

The Truth about Dogs

Whether you call it puppy dog, push wall or half dog, the version of adho mukha svanasana where the hands press the wall instead of the floor is a common modification. Theoretically, it takes the pressure out of wrists, shoulders and necks. Again, theoretically, this makes the pose more accessible to beginners and other students who don't have the strength or ROM, range of motion, in their upper body for a full-fledged downward facing dog.

In reality, however, this modification ends up creating compression in the shoulder joints in many older adults. This happens despite appropriate alignment cues to ensure a long, neutral spine and modifying shoulder and wrist placement to accommodate limitations.

In general, older adults have some hearing loss, some attention deficit and thus some difficulty following cues without visual confirmation. That means that in a group class, poses such as puppy dog can be frustrating and unsuccessful. And that means that the risks can outweigh the rewards.

Chairs can be a great solution. Students will be facing you. When they can see you, they can hear you. And they will feel calmer and have more access to feeling what is happening in their bodies. Start from tadasana and press palms into the top of the chair back. Step by step, walk the feet back and flex the hips and the shoulders. Take it slowly and repeat cues for a long spine and shoulder external rotation so that students can pause and sense what is happening. This will help both students and teacher to know when they have reached maximum benefit without any shoulder strain.

AND instead, you can take the shoulders out of the equation by pressing hands into the seat of the chair in a modified ardha uttanasana, half forward fold. This option is easier on the shoulders and the neck. Play with hand placement so that the wrists are also happy in this variation.

My favorite solution is a pose I made up that I call jockey pose. No props are required and it's a low-risk/high-rewards pose. From tadasana, take the feet as wide as the mat. Flex the knees and hips like a chair pose. Place the hands on the thighs just above the knees with a neutral spine, as if you were in a huddle. For students with limited hip flexion, knee flexion or acute low-back issues, the huddle pose is enough. Otherwise, continue with more hip flexion and neutral spine and press forearms onto thighs. Press the palms together in Namaste and feel how this gathers and engages the core. The spine "may" be parallel to the floor and the weight in the feet sinks back into the heels (as weight is always

more in the heels when the knees are bent in standing poses). Play with straightening the legs more without rounding the back and rocking more weight forward to fronts of feet to lengthen hamstrings. And then bend the knees more and rock the weight back into the heels to shift the stretch to the glutes. Jockey pose eliminates shoulder compression and has enough elements to engage students so they can truly experience “Sthira sukham asanam.”

Once you feel steady and calm, read the technical article from YESS (Yoga Empowers Seniors Study) to understand the research: Biomechanical Characteristics of the Modified Downward Facing Dog Yoga Pose in Healthy Older Adults” published in “Medicine & Science in Sports & Exercise.”

Medicine & Science in Sports & Exercise:

May 2011 - Volume 43 - Issue 5 - p 937

doi: 10.1249/01.MSS.0000402617.32927.42

G-41 Free Communication/Poster - Older Adults: JUNE 4, 2011 7:30 AM - 11:00 AM: ROOM: Hall B

Biomechanical Characteristics of the Modified Downward Facing Dog Yoga Pose in Healthy Older Adults: 3225: Board #188 June 4 9:30 AM - 11:00 AM

Samarawickrame, Sachithra¹; Wang, Man-Ying¹; Hashish, Rami¹; Yu, Shin-Yuan¹; Haines, Michelle¹; Mulwitz, Lauren¹; Greendale, Gail²; Salem, George FACSM¹

Author Information

¹University of Southern California, Los Angeles, CA. ²University of California, Los Angeles, CA.

Email: ssamaraw@usc.edu

(No relationships reported)

Increasingly, yoga is being promoted as a safe and effective exercise program for older adults. The Downward Facing Dog (DFD) is one of the most common yoga poses, classically practiced with the hands placed on the floor. However, for older practitioners, the pose is often modified (mDFD) by having the hands placed on a wall or the back of a chair in order to make it more accessible, and potentially safer; this study focused on the wall method. In view of the absence of published data on the biomechanical profile of the mDFD, it is important to characterize these variables to help determine the physical demands of this yoga pose. This will lead to the development of balanced, safe and effective yoga programs for older adults.

PURPOSE: To determine the kinematic and kinetic characteristics of the mDFD under a qualified yoga instructor's guidance. Sagittal plane kinematic data were obtained in the position of maximal forward bending, using instrumented force platforms and an 11-camera motion capture system (60 Hz). Net joint moments were derived through standard inverse dynamic calculations. Flexion angles and flexor moments are reported as positive.

RESULTS: In the sagittal plane, mean dominant limb joint angles were: ankle= 12.6 ±6.4°, knee= 26.2 ±13.5°, hip= 83.1 ±17.6°, shoulder= 118.8 ±13.6°, elbow= 48.8 ±15.6°, and wrist= -15.5 ±12.3°. The angle of trunk relative to pelvis was -9.0 ±11.3°, and head relative to trunk was 17.4 ±12.6°. Mean internal moments of the dominant leg in the sagittal plane were: ankle= -0.32 ±0.13 N.m/kg (plantar-flexor), knee= 0.02 ±0.19 N.m/kg, and hip= -0.48 ±0.20 N.m/kg. The moment at the trunk was -43.90 ±17.24 N.m/kg.

CONCLUSION: The largest joint excursion occurs at the shoulder. This is an important consideration for older adults with reduced shoulder range of motion. The biomechanical demands of the mDFD were primarily on the trunk extensors, hip extensors, knee flexors and ankle plantar-flexors. The plantar-flexor and extensor moments at the ankle and hip are the major contributors to the support moment. These data may be used to inform selection and modification of the mDFD pose to suit older adults with different musculoskeletal constraints and pathologies.

Supported by NIH Grant ROI -AT004869-01

© 2011 American College of Sports Medicine