



ETWC NEWSLETTER SEPTEMBER 2014

PROMOTE canoeing and kayaking as a water sport
TEACH boating techniques and water safety for river travel
PRESERVE our remaining wilderness rivers for future generations

Club Meeting

Tuesday, September 16, 2014 7:30 pm at: The Club House at Greystone Summit Apartments (2531 Oleander Way, Knoxville). We will have tasty drinks and snacks.

<http://www.mapquest.com/directions#ab5952b1168f5a97168b62b2>

The club house is at the top of the hill within Greystone Apts on Solway Rd ½ mile from Hardin Valley Rd.

We will also meet and eat before the meeting at Grill Don Gallos on Hardin Valley Rd, 6pm. Reply to newsletter email, or call Bill 865-387-7821 if you want to come eat so he can save you a spot.



Our speaker will be Renee Hoyos, Executive Director of TCWN (Tennessee Clean Water Network) and Board President of National Clean Water Network based in Washington D.C. Renee will tell us about the organizations she represents and the amazing work that they do to protect our rivers.

ETWC

P.O. Box 5774

Oak Ridge, TN 37831-5774

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 membership form at the end of this newsletter to:

*ETWC
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NEWSLETTER DEADLINE – 7TH OF EACH MONTH

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Photos in jpeg, gif, or bmp format.

Reports and Classifieds as a Word or Text File Document.

Check out our website at <http://www.etcweb.com>

River Gauges, see ETWC Forum

[AWW What's Running in East Tennessee](#)

Note from club President, Ian Anderson

It's hard to believe that summer is already coming to an end, for me it has been jam-packed with fun, paddling, good friends and some new paddling buddies. The season got off to a fantastic start with a very successful clinic organized by 'Kool Ken', who was over in Ireland enjoying the local beverages until just a few days before the clinic. The organization was once again perfect, 17 new paddlers fitted out and eager to get wet on day 1. The feedback from the students was excellent—they all had a great time. Thanks to Ken and his wonderful team of teachers, safety boaters and picnic organizers for dedicating their time to make the clinic a top class learning experience. This was also the first year that we had club t-shirts printed for the clinic participants – they look great. For those of you have been out on some of the larger group meetings it's nice to see a collection of distinctive t-shirts among the crowd. If you don't have a t-shirt yet, contact Kary, we have some left for sale at bargain price of 15 dollars. We'll have them at the club meeting on Tuesday 16th. Following the clinic we have seen a number of people step up to organize beginners trips, starting with the Hiwassee, where Ian had to be rescued from a hole by Sam after getting stuck learning to side surf. From the Hiwassee, we progressed to the Nantahala. Again thanks to all of you who organized these trips, or who came along to teach and safety boat. These beginner's trips are crucial for providing new paddlers the much needed experience on the rivers.

Sadly our much-loved vice-President, Diana, left us to go paddling in the ditches of Iowa. Diana brought a lot to the club, a smile, some wonderful t-shirt designs, and our own ETWC visiting card complete with QR code to name but a few of her contributions. We wish her luck in her new job at Iowa State University, we will miss her, but look forward to seeing her back for the GAF weekend.

The summer has been full of fun: elegant swimming 'costumes', good conversation while 'queuing', and of course Allie's 'see-through' changing gowns. I for one am looking forward to even more fun in autumn (fall)!

Editors note: Ian should be back for the September 16 meeting after hiking around Mt Rainier. So, be prepared for some great stories.

ETWC members recognized for volunteer efforts!

Several members of ETWC attended an award ceremony and cookout on Saturday August 9th at the Obed Wild and Scenic River visitor center. The park recently received the Keeper of the Light award for its "National Park in Your Backyard" program that brings every sixth grade class in Morgan County to the Obed for an all day, intensive introduction to the park. This is the National Park Services' highest honor in the Southeast region for education and interpretation.

ETWC volunteers have supported the program since it was launched in 2012 by helping park rangers with the boating part of the program in the pool below Lilly bridge. The Park Service provides canoes, kayaks, duckies, and other equipment (PFD's, helmets, paddled, etc.) ETWC volunteers act as safety boaters and provide a little instruction.

The program usually starts the second week in May and runs for seven consecutive weekdays. Please think about volunteering for a day or two next May if you can spare a weekday to help. It's a great experience for the kids and you'll enjoy it as much as they do.

ETWC Tee Shirts

We still have some ETWC club T-shirts available at a bargain price of \$15, going fast! They have a special design on the back. To reserve a shirt contact

Kary at: 865-483-7525 or kary_scarborough@att.net

and give her your shirt size.

BRAIN MAINTENANCE FOR PADDLERS

PART 2: INJURY PREVENTION (BEYOND HELMETS)

By Teresa Gryder

This is the second of a three-part series on protecting your brain for the whitewater paddler. Part 1 was about helmets. In Part 2 we cover additional strategies for reducing or preventing brain injuries, including fitness and nutrition. The third part is about first aid for brain injuries, including assessment, when to seek treatment, and what to watch for afterward.

This subject is a wide tangent from typical whitewater safety topics. Lots of traumatic brain injuries occur in other sports, like football and soccer, as well as in car accidents and the military. The brain is an area of special interest for me, both personally and professionally, and keeping it healthy gives you more life to live. Here's how to support your own brain, even after taking a few lumps along the way.

BRAIN INJURY PREVENTION BEYOND HELMETS

In the previous part we covered a bit about the brain, and a lot about helmets, specifically about the characteristics of a helmet that help protect your brain (and not just your skull and pretty face). If you wear a quality whitewater helmet, and boat within your abilities, you can still get hurt. After you get hurt, there can be long term consequences. I can think of three ways to improve the durability of your thinking organ, and there may be more. This column is about how you can protect your brain by strengthening your core, consuming good brain nutrition, and managing inflammation in your body. It's about making your body and mind tougher. Let's break it down.

Core Strength

A strong core means having strong muscles around all sides of the spinal column, from the head down to the sacrum. It is not about six-pack abs. It is about the deep muscles that we share with snakes, the ones that let belly dancers move the way they do. Core strength protects your brain in two ways. First, it keeps your head from getting knocked around as easily. Think of a boxer's muscular neck. The stronger your muscles are that connect your back to your head, the less your head will whip around when it

gets bumped. In traumatic brain injuries, the “coup” injury is the one that occurs at the site of the initial impact, and the “contrecoup” injury occurs because the brain bounces off the inside of the skull and hits the other side, causing a second injury. If your head is firmly attached to your body, the entire mass of the body absorbs some impact, and not just the ten pounds of the head. Your body, being heavier, doesn’t change speed as quickly, so the brain doesn’t get as battered.

The second way core strength protects the brain is by making your “tuck” tighter. When you flip over, the first order of business is to bring your torso and head forward onto the deck of your boat, keeping you closer to the surface of the water. This tuck is the set up position for doing an Eskimo roll or a wet exit. Being strong in the core will also help you keep your balance while upright, and improve your roll. If your sit-up muscles are weak, your tuck won’t be very tight, and you are taking your chances going on rocky rivers, even *with* a great helmet. So do your crunches!! Pilates is a wonderful way to build core strength, as is yoga. Sun salutations strengthen the core while they lengthen your hamstrings, increasing your ability to tuck. Positions like cobra, boat, triangle and extended side angle pose, if held for ten breaths or more, add power to the core. Sex can be another great core workout, if you are that lucky.

A Neuroprotective Diet

What you eat influences your brain’s toughness and ability to self-repair. Good nutrition for brain health is good nutrition for all of you. If your brain had any say in the matter, it would have you eating colorful vegetables and fruits, nuts and seeds, northern fishes, curries, eggs, and butter. Your brain hates being bathed in too much sugar. Being diabetic or having metabolic syndrome sets your brain up for the chronic inflammation that causes dementia, with or without trauma. The brain depends on quality fats, a wide variety of antioxidants, and a sufficient quantity of quality protein. (We’ll get into the antioxidant details later, and the sidebar for vegans has a protein suggestion.)

The best fats come from seafood and plant sources like avocados, coconut, nuts and seeds. What your brain craves the most is the omega-3 fats that are in northern fishes, because these help keep cell membranes flexible. Flexible cell membranes make the brain work better all the time, and make it bend instead of breaking when bumped. If you don’t eat fish, your brain will thank you if you find some other way to get plenty of DHA, like taking a fish oil supplement. DHA is proven to reduce injury

susceptibility and recovery time (as well as improving sleep). American soldiers are starting to take fish oil because it works so well for reducing TBI (traumatic brain injuries) even in blast injuries.

The worst fats are terrible for your brain. Sadly, a cheeseburger and fries with soda is about the worst thing you can do for your brain.

Managing Inflammation

Inflammation is a natural process of your immune system that is intended to repair tissues and fight infections. This sounds good, but if there is too much inflammation in a tissue for too long, it does damage. Anti-inflammatory drugs can help, but they damage other parts of the body. And as we get older, we have higher overall levels of inflammation. Cigarette smoke is inflammatory in more than one way. The brain is notorious for getting inflamed and staying that way long after the injury. The specialized macrophage cells that are supposed to do brain cleanup don't seem to turn themselves off. Much of the damage done to a brain after a concussion is from a continuing immune response that is known as an inflammatory cascade. People can have chronic headaches, light and sound sensitivity, lack of ability to focus and make decisions, depression and anxiety, and early onset dementia, due to relatively minor brain injuries in a setting of systemic inflammation.

With all this in mind it seems obvious that limiting inflammation is a great way to keep your brain healthy enough to withstand the abuse you give it. The diet mentioned above is sometimes known as the "anti-inflammatory diet". Cutting back on meat, cheese, grains and sugar, and increasing fish, vegetables and bright-colored fruits, nuts and seeds, helps lower inflammation.

Having plenty of antioxidants on board before an injury is more helpful than increasing your antioxidant intake afterward. Bright colored plant foods, like broccoli and cherries, contain anti-oxidants. Bananas and white potatoes, on the other hand, don't. Inflammation is mostly an oxidative process, so anti-oxidants help fight inflammation. Blueberries for breakfast are a great start. The more different colors you take in, and the more often you eat them, the better. Taking vitamin C is good, but it isn't enough. Two of my favorite sources of antioxidants are tart cherry juice and broccoli. Tart cherry juice really is very tart, but 2 tablespoons of the concentrate (in water) at night lowers inflammation, improves sleep and exercise recovery, and makes your brain very happy. Broccoli has special antioxidants because they last three times longer than most other ones, which only last a day.

This is one of the reasons that broccoli shows up on everybody's top ten healthy foods lists.

Some spices and herbs are also wonderful anti-oxidants. The most researched one is tumeric, aka *Curcuma longa*, the orange-colored spice tumeric. Regular consumption of curcumin from tumeric bolsters the brain's resilience to injury by moderating the inflammatory cascade. Preventative supplementation is more effective than taking it after you are hurt. Curcumin is best absorbed with fat, and tumeric + coconut milk is the foundation of a delicious curry. So eat curry regularly to protect your brain. *Crataegus* (Hawthorne) berries have also been shown to protect the brains of gerbils, and it's not a stretch to imagine that the anti-oxidant effect might work on humans too. Five other botanicals with good evidence for preventative and protective effects on the brain are *Eleutherococcus* (Siberian ginseng), *Centella asiatica* (Gotu kola), *Scutellaria baicalensis*, *Ginkgo biloba* and *Salvia miltiorrhiza*. It is no surprise that these herbs have been given as longevity tonics in China for centuries.

Exercise is another way to reduce inflammation. It works because it lowers excess blood sugar, and has the added benefit of stimulating you to grow new brain cells. Yes, adults do grow new brain cells! Correcting your inflammatory habits or exposures will reduce your risk of heart disease, cancer, arthritis, bowel disease and many other icky outcomes.

Conclusions

The brain is not that tough. It's a squishy organ inside a hard shell and a bag of membrane. It is made of fat and proteins soft enough to slice with a spoon. Resilience to injury depends on many things that you have some control over. You can't undo your age, but you can focus on eating quality fats and antioxidants, and on limiting your intake of ice cream and potato chips. You don't have to be a tee totaller on any of these counts—I certainly am not. You can protect your brain, and the brains of your loved ones, with exercise and diet, and keep playing rough.

SIDEBAR FOR VEGANS

Most Americans get more than enough protein. Some vegetarians, on the other hand, get by on very little and are quite healthy. If you are vegan and won't take fish oil, I encourage you to work at increasing your omega-3 intake from every source you will accept. Also, if you don't get a lot of protein, you might consider taking a creatine supplement. Like antioxidants, it works better if you already have it in your system before you are injured,

and the more protein-hungry your body is, the more it helps. It protects the brain by preventing secondary injury due to the inflammatory cascade. Vegetarians often have better antioxidant levels than the rest of us, from eating all those brightly colored fruits and vegetables. In experiments, antioxidants have been shown to prevent post-TBI seizures.

ETWC Forum

Check out the discussions on our forum:

<http://etwcweb.com/discuss/>

Roll Practice Friday Nights, Oak Ridge at Clark Center on Lake

Remember roll practices on most Friday nights at the Lake.

Please post to the forum if you plan to go to be sure others will be there.

We meet around 6pm or when we get off work at the Clark Center Put in (where we held the clinic).

Trip Reports!

We want to tell everyone about our adventures. Send trip reports to Bill, including videos if you have them!

Please send reports to Yours Truly at bill.lewis865@gmail.com.

PROGRAMS

We are always looking for interesting programs 865-382-5723 or nai.nosredna@gmail.com

**EAST TENNESSEE WHITEWATER CLUB
MEMBERSHIP & RENEWAL FORM**

Dues: \$15.00 Yearly Family Membership (January 1 renewal date)
Send to: East Tennessee Whitewater Club, P.O. Box 5774, Oak Ridge, TN 37831-5774

Name(s) _____

Address _____

_____, _____ Zip _____

Phone: (H) _____ (W) _____ Email _____

I would like to receive my newsletter by email. (circle) Yes No

Membership Status? (circle) New Renewal

What boats do you paddle? (circle) Kayak C-1 C-2 Solo Canoe Tandem Canoe

What is your paddling ability? (circle) Beginner Intermediate Advanced

Expert

Class I-II Class III Class IV Class V

RELEASE AND WAIVER OF LIABILITY

I, _____, desiring to join my fellow paddlers in the East Tennessee Whitewater Club (ETWC), do hereby declare that I fully understand and accept the following facts of life on the river:

1. Canoeing, kayaking, or rafting, particularly on whitewater rivers, exposes the participants to various safety hazards, including but not limited to, water hazards (boulders, undercut rocks, trees, strainers, water formations such as water falls, holes, keepers, hydraulics, and other obstacles), swimming in turbulent water, using paddling equipment, accidents or illness in remote places without medical facilities, and travel in a vehicle not driven by me.
2. No one but I am responsible for my safety when I choose to paddle a particular river or a particular rapid.
3. I further understand that I have no legal duty to assist others, nor does anyone else have a legal duty to render such assistance to me. I certify that I am in good physical condition, that I can swim, and that I have no physical defects or injuries that would prevent me from participating in this activity. I fully understand and agree that, when I participate in canoeing, kayaking, or rafting, there is always the possibility of unknown, uncontrollable dangers and accidental or other physical injury and death. I know I can be killed, and I willingly assume the risks referred to in Paragraph 1 and elsewhere in this release.

Therefore, in consideration for granting me the right to join and participate in ETWC activities, and intending to be legally bound, I hereby release, waive and discharge my right to sue ETWC, its trip coordinators, instructors, leaders, officers, directors, representatives, agents, employees, and affiliates, and also any landowner or governmental unit which may allow ETWC to use its property, for any and all loss or damage on account of injury to my person or property or on account of my death, which may occur during, in preparation for, or in transit to or from an ETWC activity.

I further understand that ETWC carries no insurance for the protection of participants in whitewater activities, and any insurance coverage existing with respect to ETWC shall not alter the terms of this waiver nor impose any liability on ETWC.

This waiver applies only to acts or omissions of ordinary negligence and to any deliberate act intended to promote my safety or well being.

This waiver is signed by me in the interest of permitting ETWC to exist and to serve the paddling community, and to enable me and my fellow paddlers to feel free to donate their services to improving the sport and to help in training those less skilled in the sport without fear of liability.

I HAVE CAREFULLY READ THIS RELEASE AND FULLY UNDERSTAND ITS CONTENTS. I AM AWARE THAT THIS IS A RELEASE OF LIABILITY AND I SIGN IT OF MY OWN FREE WILL.

Signature: _____ Date: _____

Signature: _____ Date: _____

(Parent or guardian if participant is under 18 years of age)