

The Arizona Mountaineer



The Arizona Mountaineering Club

2026 - SUMMER

Our Quarterly Newsletter

President's Message

Hello everyone, I hope your spring was full of adventure.

Regular club communication is a priority for us and after being on sabbatical for some time, the club newsletter is back in circulation and will be edited by board member Manny Calero. Look to the newsletter for outing and advocacy updates, summary of club benefits, calendar of key events, and other relevant features.

In addition to having another successful and fun school season (see Spring Schools Wrap-up), we have two major items to celebrate... significant fundraising that yielded a major portion of the funds sought by the Save Sullivan's Canyon campaign and a major service project in partnership with the Grand Canyon Trust focused on post-fire recovery work in the Grand Canyon's North Rim.

In-depth stories about both of these efforts will be forthcoming, but I wanted to highlight them as an example of the impact we can make when we come together as a community. It is a joy to serve on the board of directors of an organization amazingly dedicated to being good stewards of the land we enjoy!

Whether at your local gym or atop Mt. Lemmon... I hope everyone's out and about having fun adventures with friends and keeping those climbing skills fine-tuned. Have a happy and safe summer and see you all at the August club meeting.

-Mitch Doty, AMC President

"Our Mission is to provide educational opportunities, climbing experiences, advocacy to protect our climbing resources, and stewardship of the Arizona Outdoors by promoting volunteerism and community engagement."

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Spring Schools Wrap-up

Basic	Anchors	Lead
Led by Andrea Galyean	Led by Ann Revill	Led by Chris Adams
Students: 25 Volunteer Instructors: 49	Students: 20 Volunteer Instructors: 21	
AMC's Basic Outdoor Rock Climbing (BORC) school is always exciting, as new climbers get on rock for the first time and learn the skills they need to stay safe. But this Spring's class presented additional safety concerns due to extreme heat, necessitating extra precautions to protect everyone involved in weekend skills sessions. Special thanks go to our Outing Leaders who pivoted on a dime to put together new grad climbs when it became too hot at most of our usual crags. On a more technical note, this is the second year in which Andrea has included the Clove Hitch in BORC. Feedback from students and instructors has confirmed the value of learning this useful hitch for climbing and self-rescue scenarios.	Anchors may be our "headiest" school, as it requires some serious problem solving before tying in. For the last year or so, Ann and Bill Fallon - Training & Schools Chair - have tag-teamed to make Anchors a great experience for students and volunteer instructors. Ann focuses on introducing students to common anchor systems they may need to build for top roping; and Bill works with volunteer instructors to offer a more nuanced refresher of these anchors before sharing their knowledge with students. Like the saying goes, "the best way to master a skill is by teaching it." A group of students and volunteer instructors remained at Sullivan's to put newly developed skills to good use as a team! 😎	Lead brings skills from Basic and Anchors together into a full package focused on preparing you to lead a climb safely and with confidence. One of the most recent changes to Lead was the introduction of a follow-up Lead clinic, usually hosted a week after Lead. Feedback is loud and clear on how valuable this clinic is. Nothing builds skill as effectively as getting on the rock wall. We look forward to continuing this best practice. Participants also shared that they face some difficulty in transitioning from a climber that follows to a climber that leads. It can certainly be a big jump as the toolbox of skills starts getting crowded. For the next Lead class, Chris will turn this feedback into action by setting up more routes that can match a wider range of climbing skills.

Our schools wouldn't be possible without the many volunteer instructors who share their time and talent with students. **Did you know** that volunteering as an instructor is one of the most effective ways to build proficiency and confidence as a rock climber?

Come out and join us as a volunteer instructor this Fall. Dates are below.

The life you end up saving by developing your skills may be your own.

Live to Climb Another Day

By Manuel Calero

Rock climbers are like a box of chocolates, you never know what you're gonna get. **Safety-conscious rock climbers**, however, share one thing in common... a deep respect for the risks that surround us. While risk in rock climbing, canyoneering, and mountaineering is unavoidable, it can be understood and mitigated.

If you have attended any of our schools, you already have a few key risk-mitigating strategies in your toolkit. These include knowing how to properly tie-in to a rope for top roping in a gym or rock wall, understanding systems that can safely anchor you and your partner during an outing, and having protective equipment like helmets, personal anchors, and cams/nuts/bolts/etc. as needed, used for protection throughout your climb.

It wasn't until I started climbing without the assistance and guidance of Outing Leaders that I realized how easily a rope can make its way onto some sharp edge or ledge, and how **friction generated under tension can result in that edge/ledge cutting soft gear** (ropes, slings, etc.) like a hot knife slicing through butter.

I'll spare you the gory math, but a person weighing 175lbs will generate about 1,000lbs of force on a .5 factor fall. According to Google, this is equivalent to the force generated by an NFL defender on initial impact in a full-speed tackle; or an industrial press when bending steel into shape; or rockets ejecting a pilot from a fighter jet.

In other words... 1,000lbs of force applied suddenly is huge! It's no wonder then that when this force is concentrated onto a single point of a 9mm unprotected rope sitting on a sharp edge, the result can be catastrophic. Possible mitigation strategies include using a rope protector, moving the master point away from the rock/edge, or possibly redirecting the rope and resulting forces with an extendable draw.



For an in-depth analysis and case study on this subject, check out [this article](#) posted by **The American Alpine Club** earlier this year.

Are dogs immune to extreme heat?

By Tracey Hanna

Yup, the headline is a leading question and of course, dogs **are not** immune to extreme heat. Normal body temperature for dogs is 101.5F +/- 1 degree; a body temperature above 105F is a true emergency. Heat stroke typically occurs when a dog is outside without shade in hot, humid weather or when exercising in hot weather.

As a Diplomate of the American Board of Veterinary Practitioners (like being a board-certified Family Practitioner), I have practiced emergency and critical care veterinary medicine exclusively since 2004, including 10 years here in AZ, and dedicate a meaningful amount of time to raising awareness of the dangers extreme heat poses to our four-legged adventure partners.

Remember that **DOGS DO NOT SWEAT**. Their only means of cooling is panting and some evaporative losses through the pads of their feet. Dogs with squishy faces (Frenchies, bulldogs, pugs, Boston terriers, boxers, some pitbulls, etc.) are not able to pant as effectively due to the shape of their faces and are at much greater risk for heat stroke.

Signs of Heat Stroke in Dogs

- Excessive panting
- Drooling/hyper-salivation
- Bright red or blueish gums
- Vomiting
- Stupor/inappropriate mentation
- Can progress to non-responsiveness and/or seizures

If you suspect heat stroke or heat-related illness:

- If available, immediately get your pet under the cover of shade.
- Provide cool water but DO NOT force your pet to drink.
- Get pet wet with either tepid or cool water. Make sure it penetrates to the skin, especially in deep coated breeds like huskies.
- If submersion is not possible, wetting ear flaps and paws can be helpful.
- Transport to nearest emergency veterinary facility immediately.

Preventing Heat Stroke

- Do outdoor activities in the coolest part of the day (early morning or after dusk)
- Get your pet wet prior to any vigorous exercise to trigger evaporative cooling
- Provide plenty of fresh cool water at all times
- NEVER leave your dog in a car on a warm day for **any** length of time
- Do not leave your pet outdoors without shade in temperatures above 80F

Dogs are wonderful adventure partners. I hope this information helps support a safe environment for our canine companions.

I look forward to sharing additional insights in coming newsletters, including how to avoid and treat encounters with plants and wildlife found in our area.

Stay tuned!

Mobility Matters

By Tina Leaman

Mobility = Strength, Flexibility, and Control

We'll start with the body's primary power transmitter. You guessed it... the big toe. Okay, it may seem inconsequential within the confines of a stiff climbing shoe, but here are some reasons to give it attention:

Power: As the body's first anchor point, the big toe transmits force from the ground up through the legs and into hips and core. Using the big toe for a push-off keeps us from placing undue stress on the calf, knees, and back, which can overcompensate for the lack of energy and lack of tension.

Propulsion: Ground Reaction Force is an equal and opposite energy returned by the earth when pressure is placed into it, as explained by Newton's third law of motion. The more direct the pressure, the more propulsion potential.

Control: The "windlass mechanism" tells us that lifting the big toe upward (into dorsiflexion) tensions fascia underneath and stiffens the foot, effectively doing the very thing we attempt to with crushingly tight climbing shoes. Without big toe engagement, and thus no rigid lever of a foot, placement is less deliberate and pivotability is diminished.

Balance: The big toe is first thing to lose engagement and lift when losing balance.

As long as your doctor's cool with it and it doesn't cause pain...

Do this at the gym to improve strength...

On a vertical wall, find a foot hold near the ground with just enough room for the big toe. Without putting weight into it, position the right big toe on top of the hold keeping the heel parallel to the foot. Grab holds big enough to help control the amount of weight on the toe, and stand onto that right foot. Use big toe strength to hold for 3 seconds. Step down, and switch to your left. Repeat twice more. Start doing this no more than twice a week. Increase stress on this joint slowly—it's very easy to overdo!

Do this at home to improve awareness and control...

Standing on both feet, lift the right big toe as high as possible with the other four toes planted on the ground, then press big toe downward to lift the others. Same thing on the left. Was one easier? Repeat 4 more times for a total of five on each foot.

Lift the left foot off the ground to balance on your right. If easy, move the hips around in different directions. Notice when the big toe lifts off the ground. Do this on the left. For the next round, press the big toe into the ground all the way through, and see if it changes anything. Practice these frequently to train consistent pressure and improve stability.

Do this outside to improve flexibility, and integrate big toe action into climbing...

Find a low angle, very gentle slope. Use hands as needed to steady yourself - this one is NOT a balance exercise. Place the entire right foot onto the rock, slowly transferring weight onto it as you roll through the foot. Lift the heel, then the ball of the foot, and stretch that big toe while continuing forward onto it. Use it to push the body upward and forward as you take the next step onto your left (whole) foot to repeat. Do this slowly, twice on each foot, twice quickly.

Improving mobility can help to make climbing movement safer and more efficient. Mobilizing the big toe not only keeps the foot stronger and healthier, but the whole kinetic chain above it working as intended. Dr. Courtney Conley, DC summarizes it well in [this YouTube short](#).

Dollars & Sense

Current members of the Arizona Mountaineering Club enjoy the discounts listed below. You can also stay in the know by going to the Members Only: Discounts section of the AMC website.

Discounts available by showing your AMC membership card:

10% off at the **Arizona Hiking Shack**; 10% off at the **Phoenix Rock Gym**.

Discounts available after documenting your membership:

20% off **Rocky Talkie**

Instructions [here](#).

Various discounts @ **Expert Voice**

An overview of ExpertVoice can be found [here](#).

Join ExpertVoice and provide your AMC membership information when asked.

Calendar - Key Dates

August 7 - Mingus Mountain Campout

August 22 - Grand Canyon Cleanup Skills Review: Christopher Creek *

August 26 - AMC Member Meeting

September 12 - Grand Canyon Cleanup Skills Review: Papago Park *

September 16 - AMC Member Meeting

September 26 - AMC's 35th Grand Canyon Cleanup

September 30 - Lead School (9/30, 10/1, 10/3, 10/4)

October 13 - Basic School (10/13, 10/15, 10/17, 10/18, 10/20, 10/22, 10/24)

October 28 - AMC Member Meeting

November 7 - Queen Creek Cleanup and Climb

November 12 - Anchors School (11/12, 11/14, 11/15)

November 18 - AMC Member Meeting

December 4 - AMC Holiday Party

* Attend only ONE Grand Canyon Cleanup Skill Review session