



**A KITESURFERS GUIDE TO
STAYING FLEXIBLE**

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Evolution

Carving down a powdery face in February on my snowboard was the closest I ever got to religion until I learned to windsurf. Laying down a sweet jibe and popping 10-foot chop hops in Lake Arenal was ecstasy until I made my first power dive with an old 9.3 foil. Now, when I boost 7 meters over Cancun's crystal waters in a slow 360 grab, I can't begin to imagine what could ever be better or what could come next...but it's going to be incredible. I know one thing for certain; I want my body to be healthy when the next evolution in flight comes along.

From suffering back pains as a patient to studying the complexities of the musculoskeletal system as a student to "fixing" peoples spines after the injury with chiropractic adjustments I have finally come full circle to teaching PREVENTION of problems by increasing flexibility. If this little booklet helps just a few kites to avoid injury and stay on the water in their own personal evolution then it has served its purpose.

Any questions or suggestions for additions, please let me know. Any sponsors who want their gear ridden, beaten, modified and critiqued by a kiteriding chiropractor, bring it on. Any ideas for how I can work every competition across the globe for the next few years and help keep the riders on the water, LETS HEAR THEM!

GO BIG, or go home.
ChiroJOE

When possible I have tried to include pictures/diagrams of the stretches. Further explanation and rehab techniques will be discussed during the workshops or write to me at quiopreguntas@yahoo.com. Time allotment for the routine is between 10 and 25 minutes depending on how thorough you want to be (and how long you think the wind will be blowing☺)

STRETCHING

What's the Point? In this day and age most people understand that stretching before exercise can help prevent injury although many don't really understand why. Regular stretching lengthens the fibers of the muscles and, with time, *creates flexibility*. When you deeply and slowly stretch a group of muscles you are also helping to bring a good flow of *oxygenated blood* to the area. This increase in irrigation has another important function which is to allow the trillions of muscle cells to *discharge their waste products; primarily lactic acid*. Lactic acid build-up is the reason that the muscle fatigues and, in large quantities, it can form *trigger points* or painful "knots" in the muscle body. That's why it's equally important to stretch BEFORE and AFTER your workout.

Neurologically a good stretch is like a "reset" button. We are "reminding" the cerebellum (the part of the brain that constantly monitors muscle tension) what the normal resting tension of the muscle should be to avoid chronic tightness. A flexible muscle is much stronger and more resilient than a rigid one.

PFS stretching and the Antagonist Squeeze: We always get a deeper stretch after a short, mild contraction of the same muscle. It's a neurologic "trick" called **Post Facilitation Stretching**. Another simple trick is to actively contract the antagonist or "opposite" muscle group. For example, when stretching the hamstrings seated on the ground you should contract the quadriceps, which forces the leg to be straight. The body cannot contract both opposing groups of muscles at the same time. So contracting the quads effectively "turns off" the hamstrings and allows you to stretch deeper.

How Long? A good "holding time" for each stretch is *5 deep breaths*. Each time you breath OUT, emptying your lungs, you should be taking the stretch a *little bit* deeper. Then hold that new position while inhaling and repeat the process. **NEVER** "bounce" a stretch. When you do that you are actually initiating a natural protective reflex that causes the muscle fibers to tighten up even more!

Knees

Undoubtedly the most devastating injury for a kiteboarder is to the knees. Complete blowout of the collateral and/or cruciate ligaments with damage to the meniscus is not unheard of in the kite world. Normally such severe damage results from having one foot come out of the bindings or from landing a powered up jump low and fast. However, chronic inflammation and pain with clicking and snapping sensations and a feeling of weakness is what most kitesurfers suffer. This is so frustrating for many because it's a problem that comes and goes and can't be nailed down with a single diagnosis.

- Proper warm-up and “lubrication” of the knee joints is essential and accomplished by taking the articulation through full range of motion (ROM) in a slow, controlled manner supporting body weight if possible with a chair on each side or “hanging” your weight from a tree, the bumper of your truck, etc.



- Many orthopaedic and chiropractic doctors recognise that imbalances in the *Quadriceps* muscle group is often part of chronic knee pain and swelling. In many athletes, the lateral or “outside” muscle of the quads is tighter and than the medial part. This tends to pull the kneecap a bit diagonal as we flex and extend the joint and, with time, causes inflammation under the patella. Stretching the lateral muscle groups and strengthening the medial can help to alleviate this problem so that the patella “tracks” properly.



- In the standing version, try touching your heel to the opposite buttock to feel the stretch more on the lateral side. Once in the position shown in the picture, slowly bend the supporting leg and lower your body while pushing your hip area forward. Try to make your body straight from chest to kneecap.

Knees



- On the ground, don't arch your back too much. Keep the heel touching your butt and force the hip forwards.

- Hanging in the form of a "C" and pushing your hips out gives a great stretch to the lateral muscles of the thigh.



- **BINDINGS:** You should be making constant micro adjustments of your bindings until you find the angle of "duck" and spacing between your feet that causes the least tension in your knees when you are *edging hard and twisting your body to windward*. Remember that the arch of your foot is the only "shock absorber" for your entire body!



Bindings and footpads with arch support and heel wedges may be a great investment *if* set up correctly for your riding style. At the first sign of irritation in the knee joints you should stretch, ice, and think about making changes in your stance.

Ice vs. Heat: It's generally accepted that a recent injury calls for *ice the first 48 hours*. Any sudden strain or damage to an articulation (twisted ankles, banged or sprained knees, wrists, fingers, shoulders) should be iced as much as possible the first two days. 15 minutes of ice followed by 45 minutes of rest before applying the ice again. The key is to keep inflammation to a minimum because the sudden swelling will damage more tissue and cause pain. For sore muscles that are a result of hard exercise and chronic contractions between the shoulder blades (*Rhomboid* and *Levator scapula* muscles) moist heat is usually better than ice. If unsure, try alternating to see which one gives the most immediate and *long-term* (day after) relief. If you cannot get a cold gel pack try a plastic bag of frozen peas or corn (easier to handle and less messy than ice cubes.) A damp towel microwaved for 2 minutes makes a decent hot moist pack.

Abdominals

One of the hidden benefits of kitesurfing is a great set of abdominals.

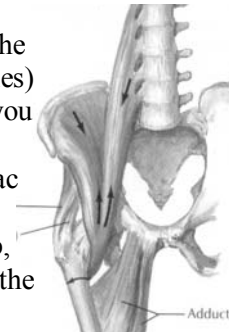
With every jump and tack, with every second of overpowered edging, we are supporting our upper body with our abs. Many beginners have to take frequent breaks because walking up the beach with a powered kite overhead is a serious ab workout! But remember... rigid, chronically contracted muscles are easily damaged.



•The yoga position “cobra” is a good stretch for the beach. But the best way to really stretch out the lateral, upper and lower *Abdominals* is with a physio (exercise) ball. In my humble opinion, nobody should be without one of these in the home. They have many therapeutic applications and they’re good fun too! Ordered from an Internet store they cost about 20 bucks. It’s an investment you will never regret.



• When the abdominals fatigue, the primary hip flexors (*Psoas* muscles) substitute. If you are like many, you have hyper contracted Psoas muscles from edging like a maniac entire sessions and then sitting (with this muscle in its shortened position) in your job, car, or home for hours on end. Problems then arise in the low back because the Psoas connects directly to the lumbar vertebra (see diagram) and can be causing pelvic imbalance with every step you take!



NOTE: Sharp pain in the lower abs that is made worse with coughing or straining should be evaluated professionally to rule out an inguinal hernia.



Low Back Pain

Everyone blames their low back pain on their harness!

- Harness choice is very important and some really do leave a LOT to be desired as far as proper ergonomics is concerned (perhaps they need a chiropractor on the *R and D* team!!)

Sometimes problems may arise with a great harness that has been improperly adjusted. Experiment each session with a slightly different tension on the straps and in the *order* that you cinch them up.

- However, the most common cause of low back pain in kitesurfers is lack of flexibility. Just like with your car, your kite, and your house a little maintenance in the Quadratus Lumborum muscles can save you a lot of problems later on.



- Almost all of our low back pain patients in the clinic have severe muscle contraction in the *gluteals*. The “butt

muscles” are some of the strongest postural muscles in the body. They function primarily to extend the leg. When they are chronically tense they cause a constant painful pressure in the articulations of the low back (that’s why we call an uptight, unhappy person a “tight-ass”☺) For our patients we prescribe abdominal toning and gluteal stretching immediately. Since kitesurfers already have great abs, we just need to work on flexibility of the gluts.



- Just remember to bring the knee towards the opposite shoulder. Seated and “face up” stretches are milder and great for long plane/road trips.
- The deepest stretch for the gluts is done face down as shown. Start in pushup position, bring one leg up underneath you, extend the other leg and bend at the hips rotating your upper body slightly. ***IF YOU PRACTISE ONLY ONE STRETCH FOR THE LOW BACK IT SHOULD BE THIS ONE!!***



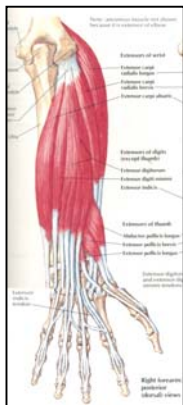
Sinewave Elbow

Since switching from windsurfing to kiteboarding my friends and I suffer much less from “tennis elbow.” However, try getting upwind on a small kiteboard when the wind drops and you may fall victim to “sinewave elbow” (almost as bad☺.)

- Anytime we are tightly gripping the bar (or boom) and making repetitive motions for long periods of time without rest we are at risk of causing an inflammation to the common flexor or extensor tendons of the forearm.
- The key to these stretches is to maintain the elbow completely straight (extended) and, with the fingers in the proper position, rotate (*supinate*) your upper arm so as to force the **inside** of your elbow (*the soft side*) up to the sky.



- Once again, 15 minutes of ICE directly over the painful area at night before bed will help to rapidly decrease the inflammation. Always do your stretching BEFORE you ice it.



(Hold on tight Elliot!)

Neck Pain

A nasty case of torticollis (stiff neck) can put you out of the competition and keep you off the water for days. Once the muscle relaxants and painkillers kick in you can sometimes go out and sail for a bit but its hell trying to look upwind to spot the next gust. Even after a week when the pain is gone you still have a decrease in your range of motion and you are much more likely to get a spastic contraction in the same muscle again the next time you botch a landing, sneeze with your head turned, etc. (Mauricio working on his “Exorcist” impression.)



• A good therapist can help you to work out old scar tissue in the neck and upper back muscles and develop strength again; but it can be a long and painful process. Why not prevent this vicious circle altogether with a little pre and post kite stretching?



• Sitting or standing, the idea is to “fix” one shoulder down and gently pull the head diagonally in the opposite direction. This is a good one for the *Levator Scapula* and *Upper Trapezius* muscles.

• A deep nagging ache in the muscles between the shoulder blades (*Rhomboids*) is one of the most common complaints in our office. “Release” the muscles in your back, let the head hang between your arms and breath deep. Try to feel the shoulder blades separate outwards from your spine.



Rotator Cuff

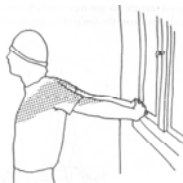
Shoulder injuries are right up there with knee injuries in recovery time and difficulty. Unhooked jumps like rallies and monkey airs can put tremendous strains on the small muscles of the rotator cuff. Any therapist would cringe at this famous picture of Lous' handlepass if they knew how much power was tied to the other end of those lines!



•Rehab of the rotator cuff muscles is a topic that would require another entire book! Lets just concentrate on prevention shall we? It's the small external rotator muscles (seen "in sitio" here) that are most commonly damaged in shoulder injuries.



•These two "broomstick" stretches are adapted from the Major League baseball warm-up routine. The photo on the left shows a deep stretch of the external rotator muscles of the right arm. The other is for *Pectoral* and *Subscapular* muscle fibers (internal rotators of the arm.) Take it slow and easy because the leverage produced by the stick creates a powerful stretch!



• Although kitesurfing is not generally a tough workout for the chest muscles, we included this last stretch because it provides a nice pull for generating flexibility in the pectoral and deltoid muscle groups.

Legs



If your straps (or boots) are set up perfect for you and you haven't ever had to use your big board in high wind or heavy chop conditions you may never suffer from "shin splints" while kiting. A quick onset of weakness in your *Tibialis Anterior* muscle (what keeps your toes up) and serious stabbing pain during even your softest landings are the hallmark symptoms.

- Avoid the problem by keeping your footstraps/bindings perfectly adjusted, coming in for your small board when the wind picks up, and stretching these

muscles before and after your sessions.

- Of all the muscles groups the Hamstrings (*Biceps Femoris*) are probably the most stretched by your everyday athlete. For some reason our culture equates "warm-up" with jogging in place, throwing a few shadow punches, and bending at the waist to stretch the hamstrings! It's better to sit down and slowly stretch these muscles using a towel (or an old leader line) if you can't reach your toes. Keep the quadriceps muscle contracted so that your knee is completely straight.



- Remember to use the "tricks" previously mentioned... Push the toes away, contracting the calves for 2 seconds, then relax, squeeze the antagonist muscles (*Quadriceps* in this case), exhale and take the stretch deeper.



- The calves (*Soleus and Gastrocnemius*) can be easily stretched using the curb of the street, some stairs, or a rock in the parking lot. This is a great way to fill the muscles up with oxygenated blood and give new life to tired legs.

Thousands of professional athletes will testify that there is no substitute for the specific spinal adjusting of a good **chiropractor** to stay in top form. There are no doctors better qualified to help you keep your musculoskeletal system flexible and central nervous system free of interference. *Keeping your lines tight, however, is up to you.*

NOTE: I have borrowed shamelessly from Netters' "Atlas of Human Anatomy" ISBN # 0914168-193 and Bob and Jean Andersons' "Stretching" ISBN 0936070-013. Go buy these great books so they don't get mad at me for pilfering.☺

Tons of thanx to:

- John Mulligan (loco4viento) for introducing me to Arcs when I didn't have a clue.
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- My partner in crime and life, Alejandra Angers Franzoni

Kite smart and live to kite another day.
This sport is too great to end up sitting injured on the beach because you were too lazy to stretch.

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