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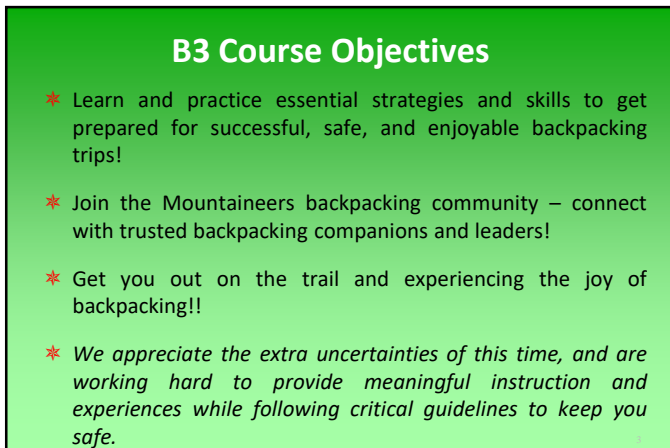
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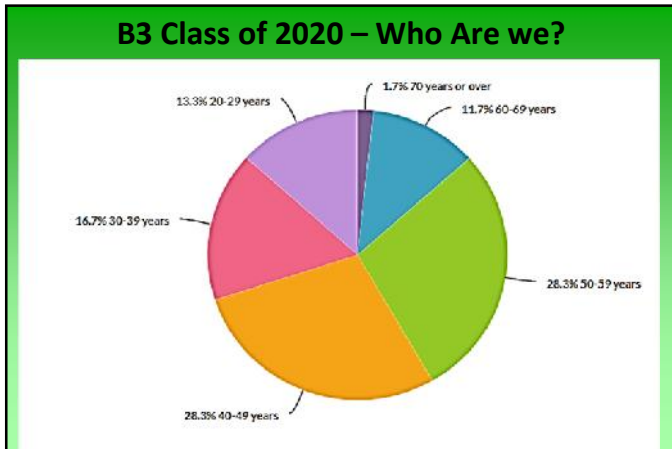
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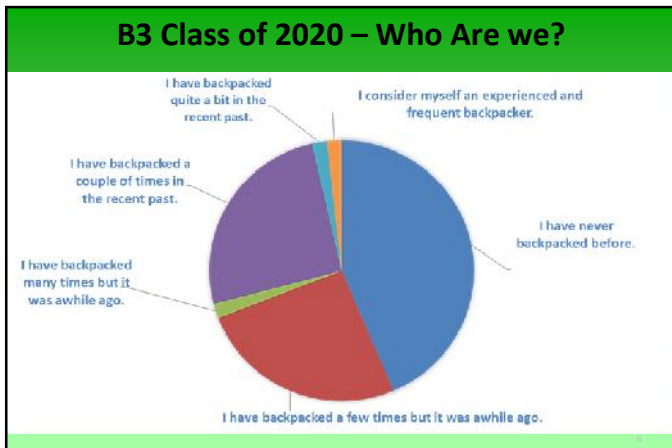
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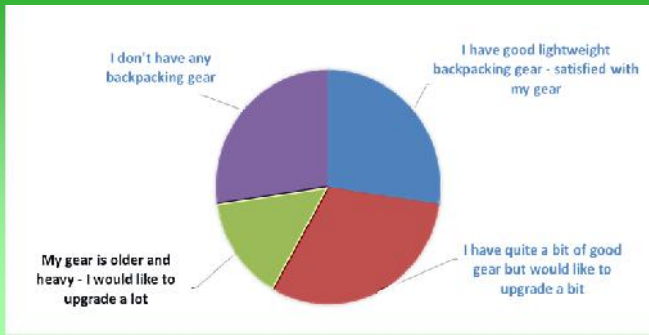
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### B3 Class of 2020 – Who Are we?



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### B3 Class of 2020 – Goals?

VALUE	PERCENT
I want to find a community of fun people to hike and backpack with.	71%
I want to gain the skills, fitness, confidence and gear to do more challenging backpacking trips by the end of the year. (6-10 miles, up to 2000 feet of gain per day)	67%
I would like to be prepared to take my friends and family out backpacking.	51%
I would like to get the right backpacking gear/update my existing gear.	42%
I want to prepare myself to tackle long-distance backpacking	36%
I want to gain the skills, fitness, confidence and gear to do some easy backpacking trips by the end of the year (3-5 miles, up to 1000 feet of gain per day)	26%
I want to significantly lighten my gear.	6%

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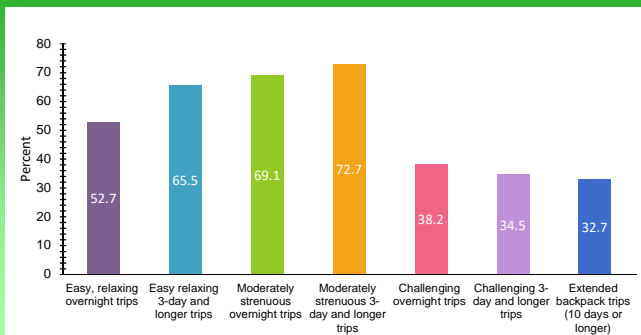
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### B3 Class of 2020 – Trip Interests?



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### B3 Course Approach

- ❖ Particular focus is on beginner and returning backpackers, though more advanced backpackers can find information, practice and compatible companions
- ❖ The course will start with the bare basics in the lectures, adding detail through hands-on activities at demo day, practice 'camp' and mentor group activities. *(modified per covid-19 guidelines)*
- ❖ In-depth course resources online
- ❖ Optional seminars provide more in-depth learning opportunities:
  - *Lightweight gear*
  - *Lightweight backpack food prep/planning*
  - *Tips and tricks for women backpackers*
  - *Long distance backpacking?*
  - *Conditioning*
  - *"Staying Found" On-trail navigation*
  - *Emergency preparedness*
  - *Trip Planning*
- ❖ **A big part of the learning will be through actual group trips.**

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### B3 Course Philosophy

- ❖ Start from where you ARE!
  - *Your current fitness level, the clothes and gear you have or can borrow*
- ❖ The primary way you will build your skills, upgrade your gear and fitness, and find your compatible community is by **investing time with your mentor group** and **getting out on Mountaineers group trips!**
  - *The results you achieve will be proportional to the energy you put in.*
  - *We will provide many ways to lend a hand and answer your questions.*
  - *You need to take the initiative to sign up for Mountaineers trips and engage with your group if you are going to realize the value from your course investment.*
- ❖ **Backpacking is really a lot easier than you think...just get out there!**

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### B3 Course Components

- ❖ Lectures – March 19 and 26 – online!
- ❖ Demo Day – April 25 (change!) – Seattle Program Center
- ❖ Practice "Camp" – May 9 – Seattle Program Center
- ❖ Optional seminars and clinics - to dig deeper on specific topics (some will go online, others postponed or reorganized into small groups with social distance)
- ❖ B3-student-only backpacking trips
- ❖ Open Mountaineers backpacking trips communicated in advance to B3 students
- ❖ ***Trips not allowed to begin until at least April 25***

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### B3 Course Components: Mentor Groups

- \* 6-8 people in a group, placed based on your basic objectives and current skills-fitness-experience from the survey.
  - You will go through the lectures, demo day and practice camp with your mentor group
- \* An experienced backpack leader will be your mentor.
- \* Your mentor will offer a range of activities and support from conditioning hikes to gear shakedown to gear shopping to mentor-group backpacking trips – whatever you need!
- \* What you get out of the course will depend on what you put into it. Engage with your group, sign up for trips!
  - Communication and registration courtesy – RESPOND TO EMAILS!!

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**First breakout group session:  
Introductions, share your goals  
for the course**

**15 minutes**

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Breakfast at Buckhorn Pass in the Olympics



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### B3 Core Lessons:

1. Choose backpacking trips that suit your gear and fitness AS THEY ARE, and build from there to achieve your objectives.
2. Load your pack based on your objectives, the route and conditions you expect.
3. Be disciplined about how you pack – use a checklist!
4. Get on trips, keep track of and learn from what you and your fellow backpackers use and enjoy, and what you don't.
5. THEN scrutinize your gear and invest selectively for the greatest improvements in comfort and weight given your objectives and the cost.



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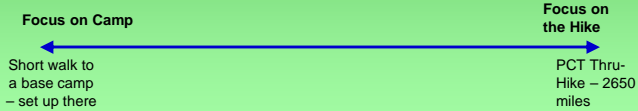
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### What are your objectives for a given trip?

- ❖ **Camping:** Focus is on getting to a camp and spending time there (reading, cooking, socializing), maybe going out with a daypack (exploring, birding, fishing, photography)!
- ❖ **Hiking:** Focus is on the walking – the longer the walk between camps, the better! (exploring, nature, photos along the way)



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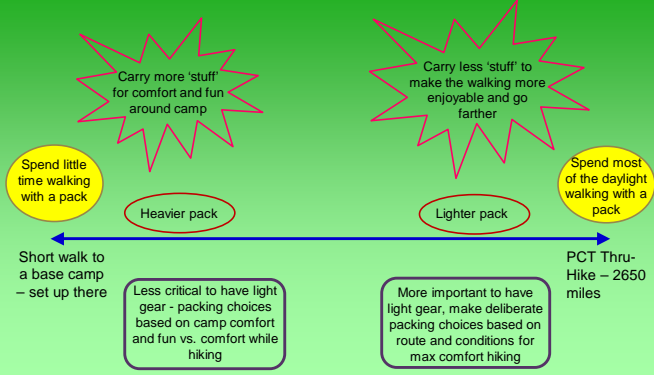
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### What are your objectives for a given trip?



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### What are your objectives for a given trip?

#### **Most of our trips will be somewhere in between!**

The shorter the distance you plan to walk each day to your camp, the less that you need to think about pack weight and specialized backpacking gear....and vice versa!

- *If you don't have light weight gear, if you are just getting in shape, or if your idea of a great trip is more about the things you want to do from camp → shorter and less challenging trail days will be a great place to start*
- *You can have a life of amazing backpacking with a 'camping' focused objective!*
- *If you choose, you can go further and take on more challenging trips as you get stronger and as you lighten your pack*

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### "Camp comfort" vs. "Hiking comfort"?

**Still, we WILL spend a lot of time in the course discussing practical and cost-effective ways to lighten your pack.**

- *Makes every mile on the trail more fun!!*
- *Reduces the likelihood of injury and soreness*
- *Opens up backpacking to people who just can't carry as much weight*
- *Enables you to go further, see more in a day, achieve more challenging objectives, extend your backpacking life!*

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### Some examples of comfort choices



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**Mentor group discussion #2**

**"Backpacking Comfort" Choices. Spend 15 minutes with your table group:**

- Think of some "comfort" choices that could significantly impact your pack weight (up or down).
- What "comforts" are most important to you?
- What "comforts" do your mentors choose to carry? What have they decided they can do without?

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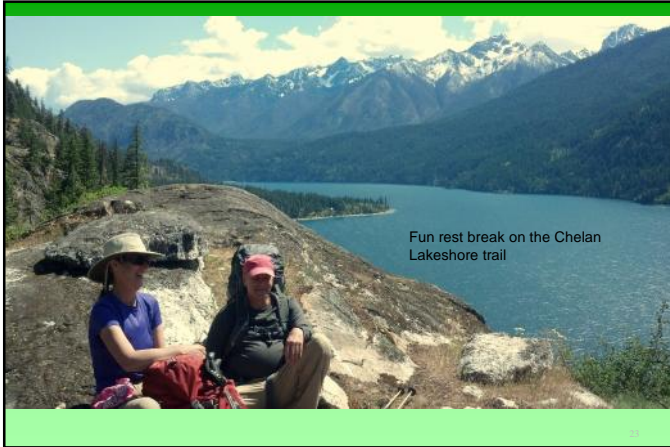
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**Choose the gear to pack based on the expected route and conditions!**

- Daytime and nighttime temperatures – heat, cold
- Likelihood of rain – shelter needs, chance to dry off
- Water needs, availability of water along the trail, risk of contaminated water
- Number of meals you need to pack, calorie demand (distance, difficulty, chance for resupply)
- Wildlife, regulations, level of use → Food storage requirements
- Ruggedness of the trail, likelihood of snow and ice → footwear

**\*On Mountaineers trips your trip leader will give you this information and advise on your decisions!!**

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### We over-pack based on our fears.

- \* Do your homework to understand what you'll really need (with a safety margin)
  - How cold will it REALLY get? (How many layers will I really need?)
  - Are there reliable places along my route where I can gather water?
  - Do I need the rain pants if only occasional showers are expected?
- \* Challenge yourself about what you really need to be comfortable.
  - Do I need that zero degree sleeping bag if I wear my puffy in the bag?
  - Is that heavy fleece or expedition puffy really critical?
  - Can I wear the same pants for 4 straight days? Wear 1 shirt and wash it at night?
  - How many snacks will I REALLY eat?
- \* Consider the real risks on your trip.
  - What's the worst that could happen? How far am I from the trailhead? Can I likely improvise or share with someone else if the worst happened?

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### Be disciplined when you pack!

- \* Use a checklist every time you pack for a trip (including food!)
- \* Watch the weight of electronics, camera equipment, gadgets, and miscellaneous 'little stuff'!
- \* Avoid the temptation to just throw things in because there's room!

In this class we will help you build a personalized checklist for your future trips.

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### A basic packing checklist for backpacking

- See the checklist outline we sent you in the class homework
- We will use this as the outline for our lecture material, then you can build on it at demo day and practice camp
  - *Based on a main-season backpack trip in the Cascades or Olympics*
- If you use this checklist you will have the 'basic kit' that you need to be successful.
- *Start doing trips with gear you have or can borrow* – gain info and experience to invest in the right gear for you.

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### A basic packing checklist for backpacking

- \* Clothing
- \* Footwear-foot care
- \* Hydration
- \* Sleep System
- \* Cooking and Eating
- Sanitation
- First Aid
- Small Essentials
- \* Packing

\* We'll focus the lectures on the "basic kit" in these areas.  
 \* You'll get more detail from Demo Day, Practice Camp, mentor group discussions and trips.

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### Clothing for backpacking

- \* The key is temperature and moisture management:
  - While you walk
  - When you take breaks or relax at camp
  - When you sleep
- Your body will generate heat and moisture while you're walking – but you'll lose the heat fast when you stop.
- Clothing that has gotten wet (from the inside OR the outside) will have little insulating value and may make you *colder!*

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## Clothing for backpacking

✧ Your Basic Kit:

- ➔ Multiple layers
  - Adjust body temperature and control moisture by adding and removing layers

✧ Base layer  
 ✧ Mid Layer  
 ✧ Outer layer

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## Layering – Base Layer

Worn next to your skin, while walking or resting

- Should wick moisture away from your body, dry quickly, and insulate even if wet.
- Cotton and down are problematic, merino wool and poly great

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## Your 'basic kit' – Base Layer

For walking:

- Short sleeved or long sleeved shirt
- Shorts or skirt, pants or tights
- Usually light to moderate weight
- Underwear – separate or built in

For camp or sleeping:

- Long sleeved shirt
- Tights/leggings
- Light, moderate, heavy weight






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### Choosing Your Base Layer

- \* **For walking:** Plan your base layer for the warmest you expect to get while on the move.
  - Then you can add layers as you stop or as it gets colder
  - Lightweight long pants and long sleeves can also serve as sun protection and bug protection
- \* **For sleeping:** Plan your base layer as a part of your overall sleep system, for the coldest temperatures you expect on your trip.
  - Can carry a lighter sleeping bag or quilt and still stay plenty warm by wearing a warmer base layer or more layers

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### Layering – Mid-Layers

Insulation for periods of inactivity. Shed before you get sweaty, put on before you get chilled!

- Your 'basic kit': Fleece or poly or merino wool half zip or hoody; down/synthetic 'puffy' vest, sweater or jacket; gloves and hat




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### Layering – Outer Layer

Protection from wind and rain...and insulation!

- Your 'basic kit': a waterproof jacket and pants.

Considerations:

- \* Level of waterproofing
- \* "Breathability" and Ventilation
- \* Coverage
- \* Weight
- \* Durability
- \* Expense




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### Notes for wet-weather backpacking

- In our northwest backcountry, rain can happen any time. If you're not protected you'll be vulnerable to hypothermia.
- You won't stay perfectly dry even with the best raingear technology
  - "Breatheable" fabrics (Goretex, eVent) help somewhat, but none are perfect
  - Venting (pit and leg zips) is very important as well as regulating your layers underneath
    - Put on and shed your raingear BEFORE your clothes get wet!
  - Prevent opportunities for seepage or wicking from exposed clothing through sleeves, neck hole or boots.
  - Be prepared with warm dry clothes in your pack to put on at camp
  - Take every opportunity to dry clothing. Quick-dry fabrics are ideal!

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**Raingear decision making: For each condition to the left, what outerwear option(s) would you choose and why?**

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| 1. Warm temps with showers and no wind   |
| 2. Warm temps with steady rain expected  |
| 3. Cold, 30-50% chance of rain & wind    |
| 4. Warm and windy, 20% chance of showers |

- |  |
|--|
| A. Lightweight inexpensive rain jacket             |
| B. Heavy inexpensive rubber rain slicker and pants |
| C. Hard-shell 'breathable' rain jacket with vents  |
| D. Hard-shell rain pants with side zips            |
| E. Water repellent lightweight wind shirt          |
| F. Umbrella  |
| G. Poncho  |
| H. Large garbage bag with armholes                 |

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### **Mentor group discussion #3: Backpack clothing options and how to keep clothing weight down. 15 minutes.**

Most beginners bring too much clothing! Takes up a lot of pack weight and space.

Discuss some ways that you can keep your clothing weight down while staying safe and comfortable.

- *What tricks and strategies have your mentors learned?*
- *What other ideas can the group think of?*




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**Footwear**

**Options:**

- **Backpacking boots** – great support and stability, but relatively heavy, inflexible and hot



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**Footwear**

**Options:**

- **Backpacking boots** – great support and stability, but relatively heavy, inflexible and hot
- **'Light Hikers'** – mid or low top. Lighter, cooler, more flexible, but less durable, less stable



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**Footwear**

**Options:**

- **Backpacking boots** – great support and stability, but relatively heavy, inflexible and hot
- **'Light Hikers'** – mid or low top. Lighter, cooler, more flexible, but less durable, less stable
- **Trail runners** – low top, lightweight with lots of mesh. Lightest with most flexible sole, but least durable and stable.



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### Footwear – Your ‘Basic Kit’

#### Light Hikers

- Lighter weight (“a pound on your foot is like 5 pounds in pack”)
- Little break-in period
- More comfortable and flexible - less blister prone in warm weather
- Good protection on most typical trails

#### Choose boots IF:

- You need support and protection on very rugged terrain
- If you want to travel in snow (kick steps, wear crampons)
- You’re carrying a very heavy load

#### Choose trail runners IF:

- You’re carrying a fairly light load on good trails
- You’re confident in the support and protection that they provide

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### Footwear – Fit

#### Fit is a very individual thing, but critical!

- Different brands have very different shapes
- Pay attention to the width of your foot as well as the length (women with wide feet may find more choices in the men’s footwear)
- Heel cup should hold your foot securely but you should have a full ‘finger-width’ of extra room around the toes!
  - *May need to ‘size up’ 1-1.5 sizes above your normal shoe size!*
  - Try on your boots/shoes with the socks and insole you plan to wear with them!

\* **Buy your footwear from a vendor who will allow you to try them out on an extended hike with weight, and return them if they aren’t perfect.**

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### Socks

#### Hot feet, wet feet and friction all contribute to blisters and other foot problems!!

- Options:
  - Synthetic thin liner sock + outer, often thicker wool or synthetic sock
  - thin ‘light hiking’ or ‘liner’ sock alone
  - thick cushioning socks alone
  - Toe socks
  - **Experiment to find your best combination!**
- Merino wool is ideal – wick moisture away from skin, doesn’t absorb odors. Don’t wear cotton!

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## Foot Care

### Best foot care is prevention

- Hike in new boots multiple times before a big trip!! If they hurt, trade them in!!
- Go with more flexible and breathable shoes if you can – and be sure that they're big enough!!
- Tape the spots that seem prone to blisters before you go
- Let your feet breathe, soak in cold water at breaks and lunch!
- Change sweaty socks for dry ones at your lunch break

### Once you're out on the trail:

- ALWAYS treat 'hot spots' before they become blisters!
- Have good blister treatment in your first aid kit!
  - Blister bandages (Compeed, 2<sup>nd</sup> Skin) plus good athletic or medical tape (or some just use duct tape!)

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## Hydration

- Good hydration is essential to staying healthy and energized on the trail!
- This means drinking plenty of water through the day! (more if hot, very cold, or high altitude)
  - *Your urine should be clear and abundant*

### HOWEVER...

- Water is *heavy* --- 2.2 pounds per liter.
- Plan ahead, and ***only carry what you need*** between reliable water sources.
- Your Mountaineers trip leader will help you determine this.

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## Hydration

### Can I drink the water straight from the source??

- Fast-flowing streams and springs coming straight from glaciers and high peaks will be clean and safe to drink.
- Many lakes, ponds, rivers and streams in the northwest flow from places impacted by animals or people upstream.
- \* *In such cases, you will want to treat it before drinking to kill protozoa and bacteria (viruses too if traveling internationally).*

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### Mentor group discussion #4: Carrying and purifying water. 15 mins.

- Mentor(s) show their group a couple of the main options for carrying water (bottles, bladder), the method they prefer and why, considering weight and function. Show how the methods work with a backpack. How might their choice change under different conditions?
- Mentor(s) show a couple of the main options for treating water, the method they prefer and why, considering weight and function. Refer to the ratings for the different options.

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## Hydration – Your ‘Basic Kit’

### Carrying your water

- Bottles
  - Wide mouth makes it easier to collect
  - Soda or Smartwater bottles are free and very light!
  - Collapsible Platypus bottles
- Hydration bladder
  - Wide opening for easy filling
  - Hose provides constant easy access to water



\* Consider water bottle in side pocket with hose adapter!

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## Hydration – Your ‘Basic Kit’

### Bottles or bladder – how to decide?

- Bottles **MUST** be easy to access without taking off your pack or you won’t drink enough
- With a bottle you can see how much water you have left
- Bladders help to ensure you will drink enough – always handy
  - Difficult to refill in a loaded pack, and you can’t tell how much you have left without unloading it.
  - Can leak inside your pack.

\* Consider water bottle in side pocket with hose adapter (buy on Amazon!) 

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## Hydration – Choices for your ‘Basic Kit’

### Primary Water Treatment options

- Boiling (at camp) 
- Filters
  - Pump or squeeze 
  - Gravity 
- Chemicals (chlorine dioxide)
- UV Light (Steripen) 




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## Water Purification

### Ratings

CATEGORY	Squeeze Filters	UV light	Chemicals
Speed	++	++	-
Weight	+ to 0	+	+++
Size	+	++	+++
Ease of use	- to 0	++	+
Maintenance	-	-	NA
Reliability	0 to +	--	+++
Longevity	-	--	+
Quality of taste	0	0	- to 0
Cost	\$40+	\$70+	\$10+

• From REI ‘expert advice’ article

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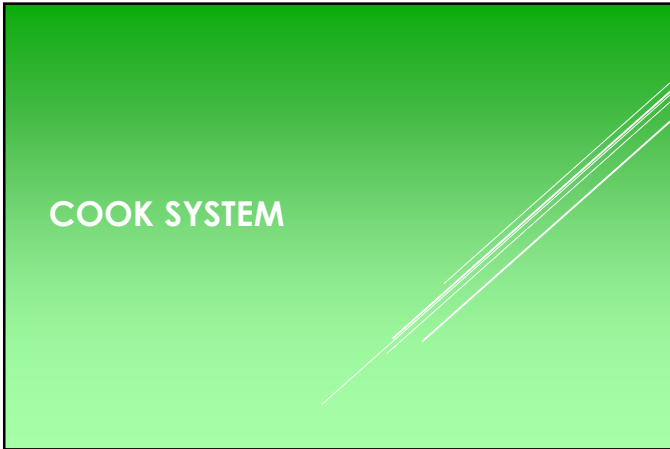
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**“Base Kit”: Backpacking Stove**

**Canister stoves – Light, low maintenance, easy and fast!**

- Tiny and light: “Pocket Rocket” (many inexpensive equivalents)
- Integrated burner and pot systems: JetBoil, MSR Windburner





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### GET THE MOST OUT OF YOUR STOVE AND FUEL

- Use a windscreen but *never enclose a fuel container!*
- Keep a lid on your pot
- Get pan ready before lighting the stove
- Do you really need to boil the water?
- Sleep with canister and water into tent



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### “Base Kit” - Cookware

- Cooking pot
  - 500 ml to 1 liter capacity
  - Titanium vs. aluminum
  - Already have this if you buy an integrated stove system like the Jetboil
- Spoon/spork
  - Long handle helpful for deep pouches!
- Eating/drinking vessel
  - Large capacity insulated mug
  - Optional: Bowl
    - Collapsible
    - Freezer bags can double as your eating vessel



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### FOOD PLANNING

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### IT'S NOT JUST ABOUT THE CALORIES...

- **Maintain a balance across your menu:**
  - > Carbs for short term energy
  - > Fats for maintenance calories and weight efficiency,
  - > Protein to mend muscle along the way.
- Pack enjoyable meals you will ***look forward to eating!***

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### FOOD PLANNING

- \* **Plan based on the number of each type of meals and expected calorie needs for the trip you are planning.**
  - > 2000-3000 calories and 1.5-2lbs of food weight per day is a good rule of thumb for easy to moderate trail days.
  - > Everyone is different! Learn how many calories YOU need.
- \* **Work out in advance how many meals\* and what serving size.**
  - > Measure out the amount you're likely to eat when you pack.
  - > Watch the snacks!
  - > Repackage store-bought freeze dried meals to save weight and space and to minimize trash.

*\* Your Mountaineers trip leader will help you with the number of meals you need for a club trip*

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### BACKPACK FOOD STRATEGIES

#### The Light, Fast, and Hot Food Plan

1. Instant, freeze dried, or cured
2. Rehydrate with hot water in mug or freezer bag
3. Reduces your 'camp kitchen' to a lightweight stove with fuel, pot, and spoon. Mug and bowl optional

Breakfast: Instant oatmeal with nuts and fresh or dried fruit, freeze dried breakfast skillet, "Ova-Easy" egg crystals, shelf stable bacon

Dinner: Instant soup with bread, instant mashed potatoes or bean flakes with 'extras', freeze dried or home-dehydrated dinner

***OR...if you don't care about that hot drink in the morning or evening, consider packing only cold foods and leaving stove and pot at home!***

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### CHOOSE CALORIE-DENSE TRAIL FOODS

**Some high calorie density foods:**

- Olive oil
- Nuts
- Nut butters
- Cheese
- Salami



**Some lower calorie density foods:**

- Vacuum-packed cooked meats in water
- Oatmeal, low-fat breads, crackers
- Dried beans, fruits, vegetables
- Couscous, instant rice



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### OTHER BACKPACK FOOD PREP BASICS

- *Plan for a water supply when you choose your camp spots*
- *Handy to have capacity to carry 3-4 liters from a nearby water source*
- *Plan your fuel supply for the number of meals you will prepare*
  - Typical hot water usage is 2-3 cups per hot meal
  - A 4 oz fuel canister boils approximately 32 cups water
  - Cold weather, high altitudes, wind require more fuel.
- *Pot-cleaning supplies*
  - Light plastic scrubber (or just sand!) and drip dry.

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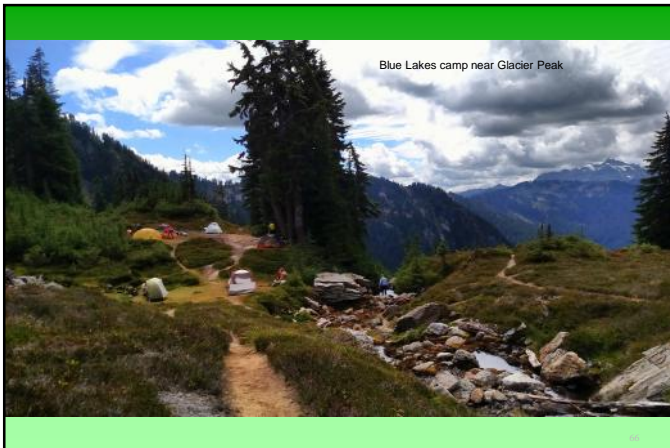
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## Planning for Lecture 2

- \* Thursday March 26 at 6:30PM – online meeting. See B3 course listing, lecture 2 for zoom meeting details.
- \* We'll cover food storage, sleep systems and choosing-packing your overnight pack!
- \* Toward the end of the evening we will demonstrate how to get signed up on the Mountaineers website for one or more beginner backpack trips and your stewardship activity.
  - *Several trips will be made available on the website that night, exclusively for students*
  - **BRING YOUR CALENDAR** and **be ready with a couple of 2 to 3 day time slots over the next 2-3 months** during which you could go on a trip!

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## Questions?



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