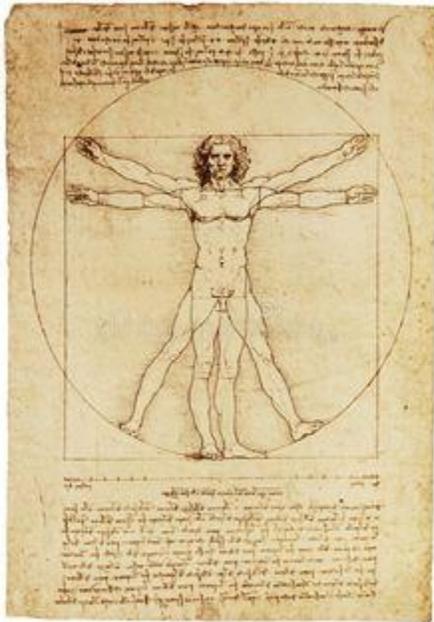


Principles of Practice: Alignment and Action (Part 1)

Alignment

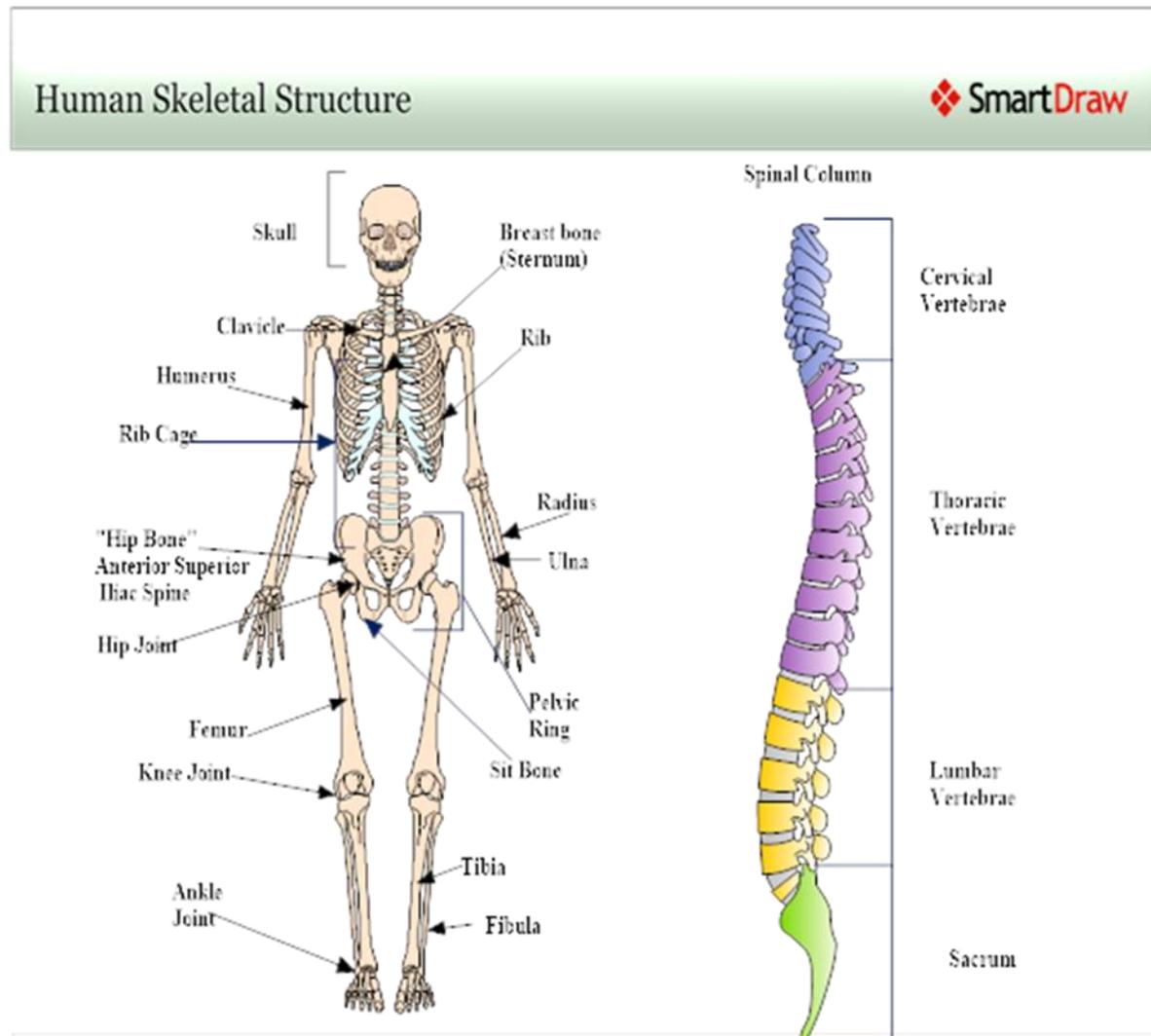


In its modern iteration, humanity has fallen out of alignment with nature. Restoration of our relationship with the natural world is imperative for our own health and the health of the planet. The disciplines of Yoga and Ayurveda were formulated by ancient Rishis and Seers who were deeply aligned with the wisdom of the natural world. Even in our post-modern era, it is possible to access and benefit from this ancient knowledge. The human body is the access point and the vehicle by which we too can align ourselves with and benefit from the wisdom of nature. By attuning our senses and intellect to subtle energies we are able to navigate our way into the depth of the human soul. We learn to recognize our authentic selves, to receive the blessing of our one true life. With dedication to the study and practice of yoga – on and off the mat – we can heal ourselves and the planet.

From a structural anatomical perspective, alignment simply refers to the relative placement of the parts of the body. Consider how the foot bone is connected to ankle bone connected to the shin bone, etc. It is helpful to begin with the idea of anatomically correct alignment which is a template for efficiency. The body is an extremely complex system and in its natural state is a vehicle designed for strength, flexibility and longevity. With few exceptions, humans are born with the potential for health and long life. Infants and toddlers subconsciously learn patterns of behavior, movement and alignment from their adult caregivers. The examples they imitate often represent unhealthy habits and habitual physical misalignment which often lead to suffering and illness.

Structural alignment is an expression of relationship between the axial skeletal structures (spinal column, skull, rib cage) and the appendicular skeletal structures (arms, legs, pelvis with exception of sacrum). The pelvis holds and protects the organs of reproduction, digestion and elimination. The rib cage holds and protects the large vessels, the heart and the lungs. Fascia, muscles, tendons and ligaments hold all of this together. The design of the spinal column provides a place to delicately balance the weight of the skull, as well as a point of connection for the pelvic bones and rib cage. Most importantly the spinal column provides a safe conduit for vital information in the form of nerve impulses to flow through the spinal cord – to travel between the brain and the heart and to and from all of the organs (living communities of cells) in the body. Anatomically correct alignment provides space for all of this and is the foundation for health of the whole body.

Awareness is often the first step on the journey to better health. With an understanding of the natural design of the human body, how the parts function and how they are put together, greater self-care is possible. The image of the skeleton below, will help you to familiarize yourself with the skeletal structure. The terms used to identify anatomical landmarks are the terms used for asana instruction in this text and videos. At first correct anatomical alignment will feel awkward. It will take time to develop the needed strength, flexibility and endurance to maintain correct alignment. With dedication to practice, you can learn to set your alignment correctly, not just in any yoga pose you decide to learn, but in all activities of daily living.



It may be helpful to familiarize yourself with the images and vocabulary above in order to better understand verbal cues for the practice of asana. As you study the diagram on the left, say the names of the structures and place a hand on that part of your body, or visualize the structure inside of you. As you study the diagram on the right, note that the cervical and lumbar curve mirror one another, as do the thoracic and sacral curves.

Action

Action can be generated consciously or subconsciously. Learning a new behavior often requires a great deal of concentration. With repetition the behavior becomes habitual; it does not require conscious thought. It is possible to live one's life acting out of habit, completing required mundane tasks and accepting roles culturally or socially assigned. This level of action can become dull and devoid of emotion. The challenge that yoga provides is to bring more consciousness into our everyday existence. To act consciously from a place of alignment – mentally, physically and spiritually. Action becomes “the physical manifestation of our own power of will and intention” (Keller, 2005).

In order to begin to understand how to consciously act with nature to bring our bodies into alignment, a lesson in the anatomy of muscles, tendons and ligaments may be needed. This level of knowledge may enhance the ability to sense on a subtle level what is going on in your own body. Subtle sensory experience is one of the gifts of nature that is easily neglected when we allow our subconscious mind to direct our lives. Subtle sensory experience allows us not only to align our individual bodies (internal environment), but allows us to align with nature and the world around us (external environment).

It may be helpful to familiarize yourself with the following terms:

Skeletal muscle tissue – voluntary muscle tissue attached to bones and composed of long thread-like cells that have light and dark striations

Tendon – collagenous fibers that connect muscles to bones

Ligament – collagenous fibers that bind two or more bones to a joint

- Stabilize joints
- Actively participate in movement;
- Contain sensory nerves that transmit information about joint position to the spinal cord and brain

Joint – articulations; they act as junctions between bones

Agonist – prime mover; *Synergist* – assists prime mover; act on one side of joint.

Antagonist – acts on other side of joint to smooth and even retard movement in question

When practicing yoga asana, it is normal to experience sensations such as heat, burning, quivering in the belly of the muscle (which is generally located between two joints). On a scale from 0 -10, discomfort that you rate below 5 can be explored. In other words, stay in the pose, bring focus to breath and alignment and observe how the sensation changes. Discomfort greater than 5 is a signal that you should not hold the pose but seek further instruction from a qualified yoga teacher. Asana, when done correctly does not create pain in the joints.

Tadasana (Mountain pose)

Tadasana is an appropriate name for this pose. Tada! Sounds like a celebration of accomplishment, such as a great work of art or creativity. Evolutionarily, and even biologically, standing upright is a really big deal! Can you remember your transformation from a crawling infant to a standing toddler? I invite you to take a few minutes and just imagine what it was like physically, mentally and spiritually. This pose is the foundation of all asana. A key principle is to find Tadasana in every pose. When you are able to apply that principle in your practice, you will have a true understanding of action and alignment.

Instructions provided are verbal cues to aid in recreating the template, form or structure of the Asana.

- Bring up a gently squeeze in the buttocks; this movement aligns the pelvis so that it is not tilted forward (anterior) or back (posterior)
- On the out breath, draw everything in towards the center – shins in, lift floor of pelvis with muscular energy up towards the belly; engage front and side abdominal muscles; shorten the distance between lower edge of breast bone and pubic bone; these actions stabilize the spine and help to enhance energy
- Allow the shoulders to relax away from the ears and squeeze the shoulder blades together on the back; on the in breath expand the chest as you continue to engage core
- Lift through the crown of the head, sense lift and even separation of each of the seven neck bones (*cervical vertebrae*)



If you are interested in a deep exploration of yoga muscle anatomy, I recommend the book *Yoga Anatomy* by Leslie Kaminoff. As a matter of example, I will share his description of the key structures and joint actions for this asana (Kaminoff, 2007).

Key Structures: Intrinsic and extrinsic foot muscles, quadriceps, iliopsoas, piriformis, abdominal wall, diaphragm

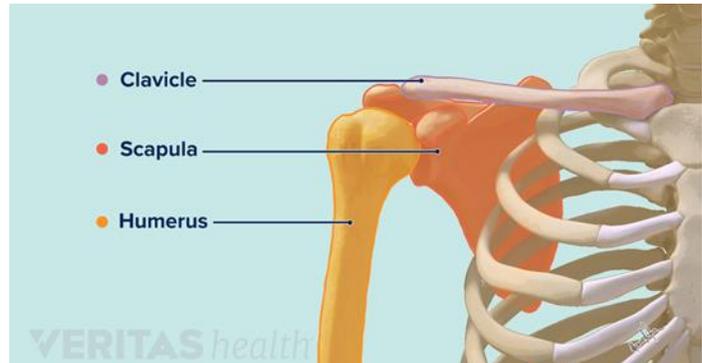
Joint Actions:

- The lumbar, thoracic and cervical curves are in mild axial extension
- The ankle, hip, shoulder, and wrist joints are in their neutral positions, midway between flexion and extension
- The arches of the feet are lifted and connecting with the upward lifting action in the pelvic floor, the lower abdomen, rib cage, cervical spine, and the top of the head
- The shoulder blades are dropped onto the support of the rib cage and connect with the downward release of the tailbone and the grounding of the three points of contact between each foot and the floor

My point is, there is a lot going on just standing up – sometimes it truly feels like a real accomplishment. For me personally, finding Tadasana in my daily activities, with awareness of breath and alignment is one of the most important and ongoing practices of self-care. The more consciously I breathe and hold myself the happier I am. No matter what crisis I might be currently managing.

The Shoulder Joint

Tadasana provides an opportunity to experience the axial skeleton in dynamic stillness, of standing up in the word. From that strong and stable base, we will explore aligned action of the arms and shoulders (part of the appendicular skeleton). That is *the amazing shoulder joint* – the area where the clavicle, scapula and head of the humerus all come together. In terms of action in the world, the shoulder joint makes it possible for us to use our arms and our hands effectively and efficiently. The complexity of the shoulder allows for efficient movement whether standing, sitting, lying, or dancing a west coast swing. The bones that comprise this joint are held together by tendons, ligaments and muscles. The shoulders and upper arms are capable of abduction, adduction, protraction and retraction, upward and downward rotation, external and internal rotation, flexion and extension.



For this pose, we will focus on sensing the mobility (or habitual immobility) of the shoulder joint, the use of compensatory movement to accommodate for decreased mobility, and the relationship between the shoulders, arms and torso. Because “one at a time” is often more effective and enjoyable, we will begin with Quarter Moon.

QUARTER MOON

- Find Tadasana (execute all of the dynamics practiced previously)
- Raise the right arm to shoulder level (abduction)
- Turn the palm up, raise the arm as high as you can (flexion) without bending the elbow; lower the arm down to the side and turn the palm down; continue mindfully to raise on the inhale and lower on the exhale turning the palm up and down as you go; notice the relationship between the head of the humerus, the scapula and the clavicle; eventually you will be able to raise the arm alongside the ear without compromising the elements of Tadasana; repeat on the other side
- With the right arm flexed overhead at the shoulder joint, hug the top of the arm bone into the shoulder socket, activate the muscles that extend from the upper arm all the way to the fingertips; lengthen the side body, and stretch laterally to the left; inhale, lift and lengthen, exhale reach more deeply to the side; return to the center; notice what feels different from side to side; repeat with the left arm
- Allow the breath pattern to be smooth and even; allow the abdominal muscles to remain active to hold the spine in neutral alignment, and feel the rib cage expand and contract with each breath



ARDHA CHANDRASANA (Half Moon)

- Find Tadasana – Connect the soles of the feet to the ground and activate all of the muscles in between (shins in, thighs spiraling out, hugging pelvic floor and buttocks muscles up and in, front and side abdominal muscles engaged, shoulder blades active on the back body, sternum lifted, neck long, reaching up through the crown of the head)
- Raise both arms to shoulder level; turn palms up; reaching from the shoulder blades to the finger tips; bring the arms in line with the ears
- Lengthen the left side body and laterally stretch to the right noticing the gentle compression of the right-side body
- Focus on the natural steady flow of the breath; as you breathe in – lift and lengthen; as you breathe out – draw shoulder blades down and back; press the hips to the left and reach the torso to the right; hold the pose as long as the breath is smooth and even
- Repeat on the other side for an equal number of breaths
- After stretching both sides, come back to center and lower the arms; close your eyes and observe the quality of breath and sensation flowing through the body-mind-spirit complex

