

Dǎo NEEDLE[®]
THERAPY

Restoring Function - Stopping Pain

Dāo Needle Therapy is a specialized style of acupuncture that requires a unique type of acupuncture needle. The needle body itself has a specially designed edge that allows for a different penetration into the skin. The mechanisms involved are similar to Biomedical Acupuncture, where the needle creates a lesion in the soft tissue that then releases cytokine/chemokine and neuropeptides to initiate local acute inflammation, which activates local blood circulation.

However, the needle penetration is very shallow compared to other styles and is more focused on the superficial fascial lines, ashi points (tender points), and their corresponding meridians. The needle is only inserted and removed after the ashi points or tender points in a specific area have been identified through a series of diagnostics and then marked. Once marked, the needle is inserted very quickly and removed. After needling has been performed, the points will be palpated again to check for their level of tenderness. It is very common that 90% of the points will no longer be tender immediately after treatment. The remaining points that are still tender will then be needled one more time. This treatment is best for chronic pain and musculoskeletal conditions.



Level 1 Dāo Needle Therapy

Saturday

9:00-9:30 a.m. Intro and Course Overview of the Dāo Needle

9:30-10:00 a.m. Contraindications and Safety

10:00-10:30 a.m. “Know Pain, or No Gain”

10:30-11:00 a.m. Physiology and Science of Needling

12:00-1:00 p.m. Lunch

1:00-3:00 p.m. Postural & Gait Analysis

3:00-5:00 p.m. Functional Test, Patient Positioning

5:00-6:00 p.m. Meridian & Fascial Mapping, Needling

Sunday

9:00-9:30 a.m. Overview of day 1

9:30-10:30 a.m. Palpation Diagnosis and Differentiation

10:30-12:00 p.m. Needling Practical: Lumbar, Pelvis

12:00-1:00 p.m. Lunch

1:00-3:00 p.m. Needle Practical: Thoracic, Shoulder, Cervical

3:00-4:00 p.m. Marketing

4:00-5:00 p.m. Q&A

“Know Pain, or No Gain”

Pain is the most powerful protective device we have. Simply, if there is no pain, it means that changes in tissues are not perceived by your brain as a threat.

Throughout your entire nervous system, there are millions of sensors. They are constantly surveying the area for activity. These sensors sit on walls and at the ends of neurons, and they give neurons the ability to convey information.

There are specialized sensors that respond to:

- Mechanical forces
- Temperature changes
- Chemical changes (from within or outside the body).

Pressure sensors reacting to a chemical such as acid or pressure open so that positively charged particles from outside the neuron rush into the neuron. This sets up an electrical impulse to the neuron. If enough sensors are open, positive ions flow into the neuron and send a danger message to the spinal cord.

- A mechanical sensor can be opened or shut by particular chemicals.
- The life of a sensor is short—they only live for a few days and then are replaced by fresh sensors. This means that your sensitivity is continually changing.
- Sensors are made inside your neurons under the direction of the DNA.
- Sensor production can change based on the body's needs.
- Activity of this type in these nerves is called “nociception,” which means “danger reception.”
- The brain receives the danger reception signal but does not see it as pain until it has been analyzed.
- The brain can also make positively charged particles leave the neuron, which makes it less excited, which in turn makes it less likely to send a message.

NO matter what tissues you have injured, a similar healing process occurs. Healing of the gut or skin follows the same processes as the healing of the muscles and joints. Tissues become inflamed, which brings the body's immune cells and rebuilding cells to the area. A scar is formed, then the tissue is remodeled to make it as good a match to the original as possible. The two things that determine the speed of healing are blood supply and tissue requirements. Tissues with poorer blood supply take longer to heal than those with better blood supply. Once the healing time has passed, they do not get another chance. (Or do they?)

- When an injury occurs, all kinds of specialized cells are sent to the area for repair; this is called “inflammatory soup.”
- Neurons backfire. Especially if they are injured. Injured neurons can actually cause inflammation in the peripheral tissues.
- If backfiring persists, sustained inflammation may result; therefore, the problem can worsen, because sustained inflammation makes for poor tissue health.
- Most peripheral nerve problems occur when neurons are just doing the wrong thing

and, in many cases, they are responding to signals from your brain that tell them to increase sensitivity. Better warnings are required.

- When alarm impulses keep arriving at the dorsal horn, or when neurons from the brain release excitatory chemicals, the spinal danger messenger neuron in the spinal cord adapts to meet demand.
- This adaptation begins within seconds and increases pain signals; this causes hyperalgesia and allodynia. Things that hurt then hurt more things that did not hurt.
- Persistent long-term alarm signals in the brain can alter the brain, causing it to manufacture more sensors in the pain ignition nodes, more chemicals in the body to activate sensors, and smudging.
- Smudging causes compensation in body movements and sensitization of other body parts.
- Sensitization of the brain and spinal cord is called central sensitization.
- Thought viruses are real.

Physiology and Science of Needling

Three dynamic phases of acupuncture points:

- Latent
- Passive
- Active

Latent—Points are not tender or sensitive and represent normal issues; they have a higher mechanical threshold.

Passive—Points are more tender, have a lower mechanical threshold, and start to fire impulses to the brain and spinal cord under normal pressure.

Active—Points have the lowest mechanical threshold and may continuously fire impulses to the brain even without the application of external mechanical pressure. Finally, they may sensitize the neurons in the brain and spinal cord.

As the phases of transformation from latent to passive and passive to active persist, the mechanical threshold decreases. As the threshold decreases, the physical size of a sensitized acupoint increases.

Physical properties of acupuncture refer to the physical representation points and include three parameters:

- Sensitivity
- Specificity
- Sequence

Sensitivity—The level of sensitivity is a direct correlation and proportion to how severe or chronic the patient's condition is; therefore, the patient will need more treatment.

Specificity—Refers to the size and precise location of a point. Higher specificity means the point is harder to find and most likely in its latent phase. Lower specificity means the surface of the acupuncture point is larger, more sensitive, and easier to find. The lower the

specificity, the later the phase the point is in.

Sequence—Acupoints appear in the human body according to two models: systemic or symptomatic. Systemic points, also called homeostatic points, are predictable, symmetrical, and will begin to appear all over when chronic problems begin to develop. Local tender points from an acute injury are called symptomatic points and reflect the nature of the acute injury or disease.

There is an abnormal energy metabolism actively involved in the formation of passive and active acupoints related to soft tissue metabolism. This imbalance creates and continues the muscle energy crisis.

ACTION POTENTIAL FROM MOTOR NEURON = MUSCLE FIBER=RELEASE OF CALCIUM INTO CYTOPLASM FROM SARCOPLASMIC RETICULUM=TRIGGER CELLULAR CONTRACTILE.

Acupuncture needling creates a tiny lesion and bleeding in the contractile muscle and surrounding tissue. As a result, tight contracted muscles begin to relax and blood circulation improves. Acupuncture needling breaks the vicious energy crisis cycle in sensitized points.

When a needle is inserted, a small lesion is created at the needling site. At this site a cutaneous micro-current circuit is built that stimulates tissue growth.

Needling stimulates the neurovascular immune function of the skin and the four following skin tissues:

1. Afferent somatic neuron fibers and sympathetic neuron fibers for controlling sweat glands and fine blood vessels.
2. Fine arterial and venous blood vessels for nutrition supply and temperature regulation.
3. Lymphatic tissue, mast cells for immune function.
4. Connective tissues for structural and functional support.

Mechanical stimulation from the needle deforms the connective collagen and elastic fibers, which transduces signals for tissue healing and gene transcriptions. When a needle is first inserted, there is an initial coupling between the metal needle shaft and the elastic collagen fibers, which is caused by both surface tension and electrical attraction between the metal needle and the connective tissue charges. The needle grasp process deforms the extracellular matrix, fibroblasts attach to the collagen fibers, and possibly capillary endothelial cells.

In response to this mechanistic deformation, cells generate cascades of cellular and molecular events, including:

- Intracellular cytoskeletal reorganization
- Cell contraction and migration
- Autocrine release of growth factors
- Activation of intracellular signaling pathways
- Activation of nuclear binding proteins that promote gene transcription

These effects lead to the synthesis and local release of growth factors, cytokines, vasoactive substances, degradative enzymes, and structural matrix elements. Release of these substances changes the extracellular milieu surrounding needled tissues and finally promotes local healing.

The needling and its lesion also induce a local anti-inflammatory reaction against the intrusive lesion. Endogenous muscle contracture creates an energy crisis in shortened muscles, which can be relaxed in corresponding ashi points to restore muscle physiology.

Mechanisms from both segmental and non-segmental points enhance one another to activate descending control systems, which includes the secretion of chemicals and hormones into the blood and cerebrospinal fluid to restore homeostasis and neural modulation of pain relief.

The central effects of acupuncture stimulation activate the four front lines of homeostasis:

1. The nervous system
2. The immune system
3. The endocrine system
4. The cardiovascular system

These two definitions are worth noting:

- Qi
- Biomagnetic field

Both of these are defined as being found in every living thing in every part of our bodies but measured separately from other biological processes. Kind of amazing when you think about it: 4000-ish years ago people discovered Qi without any scientific equipment or fancy gadgets and now science has discovered, and can measure the biomagnetic field of you and the earth.

Mapping and Marking Ashi Points

Ashi points are not one dimensional points that tell us that there is a problem in a local area. Ashi points are three dimensional points that are rich with information. These points can lead us to the root of the mechanical dysfunction and differentiate the lines of compensation. Ashi points speak to us in different tones that we need to learn how to understand, and learn how to treat.

Understanding their language can give us not only an objective tool and guide, but also a therapeutic meter to response to treatment. We will begin by assigning the patient to the most appropriate position to access the tissue before we begin to needle and after we have tested and identified primary fascial line. It is important to note that we want to bring the tissue to us and not have to dive deep into the tissue. It is very important that we choose a position that allows us the best access. Sometimes we might have to use a variety of positions to treat effectively. Once we are ready for the needling portion of our treatment we clean the entire area that we will be palpating then glove up. Before we begin palpating the tissue we are going to be giving our patient very specific directions in order to have clear communication and an understanding of the

information the ashi points are giving us. When pushing into the tissue the patient will be telling you “O” for a mild to moderate tender points “X” for a severe tender points or points that referred to another part of the body, if a point has a referral it will be marked with an “X” and then circled. If there is no tenderness the patient should be instructed to remain silent, this will help the flow of your treatment. Essentially we are to identify latent, passive, and active points. Latent points = silence= no mark, Passive points = “O’s” marked with a dot, Active points = “X’s” marked by x or x with a circle around it. Marking areas of hyper tone tissue with straight lines, and scar tissue with squiggly lines will be done post initial needling. These points become as beacons telling us which tissue has more disfunction and the path on which it traveled, enter the fascial lines that will be discussed later in this work book. When identifying O’s and X’s we want to follow the path of X’s. The O’s still tell us there is a problem in the tissue because they are passive points on the way to active points but the X’s have a greater problem and have been there longer relative to the O’s therefore they are active points. By treating an active point, the X’s, you are also preventing the development of passive points or the O’s, while restoring function to the fascial line. While palpating, mapping and needling the patient you might have to change direction or even move the patients body around a bit in order to find the right line of ashi points. Always remember to bring the tissue to you and always needle the point in the position in which you palpated in. When palpating always use the same finger and same pressure when initially palpating and on your recheck. It is very important that when you apply the pressure with your palpating finger that you do not wiggle your finger back and forth and press and hold for no longer than 3 seconds. Holding pressure and wiggling around will create a false tenderness which can be misleading and disruptive to the treatment progress. If you are going to map bilaterally, map one side of the patients body first then do the initial needling and recheck. After the recheck clean the area just needled and move to the next position and area to map. We want to avoid any confusion possible. Additionally this keeps the process clean, helps manage a good sterile field, and allows the client a break. Once you are ready for the initial needling instruct the patient to tell you if they need a break or that they can stop any time they want, it is imperative to empower the patient and give them full control. It is also very important to find the pace and tempo in which the patient feels comfortable, some people need to pause after three points are needled, and some are fine to move through a whole body area with out pause. Find and work with the things that give your patient the most comfort at all times the results are worth the mild discomfort that might occur for some patients. When needling areas that are more hyper tone you will hear a crisper sound from the tissue when needled, sometimes this, as well as a disruption in a vascular bed can cause a burning zingy effect. If this sensation occurs rub the area quickly and briskly for a couple of seconds and this will eliminate the effect. I always instruct my clients before we begin that this might occur and to make sure they let me know so that I can rub it quickly. After your initial needling you are ready for your recheck. You are going to instruct your client to be honest with you and tell you which points are still tender. On average 90% of points will be dramatically less tender and 10% will still be tender. Points that are still tender are the ones usually marked with an X and now feel more like an O. These points need to be needled one more time near the existing point needled but not in the exact location just slightly off set and at a slightly different angle. Only do one recheck and needle one more time. Excessive needling on the same point can create tenderness in general, and the diagnostic information can become skewed.

Science Measures the Human Energy Field

Energy is a theme that permeates many areas of complementary health care, including Reiki. For historic and emotional reasons, two key words have not been mentionable in

polite academic research society: "energy" and "touch." Hence it is not surprising that Reiki therapy has been neglected by mainstream biomedical science.

This picture is changing rapidly because of exciting research from around the world. The tale of how concepts of "healing energy" have swung from suspicion and ridicule to respectability is one of the most fascinating and clinically significant stories that can be told. As in many other areas of investigation, what we were absolutely certain about 20 years ago has changed dramatically. For example, in a few decades scientists have gone from a conviction that there is no such thing as an energy field around the human body, to an absolute certainty that it exists. Moreover, we have begun to understand the roles of energy fields in health and disease. Most people are simply not aware of this research, and persist in the attitude that there is no logical basis for energy healing.

The main reason for the change in outlook is that sensitive instruments have been developed that can detect the minute energy fields around the human body. Of particular importance is the SQUID magnetometer (1) which is capable of detecting tiny biomagnetic fields associated with physiological activities in the body. (Figure 1) This is the same field that sensitive individuals have been describing for thousands of years, but that scientists have ignored because there was no objective way to measure it.

To summarize the discoveries that have been made, the editors of a new international journal commissioned a review of the concept of "healing energy" (2). While we have been researching this topic for some 15 years, the preparation of an in-depth review led to a thorough reexamination of the subject, with some unexpected conclusions.

For the most part, key discoveries are not being made by scientists studying methods such as Reiki, TT and HT. Instead, traditional scientists, following customary logic and scientific methods, have begun to clarify the roles of various kinds of energy in the healing process. Hence the picture that is emerging has the same scientific foundations that underlie modern clinical medicine. For details, see our published articles (3).

The Human Energy Field

It has long been known that activities of cells and tissues generate electrical fields that can be detected on the skin surface. But the laws of physics demand that any electrical current generates a corresponding magnetic field in the surrounding space. Since these fields were too tiny to detect, biologists assumed they could have no physiological significance.

This picture began to change in 1963. Gerhard Baule and Richard McFee of the Department of Electrical Engineering, Syracuse University, Syracuse, NY detected the biomagnetic field projected from the human heart. They used two coils, each with 2 million turns of wire, connected to a sensitive amplifier.

In 1970, David Cohen of MIT, using a SQUID magnetometer, confirmed the heart measurements. By 1972, Cohen had improved the sensitivity of his instrument, enabling him to measure magnetic fields around the head produced by brain activities. Subsequently, it has been discovered that all tissues and organs produce specific magnetic pulsations, which have come to be known as biomagnetic fields. The traditional electrical recordings, such as the electrocardiogram and electroencephalogram, are now being

complemented by biomagnetic recordings, called magnetocardiograms and magnetoencephalograms. For various reasons, mapping *the magnetic fields in the space around the body often provides a more accurate indication of physiology and pathology than traditional electrical measurements.*

Pathology Alters The Biomagnetic Field

In the 1920's and 1930's, a distinguished researcher at Yale University School of Medicine, Harold Saxon Burr, suggested that diseases could be detected in the energy field of the body before physical symptoms appear. Moreover, Burr was convinced that diseases could be prevented by altering the energy field.

These concepts were ahead of their time, but are now being confirmed in medical research laboratories around the world. Scientists are using SQUID instruments to map the ways diseases alter biomagnetic fields around the body. Others are applying pulsating magnetic fields to stimulate healing. Again, sensitive individuals have been describing these phenomena for a long time, but there was no logical explanation of how it could happen.

Projection of Energy From The Hands of Healers

In the early 1980's, Dr. John Zimmerman began a series of important studies on therapeutic touch, using a SQUID magnetometer at the University of Colorado School of Medicine in Denver. Zimmerman discovered that a huge pulsating biomagnetic field emanated from the hands of a TT practitioner. The frequency of the pulsations is not steady, but "sweeps" up and down, from 0.3 to 30 Hz (cycles per second), with most of the activity in the range of 7-8 Hz (Figure 2). The biomagnetic pulsations from the hands are in the same frequency range as brain waves and scientific studies of the frequencies necessary for healing indicate that they naturally sweep back and forth through the full range of therapeutic frequencies, thus being able to stimulate healing in any part of the body.

Confirmation of Zimmerman's findings came in 1992, when Seto and colleagues, in Japan, studied practitioners of various martial arts and other healing methods. The "Qi emission" from the hands is so strong that they can be detected with a simple magnetometer consisting of two coils, of 80,000 turns of wire. Since then, a number of studies of QiGong practitioners have extended these investigations to the sound, light, and thermal fields emitted by healers. What is particularly interesting is that the pulsation frequency varies from moment to moment. Moreover, medical researchers developing pulsating magnetic field therapies are finding that these same frequencies are effective for 'jump starting' healing in a variety of soft and hard tissues, even in patients unhealed for as long as 40 years. Specific frequencies stimulate the growth of nerves, bones, skin, capillaries, and ligaments. Of course Reiki practitioners and their patients have daily experiences of the healing process being "jump started," and academic medicine is now beginning to accept this therapy as logical and beneficial because of these new scientific findings. In Figure 2 we have bracketed portions of the signal that correspond to the frequencies used in medical devices that

stimulate the healing of particular tissues. Individual differences in energy projection and detection.

There are logical neurophysiological and biophysical explanations for the roles of practice and intention. *[Editors note: It would be interesting to use these detection techniques to measure the effect of a Reiki attunement on the strength and frequency of biomagnetic energies coming from the hands and also to measure how therapeutic frequencies may change when treating various conditions in the body.]*

It is not widely understood that "brain waves" are not confined to the brain, but actually spread throughout the body via the perineurial system, the connective tissue sheathes surrounding all of the nerves. Dr. Robert O. Becker has described how this system, more than any other, regulates injury repair processes throughout the body. Hence the entire nervous system acts as an "antenna" for projecting the biomagnetic pulsations that begin in the brain, specifically in the thalamus.

Moreover, waves that begin as relatively weak pulsations in the brain appear to gather strength as they flow along the peripheral nerves and into the hands. The mechanism of this amplification probably involves the perineurial system and the other connective tissue systems, such as the fascia that are intimately associated with it.

References:

- (1) SQUID is an acronym for Superconducting Quantum Interference Device.
- (2) Journal of Bodywork and Movement Therapies, Harcourt Brace & Co., Ltd., Edinburgh.
- (3) A list of our articles may be obtained from Nature's Own Research Association, P.O. Box 5101, Dover, NH 03821, USA, Phone, 603-742-3789, Fax 603-742- 2592

THE HUMAN BODY

The human body is designed to develop itself through motion. Bone, muscle and connective tissue respond to stress. Stress, specifically the body's response to gravity and work, is what initiates the growth and maintenance of tissues, and whether they function properly or improperly. The amount and quality of the motion we experience as we grow is directly linked to the development of our musculoskeletal system.

We have become increasingly dependent upon modern transportation, Technology, and automation to facilitate our tasks. Consequently, we are no longer developing and maintaining the skeleton and the postural, structural muscles that naturally support ourselves through the physical demands of daily chores. For others, we tend to concentrate on specific athletic endeavors as opposed to a balanced variety of activities. As a result, our musculoskeletal system is unable to mature according to design, and we develop compensated structures and motor skills. Each generation shows progressive signs of deterioration at increasingly younger ages.

These changes lead to anatomical dysfunction, defined as any condition in which the musculoskeletal system has not developed normally and, therefore, alters the body's ability to function correctly. Anatomical dysfunction can interfere with the body's ability to perform both physical and mental tasks. When the integrity of structural or postural muscles is compromised, the whole skeletal system is affected. The hip girdle changes its tilt, the back changes its curve, and the whole body begins to compensate—creating misalignments. These misalignments lead to abnormal wear and tear in the joints. After

a time, misalignment can cause musculoskeletal breakdowns, injury, and pain.

Misalignments also affect the performance of other body systems, including the cardiovascular, digestive, and respiratory systems. Our bodies are designed very specifically, each system complementing another. The internal organs are held and positioned within the body by proper alignment and movement of the musculoskeletal system. Anatomical dysfunction can change the position of these essential systems in relation to each other and in relation to gravity, thus altering their ability to do their job properly.

These systems are dependent on motion. They function and interact best when we are off the couch and in a motion-enriched environment. The Egoscue Method therapy utilizes the muscles of our body through a series of individually designed repositioning, strengthening, stretching, or functional exercises to treat anatomical dysfunction. Each exercise makes specific demands on the body. The exercises are designed to facilitate normal muscle function and interaction.

Posture

- Emphasize balance
- Principles of alignment, joint and muscles
- Evaluating and treating postural problems requires understanding of the basic principles relating to alignment, joints and muscles.
- Faulty alignment results in undue stress and strain on bones, joints, ligaments and muscles.
- Joint positions indicate which muscles appear to be elongated and which appear to be shortened.
- A relationship exists between alignment and muscle test findings if posture is habitual.
- Muscle shortness holds the origin and insertion of the muscle closer together
- Adaptive shortening can develop in muscles that remain in shortened condition. •

Muscle weakness allows separation of the origin and insertion of the muscle.

- Stretch weakness can occur in one joint muscles that remain in an elongated condition. a time, misalignment can cause musculoskeletal breakdowns, injury, and pain.

Symptoms & Dysfunction

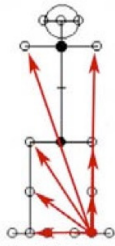
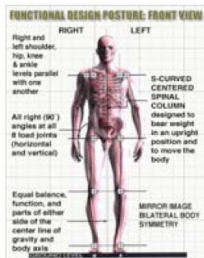


Figure 2.2: Dysfunctions can travel in 4 levels - vertical and horizontal. In this example, the ankle is the starting point.

- The Site of the Pain is rarely the Source of the Pain
- The EM treats the Dysfunction, seen as the underlying cause of the symptom
- Dysfunction can travel in 4 levels

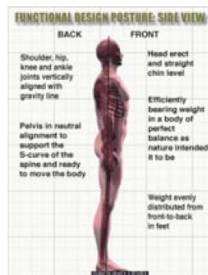
The Law of Balance

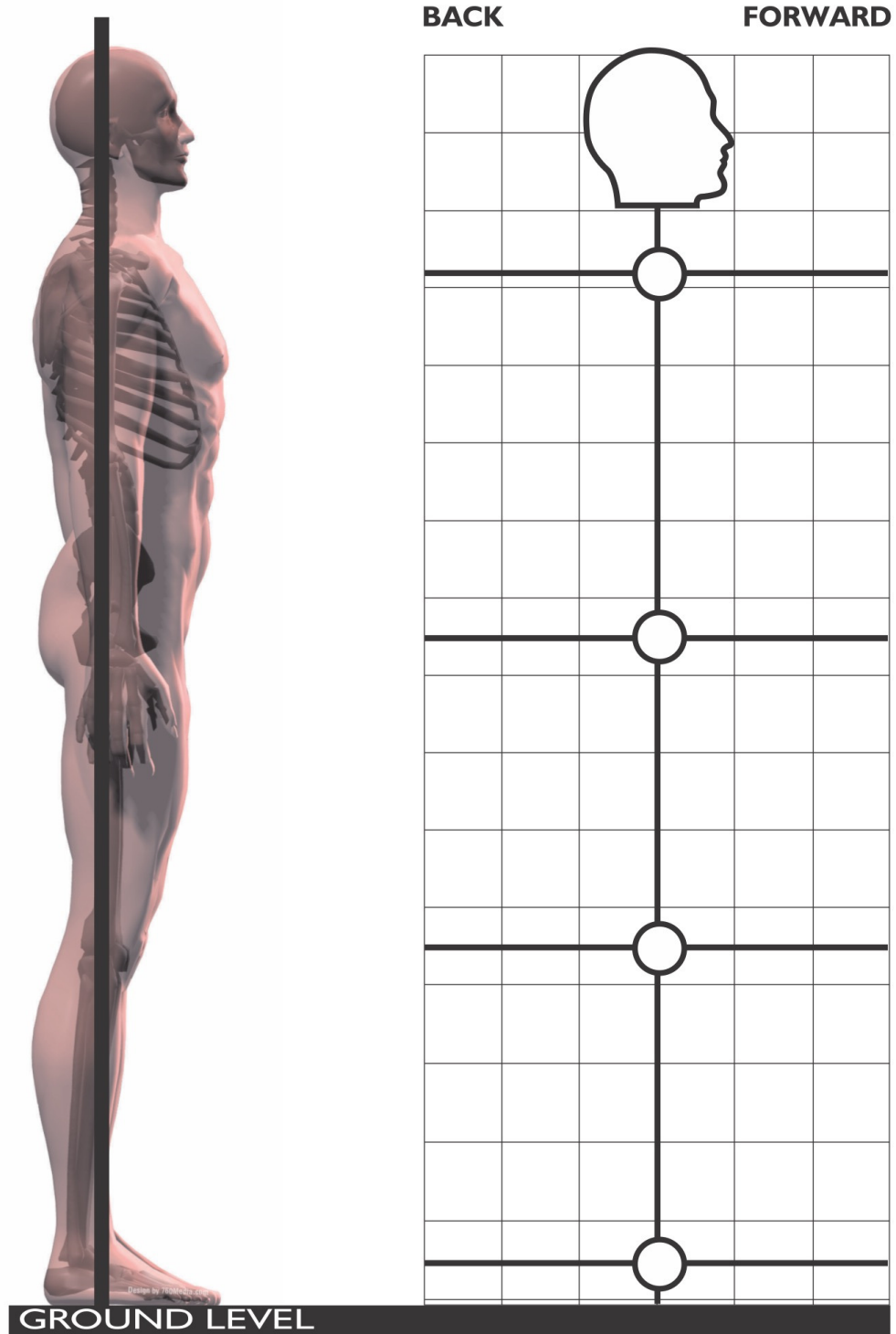


- In order for motion to be effective, the body must achieve balance.
- This includes muscle memory - necessary to constantly return the body to vertical load.
- In order for this to occur muscles must work in pairs and equally on both sides of the body.

The Law of Dynamic Tension

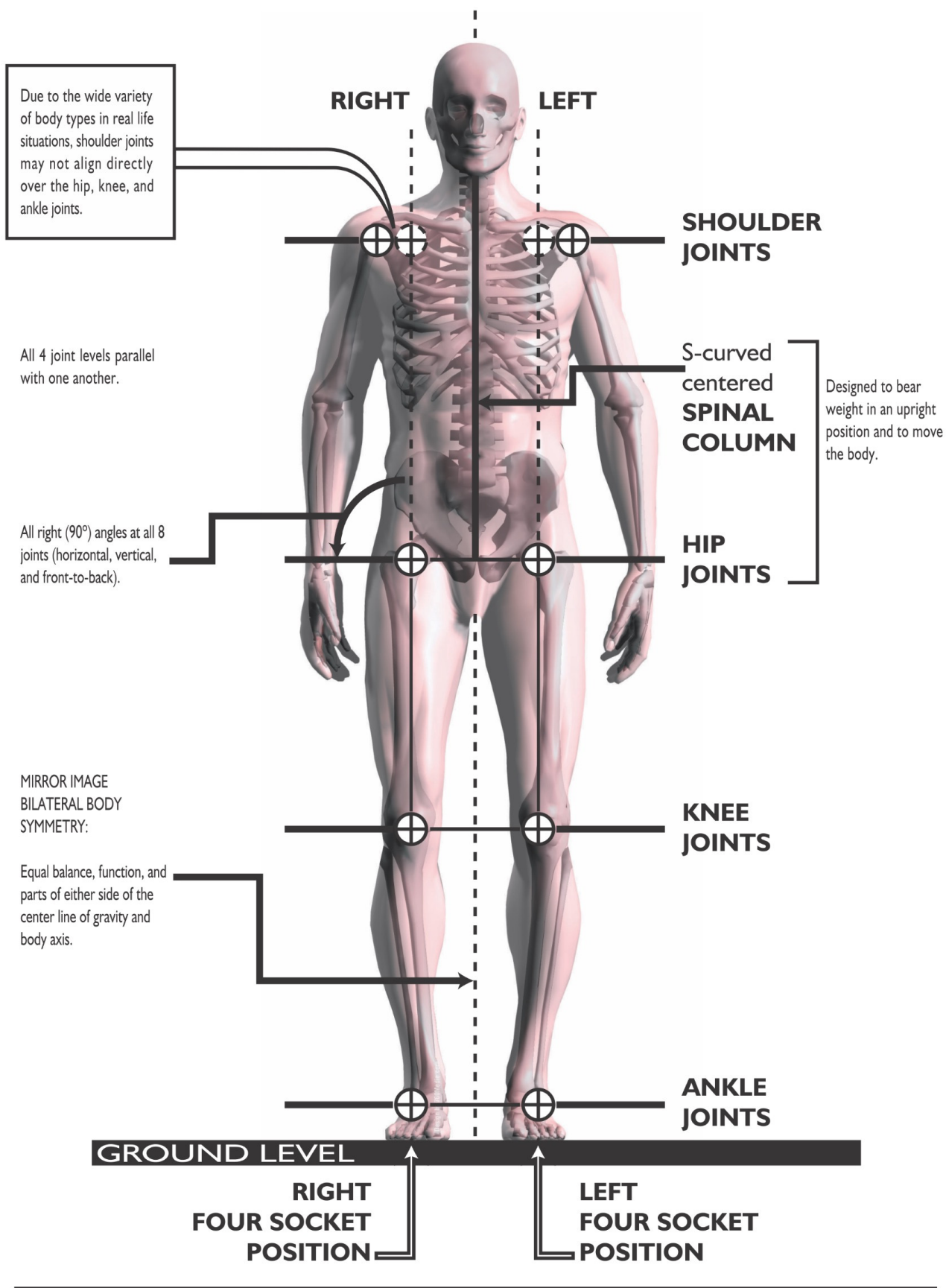
- A state of constant tension exists between the front of the body and the back of the body
- The posterior of the body is responsible for extension, or erection of the body
- The anterior of the body is responsible for the flexion, or bending of the body
- Neither activity can take place without this action taking place simultaneously



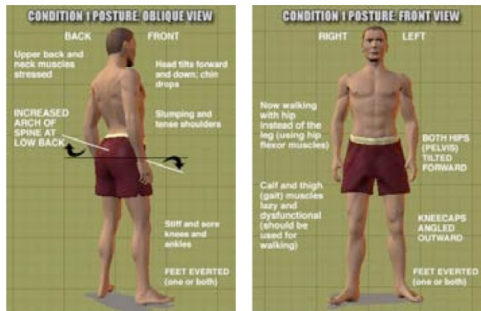


BALANCE

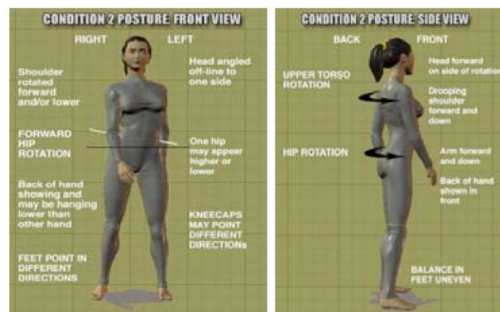
Load bearing should be equal front to back and side to side



Condition One Posture



Condition Two Posture

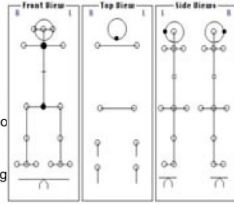


Condition Three Posture



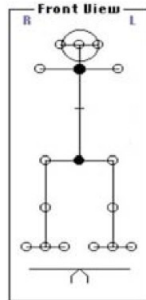
Recording Posture

- Stick Figure Benefits:
 - Draw it like you see it
 - Focus on load joints
 - Look at body as a unit
 - Use planes of motion
- Posture Recording Tips:
 - Include weight distribution
 - Include Right/Left comparisons
 - Use absolute positioning of load joints
 - Keep planes distinct



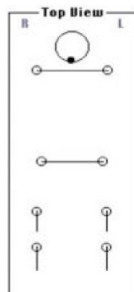
Recording Posture

- Front View (Frontal Plane Deviations)
- Weight Distribution: Right, Left or Center
- Ankle Supination or Pronation
- Upper and Lower Leg Adduction or Abduction
- Valgus or Varus Knee Stress
- Lateral Flexion (spine)
- Offset Right or Left (trunk, head or pelvis)



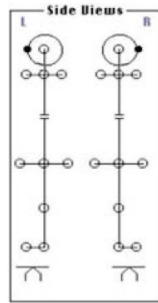
Recording Posture

- Top View (Transverse Plane Deviations)
 - Foot Eversion or Inversion
 - Femur/Knee Rotation
 - Pelvic Rotation
 - Thoracic/Trunk Rotation
 - Head Rotation

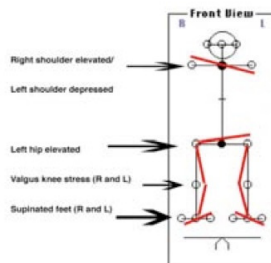


Recording Posture

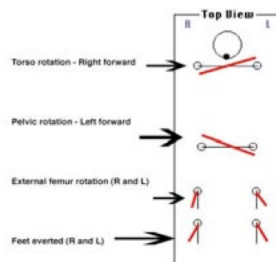
- Side Views (Sagittal Plane Deviations)
 - Weight Distribution: Anterior, Posterior or Center
 - Ankle Dorsiflexion or Plantar Flexion
 - Hip, Knee & Spine Flexion or Extension
 - Anterior or Posterior Pelvic Tilt
 - Swayback or Trunk Flexion
 - Shoulder Rounding
 - Head Position



Recording Posture



Recording Posture



DAO NEEDLE THERAPY EVALUATION FORM

CLIENT NAME: _____

DATE EVALUATED: ____ / ____ / ____ PREVIOUS EVALUATION: ____ / ____ / ____

CHIEF COMPLAINT: _____

MMT

DEF / EXC

1. _____ / _____

2. _____ / _____

3. _____ / _____

4. _____ / _____

5. _____ / _____

ROM

PASSIVE / ACTIVE

1. _____ / _____

2. _____ / _____

3. _____ / _____

4. _____ / _____

5. _____ / _____

FUNCTIONAL TESTS

1. _____

2. _____

3. _____

4. _____

5. _____

FASCIAL LINE / MERIDIAN

1. _____ / _____

2. _____ / _____

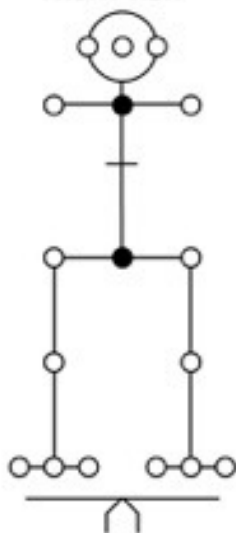
3. _____ / _____

4. _____ / _____

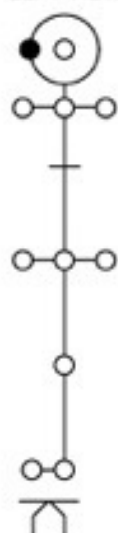
5. _____ / _____

POSTURAL ASSESSMENT

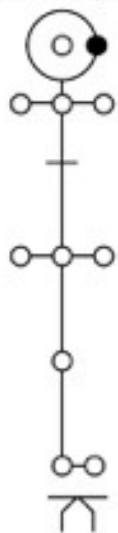
FRONT VIEW



LEFT VIEW



RIGHT VIEW

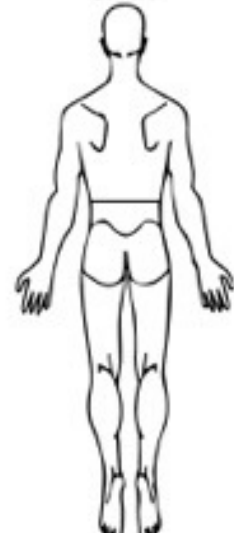


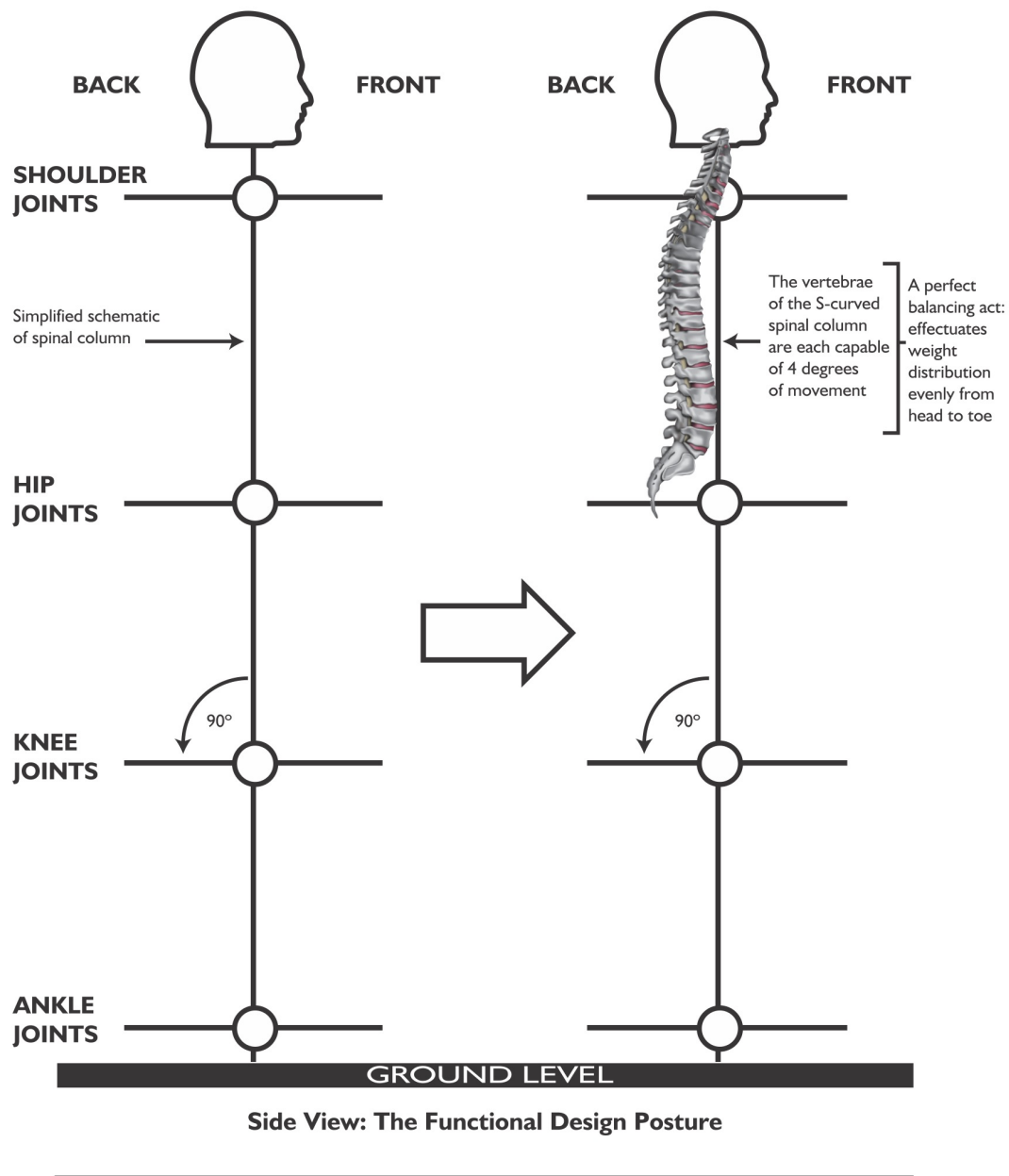
PALPATION ASSESSMENT

FRONT



BACK





Musculoskeletal Assessment

Arthrokinematics is the study of movement occurring within the joints.

- Convex fixed moves joint articulations in the same direction.
- Concave fixed moves the joint articulation in the opposite direction.

Joint range of motion is evaluated through passive range of motion (PROM) or active range of motion (AROM).

AROM in a vertical plan vs. horizontal plan; ROM may be less due to lack of resistance against gravity.

PROM is usually greater than AROM. PROM provides information about the following:

- Amount of movement possible at a joint

- Factors responsible for limiting movement
- Movements that cause or increase pain

Assessing PROM

- Visually estimate PROM.
- Determine quality of movement throughout PROM.
- Determine the end feel and factors that limit PROM.
- Note presence of pain.
- Determine whether a capsular or non-capsular pattern of movement is present.

Normal End Feels

- Hard (bony)—a painless, abrupt, hard stop to movement when bone contacts bone.
- Soft (soft tissue opposition) —when two body surfaces come together a soft, compression of tissue is felt.
- Firm (soft tissue stretch) —a firm or springy sensation that has some give when muscle is stretched.
- Capsular Stretch—a hard arrest to movement with some give when joint capsules or ligaments are stretched.

Note: Any motion that hurts with active ROM should be evaluated with passive ROM. If there is no pain with active ROM, it is unlikely there will be with PROM.

Capsular Patterns

• Only joints that are controlled by muscles exhibit capsular patterns. If a lesion of the joint capsule or total joint reaction is present, then the capsular pattern or restriction of PROM will appear.

Non-Capsular Patterns

• Exists when there is limitation of movement at a joint but not in the capsular pattern. This pattern indicates the absence of total joint reaction. These can be caused by ligamentous sprains, adhesions, internal derangement, and extra-articular lesions.

Assessment of Passive ROM

- Stabilize the proximal joint segment.
- Move the distal joint segment to the end of PROM for the test and apply slight pressure at the end of PROM.
- Note—the end feel, presence of pain

- Return the limb to start position.
- Follow the assessment of PROM for all movements of the joint.
- Determine the presence of capsular or non-capsular pattern of movement.
- Passive joint ROM must be assessed before assessing muscle strength. The full available PROM at the joint then becomes the range of motion the muscles can be expected to move the limb through, and is therefore defined as the full available ROM for the purpose of grading muscle strength.

Assessment of Muscle Length

- Muscles that are excessive in length are usually weak and allow adaptive shortening of opposing muscles.
- Muscles that are too short are usually strong and maintain opposing muscle in a lengthened position.

• **Testing One Joint Muscle:**

To test the length of a muscle that crosses one joint, the joint crossed by the muscle is positioned so that the muscle is lengthened across the joint. The position of the joint is measured, and this represents an indirect measure of muscle length. The end feel will be firm.

• **Testing Two-Joint Muscles:**

To test the length of a two-joint muscle, position one of the joints crossed by the muscle so as to lengthen the muscle across the joint. Then move the second joint through a PROM until the muscle is placed on a full stretch and presents further joint motion. The joint position represents an indirect measure of the muscle length.

• **Testing Multi-Joint Muscles:**

To test the length of a multi-joint muscle, position all but one of the joints crossed by the muscle so that muscle is lengthened across the joints. Then move the remaining joint crossed by the muscle through PROM until the muscle is on a full stretch and presents further motion in the joint. The joint position represents an indirect measure of the muscle length.

- **Passive Insufficiency**—Wherever a full range of motion of any joint or joints that the muscle crosses is limited by the muscle's length rather than by ligaments or joint structure itself.
- **Active Insufficiency**—If a muscle that crosses two or more joints produces simultaneous movement of all of the joints that it crosses. It soon reaches a length at which it can no longer secrete a useful amount of force.
- With a unilateral complaint, test the uninvolved side first to establish a baseline for normal motion. As with active motion, any complaint involving axial skeleton should be tested on both sides.

- If passive movement reproduces the client's pain prior to reaching the end range, inert tissues are indicated.

- If passive movement reproduces the client's complaint near the end of range of motion, nerves or muscles that are stretched might be at fault.

- **Active Range of Motion (AROM):**

- A variety of information is gained from observing active ROM, including the client's willingness to move, the available range of motion, muscle strength, pain, and coordination.

Active Range of motion (AROM)

- A variety of information is gained from observing active ROM including the clients willingness to move, the available range of motion, muscle strength, pain and coordination.
- All single planes of movement should be tested first. Always test movement that are suspected to create pain last.
- AROM tests involve both inert and contractile tissue. Clarifying which contractile and inert tissues are involved in AROM evaluation is critical in gaining valuable information from these procedures. AROM evaluations primarily focus on the contractile tissues who concentric action is the same motion being performed. Mistaking eccentric action for concentric is a common mistake.
- If there is no pain with AROM it is likely there is minimal or no change to the structure, contractile or inert, involved in the active movement. However there may be change that is not immediately evident. A mild muscle strain may not be painful because not enough muscle fibers are recruited to produce pain. When manual muscle testing is performed pain can result because a greater amount of muscle activation is required which loads the muscle enough to produce pain.

Fascial System

Fascia the extracellular matrix cells introduce a wide variety of structurally active substances into the intercellular space, including the many types of collagen, along with elastin and reticulin fibers, and the gluey interfibrillar proteins commonly known as "ground substance."

Connective tissues' walls of fabric act to direct fluid, create pockets and tubes; however, their uniting function far outweighs their separating ones. Connective tissue binds every cell in the

body to its neighbors and connects the inner network of every cell to the mechanical state of the entire body.

There are a number of different cells within the connective tissue system, including:

- Red blood cells
- White blood cells
- Fibroblasts
- Mast cells
- Glial cells
- Pigment cells
- Fat cells
- Osteocytes

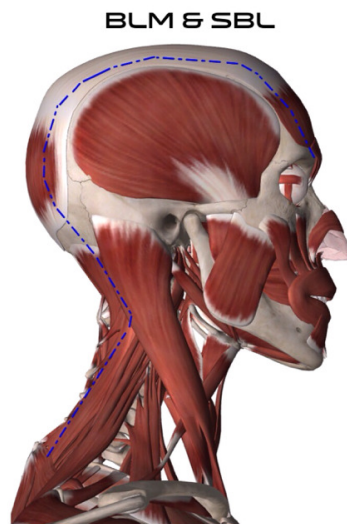
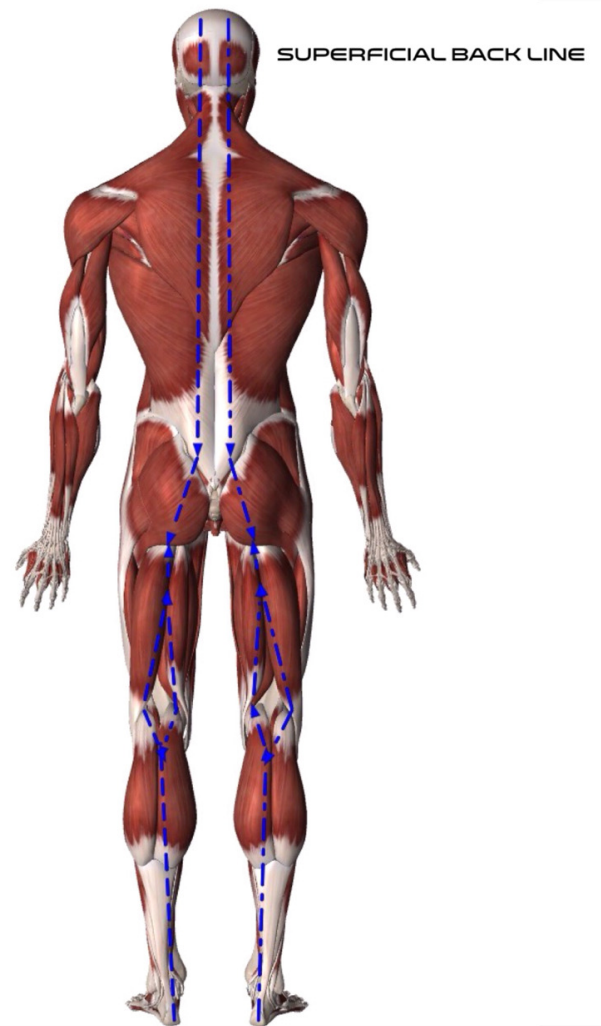
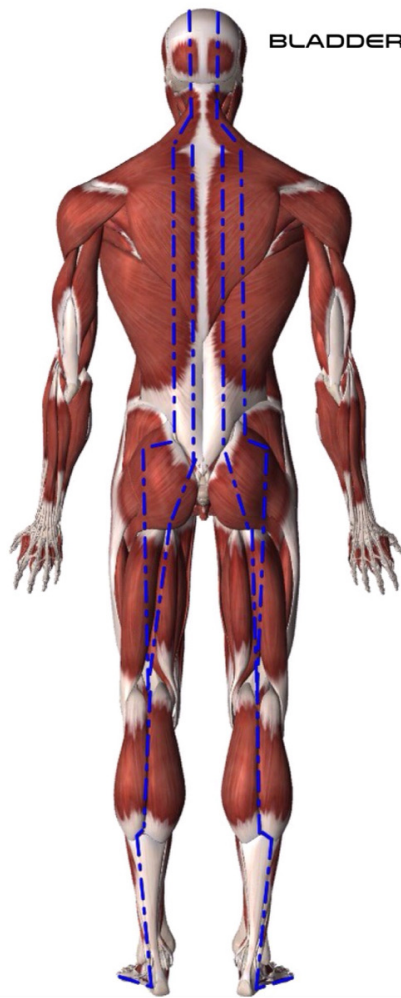
This amazing matrix has the ability to store and communicate information across the entire body. Change in pressure and tension on this matrix causes the liquid crystal semiconducting lattice of the collagen and other proteins to generate bioelectrical signals that mirror the original mechanical information.

Ground substance is a watery gel composed of or glycosaminoglycans such as hyaluronic acid, chondroitin sulfate, keratin, laminin, fibronectin, and heparin. These fern-like colloids, which are a part of the environment of nearly every living cell, bind water to distribute metabolites and form part of the immune system barrier. This substance forms a highly variable glue to help trillions of cells hold together and be free to exchange substances necessary for living. Ground substance changes its state constantly to meet local needs in a held or still area of the body. It tends to dehydrate to become more viscous, gel-like, and to become a repository for metabolites and toxins.

Fascia reorganizes, rearranges, or remodels itself in response to various demands. Stress passing through a material deforms the material even if only slightly, thereby stretching the bonds between the molecules. In biological materials, among others, this creates a slight electric flow through the material, known as a piezo electric charge. This charge, representative of strain through tissue, can be read by the cells in the vicinity of the charge, and the connective tissue cells start responding by augmenting, reducing, or changing the intercellular element in the area. Recent research highlights the link between form and function between the workings of acupuncture and the fascial network in general. Findings by prominent acupuncture “researcher and neuroscientist Dr. Helene Langevin and others have shown that connective tissue, along with collagen fibers, has a detectable mechanical tissue effect.”

Additionally, Langevin postulated that acupuncture meridians may follow intermuscular or intramuscular fascial planes. These findings link the possible effects of acupuncture stimulation with mechanical transduction within fascial planes of the extracellular matrix. Langevin found dramatic correspondence between the acupuncture system and the fascial plains.

Meridian & Fascial Mapping











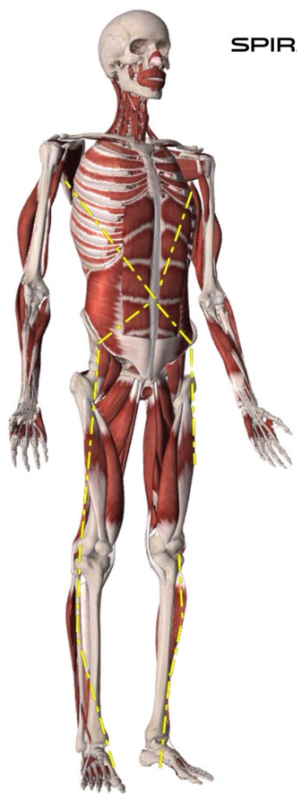
DEEP FRONT LINE



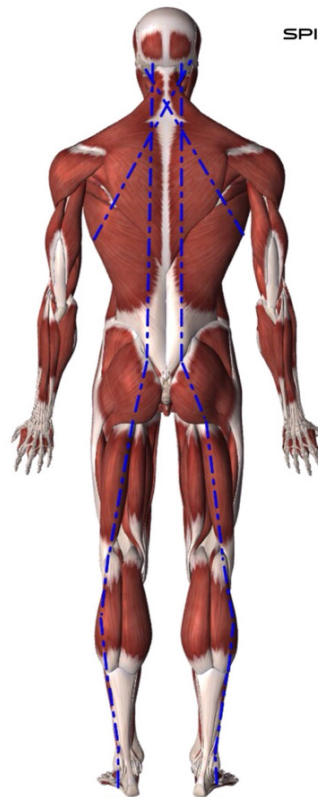
DEEP FRONT LINE



DEEP FRONT LINE



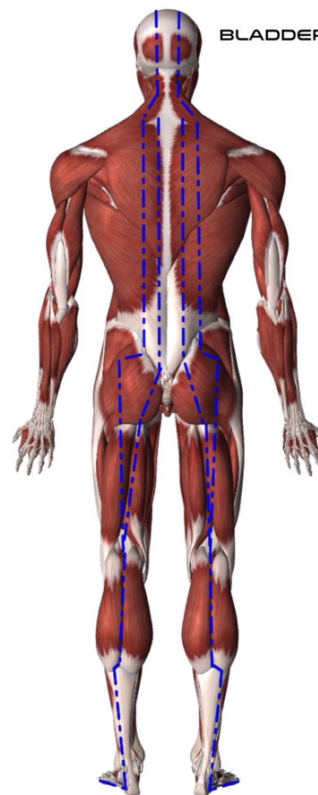
SPIRAL LINE



SPIRAL LINE



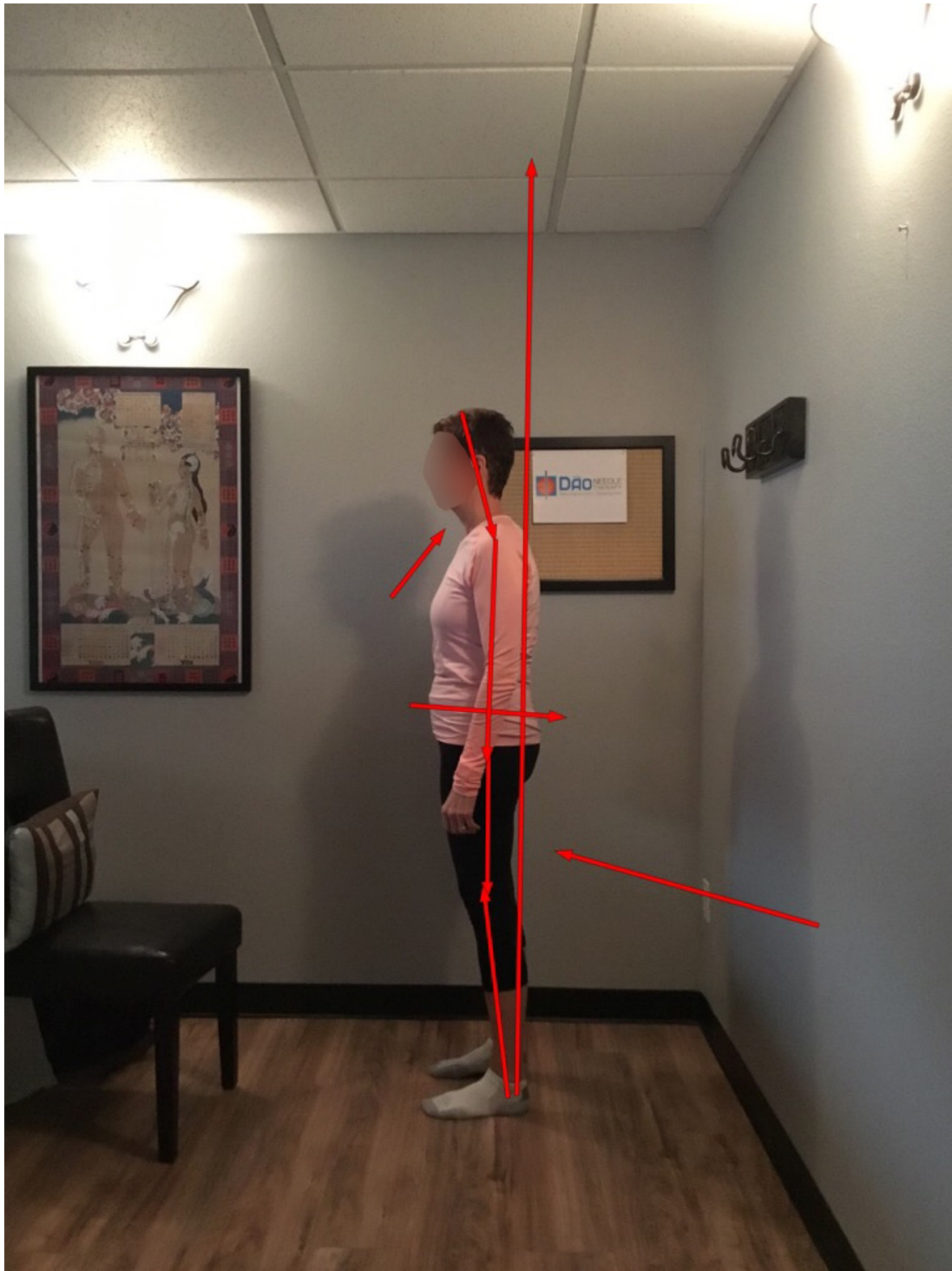
STOMACH MERIDIAN



BLADDER MERIDIAN

Postural Analysis, Functional Test, Needle Position

SBL Superficial Back Line/Bladder Meridian



Static Wall Femur Rotations



Reps:

Sets:

Duration:

Instructions:

1. Bring your feet hip width apart
2. Rotate your legs (femurs) and feet internally, and then externally. Repeat as directed by your therapist
4. Bring feet and legs further apart, and repeat internal and external rotations, as directed by your therapist
5. Bring feet and legs even further apart if necessary, and repeat

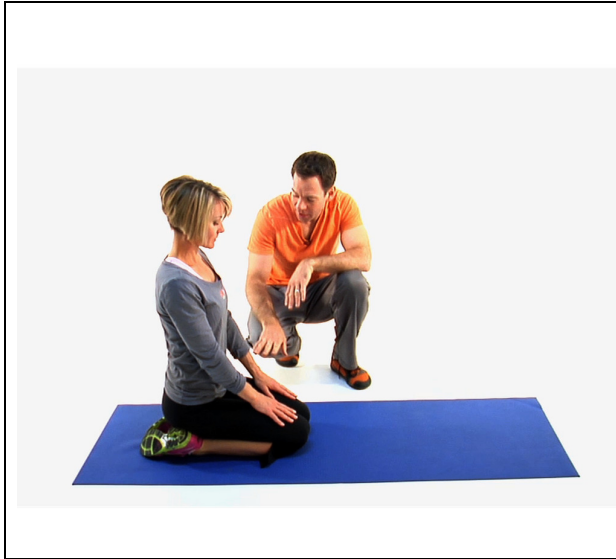
Position: Static Wall

Start sitting with a hip against a wall, then rotate your body and feet up the wall, so you're lying on your back with your legs up against the wall glutes as close to the wall as possible. Keep your feet flexed (so foot is flat to ceiling, toes pointing straight out) and your knees locked straight (if can't lock knees with glutes against wall, slide your body a little further away from wall until able to lock knees). Arms are out at a 45 degree angle, palms up.

Purpose: Repositions the ball and socket joint of the hip and helps lubricate the hip joint.

Deep posterior fascial line, abductor stretch, creates thoracic extension, limits rotation in pelvis, provides posterior fascial stretch, stretches hamstrings, calves

Child's Pose



Reps:

Sets:

Duration:

Instructions

1. Bring arms to side
2. Curl body forward and place your forehead on the floor between knees, arms are relaxed out and back with palms up
3. Breathe, relaxing deeply into the posture on the exhale.

Position: Kneeling, sitting back on your heels (if there's discomfort, place a pillow between feet and buttocks).

Contraindications: Knee and/or ankle issues

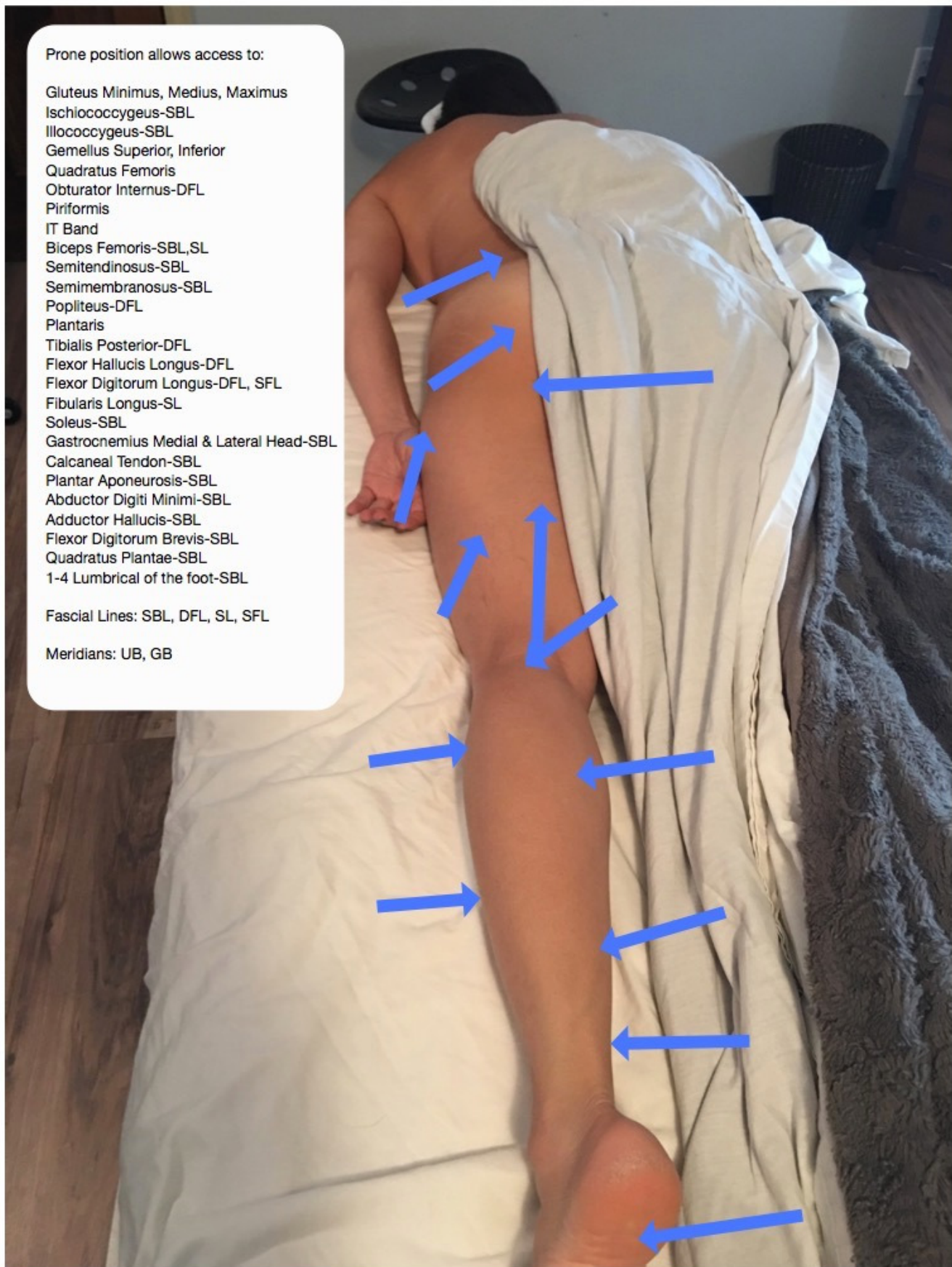
Purpose: Opens vertebrae in the flexion position, extreme flexion of the spine and pelvis, stretch and lengthen the erector muscles

Prone position allows access to:

Gluteus Minimus, Medius, Maximus
Ischiococcygeus-SBL
Iliococcygeus-SBL
Gemellus Superior, Inferior
Quadratus Femoris
Obturator Internus-DFL
Piriformis
IT Band
Biceps Femoris-SBL,SL
Semitendinosus-SBL
Semimembranosus-SBL
Popliteus-DFL
Plantaris
Tibialis Posterior-DFL
Flexor Hallucis Longus-DFL
Flexor Digitorum Longus-DFL, SFL
Fibularis Longus-SL
Soleus-SBL
Gastrocnemius Medial & Lateral Head-SBL
Calcaneal Tendon-SBL
Plantar Aponeurosis-SBL
Abductor Digiti Minimi-SBL
Adductor Hallucis-SBL
Flexor Digitorum Brevis-SBL
Quadratus Plantae-SBL
1-4 Lumbrical of the foot-SBL

Fascial Lines: SBL, DFL, SL, SFL

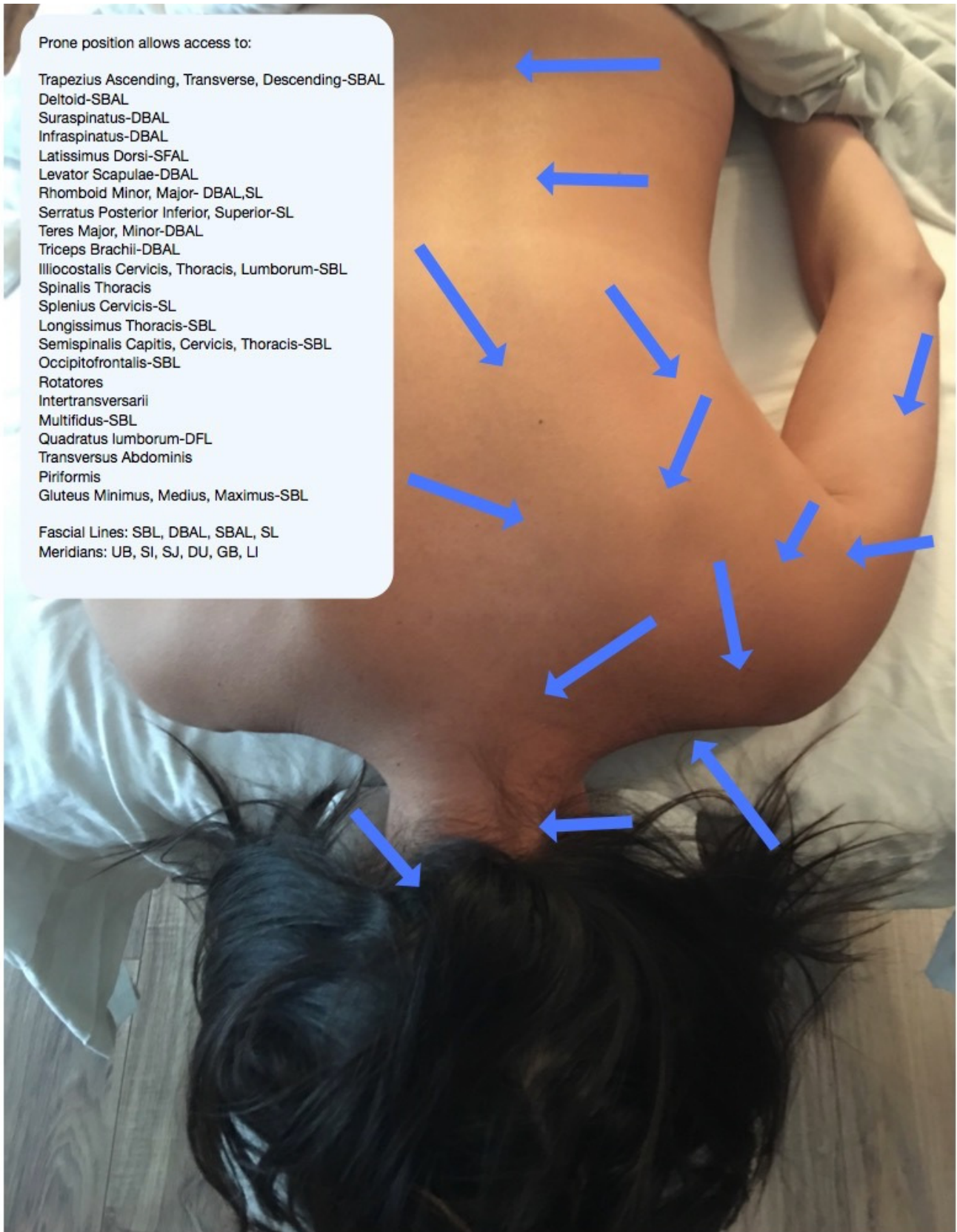
Meridians: UB, GB



Prone position allows access to:

Trapezius Ascending, Transverse, Descending-SBAL
Deltoid-SBAL
Serratus Posterior Inferior, Superior-SL
Infraspinatus-DBAL
Latissimus Dorsi-SFAL
Levator Scapulae-DBAL
Rhomboid Minor, Major- DBAL,SL
Serratus Posterior Inferior, Superior-SL
Teres Major, Minor-DBAL
Triceps Brachii-DBAL
Iliocostalis Cervicis, Thoracis, Lumborum-SBL
Spinalis Thoracis
Splenius Cervicis-SL
Longissimus Thoracis-SBL
Semispinalis Capitis, Cervicis, Thoracis-SBL
Occipitofrontalis-SBL
Rotatores
Intertransversarii
Multifidus-SBL
Quadratus lumborum-DFL
Transversus Abdominis
Piriformis
Gluteus Minimius, Medius, Maximus-SBL

Fascial Lines: SBL, DBAL, SBAL, SL
Meridians: UB, SI, SJ, DU, GB, LI



SFL
Superficial Front Line/Stomach Meridian



Dao Needle Therapy/Neuro-Fascial Acupuncture

Wall Quad (Quadricep) Stretch



Reps:

Sets:

Duration:

Instructions:

1. Interlock your fingers and place on your front knee, pushing body back to touch the wall
2. Breathe and relax in this position for 1 minute
3. Repeat on the opposite side

Position: Kneeling with your knee and shin against a wall and opposite leg bent in front with ankle directly below knee at 90 degree angle

Purpose: Eliminate anterior pelvic tilt, quadriceps stretch

Hip-Ups



Reps:

Sets:

Duration:

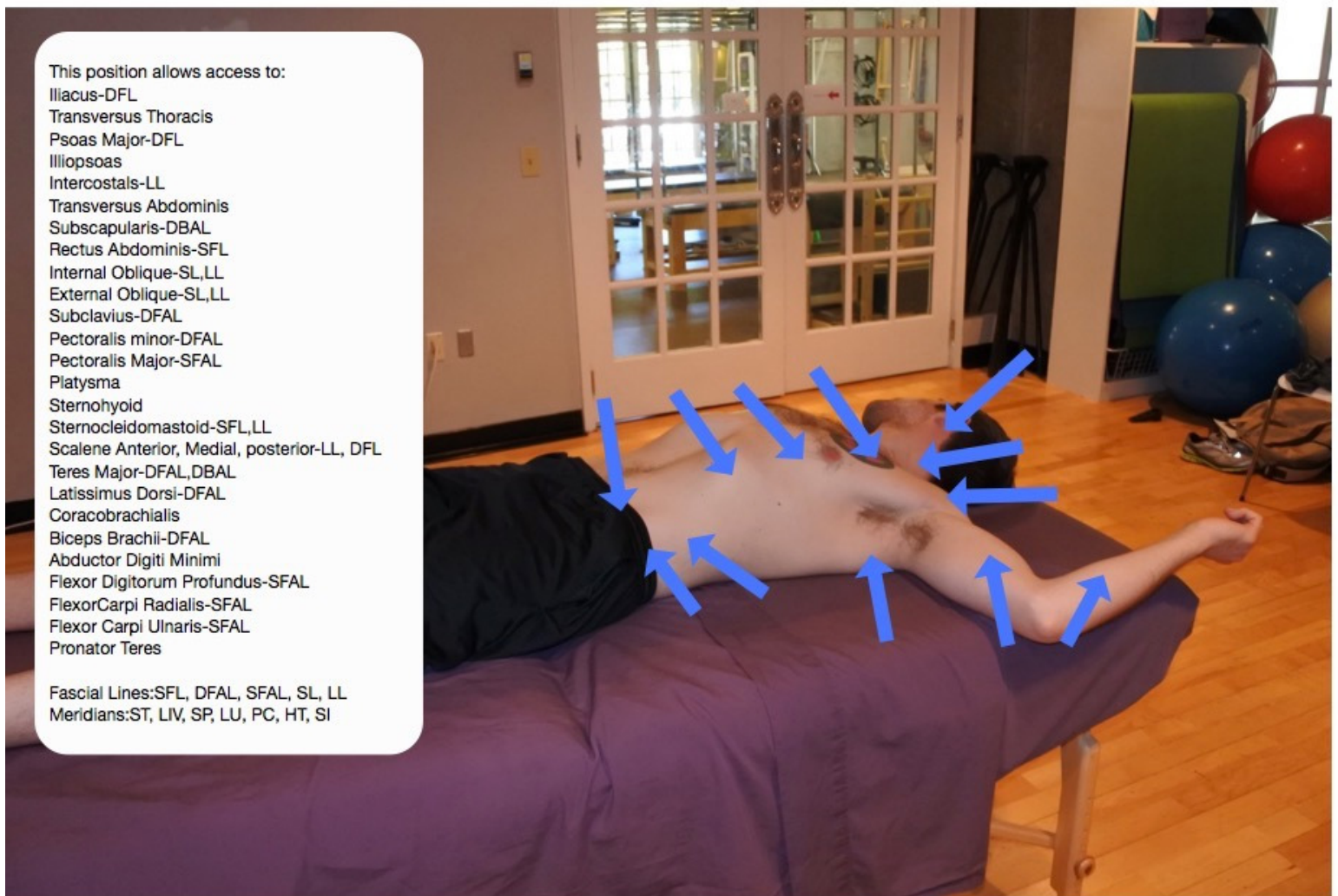
Instructions

1. engage hips
2. lift pelvis towards ceiling, extending thoracic area toward ceiling
3. look backwards
4. hold for 3 seconds and then return (sit back up)
5. repeat

Position: kneeling and sitting on your heels (if there's discomfort, place a pillow between feet and buttocks) with your hands behind your feet, fingertips pointing backwards (if there are wrist issues, then use fists)

Contraindications: knee and/or ankle issues

Purpose: lengthens quads (to address anterior pelvic tilt – too much arch in back and tight in the hip flexors), extends thoracic spine, stretches forearms

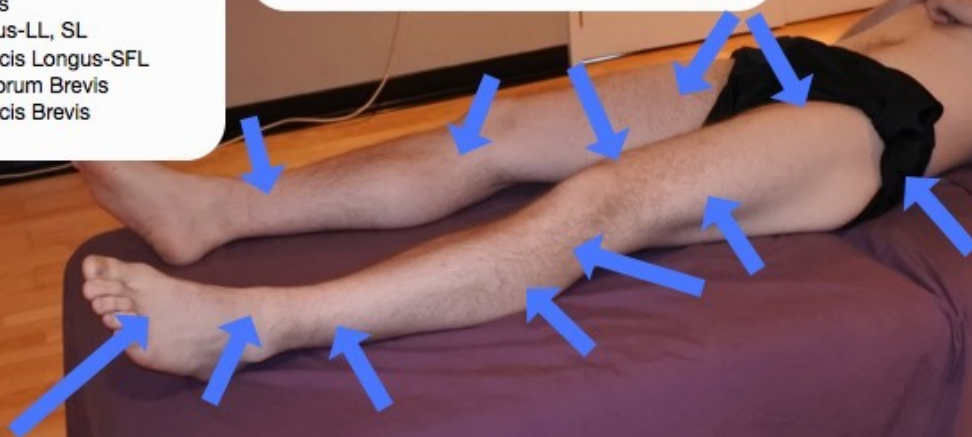


This position allows access to:

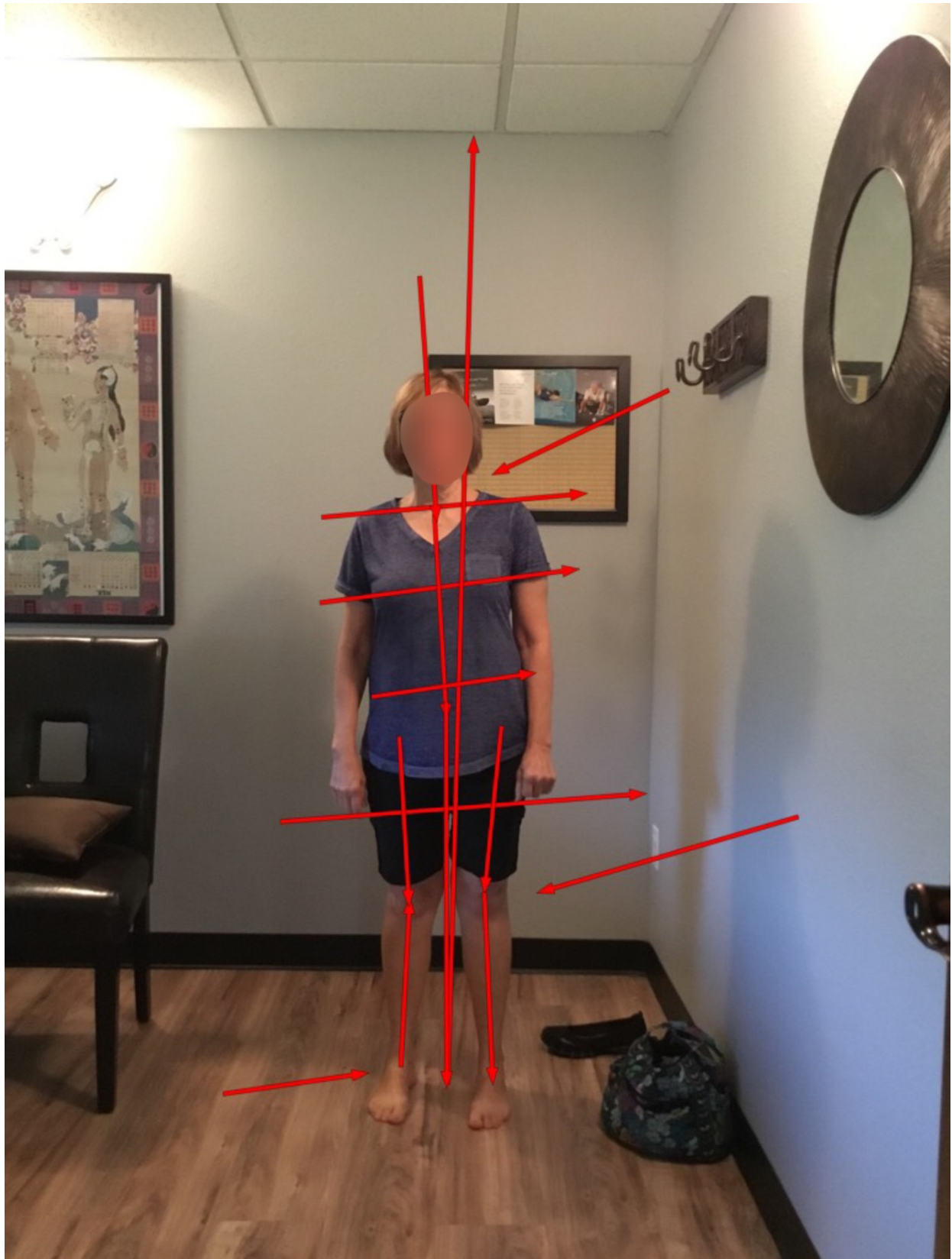
Interosseous
Fibularis Tertius-SFL
Tibialis Posterior-DFL
Articularis Genus
Adductor Brevis-DFL
Adductor Minimus-DFL
Adductor Longus-DFL
Adductor Mangus-DFL, SL, DFL
Pectineus
Vastus Medialis
Vastus Intermedius
Gracilis
Biceps Femoris
Fibularis Longus-LL, SL
Extensor Hallucis Longus-SFL
Extensor Digitorum Brevis
Extensor Hallucis Brevis

Extensor Digitorum Longus-SFL
Vastus Lateralis
Rectus Femoris-SFL
Tibialis Anterior-SFL, SL
Flexor Digitorum Longus-DFL
Soleus
Sartorius
Tensor Fasciae Latae-LL, SL
Iliotibial Tract-LL, SL

Fascial Lines:SFL, DFL, SL, LL
Meridians:ST, GB, UB



LL
Lateral Line/Gallbladder Meridian



Dao Needle Therapy/Neuro-Fascial Acupuncture

Wall Triangle



Reps:

Sets:

Duration:

Instructions:

1. Extend arms out at 90 degrees and shift pelvis toward to back foot
2. Bending from thoracic spine (laterally flex), keeping hips locked in place and back against the wall, bring hand to the level of the knee
3. Hold this position as prescribed
4. Repeat on the other side

Position: Standing with back against the wall in a wide-leg stance, turn one foot parallel to the wall and move it out 6 inches from the wall (note: if this causes too much pressure on the ankle, may turn out 45 degrees from the wall), keep other foot perpendicular to the wall, with heel against the wall. Keep your pelvis level and against the wall.

Purpose: Lateral flexion

Iliotibial (IT) Band Stretch



Reps:

Sets:

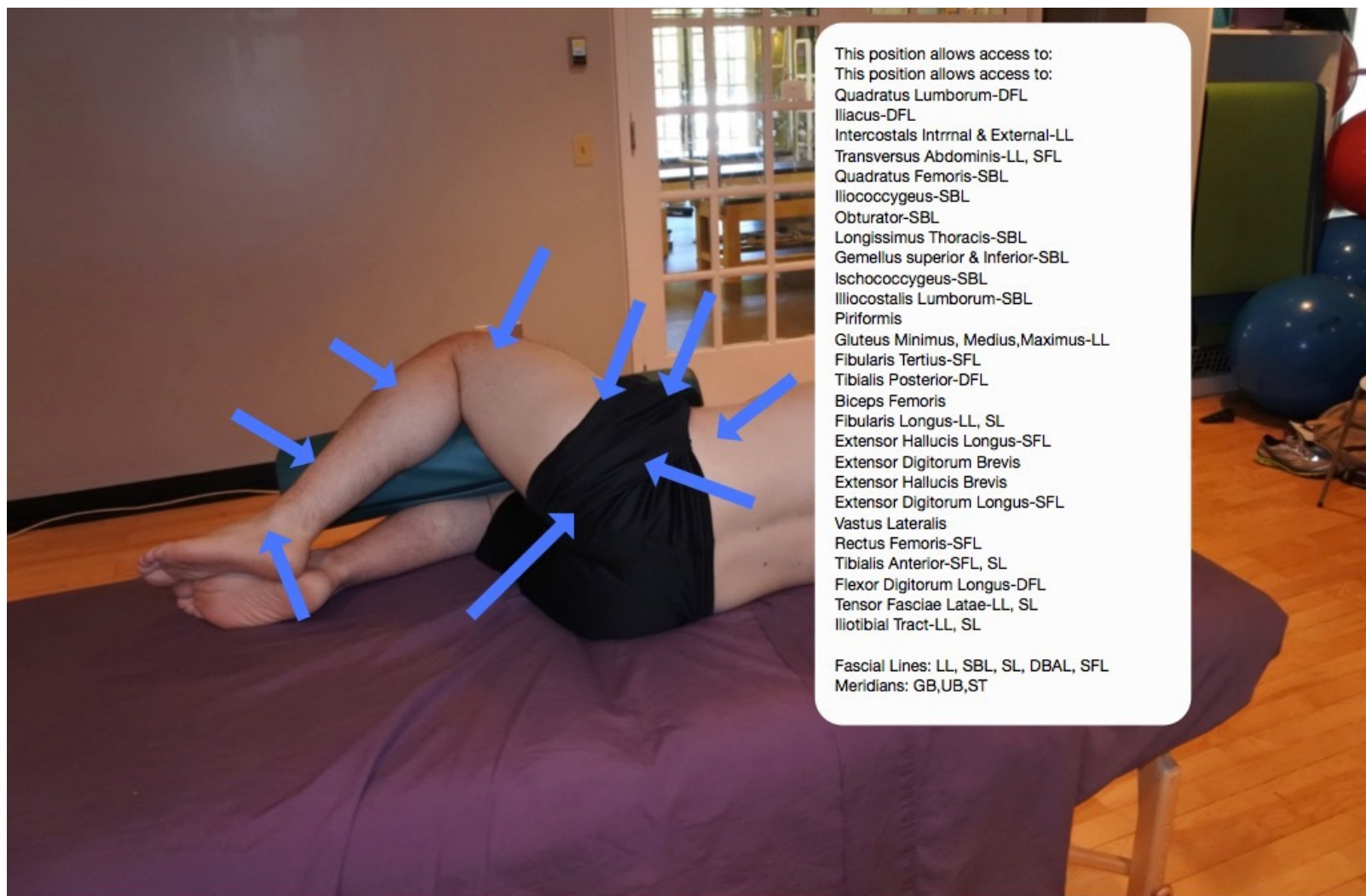
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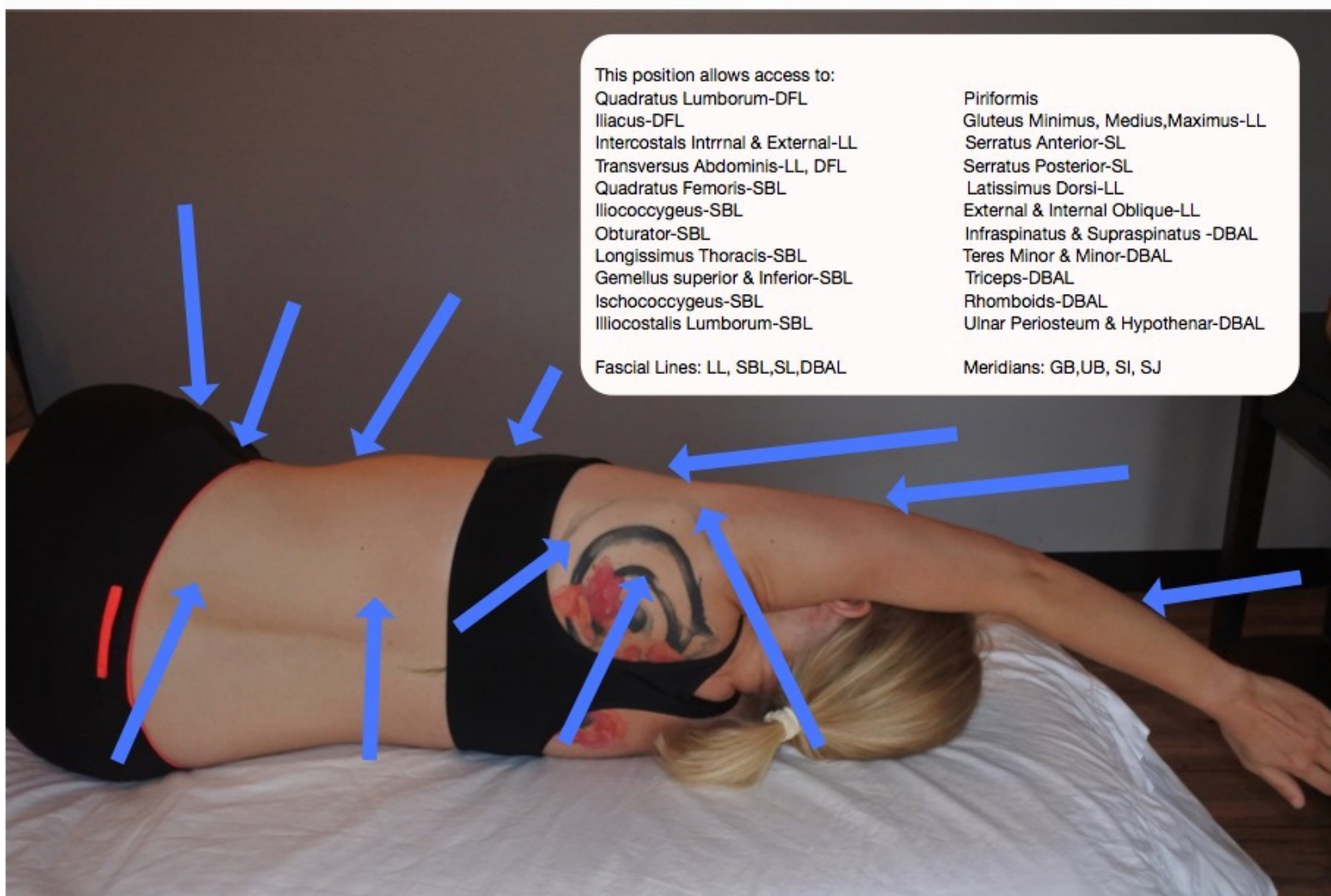
Instructions:

1. Bring left leg up as high as possible, keeping knee locked and foot flexed
2. Slowly let your leg and hip roll to the right and bring your ankle toward the floor
3. Turn your head the opposite direction, keeping upper body relaxed.
4. Hold for 1 minute
5. Repeat on the opposite side

Position: Laying supine on your back with legs flat on the ground and arms relaxed at 45 degree angle with palms up and feet flexed back.

Purpose: Opens hip, glutes, IT band, spinal rotation (lumbar, thoracic and cervical)





SBAL/DBAL

Back Arm Lines/Triple Burner, Small Intestine Meridian



Dao Needle Therapy/Neuro-Fascial Acupuncture

Standing Chest Openers

Unilateral



Reps:

Sets:

Duration:

Instructions:

1. External Rotation: Laterally rotate your elbow up and pause (eye of elbow 'up') while keeping your hand pressed into the wall, hold as directed by your therapist
2. Medial Rotation: Medially rotate your elbow joint down and pause (eye of elbow down) while keeping your hand still on the wall, hold as directed by your therapist
3. Repeat on other side

Position: Standing parallel to the wall, place your right hand on the wall, palm level with your shoulder, and your feet hip width apart. Keep your elbow locked and spread your fingers as far apart as possible (hand anchored to wall- no rotation) and shoulder not raising up. For some clients just the position will suffice- do not force the rotations)

Purpose: external and medial rotation of the forearm, stretches forearm and shoulder joint, re-positions A-C joint, medial nerve stretch

Sitting Elbow Abduction and Adduction Option for Block or Strap



Reps:

Sets:

Duration:

Instructions:

1. Take deep breath, on exhalation engage knees into block – keep constant pressure on block throughout first part of exercise.
2. Inhale, then exhale and pull elbows out against strap (keeping neck muscles relaxed and pulling scapulae together and down), hold for a few seconds, then relax.
3. Keeping the same distance between knees, remove the block and place another strap around knees (maintaining vertical load line) – pulling knees out against strap (about 30% of strength), put constant pressure against strap around knees throughout second part of exercise.
4. Inhale, then exhale and pull elbows out against strap (keeping neck muscles relaxed and pulling scapulae together and down), hold for a few seconds, then relax.

Position: In seated position on edge of chair, create arch in back; ears in line with shoulders and hips (creating a vertical load line); ankles, knees, and hips aligned with shoulders; knees and ankles at 90 degree angle. Block between knees and strap just above elbows. Elbows bent with knuckles on temples with thumbs pointed backwards (fingertips tucked into pads of hands) – this is a pivot point (keep knuckles touching temples).

Purpose: works external rotators of the shoulder and back (extensors and paraspinals), rhomboids; block encourages pelvic stability through the adductors.

This position allows access to:

Trapezius-SBAL
Deltoid-SBAL
Triceps=DBAL
Brachialis-SBAL
Lateral intermuscular septum-SBAL
Extensor Digitorum-SBAL
Extensor Carpi Radialis Longus-SBAL
Extensor Carpi Ulnaris-SBAL
Extensor Carpi Radialis Brevis-SBAL
Teres Major & Minor-DBAL
Infraspinatus-DBAL
Supraspinatus-DBAL
Rhomboids-DBAL
Serratus Anterior-SL
Longissimus Cervicis, Thoracis-SBL
Semispinalis Cervicis, Capitis, -SBL
Multifidus-SBL
Rectus Capitis
Oblique Capitis
Semispinalis Capitis-SBL
Semispinalis Cervicis-SBL
Semispinalis Thoracis-SBL
Longissimus Thoracis-SBL
Splenius Capitis, Cervicis-LL,SL
Iliocostalis Cervicis-SBL
Iliocostalis Thoracis-SBL
Iliocostalis Lumborum-SBL
Scalene Anterior, Posterior-LL
Levator Scapulae-DBAL
Sternocleidomastoid-LL, SFL
Serratus Posterior Superior
Platysma

Fascial Lines:SBAL,DBAL,SL,SBL,LL,SFL

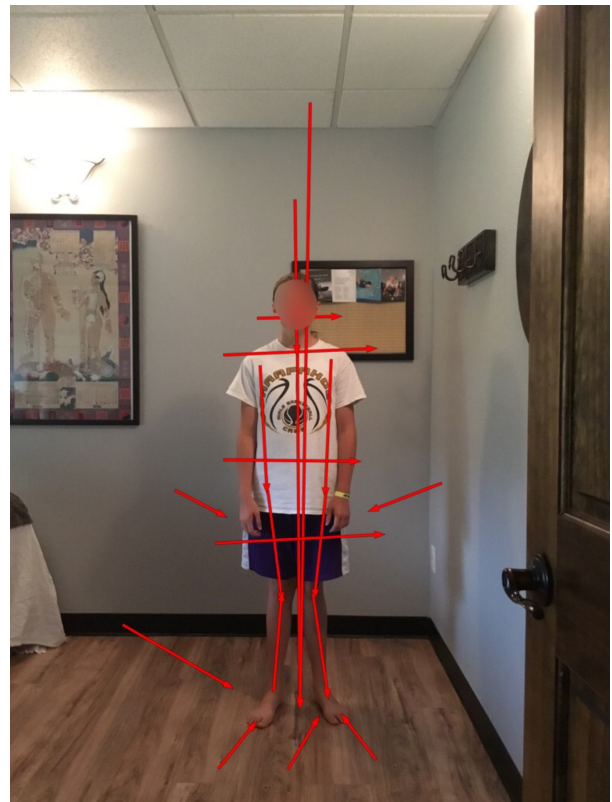
Meridians:UB,SI,TB,GB,ST





SFAL/DFAL

Front Arm Lines/Lung, Pericardium Meridian



Dao Needle Therapy/Neuro-Fascial Acupuncture

Standing Wall Wall Glides



Reps:

Sets:

Duration:

Instructions:

1. Bring arms out to your side to 90 degree angle and bend elbows 90 degrees, fingers pointing up, back of hands and arms against the wall
2. Keeping your shoulders, arms and hands on the wall, slowly bring your fingertips together above your head (only raise to comfort level –keeping arms against the wall)
3. Return to starting position, repeat as directed by your Therapist

Position:

Using a wall as your guide, stand with your feet hip width apart, heels against the wall, toes pointing straight out. This establishes the Vertical Load Line. (ear over shoulder, over hip, over knee, over ankle) Keep your pelvis level and pressed against the wall.

Purpose: Repositions scapula, opens up shoulder joint, provides thoracic extension

Standing Chest Openers

Unilateral



Reps:

Sets:

Duration:

Instructions:

1. External Rotation: Laterally rotate your elbow up and pause (eye of elbow 'up') while keeping your hand pressed into the wall, hold as directed by your therapist
2. Medial Rotation: Medially rotate your elbow joint down and pause (eye of elbow down) while keeping your hand still on the wall, hold as directed by your therapist
3. Repeat on other side

Position: Standing parallel to the wall, place your right hand on the wall, palm level with your shoulder, and your feet hip width apart. Keep your elbow locked and spread your fingers as far apart as possible (hand anchored to wall- no rotation) and shoulder not raising up. For some clients just the position will suffice- do not force the rotations)

Purpose: external and medial rotation of the forearm, stretches forearm and shoulder joint, re-positions A-C joint, medial nerve stretch

This position allows access to:

Interosseous
Fibularis Tertius-SFL
Tibialis Posterior-DFL
Articularis Genus
Adductor Brevis-DFL
Adductor Minimus-DFL
Adductor Longus-DFL
Adductor Mangus-DFL, SL, DFL
Pectineus
Vastus Medialis
Vastus Intermedius
Gracilis
Biceps Femoris
Fibularis Longus-LL, SL
Extensor Hallucis Longus-SFL
Extensor Digitorum Brevis
Extensor Hallucis Brevis

Extensor Digitorum Longus-SFL

Vastus Lateralis

Rectus Femoris-SFL

Tibialis Anterior-SFL, SL

Flexor Digitorum Longus-DFL

Soleus

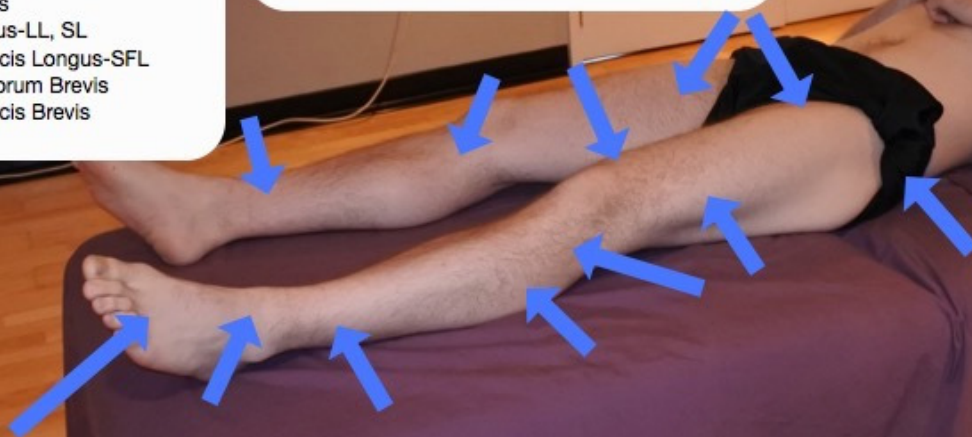
Sartorius

Tensor Fasciae Latae-LL, SL

Iliotibial Tract-LL, SL

Fascial Lines:SFL, DFL, SL, LL

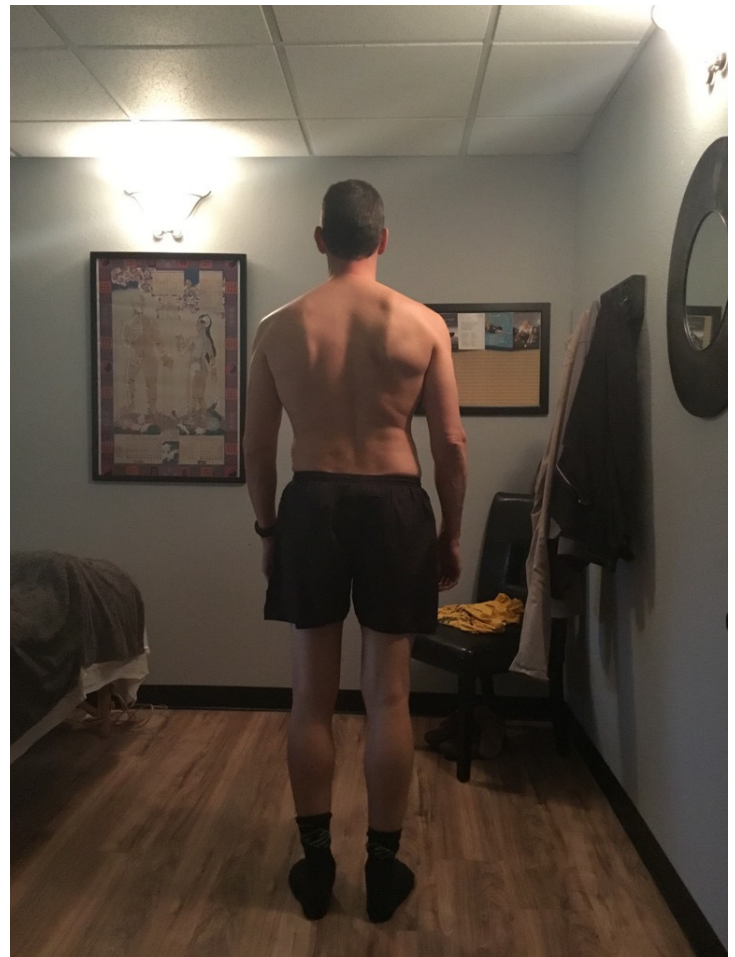
Meridians:ST, GB, UB





Dao Needle Therapy/Neuro-Fascial Acupuncture

SL
Spiral Line/Gallbladder, Stomach Meridian



Dao Needle Therapy/Neuro-Fascial Acupuncture

Upper Spinal Floor Twist



Reps:

Sets:

Duration:

Instructions:

1. slowly raise your top arm to midline and pause, following your hand with your head/eyes
2. from the spine, rotate to bring the shoulder all the way to the ground (or as close as possible)
3. use lower hand to ensure knees and hips stay in line
4. hold for 1 minute and repeat on other side

Position:

lying on your side with knees at a 90 degree angle (important for knees to stay flush) with arms straight in front of you palm to palm

Purpose:

opening the anterior aspect of the shoulder, cervical and thoracic rotation

Standing Wall Twist



Reps:

Sets:

Reps:

Instructions:

1. Turn hips and trunk to the right and place hands shoulder height, palms on the wall. Rotate your pelvis as far as possible, parallel to the wall.
2. Engage your spinal muscles to maintain this position
3. Breathe and hold this position
4. Reverse position, turn facing Left side towards wall
5. Repeat as directed by your Therapist

Position:

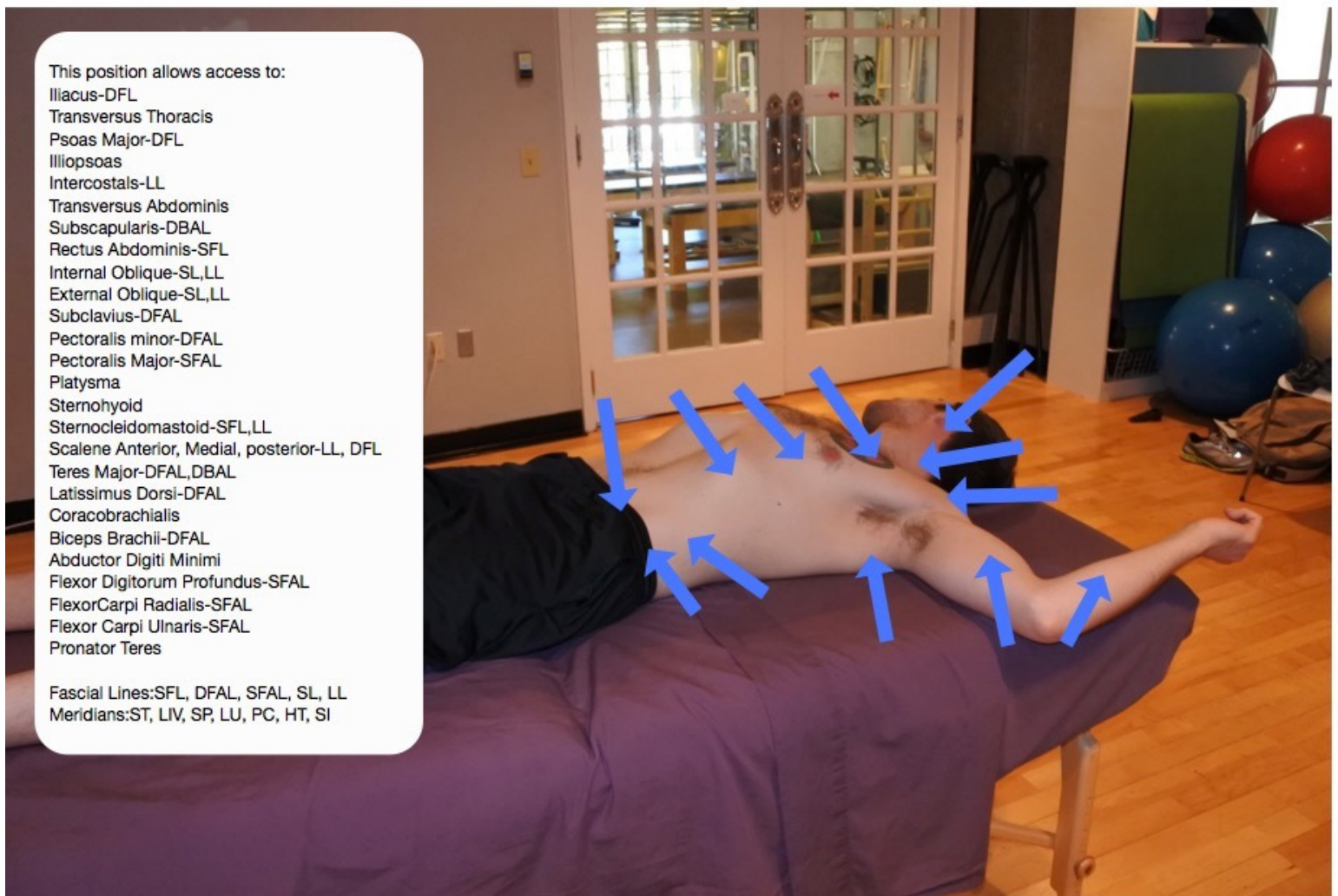
Stand with your right side towards a wall, feet about 8-10 inches from the wall; heel-to-toe (in a straight line), and parallel to the wall. Modify position if necessary for knees comfort

Purpose:

This position allows for pelvic and spinal rotation and extension of the knee. Promotes spinal and pelvic rotation and hip stretches/flexion, uses back muscles to rotate (erectors). Spinal rotation/ thoracic rotation



Dao Needle Therapy/Neuro-Fascial Acupuncture

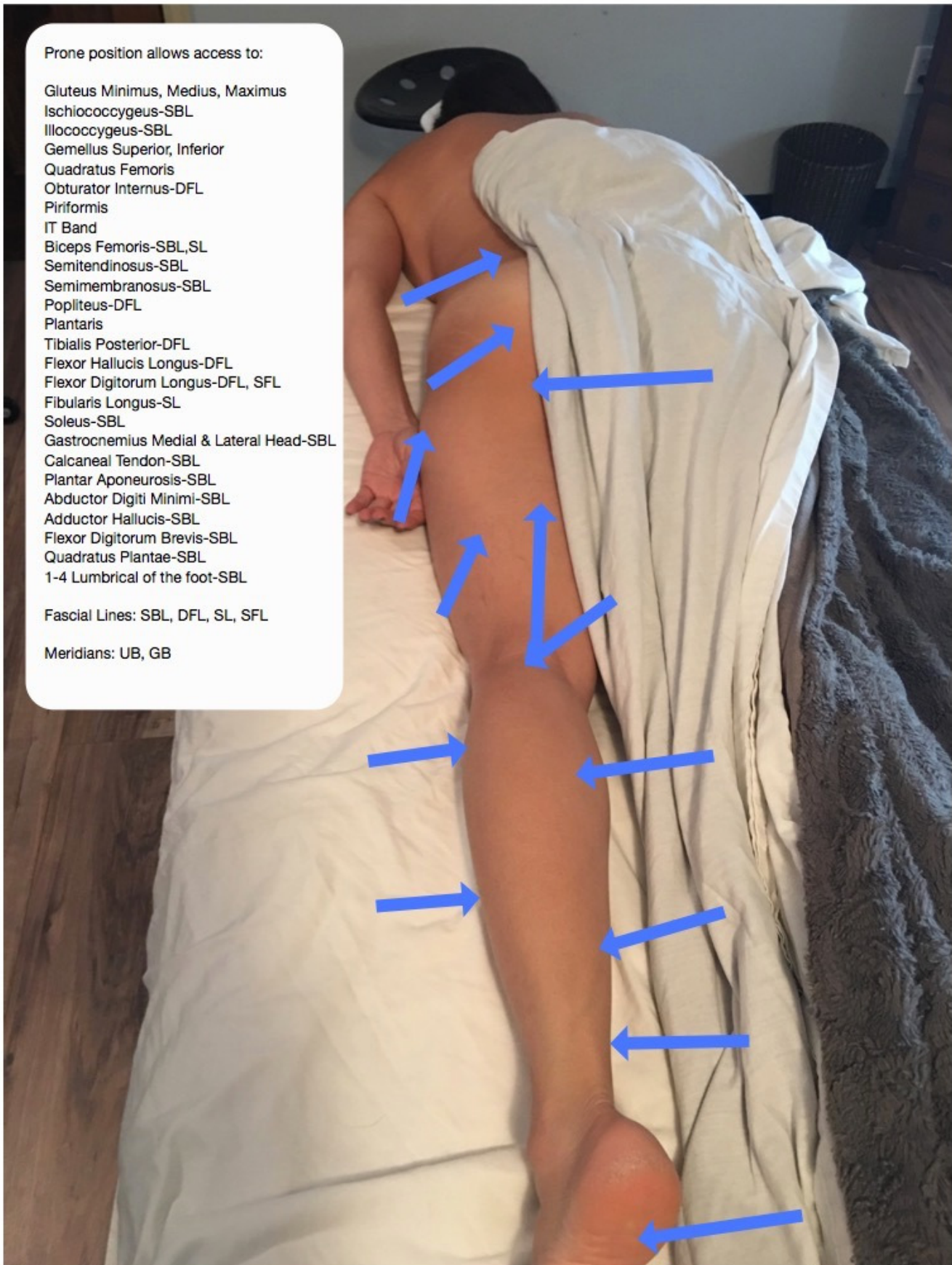


Prone position allows access to:

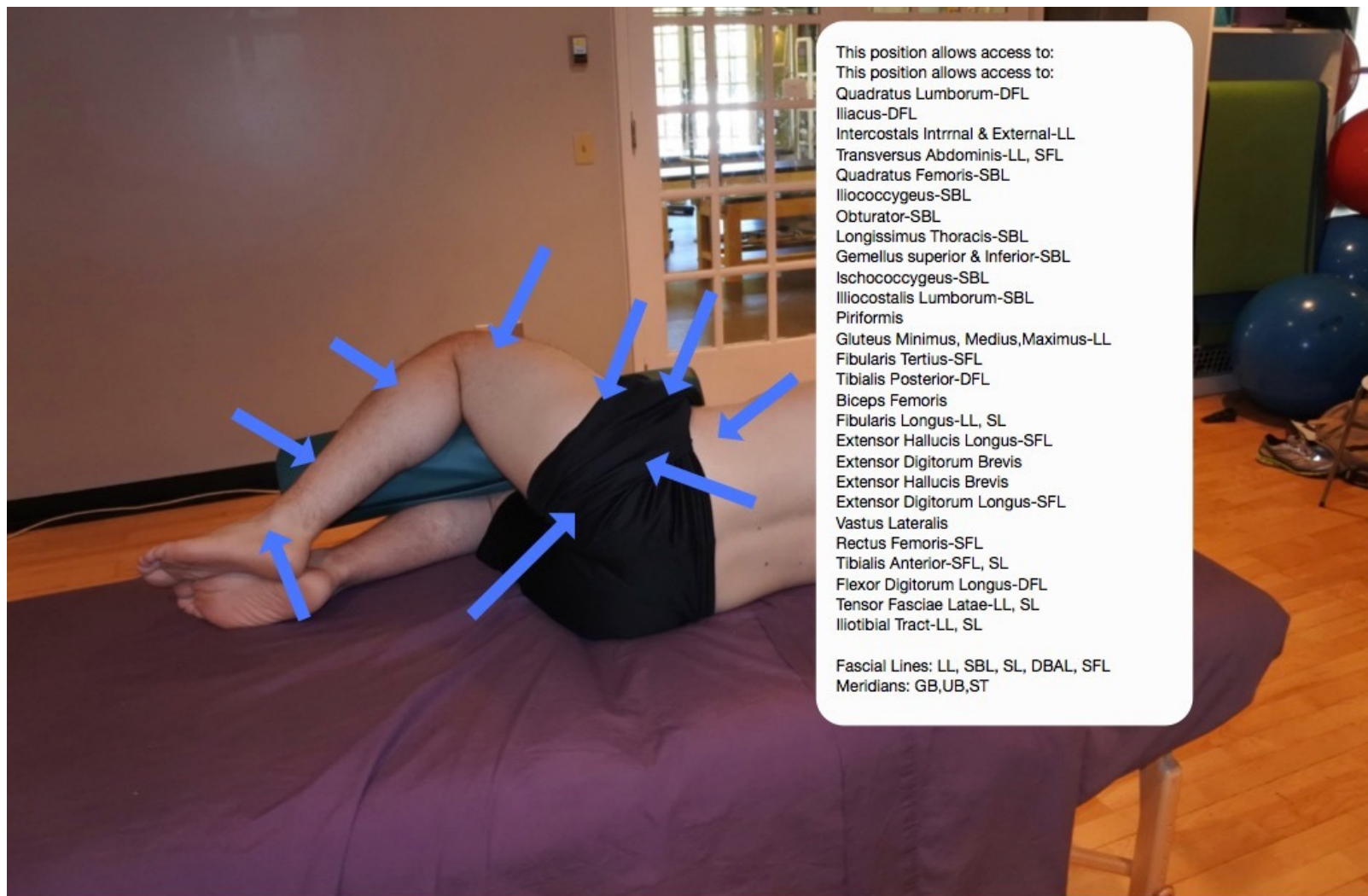
Gluteus Minimus, Medius, Maximus
Ischiococcygeus-SBL
Iliococcygeus-SBL
Gemellus Superior, Inferior
Quadratus Femoris
Obturator Internus-DFL
Piriformis
IT Band
Biceps Femoris-SBL,SL
Semitendinosus-SBL
Semimembranosus-SBL
Popliteus-DFL
Plantaris
Tibialis Posterior-DFL
Flexor Hallucis Longus-DFL
Flexor Digitorum Longus-DFL, SFL
Fibularis Longus-SL
Soleus-SBL
Gastrocnemius Medial & Lateral Head-SBL
Calcaneal Tendon-SBL
Plantar Aponeurosis-SBL
Abductor Digiti Minimi-SBL
Adductor Hallucis-SBL
Flexor Digitorum Brevis-SBL
Quadratus Plantae-SBL
1-4 Lumbrical of the foot-SBL

Fascial Lines: SBL, DFL, SL, SFL

Meridians: UB, GB




Dao Needle Therapy/Neuro-Fascial Acupuncture



Fascial Connections And Hallelujah Muscle key

SBL/Superficial Back Line/Bladder Meridian

- Platar Fascia
 - **Gastrocnemius/Achilles Tendon**
 - **Hamstrings**
 - **Longissimus**
 - **Iliocostalis**
 - **Spinalis**
 - **Semispinalis**
 - **Multifidus**
 - **Transversospinalis**
 - **Rectus Capitis Posterior Major and Minor**
 - Obliquus Capitis inferior and Superior
 - Occipitalis
 - Frontalis
- 
- (check spiral line)

Check movement in Achilles Tendon

SFL/Superficial Front Line/Stomach Meridian

- **Tibialis Anterior (check spiral line)**
- Extensor Digitorum
- Hallucis Longus
- **Rectus Femoris**
- Rectus Abdominis
- Sternalis
- **Sternocleidomastoid (check the lateral line)**

Check Movement in Subpatellar Tendon

LL/Lateral Line/Gal Bladder Meridian

- **Fibularis longus**
- Fibularis Brevis
- **Illiotal Tract (check the spiral line)**
- Tensor Fasciae Latae
- **Gluteus Maximus**
- **Gluteus Medius**
- Obliques Internal/External
- **Intercostals Internal/External**
- Splenius Capitis
- **Sternocleidomastoid (check the superficial front line)**

SL/Spiral Line

- Splenius Capitis
- Splenius Cervicis
- Rhomboids Minor/Major
- **Serratus Anterior**
- Oblique External/Internal
- Tensor Fasciae Latae
- Illiotibal Tract
- Tibialis Anterior
- Fibularis Longus
- Biceps Femoris
- Adductor Magnus
- Longissimus
- Iliocostalis
- Spinalis
- Semispinalis
- Multifidus
- Transversospinalis

DFL/Deep Front Line

- **Tibialis Posterior**
- Flexor Hallucis
- Flexor Digitorum Longus
- **Popliteus**
- Adductor Magnus
- Adductor Minimus
- Obturator Internus
- Levator Ani
- **Adductor Brevis**
- **Adductor Longus**
- **Psoas**
- **Iliacus**
- **Pectineus**
- Longus Colli
- Longus Capitis
- Diaphragm
- **Scalene Muscles**
- Infrahyoid Muscles
- Suprahyoid Muscles

DFAL/Deep Front Arm Line/Pericardium Meridian

- **Pectoralis Minor**
- **Subclavius**
- **Coracobrachialis**
- **Biceps Brachii**
- Thenar Muscles

SFAL/Superficial Front Arm Line/Lung Meridian

- **Pectoralis Major**
- **Latissimus Dorsi**
- Flexor Carpi Radialis
- Flexor Pollicis Longus
- Flexor Digitorum Superficialis
- **Flexor Carpi Ulnaris**
- Flexor Digitorum Profundus
- **Palmaris Longus**

DBAL/Deep Back Arm Line/Small Intestine Meridian

- Rectus Capitis Lateralis
- **Supraspinatus**
- **Levator Scapulae**
- **Rhomboids (check spiral line)**
- **Infraspinatus**
- **Teres Minor**
- **Triceps Brachii**
- Hypothenar Muscles

SFBAL/Superficial Back Arm Line/Triple Burner Meridian

- **Trapezius**
- **Deltoid**
- **Brachialis**
- Extensor Pollicis Brevis
- **Extensor Carpi Radialis Brevis**
- Extensor Indicis
- Extensor Carpi Radialis Longus
- Extensor Pollicis Longus
- Extensor Carpi Ulnaris
- **Extensor Digitorum**

BOLDED = Choice Hallelujah Muscles