

## **RIDER SPRING: POSITIVE STRENGTH EQUITATION**

For both horse and rider skeletal muscle must at all times exert sufficient force in order to stabilize joints and articulate bones. Successful muscle force resists gravity's downward pull with vertical strength or spring. Spring maintains sufficient space within the joint capsule so the bones move without friction or collision. Unsuccessful strength mistakenly responds to gravity with inappropriate, habitual tension, unconsciously compressing the joints, inviting pain, weakness, and reduced range of motion. On horseback, inappropriate rider tensions appear as head bobbing, shoulder hunch, tight leg, lopsided rib cage, sideways hip tilt, tight flat- hands, tense seat, etc..

**Consistent spring overcomes habitual tensions.**

Acquiring upward spring requires both strength and skill. For strength to be useful it must be specific. We need strength sufficient to resist gravity's unending downward pull on muscles, bones, and joints. Aligning our muscles, bones and joints with responsive precision requires skill. Responsive precision skill articulates position, timing, and force application (Spring).

**Precision refines strength into responsive skill.**

***Equitation requires responsive precision skill !***

Fortunately resisting gravity represents a one-question exam: Gravity pulls down; how are you going to drive up, i.e. (Spring)? In order for our horse to spring up, the rider's body must also spring up. Rider spring communicates spring to the horse. Rider spring involves 3 skills:

**Rib lift, mid-shoulder arch, and penetrating skull.**

**Rib lift:** decompresses the lumbar spine, and increases the vertical space between the hip crest and the lower ribs. Maintaining and articulating this vital vertical space between hip crest and lower ribs ensures independent articulation of hipbones and ribcage.

**Mid-shoulder arch:** opens the shoulder socket and inflates the upper lobes of the lungs, driving the collar bones up and forward, inviting the chest to open and the upper arms to hang free, softening the hands and stabilizing the elbows.

**Penetrating skull:** positions the crown of the skull to drive upward. Upward skull drive decompresses the neck, especially the occipital hinge and removes tension from the jaw muscles. Softening the jaw allows for a much greater degree of sensitivity throughout the rider's response especially, hands, breath, and eyes.

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These three skills represent expressions of precision strength. Strength is acquired through specific incremental challenge: amount of weight and angle of response. Precision is acquired by small range, short duration perfect shape response. Incremental challenge and precision flex create perfect muscle memory.

**Precision muscle memory makes skill response automatic!**

Muscle memory is acquired through repeated flex of the muscles, bones and joints in the specific spring inducing pattern required. Perfect muscle memory overcoming inappropriate tension habits appears as effortless release from those tensions and compressions. The spine, ribs, and shoulders can then effortlessly maintain abundant upward spring. This apparent effortless spring is the result of precision short duration flexes imparting consistent mechanical advantage – (Spring).

These short duration flexes must be sufficiently challenging to require concentration and abundant force expression. The happy result is a nerve impulse pattern (muscle memory) of skill and force. ***It must be stressed that will power proves to be both insufficient and inappropriate to over-ride conscious and unconscious habitual tension patterns.***

**Precision, skill, and abundant strength impart muscle success.  
Successful muscle expression overcomes tension.**

Imparting immediate strength and skill upgrades is relatively simple and follows a consistent formula:

**Spring-inducing position, weight bearing flex, short duration.**

The exercises pictured: Door Spring, Door Squat, Ball & Wall illustrate access to immediate strength and skill upgrade of the muscle function required to consistently produce upward spring. More abdominal and rib specific exercises trigger specific upsurges of vertical strength (Spring). The more the muscles express Spring the more confident and secure the rider's body becomes. Rider ease and confidence communicates to our horse, allowing gentler aids and willing response.

To be consistent, i.e., automatic and abundant, the strength and skill imparting Spring will sooner or later completely reconfigure the rider's muscles and bones from unconscious tension and compressions to vigorous, upward, effortless Spring. Such a transformation requires only a willingness to embrace the idea of Spring as our muscles' and bones' expression of success.

Acquiring Spring is a muscle process, flexing and experimenting. In the beginning self-assessment tends to be unreliable. Years of unconscious tension

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patterns skew our internal image process (proprioception), so that truly upright position may feel fantastically pitched forward, and hunched shoulders and slouched ribs may masquerade as skilful response. Don't fool yourself. To be accurate we need an outside eye. Use videotape, a mirror or a coach (who understands and can demonstrate Spring) to evaluate position and skill. Specific spring inducing flexes can be practiced immediately prior to riding. The immediate surge of skill and strength in Spring inducing position transfers to riding skill. The barn and arena exercises illustrated offer a simple starting point to engaging intelligent muscle communication throughout all our moving parts. Of the 3 basic skills: Rib Lift, Mid Shoulder Arch, Penetrating Skull; the most potent is Penetrating Skull.

Perched atop the slenderest portion of the spinal column, the human skull is quite dense weighing in for the average adult somewhere between 15lbs – 20lbs. Inappropriate (conscious or unconscious) tilting and twisting of the skull compromises the spine and ribs' innate springy design, causing the shoulders to hunch and the ribs to sag, leading to tight shoulder muscles, stiff jaw, reduced lung volume, tendencies for headaches, anxiety, and depression. Correcting the skull position requires a mirror but once you can reliably repeat the proper skull set in the mirror, the precision muscle memory maintains consistent proper uplifted alignment on and off horseback. At first the upward drive through the skull may induce a feeling of tension but that soon passes. Bringing attention to the tip of the tongue resting on the roof of the mouth greatly facilitates relieving tension in the skull, neck, and jaw.

**Jaw tension upsets our horse.**

**Jaw tension upsets our rider.**

Beginning to feel the degree of our unconscious jaw tension gives us an appreciation of our horse's response to the bit. Softening our tongue, softens our jaw, and softens our hands. Softer hands allow gentler response to our horse moving in and out of the bit. Mid-Shoulder arch draws the shoulder blades down and in toward the spine. This down and in flex stimulates the rhomboid and mid-trapezius muscles to consistently produce not just shoulder blade arch but also complementary inward and upward flex through the abs (navel in & up!).

Rib lift protects the spine by increasing the space between the vertebrae so no pressure bears on the fragile disks or spinal nerves. Proper Rib lift impels the shoulder blades downward.

Further specific conditioning builds on Rib Lift, Mid-Shoulder Arch, and Penetrating Skull. Questions or comments please e-mail or call. Have a great work out. Have a great ride. Ribs up, Saddle up, giddy Up!