Origin/Insertion technique

Sometimes we may need to manually stimulate or "wake up" a weak muscle before the effect of the energy balancing techniques can show.

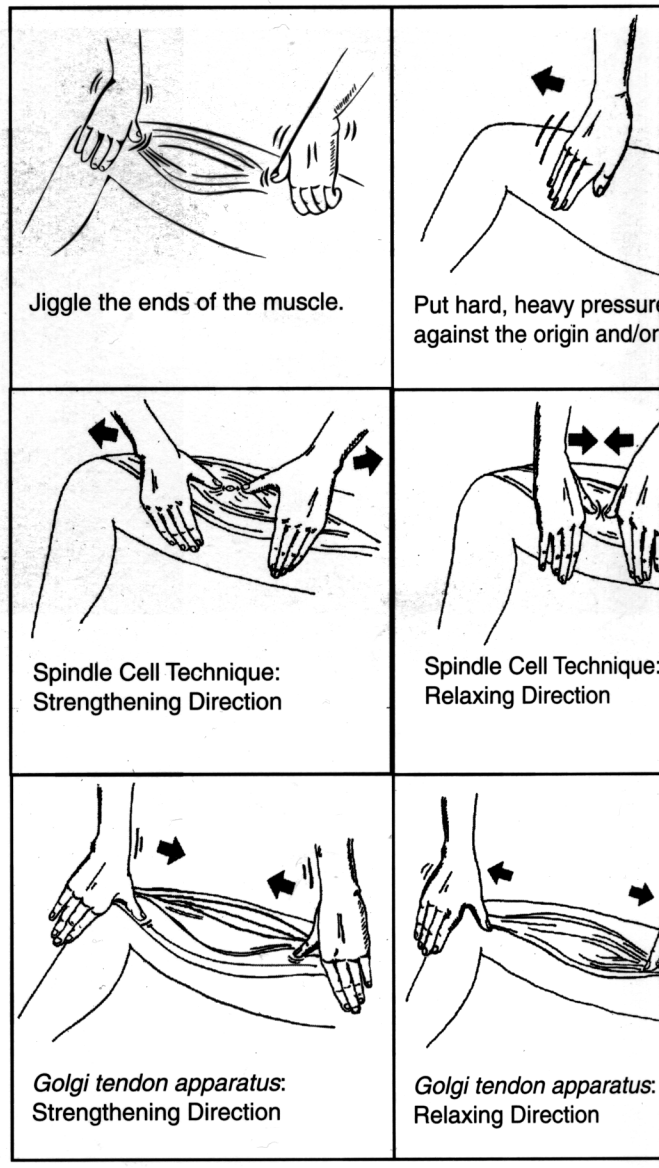
If you go through the energy balancing techniques and have not gotten the strengthening effect you'd like, look on the Muscle Reference section page and locate the origin of the muscle (the end attached to non-moving bone) and its insertion (the end attached to moving bone). Place your fingers there at each end, and jiggle the ends of the muscle back and forth. In most cases this will "wake up" the muscle sufficiently for you to continue balancing.

When a muscle has been strained or overworked, the circulation and lymph systems have been overloaded. This turns off the muscle's strength, so that minute tearing of the fibers takes place. It is this tearing which causes the stiffness and pain following unaccustomed exercise. In this type of injury, it has been found beneficial to put hard, heavy pressure against the attachment areas. Usually this is at the origin, but the muscle insertions can also be treated. This tends to reestablish the contacts, like pinning up a wisp of hair that has gone astray.

Occasionally, particularly in cases of strain, spasm, or injury, you may need to work more specifically with two sensory feedback systems that are built into muscles — the spindle cell mechanism, and the Golgi tendon apparatus.

The spindle cell mechanism is located in the belly of the muscle, senses the relative length of muscle fibers, and sends this information into the nervous system. To strengthen a muscle by use of this mechanism, we use firm pressure in the belly of the muscle, pressing toward the muscle ends. Work with the thumbs, beginning in the center of the muscle and *stretching* the muscle. This stretches the spindle cell receptors, and they send a message to the brain, "This muscle is too long." The brain replies by sending more nerve impulses to the muscle, causing it to tighten up (become shorter). We can do this in reverse, if needed, to release a cramp/spasm, by manually *shortening* the belly of the muscle, pressing together in the direction of the muscle fibers.

The Golgi tendon apparatus is located, as its na implies, in the tendons at either end of a muscle Receptors occur all along the origin and insertio muscle. To affect muscle tone, place your finger both the origin and the insertion of the muscle. firmly back and forth along the direction of the fibers. If a muscle has been strained, putting too tension on the tendons, the Golgi apparatus will sent up a message to the brain warning of the da tearing tendons, and the brain will have turned energy to that muscle to avoid injury. The tendo in fact have pulled away from the bone slightly, firm pressure toward the bones of attachment m the tendon to reattach properly. Now that the da the tendon is past, we reset the apparatus and a muscle to resume normal function.



Jiggle the ends of the muscle.

Put hard, heavy pressur against the origin and/or

Spindle Cell Technique: Strengthening Direction

Spindle Cell Technique: Relaxing Direction

Golgi tendon apparatus: Strengthening Direction

Golgi tendon apparatus: Relaxing Direction

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