

Stuck In The Woods
Course Notes

Stuck in the Woods

"It won't/can't happen to me" (or my friend)

Unexpected emergencies are, by definition, unexpected

Scenarios

- lost
- hurt
- stuck
- weather
- time (dark)
- fear
- anxiety
- other delays

Immediate reaction

- panic – “oh shit, now what do I do?”
- disbelief – denial – “this can’t be happening”
- fear
- unknown
- alone
- animals
- darkness
- weakness
- discomfort
- suffering
- death
- society (shame)
- guilt (promises)

What can you do to prevent/prepare for this?

Saying – “Failing to prepare is preparing to fail”

- Preparation – plan ahead
- Planning
- Alternative plans - anticipate problems
- Common sense hiking
- Develop self-reliance
- Learning/practicing skills
- Ten essentials

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But it DID happen

Sayings –

- It can't happen to me
- Any port in a storm
- Anything is better than nothing
- There's gotta be another way
- S. T. O. P. (Stop, Think, Observe, Plan)

Stay calm

Accept the situation

Maintain positive attitude

Understand priorities – rule of three

Thinking

common sense

reasonable plans of action - can you get “unlost”? - retrace route to last known spot and navigate from there

analyze problem

define requirements

look for item to satisfy requirements

improvise

recognize body indicators

Priorities

The Rule of Threes

(It's a bit general and exaggerated, but it emphasizes the relative priorities of staying alive.)

In three seconds, you can die from panic

In three minutes, you can die from lack of oxygen or heavy bleeding

In three hours, you can die from exposure

In three days, you can die from thirst

In three weeks, you can die from hunger

In three months, you can die from isolation

If you've taken care of serious wounds and bleeding and you're still breathing, then keeping your body warm/cool is your top priority. You may be uncomfortable, but you can last several days without water and many days without food.

The priorities:

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- Healthcare (first-aid, sun protection, etc.)
- Insulation (clothing and shelter)
- (Fire)
- Communications (signaling)
- Navigation (maps and compass)
- (Tools - knife, flashlight)
- Water / Food

first aid – ABC (Airway, Breathing, Circulation)

maintain body temperature

shelter

signaling

water

food

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HEALTH

First aid

incapacitating injuries - hurt limb, illness, dizziness, blisters

single sized gauze pads, Band-Aid

athletic tape

ace vs. gauze

Neosporin

Tylenol / Ibuprofen / aspirin

salt

electrolyte

Sun Protection

Clothes – long sleeves, long pants, brimmed hat

Eyes – sun glasses, glacier glasses

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Maintaining the core

clothes

Sayings –

- Cotton kills
- If your feet are cold, put on a hat

cotton vs. fleece (demo)

knit cap / neck tube

poly underwear

fleece sweater / vest

rain/ wind jacket

trash bag

insulation - dry leaves

shelter

trash bags

space blanket

poncho / tarp

bivy bag / bothy bag

tape / cord / kukui nut

dry leaves

debris shelter

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Ten Essential Systems of the Mountaineers of Seattle

First-aid supplies

Sun protection (sunglasses & sunscreen)

Insulation (extra clothing)

Emergency shelter (tent/plastic tube tent/garbage bag)

Fire (waterproof matches/lighter/candle)

Nutrition (extra food)

Hydration (extra water)

Illumination (headlamp/flashlight)

Navigation (map & compass)

Repair kit and tools

considerations

- compromise
- minimalism
- compactness
- always carry
- EDC vs. perfect
- multiple use
- size
- volume

Playing with Fire

Fire

Requirements - heat / fuel / air

Flame structure and components

- Candle / chopstick demo

Heat source

Matches - waterproof / wax

- Match safe

Lighters - butane

- Lighter flint vs piezo-electric

Metal match - fire steel – flint stick

Tinder

- Char cloth
- Cotton ball /petroleum jelly
- Any fine organic matter – dry grass, moss, wood dust, lint, etc.

Other sources

Magnifying/Fresnel lens – dark spot

Battery/steel wool

Friction

- Wood plough
- Bow saw
- Thong

PVT - fire piston

Chemical - Potassium Permanganate & glycerin

Percussion - flint and steel

Building a fire

Tinder – fuzz stick

Dry wood

Air space

Layout

- lean-to
- teepee
- log cabin / pyramid

Boiling water

Containers

- Metal
- Paper
 - Heat transfer through paper

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Food

high energy
no-cook
lack of food
hot food

water

carrier - platypus
tubing - puddles
filters
tablets / iodine / Clorox
potable aqua / halazone / micro-pur
boil egg
dew / bandana

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Smoke and Mirrors

Signal

Be visible

Be "big"

Be contrasty

Wear / use bright color cloth

trail ribbon, fluorescent yarn

mirror

CD, aluminum foil, credit card, tin can

smoke from fire

rescue ribbon

incendiary flare

smoke streamer

flashlight

strobe

big letters on the ground

Aiming a mirror

- Face sun
- Hold mirror next to eye
- Shine sun spot onto extended hand
- Keep sun spot on hand and move hand to cover target
- Rapidly cover-uncover target with extended hand
- Sun spot from mirror will hit target

Be audible

Shouting causes hoarse throat

Use whistle - pea-less for less annoyance

Three blasts – S.O.S. signal

Three shots from a gun

Any noise-maker

High tech options

FRS and other radios

Cell phone

PLB – Personal Locator Beacon (\$600)

Strobe light or strobing flashlight

High-powered flashlight

Green laser pointer

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Where am I?

navigation

Sayings –

- You're not lost, you're right here; - camp is lost

pre-trip familiarization with map

pre-trip bearing using compass

note significant landmarks

look backwards at landmark to memorize the view

check bearing periodically to validate direction of travel

if confused, backtrack to last known landmark / trail marker and review map and bearing

map

USGS / hand drawn

symbols

alignment (almost always, North on top)

bearing from point A to point B (in compass degrees)

Universal Transverse Mercator grid, one kilometer grid (0.6 mile grid)

mapping reality

compass

total reliability

type / size / weight

- Cardinal points compass
- Rotating needle
- Rotating card
- Liquid damping
- Lensatic (military style) compass
- Orienteering compass (transparent plastic base)
- Rotating bezel
- Sighting mirror
- Declination scale
- Declination adjustment

if needed, mark reminder of north end of needle

declination – magnetic and true north

declination adjustment or compensation

boxing the needle – parallax compensation

bearing – from point A to point B in degrees

reverse bearing – 180 degree difference – use other end of needle

sun and watch

East-West shadow line

GPS

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Using map and compass together

map reality
take bearing
determine route
estimate travel times
ID landmarks

If you intend to travel once you're lost

- Leave a note of your intention, including date, time, what you're wearing, what you're carrying, direction of travel (bearing),intended destination
- Use waterproof paper and pencil. Ball point pen is not reliable
- As you travel, mark direction with ribbon at eye level within sight of prior ribbon
- Use fluorescent yarn or trail ribbon if available
- Alternatively, mark trail with stone cairns, blaze tree bark with knife, etc.

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Tools

Sayings –

- A dull knife causes accidents
-

knife

utility vs. size

folding vs. fixed

uses

- cut clothes
- make fuzz stick
- cut cord
- improvise
- cut bandages
- fire steel scraper
- Whittle chopsticks, spoon, tent-peg, splint, hiking stick, etc.

Flashlight

Minimum amount of light

- Moonlight
- See within six feet (two steps)

LED vs. incandescent bulb

LED = Light Emitting Diode – uses 1/10 the energy

Battery size, AA, AAA, coin, CR123A (lithium)

Brightness vs. battery life

Lithium vs Alkaline

- Better shelf life (10-15 years)
- No leakage
- Lighter weight
- More expensive

Headlamp vs. handheld flashlight

Second light vs. spare battery

Shadow vs. flat light

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Why Knot?

Rope / Cordage

Uses

The original Duct Tape

Binding – tying – lashing - repairs

Erecting shelter / tarp

Extension – lowering bottle for water

Life-line-ing - stable support

Material –

- synthetic – Nylon, Polyester, Dacron, Polypropylene
- natural – hemp, sisal, jute, grass, vine, bark (Hau)

Diameter – 1/16 inch (2mm), 1/8 (3mm), 1/4 (6.5mm)

- Paracord is 1/8 inch, woven outer sheath, seven strand inner core, 550 lb strength

Length – 10 feet (3m), 20 (6m) 50 (15m)

Knots –

Overhand

Fisherman

Adjustable grip hitch

Bowline

Long tail, doubled (bight)

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PSK

Toolkit

Fire - matches, lighter, fire steel, Fresnel, tinder

Tool - knife, light

Signal - whistle, mirror, bright cloth / ribbon

Navigation - compass, map

Insulate - cap/tube, jacket/vest, poly underwear

Shelter - trash bags, poncho, bothy, space blanket, cord

Food - energy or candy bar, tea-sugar-coffee, hard candy

Water - canteen, filter / tablets, tube, bandana

First aid - kit

Personal Survival Kit (PSK)

Every day Carry (EDC)

In your pocket or in a small bag or box (\$\$ is approx price for minimal item)

1. knife - \$15
2. lighter - \$2
3. LED light - \$10
4. whistle - \$5
5. compass - \$12

===== \$ 42

6. mirror - \$10
7. nylon cord - \$2
8. Fresnel lens - \$2
9. matches -\$1
10. firesteel / metal match - \$5
11. tinder - \$1

===== \$ 21

In a daypack or on your person

1. watch cap - \$6
2. jacket / warm shirt - \$30
3. first aid kit - \$38
4. trash bags / bothy / space blanket - \$5
5. canteen / water - \$10
6. bandanna - \$4

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7. energy food - \$5

===== \$ 98

First aid - kit

1. 10 - band-aids (1 inch flex fabric) - \$3

2. 5 - 4X4 inch gauze pads - \$5

3. 1 - roll athletic tape - \$5

4. 1 - 2-1/2 inch ace bandage - \$5

5. 5 - 2-inch safety pins (preferably brass) - \$3

6. 6 - Tylenol - \$1

7. 1 - small tube triple antibiotic - \$4

8. 1 - small scissors - \$7

9. 1 - splinter tweezers - \$5

===== \$ 38