the toes using the extrinsic toe flexors (those originating from the lower legs) and the intrinsic toe flexors (those originating from the feet themselves).

SUMMARY Plantar flexing the ankles and pointing the toes stretches the tibialis anterior muscles and the toe extensors. Navasana also strengthens all of the muscles illustrated in the steps, particularly the abdominals.

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