

STRAIN AND COUNTERSTRAIN TECHNIQUE

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TREATMENT OF HYPERTONICITY FOR SYNERGIC PATTERN RELEASE WITH STRAIN AND COUNTERSTRAIN TECHNIQUE

- Direct and Indirect Techniques
- Direct techniques load, or bind, the tissues and structures. The tissue is moved towards a barrier, on one or more planes.
- The direction of movement is towards the least mobile, most restricted, most limited.
- At the barrier a technique is performed, and the result is a change of the position of the barrier, closer to the normal range of motion.
- ❖ Muscle Energy and 'Beyond' Technique is a direct technique.

- For example, if there is an elbow flexion contracture, with contracted and shortened biceps, and a limitation of elbow extension, the elbow would be moved into extension.
At the interbarrier zone, an isometric resistance is performed, the result is increased range of extension motion.
- ❖ Mobilization and Manipulation are also direct techniques.

- Indirect techniques unload, or ease, the tissues and structures. The tissue is moved away from the barrier, on one or more planes.

The direction of movement is towards the most mobile, least restricted, least limited.

The distortion is thereby exacerbated. The problem is exaggerated.

- The result would be a "release" phenomenon, when the soft tissues "let go" allowing increased range of motion past the original barrier.

- For example, if there is an elbow flexion contracture, with contracted and shortened biceps, and a limitation of elbow extension, the elbow would be moved into flexion .

After 90 seconds, a "release" phenomenon would occur, resulting in decreased hypertonicity and increased elongation of the biceps, and increased range of extension motion.

- Strain and Counterstrain is an indirect technique.

Physiologic Response

- Initial Phase 5 to 10 seconds
(Neurophysiologic Phase)
- 2nd Phase 30 to 45 seconds
(Vascular Phase)
- 3rd Phase last 30 to 45 seconds
(Lymphatic phase)

Indications and Contraindications

- Strain/counter strain procedure can be used for all acute or chronic musculoskeletal conditions.
- Generally no contraindication with exception of more severe positioning, which may result in discomfort or vascular compromise in certain patients.

Treatment of Muscle Fiber Hypertonicity with Strain and Counterstrain Techniques

This technique is a positional technique which results in decrease or arrest of inappropriate proprioceptor activity of the muscle spindle.

The result of this technique is a relaxation and elongation of the muscle fiber, which permits improved articular balance, increased joint mobility and range of motion.

- Dr. Jones has isolated tender points throughout the trunk, extremities, and cranium of the body which reflect:
- (1) a muscle in spasm, or
- (2) a compressed joint or suture.
- When neuromusculoskeletal dysfunction is present, with protective muscle spasm and/or joint dysfunction with approximating articular surfaces, the correlating tender point is painful on palpation.

When the body part is positioned appropriately, the pain of the tender point diminishes or disappears immediately.

- Maintaining the body part in the correct position, which shuts off the painful tender point, will result in a correction of the dysfunction **after 90 seconds duration.**

- As the muscle fibers relax and elongate during the treatment technique, there is a decrease in the exaggerated push/pull function of the muscle.
- The muscle decreases its forceful pull on the bone.

There is a resulting increase in joint mobility while there is a repositioning of the articular surfaces.

- The patient often senses the movement, because the kinesthetic receptors in the joints,
- for example the Ruffini, receive the sensory input of movement and change of position in space during the technique.
- It is important that the therapist does not change the position of the body part during the technique.

- As long as the patient is experiencing any movement or tissue tension change,
- or the therapist is palpating movement or tissue tension change, the body position should be maintained.
- Only when the patient and the therapist no longer experience any tissue changes or movement, can the body part be slowly and gently returned to a neutral position.

- Every tender point discovered by Dr. Jones is effective. The learner is advised to learn more Strain and Counterstrain Techniques once a comfort level with this technique has been achieved.
- As mentioned above, all the Strain and Counterstrain Techniques are effective.
- The therapist can focus on an area of postural asymmetry, or hypomobility, and perform the tender points in those area .

- The criteria or implementing the techniques are always the same:
- • Position the body part as close as possible with the instructions to shut off the painful trigger,
- • Maintain the position for 90 seconds,
- • After the 90 seconds, do not move the position if the patient or therapist is still experiencing any tissue tension changes or movement. (This is a De Facilitated Fascial Release)
- • When all tissue tension changes have stopped and there is no movement experienced, the body part should be gently and slowly returned to a neutral position.

Corrective Kinesiology: Model of Strain and Counterstrain Technique

- **Objective: Corrective Kinesiology**
- Elimination of hypertonicity allows elongation of the muscle fibers to their normal resting length, which diminishes the pathologic tension of the muscle on the bone, which results in normalization of joint biomechanics.

Evaluation Process for Hypertonicity of the Muscle Fiber with Strain and Counterstrain Technique

- An effective and efficient technique to reduce and arrest inappropriate proprioceptor activity of the muscle spindle, to diminish and eliminate the hyperactivity within the reflex arc, is Strain and Counterstrain Technique.

The result of comprehensively eliminating hyperactivity within the facilitated segment is an elongation of the muscle fiber to its true resting length.

- When the muscle fiber is healthy and elongated, it does not exert abnormal and pathologic tension on the bone, in either direction of pull:
- insertion towards origin, or origin towards insertion.
- There is no pathologic force from this muscle fiber causing a shift in bony position and a change in the neutral position of the articular surfaces of that bone.

- The muscle fiber is not contributing to an imbalance of the articular surface. Therefore, the result achieved with elimination of protective muscle spasm is a normalization of the positions of the articular surfaces of the joints, with increased joint mobility and increased range of motion.
- The increased physiologic range of motion is the result of:
 - • elongation of the muscle fiber,
 - • increased joint mobility due to improved articular balance.

Strain and Counterstrain Tender Points

- Dr. Jones discovered painful Tender Points throughout the body. Each Tender Point is reflective of a muscle in protective muscle spasm, or a joint or suture which is compressed.
- He developed an evaluation process which systematically discovers the position of these Tender Points.
- The Tender Points discovered in the patient are documented. After the evaluation, all the severe Tender Points in the body are treated.
- Discovering a painful Tender Point, followed by elimination of the painful Tender Point with treatment, reflects a dysfunction successfully treated.
- A diagnosis is made. Typically, concurrent with the elimination of the painful point after treatment is a decrease in subjective pain, and an increase in range of motion.

A Kinesiologic Approach for Evaluation of Hypertonicity

- Postural dysfunction reflects the hypertonicity of the muscles in that region.

The therapist can evaluate static posture and dynamic movement, to discover which hypertonic and contracted musculature is contributing to the postural dysfunction.

- A kinesiologic approach is possible.
- For example, if the shoulder girdle is protracted and there is a limitation of horizontal abduction, the pectoralis can be treated as the hypertonic muscle contributing to the protracted shoulder girdle.