

## On the Discussion: How Long to Hold Pressure in Trigger Point Therapy

According to Paolini (2009), two main techniques in trigger point (TP) myofascial technique are: direct pressure on the TP; and a fanning/sweeping motion of pressure. Mobilizations should progress from superficial to deeper; pressure should be applied over the area from 60-90 seconds (Paolini, 2009).

Gulick (2014) described a Graston technique involving 1 minute of sweeping over a larger region, 1 minute of swiveling directly over the TP, 2 minutes of fanning the area most proximal to the TP, and lastly 1 minute of sweeping the TP and surrounding area. Gulick (2014) described sweeping as a "longitudinal stroke performed parallel to the muscle fibers" (p. 604); swiveling is using a knob-instrument directly over the TP and pivoted/rotated back-and-forth; fanning is "a stroke in which one end of the instrument is held in place and the other end is moved in a circular pattern in the shape of a fan" (p. 604).

Ingraham (2016) recommended 10-100 seconds of direct pressure on the TP (or small kneading strokes) in his more generalized article to the layman audience.

According to Davies and Davies (2013), pressing on a TP causes increased electrical activity, and a small temperature increase from increased metabolic activity. Spontaneous electrical activity (SEA) has been associated with motor endplates, and SEA has been associated with active TP (Davies & Davies, 2013).

Davies and Davies (2013) described TP as "muscle overload, sustained low-level isometric contractions, eccentric contraction, chronic muscle tension, gross trauma, overuse or sustained rapid movement" (p. 18)--something like a short circuit. Davies and Davies (2013) noted that the best way to break the cycle and "reset" is to increase blood circulation to the area thereby quickly increasing oxygen and energy supply--ATP promotes calcium reuptake in the sarcoplasmic reticulum which removes the stimulus for contraction and allows for the sarcomeres to relax. This video by Interactive Biology (2011) helped the author to understand the role of calcium better: <https://youtu.be/f0mDFP7qn1Y>

The author thinks that if not enough duration of pressure is applied in the TP therapy, there won't be an adequate/sufficient enough amount of increased oxygen/energy supply (ATP to release the myosin head) to fully promote the calcium reuptake into the terminal cisternae, and allow the troponin/tropomyosin complex to be restored (back to blocking the binding site to the myosin head) (Interactive Biology, 2011).

## References

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