CASTING INJURIES

A Healthier Cast: An Intro to Fly Casting Pain and Injury

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With additional information by Dr. Tim McCue

"Fly casting is the physical skill of fly fishing."

I grew up with that mantra playing through my head. Certainly there are other "physical" aspects of fly fishing, but it is in casting where the serious hand-eye coordination and use of the physical body come into the most play. Of course, for those who cast for competition, the physical elements become exceedingly important, and injury—whether preexisting or caused by casting—can impact the game significantly.

Fly casting has been called the "most difficult throwing sport in the world" (partly because we "throw" in both directions), and as such, it can put surprising stain on the body. Oddly, it seems that many casters who are aiming for distance (or the rock solid aspects of controlled reliability) often ignore the body-centric aspects of preparation, and simply pick up a rod and cast. This immediacy of effort may not cause a physical problem, but when or if it does, or if it inflames an existing condition, the results can be frustrating at the least, and debilitating at the worst.

Fortunately the mental climate surrounding fly-casting injury seems to be changing, and a more universal awareness, even among casual anglers, appears to be spreading. Some may still laugh at the idea of getting "hurt by casting," but the truth is that injuries (again, either preexisting, but affecting casting, or caused by casting itself) are more widespread than often realized.

My own involvement in fly-casting injury really began in earnest when I was tapped by Dr. Tim McCue to assist in creating the Fly Casting Institute (FCI). The idea of the FCI began because of fly-casting injury—injury to Tim, specifically, but there were also other incidents Tim was aware of as a sports-medicine physician and former fly-fishing guide. Tim enlisted me to assist in a survey to examine injury and/or pain prevalence in casting instructors, and the results were surprising.

Not only were injuries and/or pain greater than expected, but those injuries and/or pain were occurring even in a group that one could consider as ranging from "above average" to "professional" in casting ability. And guess who had the most pain? Those who hauled while casting and those who used shooting heads—sound like a scenario that might be familiar to any ACA members?

Casting problems were shown to range from pain in muscles during or after casting

to joint problems and injuries significant enough to warrant physical therapy or even surgery. While most of the pain reported by those in the survey was shorter duration (hours to days), that pain (or mild injury) meant that people were both casting and fishing at less than optimal "casting health" for tangible periods. And a full quarter of the respondents in the survey indicated that they had actually changed their personal casting style due to pain issues. Not what you want to contend with just prior to a tournament (or a big fishing trip for that matter).

At the FCI clinics, we often see people who have compensated in their casting strokes as a result of injury, pain or weakness (often overuse injuries). Sometimes the injury or weakness aspects are not even apparent to the caster, but show up during the clinic's upper-extremity physical exam session. Sometimes the casting compensations that result are dramatic, and result in significant frustration for the caster. For example, an issue of scapular instability can lead to rolling of the shoulder, which can lead to endless accuracy problems and a reduction in distance capability. No fun for fishing, and even less fun if you're trying to hit rings or make a shooting head do its thing.

An area of significant focus in alleviating, or at least lessening those problems, is in adjusting casting form. In some cases, something as simple as better posture can make a tangible difference (keep those shoulder blades stable!). In other cases, something like adjusting one's mechanics to move the casting workload away from being wrist-centric to being more shoulder-centric, can alleviate certain types of pain. An injured shoulder, however, may require strengthening exercises and focus on adjusting the casting stroke toward the arm/body to prevent too much strain on the joint. And working around injuries such as a broken wrist may require even more creativity, with a focus on joint stability and stress-reduction through various mechanical and physical means.

From the perspective of casting "style" as it relates to injury, the McCue survey found that among those casters who predominantly used a single casting style, those who used an overhead "accuracy" style of casting (such as is often used in accuracy competition) had the least incidence of elbow and wrist pain. Those casters who used a variety of styles (overhead, sidearm, elliptical) had the least overall incidence of pain in total. This may be traced to reducing overuse injury, as well as the concept of using the least stressful style for a given angling situation.

One guideline that I like to follow when it comes to "style," is that no matter what that general style may be, I follow a range of motion that is compatible with my body's natural mechanics. For example, my overhead "style" follows an arm motion much like running, but with a smaller overall range of motion. The lift and swing from the strong shoulder muscles allows me very good control, while also being a motion that my body finds mechanically compatible. Trying to overhead cast by sweeping my elbow out the side and rotating from that joint is *not* something that my body finds mechanically compatible, even if I were to practice it/use it until it no longer felt awkward. Looked at another way, we have certain planes of motion that

the arm/shoulder/wrist like to move in, and those planes are mechanically stronger, as well.

Of course, if your body is used to a certain type of motion, any change may feel strange, even if that change is actually leading to better overall form. The key in making a change that alters form is to be sure it is meant to help your body work better, not just change for change's sake (or worse, change to a motion that may lead to longer term pain/injury).

Having a trained medical or athletic specialist look at your casting form may be a way to identify a potential problem before pain or potential injury arise. That specialist may or may not be able to tell you much about fly casting *per se*, but he or she may be able to offer direction on altering certain motions, proper strengthening exercises, and the like, to help you adjust your form to be more joint friendly.

A couple of areas that can cause problems outside of pure form issues are lack of warm-up and overuse (with good form or otherwise). Diving into distance casting, for example, without a warm-up may be inviting trouble (I speak from experience here). A specific warm-up regimen—one that follows the mechanics of the casting you'll be doing—can get your muscles warmed and ready to put in maximum effort while reducing injury potential. A few minutes of pantomiming, or using only the rod butt, is one easy way to get things moving, and it can be coupled with resistance bands or perhaps light hand/wrist weights.

Overuse pain and injuries (such as casting elbow) can crop up with casters who push practice sessions too far, put excessive, repetitive strain on certain joints (like the wrist), or overwork an area that has already experienced injury or instability. In other sports, such as baseball, "pitch counts" may be employed in an effort to reduce overuse. Perhaps "cast counts" would not be a bad idea for competitive casters to consider.

When it comes to overuse injuries, one often-recommended practice for dealing with areas like the elbow is R.I.C.E. That's Rest, Ice, Compression, Elevation. A quick Internet search can turn up all manner of R.I.C.E. implementation advice for various injuries, so I won't repeat it all here. R.I.C.E. may be followed up with an exercise regimen, depending on the injury (casting elbow, again, is a common problem than can see improvement from R.I.C.E. followed by appropriate exercise).

Stretching (particularly after casting practice, or as its own separate regimen) is also a consideration as a way to maintain overall flexibility, and to help with pain/injury rehab (such as with casting elbow). A number of studies have shown that, in general, *acute* stretching—immediately before exercise—does not necessarily reduce the risk of injury, but *regular* stretching can help keep a caster flexible over time. At least one study has also shown that a *regular* (not acute) stretching program may create some level of improved strength and power (and thus may be of some benefit in distance casting, for example). Stretching (and the flexibility that comes with it),

may also be of use for those who have back pain, posture issues and so forth.

Weight training (as already touched on in conjunction with R.I.C.E.), if done properly, can boost performance and help recovery from injury. Inexpensive resistance bands can do a lot, are easy to acquire, and are easy to use (they can also be tossed into a gear bag for use in a hotel room, or even a tent).

I'm not saying you need to power-lift or body-build to be a better caster (such extremes could indeed be too much for what's needed in our sport), but a focused exercise regimen (with proper warm-up!) makes for a more stable foundation, which in turn gives a better mechanical base and better power. You may also find that it reduces your chance for, or incidence of, pain and/or injury, too.

I personally follow an exercise regiment that involves free weights and machine-based weights, with a focus on my wrists/forearms, biceps, triceps, shoulders, upper back and core strength (abs and some lower back). I find that when I am working out regularly (and stretching afterwards), that I can cast farther more easily, with greater control of the rod, with better control of body mechanics, and with less soreness after a long casting session. I also find that my short game improves, as well. I'd hazard a guess that most people would find the same true for themselves (at the FCI we certainly see it, even after two days with nothing but resistance bands).

When you really get down to it, competitive fly casting—especially the distance games—is an athletic endeavor. Technique is absolutely key, of course, and casters with only modest strength prove it all the time by performing at extraordinary levels. But…taking the time to be stronger (within reason), less prone to injury, and with a reduction in soreness or pain, can only serve to elevate one's casting to new heights. If you're a caster who suffers from pain or injury, take the time to care for yourself and get some professional advice in how you might be able to recover, rehab and strengthen your joints, connective tissues, or muscles. Your competitive results may respond in kind.

McCue Survey URL: http://www.wemjournal.org/wmsonline/?request=get-document&issn=1080-6032&volume=015&issue=04&page=0267

Exercise Prescription on the Net: http://www.exrx.net/Links.html