

# Explore Your Inner Winter Hiker;

## Intro Winter Hiking Workshop

AMC Worcester Chapter  
November 2, 2011

Presented by: Charlie Arsenault, Jen Eaton,  
Paul Glazebrook, Pat Lambert

# Agenda

- ▶ Introductions : Charlie
- ▶ Purpose of the workshop and hike series : Charlie
- ▶ Screening : Pat
- ▶ Getting ready for Winter Hiking: Pat
- ▶ Hydration & Nutrition: Paul
- ▶ Get ready for the next hike : Jen
- ▶ Special Demo!!
- ▶ Gear, gear, and more gear! – Jen & Paul

# Introductions

- ▶ Charlie Arsenault: Worcester AMC Hiking Chair & 4 Season Hike Leader, In-coming Chapter Vice Chair
- ▶ Jen Eaton: Past Young Members Chair & 4 Season Hiking Leader
- ▶ Paul Glazebrook: Chapter Secretary & 4 Season Hike Leader
- ▶ Pat Lambert: Past Hiking Chair, Vice Chair, In-coming Chapter Chair, 4 Season Hike Leader

# Why a workshop on winter hiking?

- ▶ Appalachian MOUNTAIN Club
- ▶ We hike in all seasons
  - Some hikers prefer the winter
- ▶ One of club missions: To get members OUTDOORS
- ▶ “This is New England, it snows”
- ▶ Don’t stay indoors this winter!
- ▶ Tonight: Intro to Winter Hiking
- ▶ Nov 9<sup>th</sup> : Advanced Winter Hiking Workshop

# Winter Hike Series

- ▶ Build up from easier to harder winter hikes
  - Easy to moderate series : tie in to Intro workshop
  - Moderate to hard series : tie in to Adv Workshop
  - Progress thru experience
- ▶ Learn by doing
  - Check out skills, equipment, and self
- ▶ Sign up priority to workshop participants
  - Open to any participants 3 weeks before hike
- ▶ Current list of Hikes in Appendix & [www.amcworchester.org](http://www.amcworchester.org)
  - Check web for new hike additions

# Screening

- ▶ Leader duty to Match hike to participant abilities
  - Safety and fun
  - Keep group together (not too fast or slow)
  - Ensures participants know what to expect on the hike
- ▶ Hike Ratings Four items (Worcester method)
  1. **Distance** in miles
  2. **Pace**: Slow (< 1.5MPH), Moderate (1.5–2MPH), or Fast (>2MPH)
  3. **Terrain**: Easy, Moderate, Strenuous, & Very Strenuous
  4. **Overall difficulty**: Intro, Easy, Intermediate, Advanced, Expert
- ▶ Be honest about fitness level and experience

# Get Ready to Hike!

- ▶ 2 most important pieces of gear that everyone of us possesses even if we have never hiked in winter....
  - Brain
  - Body
- ▶ We'll talk about the body first...

# Get Ready to Hike!

- ▶ “...there’s an undeniable relationship between fitness and fun on the trail: The fitter you are, the more fun you have. End of story.”  
(Nate Goldberg, Summer Hiking Center at Colorado’s Beaver Creek Resort)
- ▶ Winter hiking consumes a vast amount of energy;
  - Breaking trail
  - More equipment
  - Physical conditioning more important in winter

# Get Ready to Hike!

- ▶ Kick up your fitness routine
  - Or start one
- ▶ Walk, run, cycle, hike, snowshoe, ski
- ▶ Strength training
- ▶ Stretching
- ▶ Diet/Lose Weight
- ▶ Hiking alone will not get you fit
  - Unless you do it every day
- ▶ The best gear on the market can't remedy poor physical fitness

# Engage Brain – Self Reliance

- ▶ Responsible for self; be prepared
- ▶ Knowledge and gear
  - Learning about the terrain, conditions, local weather and your equipment
- ▶ Practice before you hike: Cold weather efficiency
  - On, off, adjust – snowshoes, stabilizers, boots, clothing
  - Eating, drinking (with gloves on)
- ▶ Leave your plans with someone ; Tell someone
  - Where (summit)
  - Trails (up and down)
  - Return (call from trail head or at home)
  - Emergency plans (call local authorities)

# Engage Brain – Be Prepared

- ▶ Stay together – all AMC lead hikes
  - Start as a **group**, hike as a **group**, end as a **group**
  - Pace your hike to the slowest person
- ▶ When To turn back (or not start)
  - Weather changes quickly
  - Fatigue and unexpected conditions
  - Unsafe driving
  - **Know your limitations and when to postpone your hike**
  - You can always hike another day.

# Engage Brain – Be Prepared

- ▶ Emergencies
  - Happens on Short and Long hikes
  - Injury, severe weather or wrong turns
  - Knowledge gear, area, and self
  - Adjust “Ten Essentials” for Winter
- ▶ Share the hiker code with others

# Hydration

- ▶ Important for warm and cold-weather activities
  - Avoid Dehydration and Hypothermia
- ▶ Normal activity ~2 Liters/day
  - Bring extra for longer and more strenuous activities
- ▶ Drink water early and often
  - Start today – don't delay!
- ▶ Hydrating before hike
  - Important as hydrating during and after the hike
- ▶ C & C

# Hydration – Techniques

- ▶ Heat and Insulate
  - Boil / hot water
  - Back up Thermos
  - Invert wide-mouth Nalgene
    - Freezes at top
    - Insulated holder
    - Wool socks work!
    - Neck flask
- ▶ Lower freezing temp
  - Gatorade
  - Jell-O
  - Sugar based mix

# Hydration – Techniques

- ▶ Hydration packs (AKA Camelbacks)
  - Prone to freeze
  - Thread hose close to your body
  - Blow water back into the bladder to prevent water from freezing in hose
  - Back up – Wide-mouth Nalgene
  - Insulated tubes and mouthpiece
- ▶ Keep water accessible
  - Reach w/ out taking off pack
  - Encourages hydrating

# Sweating

## Sweating → Hypothermia

- Dress in layers (like an onion)
- Breathable clothing
- Adjust clothing before you sweat
- Physical conditioning and weight
- Set the pace
- Hydrate early and often
- Snacks (salts)
- Key temperature is 25° F

# Nutrition = Fuel

- ▶ Fuel your furnace
  - Food provides energy for activity and keeping warm
- ▶ Carbs – Quick energy and fuel
  - Candy, Dried fruit, Gel packs, Chocolate
  - Bagels, Cookies, Granola bars
- ▶ Fat – Long term fuel (4 – 6 hours after eating)
  - Cheese, Meat, Peanut butter, nuts
- ▶ Fancy Energy bars vs. Snickers...
  - If you like Snickers, bring a Snickers

# Nutrition – Technique

- ▶ Good breakfast
  - Balanced and nutritious pre-hike
- ▶ Bring what you like
  - Think about what appeals to you on a hike ; “Dark Chocolate”
- ▶ Don’t skimp on calories
  - Diet before and after hiking
- ▶ Skip food that freezes easily
  - Chewy (moist) keep close to your body
- ▶ Light and simple
  - Easy to eat ; can eat while wearing gloves
  - Max calories per weight

# Nutrition, con't

- ▶ Snack all day
  - Keep body fueled all day
- ▶ Store some food in pockets for easy access
  - Easy to snack between breaks
- ▶ Pay attention to your body
  - Cold and tired – Drink and eat
- ▶ How much food to bring: rules of thumb
  - 2 times or more than a same 3 season hike
  - Adjust based on experience – increase or decrease each trip
  - “Share the chocolate”

# Post-hike

- ▶ Celebrate the accomplishment
- ▶ Bring a change of clothes
- ▶ Drink more water
- ▶ Have a snack
- ▶ Email those pictures to everyone
  - Especial the awesome ones w/ the Hike Leaders...
  - May be in next newsletter or on AMC Worc Website

# Post-hike, con't

- ▶ Make plans for your next hike
- ▶ What worked? What didn't work?
  - Adjustments for next hike
  - Equipment, skills, fitness
- ▶ Worcester Chapter : [amcworchester.org](http://amcworchester.org)
  - Check out “All Upcoming Events”
- ▶ Hikes with other AMC Chapters
  - [www.outdoors.org](http://www.outdoors.org), Recreation, Search Chapter Activities
  - Don't limit hikes to Worc Chapter
- ▶ Call a friend and hit the trail on your own!

# Gear : Intro

- ▶ Stay warm and dry
- ▶ Think multi-purpose : Reduce, reuse
  - Extra pair of socks can double as mittens
  - Bandanna – Wipe sweat, wash cloth, a napkin, a bandage, etc.
  - Reuse gear from other activities
    - Some 3 season hiking gear
    - Ski and Snowboarding clothing

# Gear : Core clothing

- ▶ Layers: Add and remove to control body temp
- ▶ Long Underwear top & bottom:
  - Synthetic or wool
  - No Cotton : wet cotton pulls heat from body
- ▶ Shirt & Pants
  - Lightweight synthetic or wool
  - No Jeans!!
- ▶ Water & wind proof layer
  - Pants and jacket – breathable best
- ▶ Optional: Down / puffy jacket

# Gear : Feet

- ▶ Socks:
  - Synthetic or wool (bring extra)
  - liner socks
- ▶ Gaiters:
  - keep snow/water out of boots
- ▶ Insulated boots
  - Proper fit (not too big!!)
  - Break in on shorter hikes
  - Different feet : Different boots
- ▶ Snowshoes : Must for deep snow
- ▶ Traction:
  - Stablicers, or Micro-spikes

# Gear : Hands

- ▶ **Gloves:**
  - Synthetic or wool gloves
  - Liner gloves
  - Bring extra pair
- ▶ **Mittens:**
  - Synthetic or wool mittens

# Gear : Head

- ▶ Hats
  - Synthetic or wool
  - Pack an extra
- ▶ Face:
  - Sunglasses
  - Face mask or Balaclava

# Gear: Other

- ▶ Backpack: bigger than a day pack
- ▶ Hiking poles with snow bales
- ▶ Trail guide, map, and compass
  - Knowledge to use them
- ▶ Headlamp / flash light
- ▶ First-aid kit
  - Group or personal

# Gear: Other

- ▶ Water storage: 2 – 4 liters
  - Wide mouth bottle
  - Camelbacks : Tend to freeze
  - Insulated carriers
  - Thermos
- ▶ Whistle
- ▶ Knife
- ▶ Fire source
  - Starter, lighter, Waterproof matches
- ▶ Hand or foot warmers
  - Takes time to activate

# Gear, Other

- ▶ Bandana – many functions
- ▶ Sunscreen
- ▶ Lip balm
- ▶ Extra zip–lock bags
- ▶ \$\$
- ▶ ID
- ▶ Medical Insurance card
- ▶ AAA card
- ▶ Car keys (don't misplace)

# Gear, Other

- ▶ Plastic trash bags : Many functions
  - Pack liner, Trash, Rain poncho
  - Emergency bivouac sack
- ▶ Winter-rated sleeping bag
- ▶ Sleeping pad
- ▶ Cooking stove, pot, spoon
- ▶ Fuel bottles

# Appendices



# Schedule of Hikes; Easy to Moderate

- ▶ Check for hikes and registration info at:  
[amcworchester.org](http://amcworchester.org)

# Schedule of Hikes, Moderate to Advanced

- ▶ Dec 10<sup>th</sup> : Mt Wachusett ; Leader: Paul Glazebrook
- ▶ Jan 14<sup>th</sup> : Monadnock ; Leader: Pat Lambert
- ▶ Jan 30: Moosilauke ; Leader:
  
- ▶ Check for additional hikes and registration info at:  
[amcworchester.org](http://amcworchester.org)

## Sweating – additional info, pg 1

Maintaining your exercise program during the dog days of August can be challenging for a lot of reasons. And one of those reasons is, with all the sweating you do, *how much* should you be drinking to stay hydrated? And *what* should you be drinking?

The answer, of course, is, “It depends.” It depends on how hot it is, how strenuously you’ll be exercising, and for how long. So let’s make some assumptions. Let’s say it’s 90 degrees (F) and you’ll be playing singles tennis, a pretty rigorous exercise.

When you sweat, you lose water and you lose salt. So you need to think about replacing both. A 160-pound person might lose 1 to 1.5 quarts of fluid as sweat in an hour of vigorous tennis. It’s important to replace that fluid as you play, but, for just **one hour** of tennis, you don’t need to worry about replacing the salt. So just drinking water is fine—16–32 ounces. Start drinking small amounts early in your match. This prevents you from getting behind on your fluids. And trying to catch up by drinking larger volumes all at once can cause an upset stomach. (The amount that you sweat per hour depends on how big you are. A large man might lose 1.5 to 2 quarts per hour, a smaller person, less than 1 quart.)

If you’re going to playing for **more than an hour**, you should drink something that will replace both fluid and salt, like one of the sports drinks (such as Gatorade or Powerade). These drinks provide other minerals too, but those are less critical than salt and are beyond the scope of this article. Pick a flavor you like. You should be drinking about 16–32 ounces per hour. If you plan to play 2 hours or longer, shoot for closer to 32 ounces per hour—again emphasizing drinking smaller amounts frequently.

For exercise that’s going to last **2 hours or more**, you need to be taking in energy (calories) in addition to fluid and salt. Sports drinks provide that too. A piece of easy-to-digest fruit like a banana, a sports bar, or even a piece of sugar candy like gummy bears are also good sources of energy. During exercise, steer clear of candy with fat in it (like chocolate) because it slows down digestion and can also upset your stomach.

For long workouts (2 hours or more), it can be *dangerous* to drink only water. If you are sweating and losing both water and salt but only replacing the water component, you can actually dilute the concentration of salt in your system, a condition called hyponatremia. Symptoms can include cramps, weakness, and headaches. Severe hyponatremia can cause seizures and coma

If you don’t drink enough fluids, you can get *dehydrated*. Symptoms here include thirst, fatigue, and light-headedness. If you notice these symptoms, you should *stop exercising*, find a cool place, rest, and drink.

If you follow these tips, you can keep up your fitness and exercise program even in the summer’s heat.

# Sweating – additional info, pg 2

## The Science of Sweating

**Why do we sweat?** When we exercise, we get the energy we need by burning fuel that's stored in our bodies. When we burn the fuel, some of the energy gets used for the exercise, but almost 80% of the fuel just generates heat. We need to get rid of that heat or our body temperature would quickly rise to unhealthy levels. And the main way we get rid of excess heat during exercise is through sweating. As sweat evaporates from our skin, it carries away a huge amount of heat, and that's how we maintain temperature balance. So that's why we sweat. *Extra credit: Dogs can't sweat. How do they get rid of excess body heat?*

**If I drink a sports drink during exercise, do I replace everything I need?** No. First, most athletes, even when they are trying to keep up, don't drink as much fluid during a workout as what they lose in sweat. But let's say you actually do drink the same volume as you sweat, you still don't replace everything that you are losing. Take sodium (salt) for example. Sweat typically has about 1200 mg of sodium per quart. Gatorade has only about 450 mg per quart. What about fuel? In an hour of vigorous exercise (e.g., singles tennis), you burn up roughly 500–600 calories of fuel (about 11 tablespoons of sugar). The quart of Gatorade that you drink during that hour only provides about 240 calories—about 40% of what you used up. The rest of the energy you needed during that hour was drawn from your body's stored energy: glycogen, protein, and fat. *Extra credit: Why don't makers of sports drinks put enough salt and sugar in the drinks to replace what we lose during exercise?*

**I want to be precise. How can I be sure I am drinking enough to replace my fluid losses during exercise?** Do your own experiment. Before you engage in a typical workout, empty your bladder and weigh yourself naked on an accurate scale (we suggest you do this at home). Then do your workout and keep track of exactly how much you drink during it. After the workout, dry yourself off, empty your bladder, and weigh yourself naked again. For every pound you lost, you sweated about 16 ounces (1 pint) more than you drank. Add that amount to the volume you drank, and that's the total volume that you sweated during your workout. That will tell you how much to drink if you really want to stay in perfect fluid balance during your next match. *Extra credit: For better accuracy, why can't I just weigh myself naked right on the tennis court?*

**Answers to extra credit questions:**

- 1. Dogs cool off by evaporating water from the only surface where they can—their mouth and tongue. So instead of sweating, they pant.*
- 2. If sports drinks had enough salt and sugar to replace our full needs during exercise, they would upset our stomachs and cause vomiting.*
- 3. We never thought of that. Why don't you try it and let us know how it works out for you?*

# Ten Essentials (to bring)

1. Map and Guidebook
2. Compass
3. Whistle
4. Pocket Knife
5. Flashlight or Headlamp
6. First Aid Kit
7. Match or Fire Starter
8. Extra Food & Water
9. Warm Clothing
10. Rain/Wind Gear

# More Details on Clothing

- ▶ Layers
  - Add when cooling down
  - Remove when warming up
- ▶ Material
  - Wicking
- ▶ Shirts
  - Zipper at the neck
- ▶ Pants
  - Zip-off, FULL ZIP waterproof pants
- ▶ Fleece
  - Full zipper vs. pull over
- ▶ Underwear (non-cotton)

# Leave No Trace Principles

- ▶ Plan ahead and prepare
  - Know the terrain and any regulations applicable to the area you're planning to visit, and be prepared for extreme weather or other emergencies.
  - Small groups have less impact on resources than large ones.

# LNT Principles, con't

- ▶ Travel and camp on durable surfaces
  - Established trails and campsites, rock, gravel, dry grasses, or snow
  - Camp at least 200 feet from lakes and streams, and focus activities on areas where vegetation is absent.
  - In pristine areas, disperse use to prevent the creation of campsites and trails.

# LNT Principles, con't

- ▶ Dispose of waste properly
  - Pack it in, pack it out.
  - To wash yourself or your dishes, carry water 200 feet away from streams or lakes and use small amounts of biodegradable soap.
  - Scatter strained dishwater.

# LNT Principles, con't

- ▶ Leave what you find
  - Cultural or historic artifacts, as well as natural objects such as plants or rocks, should be left as found.
  - Exception: You can, and should, pack out the trash or “treasures” of others that you find.

# LNT Principles, con't

- ▶ Minimize campfire impacts
  - Cook on a stove.
  - If a campfire is built, keep it small and use dead sticks found on the ground.
  - Use established fire rings, fire pans, or mound fires.

# LNT Principles, con't

- ▶ **Respect wildlife**
  - View critters from a distance.
  - Feeding wildlife alters their natural behavior.
- ▶ **Be considerate of other visitors**
  - Be courteous and respect the quality of other visitors' backcountry experience
  - Let the natural sounds of the forest prevail.

# References

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