



## PREVENTION &amp; REHABILITATION: SELF-MANAGEMENT: PATIENT SECTION

Rest, resiliency, and retuning the body<sup>☆</sup>

Anna J. Hartman, MS, LAT, ATC, CSCS<sup>(R)</sup>, PMA<sup>(R)</sup>-CPT<sup>a,\*</sup>,  
Craig Liebenson, DC<sup>b</sup>

<sup>a</sup> MovementREV, Scottsdale, AZ, USA

<sup>b</sup> LA Sport and Spine, Los Angeles, CA, USA

Received 7 June 2016; accepted 7 June 2016

Lack of movement variability and the precipitous rise of sedentary postures have resulted in an increase in evolutionary mismatch conditions such as low back pain, heart disease, fallen arches, obesity, etc. (Lieberman, 2013). Phillip Beach, DO describes our modern shift away from spending time resting on the floor and from experiencing our physical environment through the sense of touch of the important sensory organs such as our bare feet (Beach, 2010). This echoes the work of Vladimir Janda, MD who taught that loss of sensory input from the soles of the feet was a primary factor to be addressed in rehabilitation (Janda et al., 2006). We are in fact suffering from sensory blindness due to lack of sensory input from the periphery of the body (called de-afferentation).

The importance of bringing the body back in to tune to decrease injury and illness potential to optimize the quality of life and health while improving performance is well accepted in the sports medicine and rehabilitation communities (Beach 2010, Cook 2010, Lewit 2006, Verstegen and Williams, 2012).

Floor or ground resting is embedded in our evolutionary past and therefore the intelligence of the body knows when we are on the floor resting and automatically switches our autonomic nervous system to the parasympathetic dominant system of "rest and digest". An added benefit of spending time resting on the floor throughout the day is an opportunity to stand up from the

floor multiple times a day increasing total body strength with activity of daily living (Beach, 2015b). The sitting rising test described by Brito, Ricardo, et al. has been researched and presented as predictor of mortality in 51–94 year olds (Brito et al., 2014).

This article presents four of the common floor resting postures proposed by Dr. Beach along with support and exercise techniques to ensure the postures are accessible by all, comfortably without pain, to allow the body to recognize them as rest (Beach, 2010 and 2015b).

By developing tolerance for these rest positions and later mastery of them will aid in health promotion and performance enhancement. Like a musical instrument goes out of "tune" so does the body (Beach, 2015a). What follows are simple yet challenging positions to practice rediscovering rest postures used by humans for millions of years as a means of physical recovery.

General Guideline for All Rest Postures (Beach, 2015b):

- Pain free and comfortable. Imagine that you would be able to sit like this for 20 min without discomfort.
- Use as many pillows, towel rolls, or bolsters as needed to access a pain free and comfortable position.
- If unable to find a comfortable pain free range of motion in seated, work on getting into and out of the positions, in a pain free, comfortable, modified range of motion.
- Use as much support as needed to stand up or sit down to floor. Such as a dowel, chair, or your hands.
- Do "little and often". Aim for 4-5x each, 4-5x during the day, everyday.

<sup>☆</sup> This paper may be photocopied for educational use.

\* Corresponding author.

E-mail address: [anna@movementrev.com](mailto:anna@movementrev.com) (A.J. Hartman).

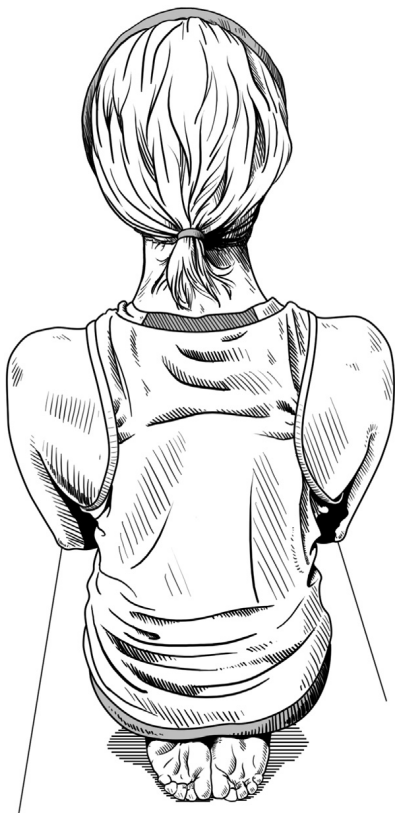


Figure 1 Japanese sit.

- If a position like Toe sitting is painful after just 5 s then performing just 3–4 s 2–3 times/day will have tremendous long-term benefit.

#### Japanese Sitting (see Fig. 1)

- Position-kneeling with feet in plantar flexion, spine upright, buttock on heels
- Bolstering-to sit comfortably in a Japanese sit, pillows or towel rolls may need to be placed beneath the dorsum of the ankle and/or between the buttock and heels.
- Modifications and Regressions- To improve mobility and ease of Japanese sitting it is helpful to utilize a self massage technique and dynamic movement.
  - Japanese Sit with quadriceps Release
    - Sitting in a comfortable Japanese sit on the floor or on bolsters use a fist or massage stick to perform percussive massage to the thigh, being sure to address the tissue all the way to the knee, hip, and inside and outside of thigh.
    - Utilize massage and stretch for 20 s–2 min then raise to a tall kneeling position to rest.
    - Repeat 4 times.
  - Japanese Sit to Toe Sit
    - If toe sitting is comfortable with only bolstering between buttock and heels or with no bolstering at all perform this sequence.
    - Sit in a comfortable Japanese sit of the floor or on bolsters for 20 s–2min

- Raise up to a tall kneeling position and lift feet and ankles to full dorsiflexion and toe extension as in the Toe Sit position, with weight bearing at the MTP joint.
- Lower buttock towards heels and sit in a comfortable Toe Sit for 20 sec–2 min.
- Repeat 4 times.

#### Toe Sitting (see Fig. 2)

- Position-kneeling with feet in dorsiflexion and toes extended so weight is on metatarsal heads, heel directly above, foot in neutral, buttock on heels, spine upright.
- Bolstering-to sit comfortably in a Toe Sit, pillows or towel rolls may need to be placed beneath between the buttock and heels and/or beneath the MTP joints. It may also be more comfortable to have the knees on mats or towels to elevate them so they are higher than the feet.
- Modifications and Regressions- To improve mobility and ease of Toe Sitting it is helpful to utilize a dynamic movement and decreasing the amount of weight bearing through the MTP joints.
  - Toe Sit Lowering
    - Place pillows, mats, or towels in front to be able to kneel on to. Place a dowel or stable piece of furniture in front to be able to use arm strength to unweight body.
    - Lean forward to place hands on furniture, plantarflex ankle and extend over all 5 metatarsal phalangeal (MTP) joints, maintaining extension of MTP joints slowly lower knees down to floor or bolsters using arm strength to control decent as if 'landing a helicopter'.



Figure 2 Toe sit.

- Check to make sure ankle and heel are directly above MTP joints.
- If comfortable and pain free, begin to sit buttocks towards heels as far as possible.
- Pause for 10–20 s and return to standing, exiting in the same fashion as the decent.
- Repeat 4–5 times.

Drinking posture (see Fig. 3)

- Position—from toe sitting posture lean forward without the support of hands to bring forehead to the floor. Maintain toe sit loaded position throughout posture.
- Bolstering—to sit comfortably in a Toe Sit, pillows or towel rolls may need to be placed beneath between the buttock and heels and/or beneath the MTP joints. It may also be more comfortable to have the knees on mats or towels to elevate them so they are higher than the feet.
- Modifications and Regressions-
  - Hand Assistance
    - Starting in a comfortable Toe Sit position start to lower trunk towards the floor, using the hands to assist lowering down and return to Toe Sit as needed.
  - ROM Assistance
    - Begin by starting with knees on an elevated surface or with a box placed in front of body to lower head down to, decreasing the available range of motion.
    - Decrease height of box as mobility and control improve.

Full Squat (see Fig. 4)

- Position—feet straight ahead, knees in line with 2nd toe, knees forward of foot maximizing ankle dorsiflexion, feet flat on floor, spine in upright position without arms bracing legs to hold on.
- NOTE: if the feet naturally turn out slightly this is acceptable.
- Bolstering—to sit comfortably in a full squat use towel rolls, pillows or mats underneath heels or a yoga block under the buttock.
- Modifications and Regressions-

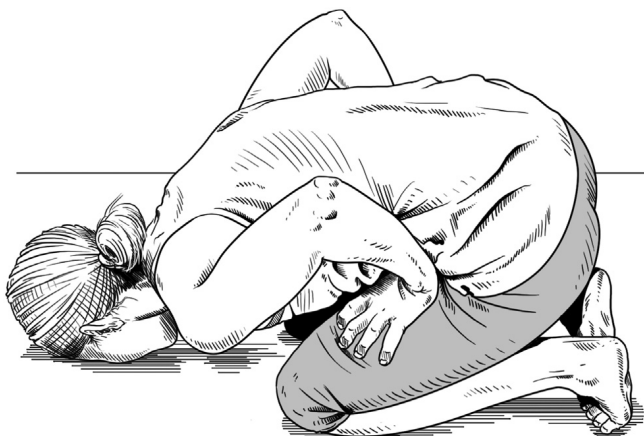
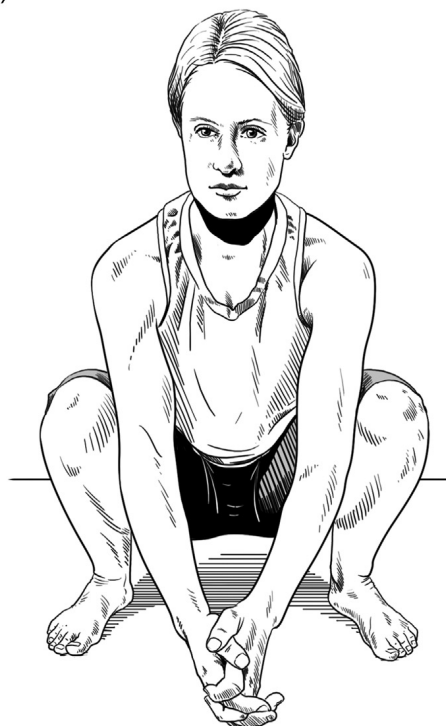


Figure 3 Drinking posture.

(a)



(b)

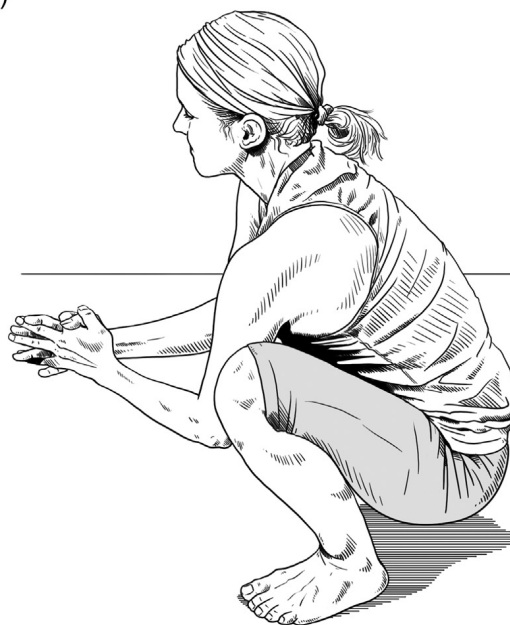


Figure 4 Full Squat (a) front view b) side view.

- Full Squat Only-
  - Starting in a forward fold position place heels on a bolster and make sure that your feet are pointing forward.
  - Slowly start to lower your hips towards the floor allowing your knees to come forward of the toes, as your chest lifts up.
  - If it is difficult to lift the chest up with the toes—lift off the floor as the weight shifts to the heels, use a small kettle bell up to 25 lbs to help enhance posterior weight shift.

- Once it is comfortable to have the hips low, chest up, and knees forward stay in this position for 4–5 slow exhalations.
- Return to standing by lowering hands to the ground shifting weight forwards and lift hips returning to a forward fold.
- Repeat 4 times.

NOTE: If you suffer from sciatica or a back problem that is aggravated in the morning time, after sitting or driving or worse when bending forward avoid the deep squat position until symptoms subside. When attempting it perform only a single repetition with just 1–2 breaths.

## References

- Beach, P., 2010. *Muscles and Meridians: the Manipulation of Shape*. Elsevier.
- Beach, P., April 2015a. *Understanding Movement via Contractile Fields at Pilates on Tour Rehabilitation Summit*. Tempe, AZ.
- Beach, P., April 2015b. *Archetypal Postures and Erectorcsises at Pilates on Tour Rehabilitation Summit*. Tempe, AZ.
- Brito, L.B., Ricardo, D.R., Araújo, D.S., Ramos, P.S., Myers, J., Araújo, C.G., 2014 Jul. Ability to sit and rise from the floor as a predictor of all-cause mortality. *Eur J Prev Cardiol*. 21 (7), 892–898.
- Cook, G., 2010. *Movement- Functional Movement Systems: Screening, Assessment and Corrective Strategies*. On Target Publications, Santa Cruz, CA.
- Janda, V., Frank, C., Liebenson, C., 2006. *Evaluation of Muscle Imbalances in Liebenson CS. Rehabilitation of the Spine*, second ed. Lippincott, Philadelphia.
- Lewit, K., 2006. *Finding the Key Link in Liebenson CS. Rehabilitation of the Spine*, second ed. Lippincott, Philadelphia.
- Lieberman, D., 2013. *The Story of the the Human Body*. Random House, New York.
- Verstegen, M., Williams, P., 2012. *Every Day Is Game Day*. Rodale.