YogaFit 7 Principles of Alignment

In YogaFit, express Hatha Yoga postures using the 7 principles of alignment (SPA). These ideologies help to create the ideal biomechanical position for our body during movement, and while holding the poses. SPA increases safety while simultaneously providing functional mechanical principles that you can use in your daily life. SPA can determine your safety in poses, as well as overall safety of additional poses we learn.

1. **Establishing Base of Dynamic Tension.** We establish a firm base of support in our feet and hands. Stacking our joints for maximum support, and contracting our muscles to become stable in a pose.
   a. In standing poses we activate the muscles of our legs and hips to press all four corners of our feet evenly into the mat or floor. There is equal contact between the front and back of our foot. Our feet are kept hip width apart to establish a foundation that allows us to move but still provides stability. With the feet spread wide or in abducted positions, we determine the width of our stance in part through our ability to retain the stability in our feet.
   b. When using your hands to create a foundation, we spread the fingers wide (like a starfish) and press them firmly into the floor. This position spreads the stress evenly over the hands. If you have a wrist injury you can use “fists for wrists”, but only when the shoulders are stacked above the wrists.
   c. Dynamic Tension is isometric contraction in the muscles of the body, giving us the perception of being stretched in two different directions.
      i. It draws our attention back to the body because it requires concentration.
      ii. It strengthens the contracted muscles.
      iii. It maximizes range of motion thus creating greater mobility.
      iv. It creates greater stability and safety in the poses.

2. **Creating Core Stability.** We use the muscles of the trunk (i.e. abdominal, erector spinae) to create core stability prior to moving into and while holding poses for greater strength and internal support.
   a. As part of creating dynamic tension, we activate the muscles of our pelvis and trunk to simultaneously create strength, stability, and mobility.
   b. Core stability begins with the legs. Three muscles in your lower leg (tibialis anterior, tibialis posterior and peroneus longus, also assisted by other deep muscles) are the superficial muscles that create stability in the feet and lower limbs. They are responsible for lifting the arches of the feet.
   c. The hip adductors are located in the inner portion of the thighs and are responsible for drawing the leg toward and through the midline of the body. When we activate the inner thigh muscles, we help strengthen the pelvic floor.
      i. Lie on your back with your knees bent, place a yoga block between your knees and squeeze the block. This is activating your pelvic floor.
   d. Last component of core stability is the conscious activation of the deepest abdominal layer (transverse abdominals), the low fibers of the internal obliques and the back muscles. We achieve this stability by contracting the space slightly below the navel.

3. **Aligning the Spine.** Our spine is supported through core stabilization, and in all applicable poses, our head follows the movement of our spine. When moving into twists, flexion, or extension, we start in neutral spine.
   a. The spine is comprised of 33 bony segments called vertebra, divided into 4 sections: 7 cervical (neck), 12 thoracic (chest), 5 lumbar (low back), 9 sacrum (tailbone).
   b. Spinal movements include: neutral, flexion, extension, lateral flexion, rotation.

4. **Softening and Aligning the Knees.** In all applicable poses our knees stay in line with our ankles to provide maximum stability and point directly out over our toes. In general, our knees, when bent, will also remain in the same line as our hips. To prevent hyperextension, we keep at least a micro-bend in our knees at all times.
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a. The knee is a complex joint. Several of the largest muscles and connective tissue bands of the body connect at the knee or run through the area of the knee (muscles involved: quadriceps, the hip abductors and adductors, anterior tibialis, gastrocnemius, hamstrings). In addition we have the illiotibial band (IT Band), a large piece of connective tissue. These muscles and connective tissues all provide various functions at the knee or create stress at the joint.

b. It is common to see the knee bow inward toward the midline of the body, as well as the opposite.

c. Optimally, the knees are free from tension and point directly forward when standing with the toes facing forward and feet hip distance apart.

d. When this is not the case, we can help strengthen and stretch the muscles of the leg to provide effective tracking for the knee joint. Over time, as muscles stretch and strengthen, you will begin to notice that the knees move into their safest alignment.

5. **Relaxing Shoulders Back and Down.** Our shoulders are drawn naturally back and down in poses to help reduce tension in our neck and shoulders.

   a. In all poses, we want to reduce the tension in the neck and shoulders by encouraging you to relax the shoulder blades back and down. This is called scapular retraction and scapular depression.

      i. Due to everyday stress, the shoulders are often tensed, drawing the shoulder blades up toward the ears (scapular elevation). It is also common for the shoulders to round forward (scapular protraction) due to typing and other deskwork.

   b. Scapular retraction and depression allow for greater lift and stability in poses where we bear weight through the arms. In these poses, the movement of the shoulder blades back and down fixing them to back of the rib cage creates greater muscular stability in the pose, reducing unnecessary tension in the torso and the likelihood of sagging through the core muscles.

6. **Hinging at the Hips.** When moving into and out of forward bends, we hinge from the hips, using the natural pulley system of the ball and socket joint while keeping at least a micro-bend in our knees.

   a. Hinging from the hips allows us to avoid flexing through the spine, which presents greater risk and has less functional value in daily life.

   b. We achieve hip hinging by activating the anterior spinal flexors (pelvic floor, rectus abdominis, transverse abdominis and obliques) and posterior spinal erectors and stabilizers (erector spinae, multifidi, semispinalis). These muscles help us achieve and maintain neutrality through the spine.

   c. Neutral is the strongest anatomical position for the spine, utilizing the natural “S” curve of the spine to maximize shock absorption and strength.

   d. Remember to always bend your knees as much as you need to.

7. **Shortening Lever Length.** When hip hinging, flexing or extending our spine, we keep our arms out to our sides or alongside our body to reduce strain on the muscles of our lower back.

   a. Depending on our arm position, we can create a long or short lever arm. A long lever uses the arms to add to the overall length of the torso (i.e. when the arms are lifted so that the biceps are by the ears). In this position, when we move the spine from neutral to extension, flexion, or lateral flexion, it increases the amount of load that the back supports.

   b. In general, this can increase the risk of injury to the back. For this reason we always use a short lever when moving the spine.

   c. Anatomically, the spine is a great example of engineering for stability and shock absorption. However, without the musculature surrounding it, its overall strength is relatively minimal. The back muscles that support the spine are crucial in supporting and protecting the back. Consequently, the relative strength or weakness of these muscles plays a role in the overall health of the spine. And our ability to move. We often sit in a slightly rounded posture, stretching the back muscles and tightening the muscles in the front of the torso. Over time this can reduce the overall strength of the muscles, which then can translate into less protection and support for the spine during movement.