



First Aid 101

Oxford University Exploration Club

15 February 2022

Wilderness Casualties

TABLE 4.—Mortality by Cause and Gender

Cause	Male	Female	Total (%)
Cardiac§	11	2	13 (16.7)
Drown	11	1	12 (15.4)
Fall ¥	8	4	12 (15.4)
MVA	5	3	8 (10.3)
Plane crash	4	1	5 (6.4)
Natural causes	3	1	4 (5.1)
Gunshot	2	—	2 (2.6)
Asthma	—	1	1 (1.3)
Avalanche	1	—	1 (1.3)
Drug overdose	1	—	1 (1.3)
Hypothermia	1	—	1 (1.3)
Shark attack	1	—	1 (1.3)
Volcanic fumes†	1	—	1 (1.3)
Trauma NOS	1	—	1 (1.3)
Unknown	6	1	10 (12.8)*
Total	61 (78.2)	14 (17.9)	78 (100)

§Includes myocardial infarction, acute congestive heart failure, and arrhythmias.

¥ Range in length between 50 and 800 feet

† Inhalation injury.

NOS = not otherwise specified, MVA = motor vehicle accident

*No gender specified for 3 people.

Montalvo R, Wingard DL,

Bracker M, Davidson TM.

Morbidity and mortality in

the wilderness. West J

Wilderness Casualties

TABLE 2.—Nonfatal Injuries and Illnesses by Type and Gender for Seven National Park Service Parks in California, 1993–1995

	Male	Female	Total (%)	Age	Male Average	SD (range)	Age	Female Average	SD (range)
Illnesses									
Pain (no trauma)	16	16	33 (1.9)	40.3	23.1	(8–84)	33.9	20.5	(11–69)
Dizzy	12	20	32 (1.8)	41.0	21.7	(12–70)	32.0	18.8	(12–72)
Short of breath	15	17	32 (1.8)	46.9	21.3	11–76)	29.1	16.3	(12–68)
Vomit	9	19	28 (1.6)	31.6	21.8	(1–71)	25.7	17.5	(5–82)
Dehydration/heat stroke	11	15	26 (1.5)	36.2	18.4	(12–65)	26.8	14.5	(13–54)
Anaphylaxis—insect	10	12	22 (1.2)	17.7	11.7	(9–46)	27.7	13.5	(7–49)
Headache	6	13	19 (1.1)	38.3	21.0	(12–60)	27.0	15.1	(12–65)
Seizure	12	7	19 (1.1)	35.9	21.6	(7–72)	24.7	19.7	(6–58)
Altitude sickness*	11	6	18 (1.0)	35.5	15.3	(14–69)	41.5	20.7	(23–80)
Cardiac distress	10	7	17 (1.0)	59.3	10.5	(44–76)	44.5	11.9	(22–59)

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Disclaimer

I **am not** an HCP or an explorer and the techniques shown here are for information only.

There are significant legal and moral issues around treating people far from definitive care, and these are not discussed here.

Topics

1. Primary Survey

2. Choking

3. Cardiac Arrest

4. Anaphylaxis

5. Bites, Stings, and Wounds

6. Burns

Next Time (?): The Elements

Scenario



Scenario



Scenario



Primary Survey

Danger

R

S

A

B

C



Scenario



Scenario



151898631

Primary Survey

Danger

R
S

A
B
C



Primary Survey

Danger
Response
S

A
B
C



Primary Survey

Danger
Response
S

A
B
C



Primary Survey

Danger

Response

Send for help

A

B

C



Primary Survey

Danger
Response
Send for help

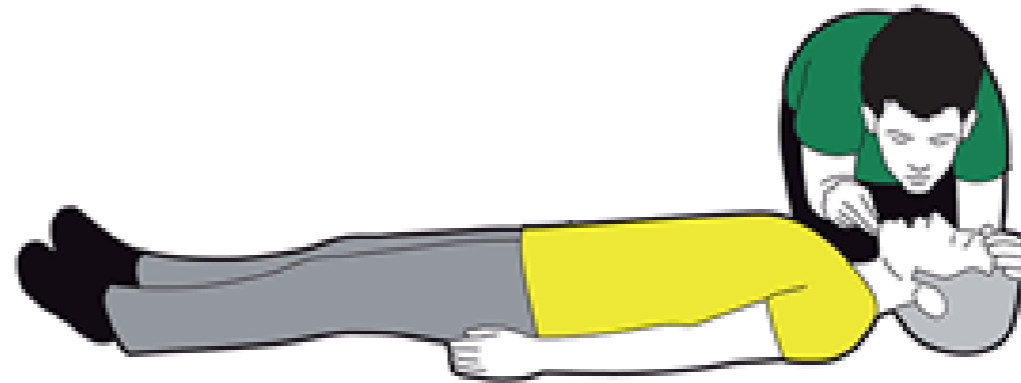
A
B
C



Primary Survey

Danger
Response
Send for help

Airway
B
C



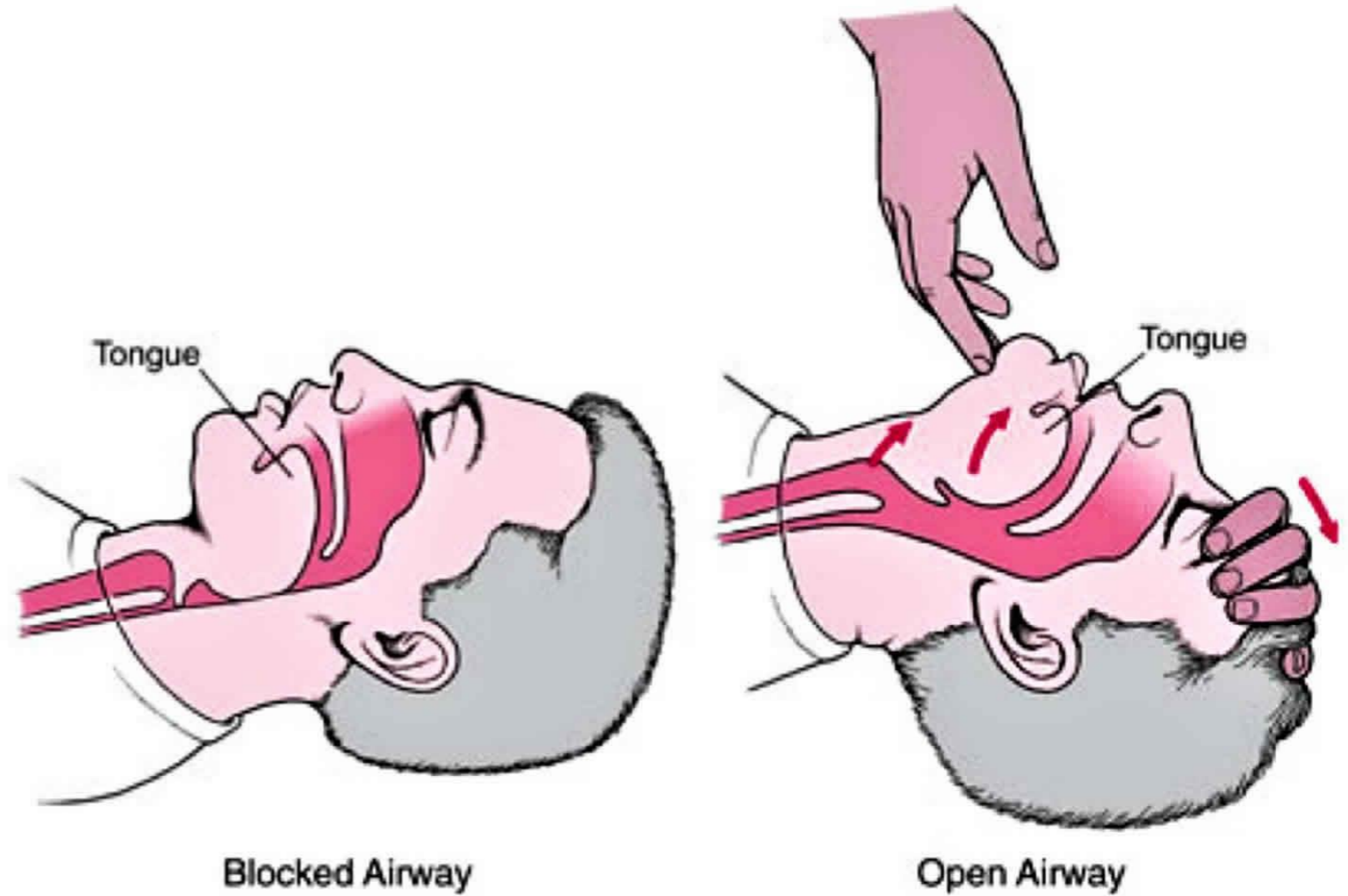
Primary Survey

Danger
Response
Send for help

Airway

B

C



Primary Survey

Danger
Response
Send for help

Airway

B

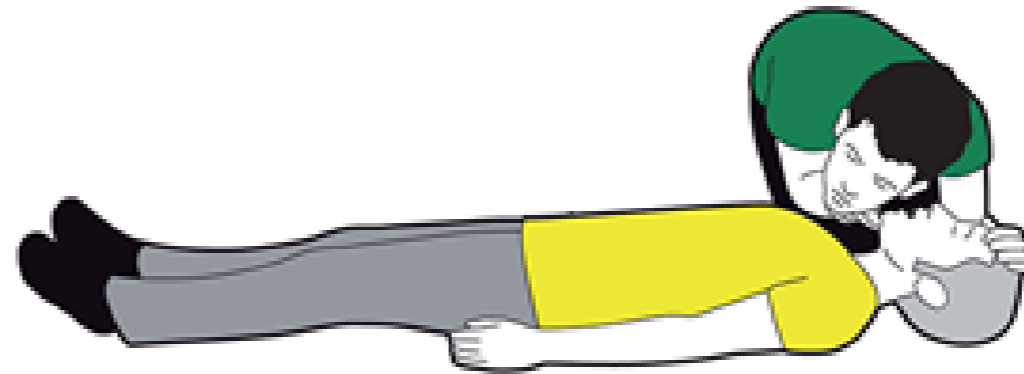
C



Primary Survey

Danger
Response
Send for help

Airway
Breathing
C



Primary Survey

Danger
Response
Send for help

Airway
Breathing
C



Primary Survey

Danger
Response
Send for help

Airway
Breathing
Circulation



Primary Survey

Danger
Response
Send for help

Airway
Breathing
Circulation



Primary Survey

Danger
Response
Send for help

Airway
Breathing
Circulation



Primary Survey

Danger
Response
Send for help

Airway
Breathing
Circulation


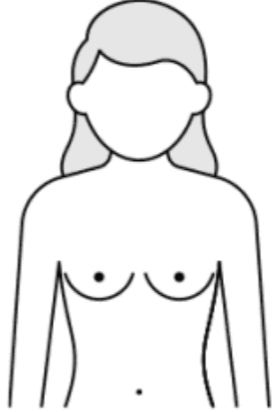
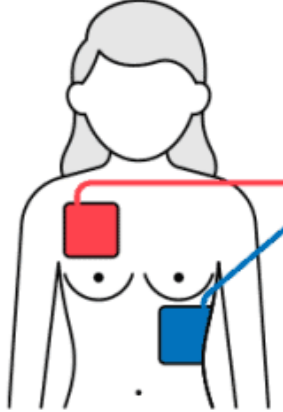


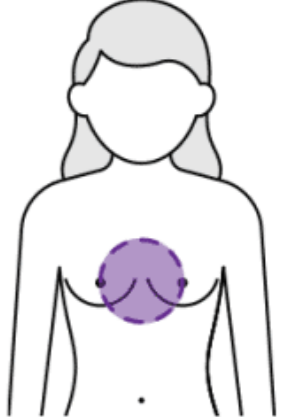


Primary Survey

Danger
Response
Send for help

Airway
Breathing
Circulation

How to Use an AED

 <p>1. Turn on device & follow audio instructions.</p>	 <p>2. Expose the person's bare chest, including bra.</p>	 <p>3. Apply the electrode pads to the person's dry skin.</p>
 <p>4. Allow the AED to analyze the person's heart rhythm.</p>	 <p>5. Make sure no one touches the person as the AED delivers a defibrillation shock.</p>	 <p>6. Continue Hands-Only CPR after the shock has been delivered.</p>

www.avive.life

Recovery Position

1. Grab one hand



2. Place above the head



3. Place the other hand across the cheek



4. Grab the knee and the elbow



5. Roll over the side



That's it!



Recovery Position



Recovery Position

<https://www.sja.org.uk/get-advice/first-aid-advice/bones-and-muscle-injuries/rec>

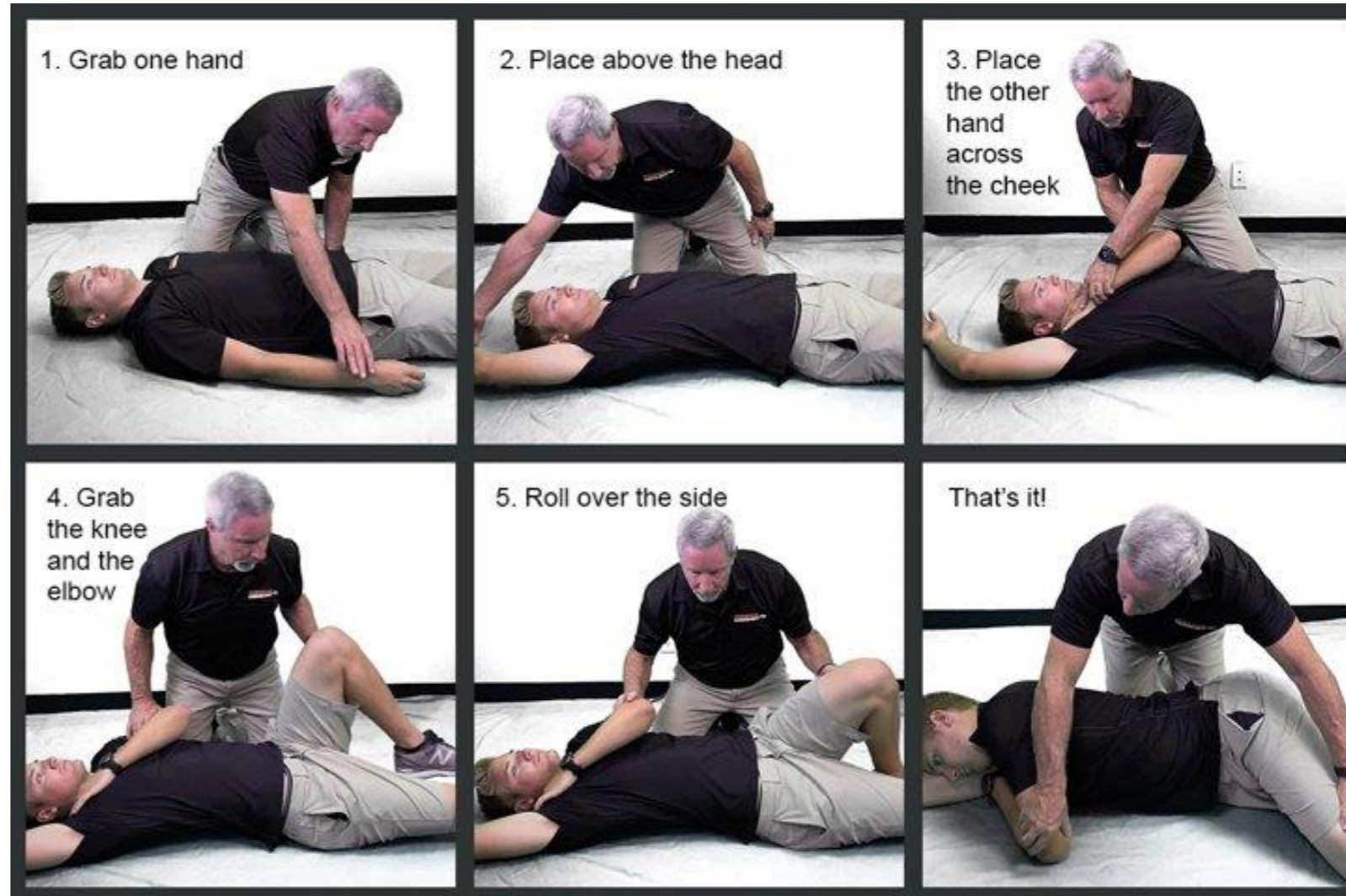
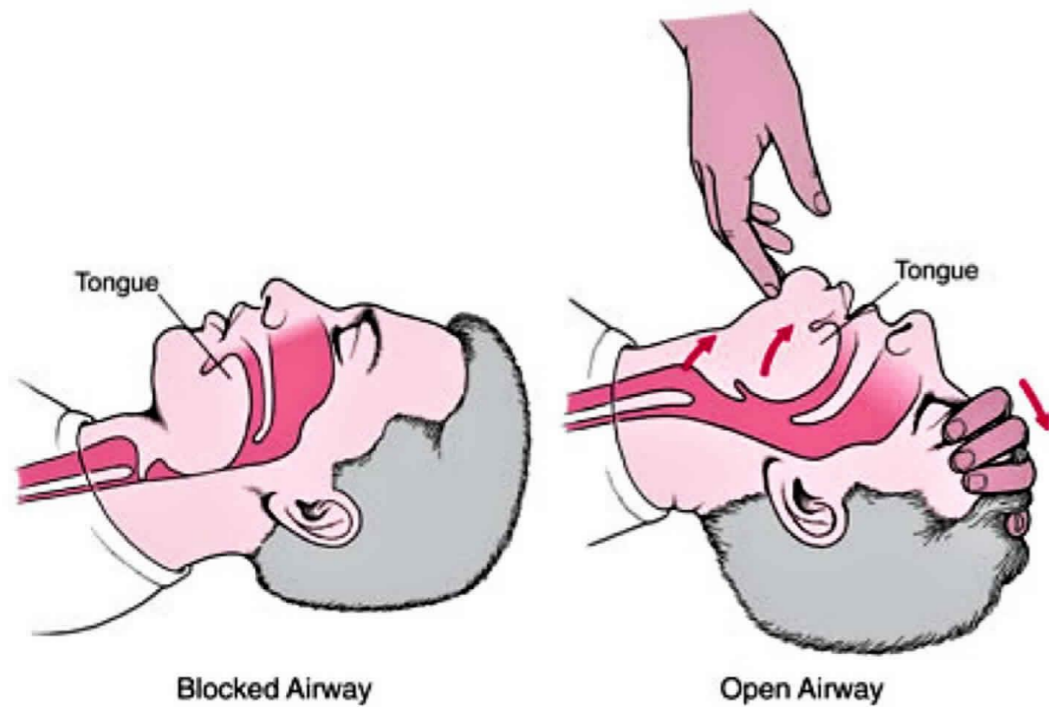
Primary Survey

Danger
Response
Send for help

Airway
Breathing
Circulation



Exercise, Q&A, and Break



Choking



Choking



Choking

1. Cough it out

- Encourage the person to keep coughing



Choking

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- Encourage the person to keep coughing



2. Slap it out

- Give up to five sharp back blows between the shoulder blades
- Check their mouth



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3. Squeeze it out

- Give up to five abdominal thrusts



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- Check their mouth



3. Squeeze it out

- Give up to five abdominal thrusts



4. Call 999/112

- If they're still choking, call 999/112 for emergency help. Repeat back blows and abdominal thrusts until help arrives.

Heart Attack

<https://www.sja.org.uk/get-advice/first-aid-advice/heart-conditions/heart-attack/>

Heart Attack

1. Call 999/112 for emergency help

- Tell them you suspect a heart attack



2. Sit them down

- Comfortably, with knees bent



3. Give them aspirin

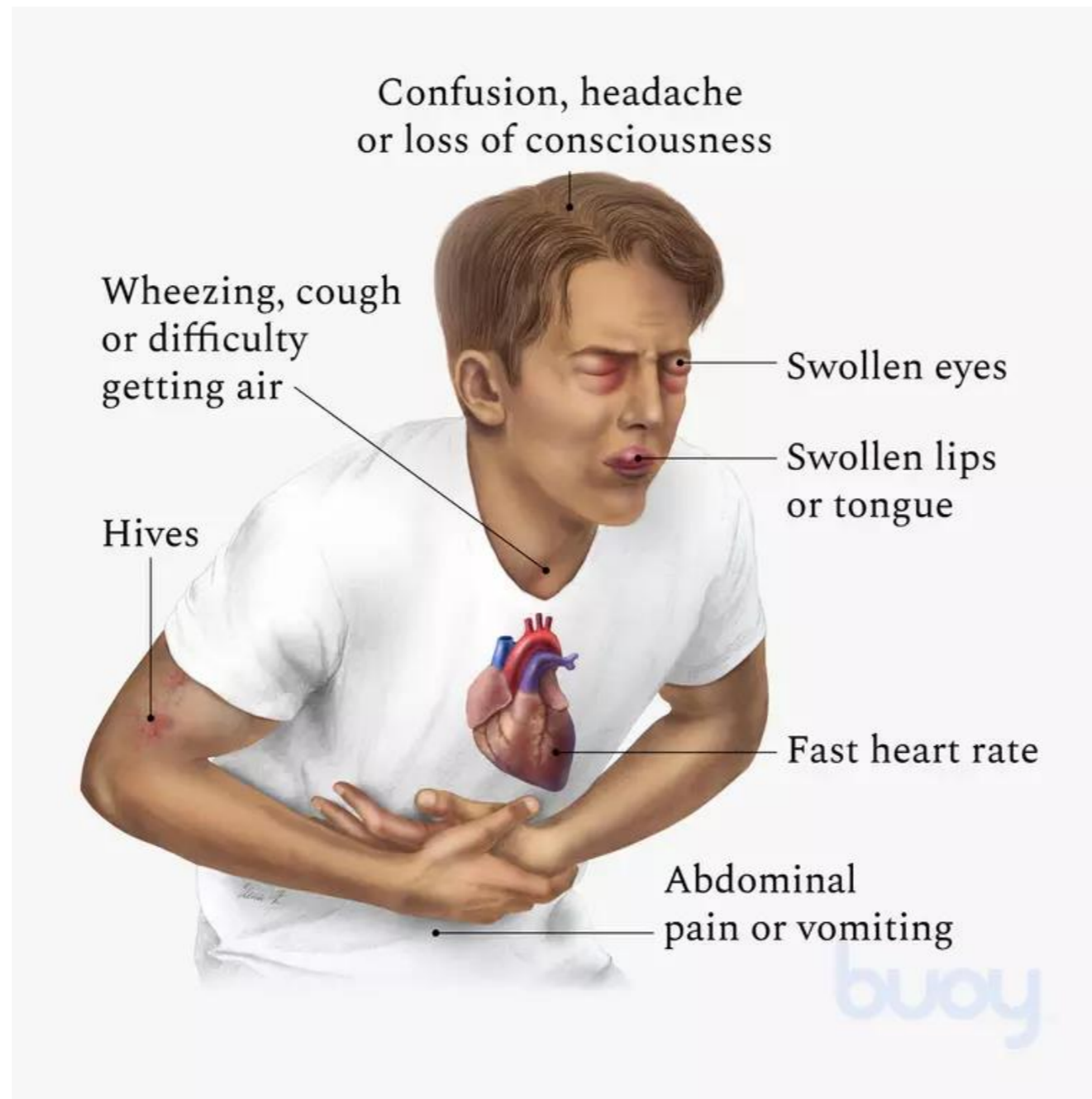
- 300mg dose to chew.*

*Do not give aspirin if the person is under 16 or allergic.
Help them use their angina medication if they have it.



Anaphylaxis

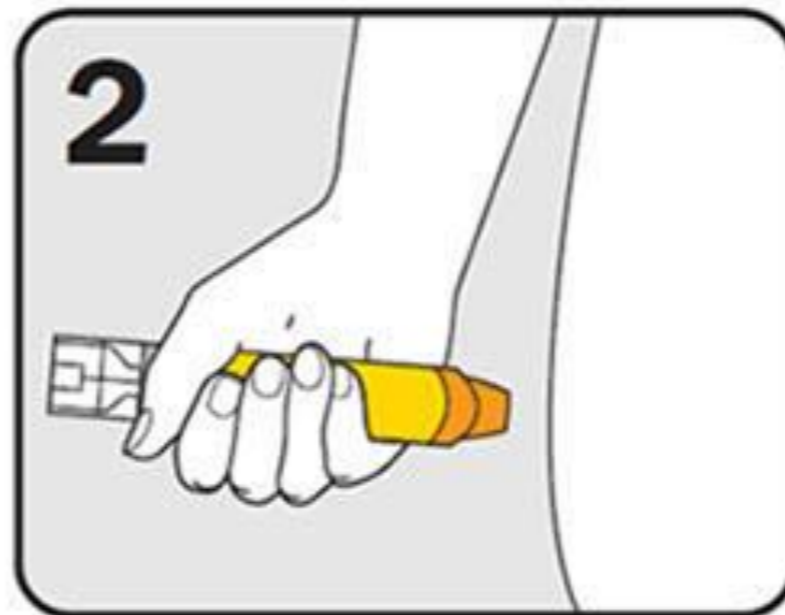
Anaphylaxis



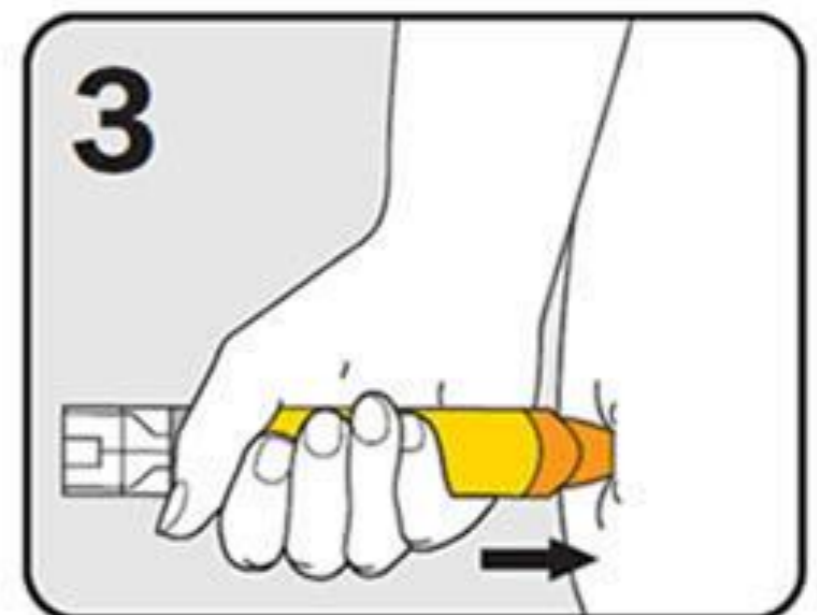
Anaphylaxis



1
Form fist around EpiPen® and
PULL OFF BLUE SAFETY RELEASE



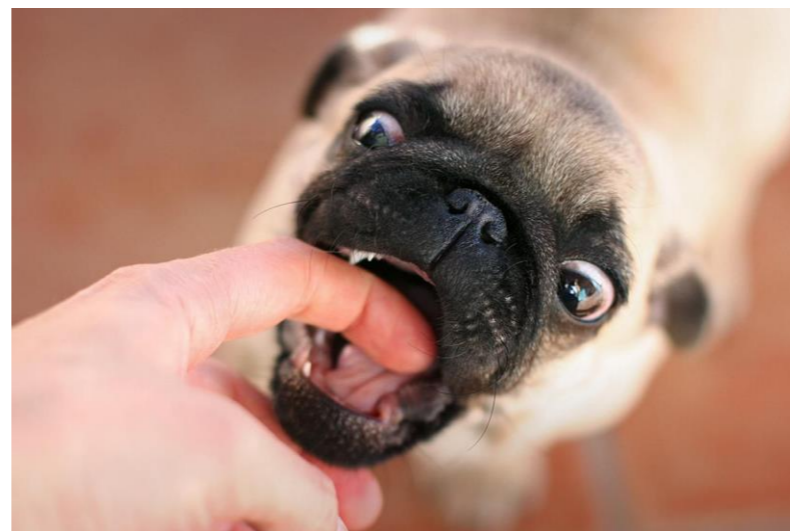
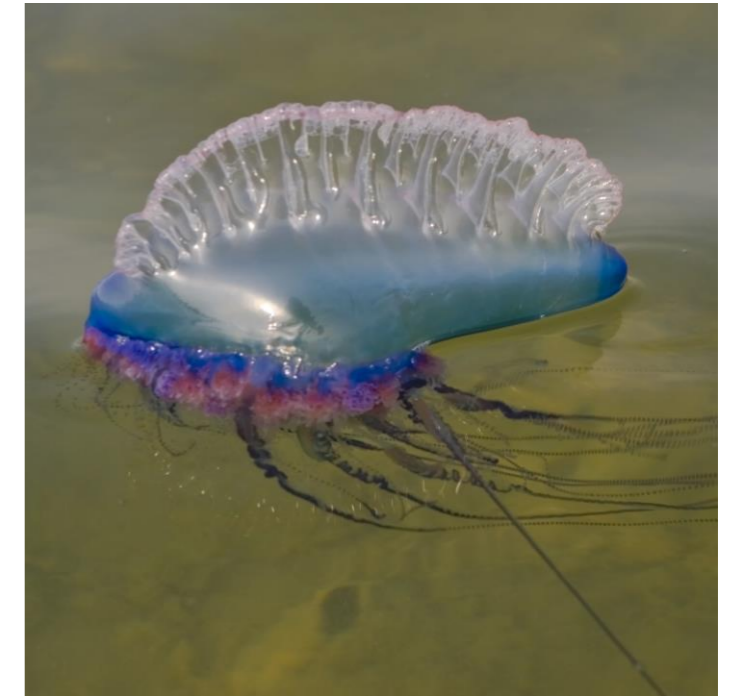
2
Hold leg still and PLACE ORANGE
END against outer mid-thigh (with
or without clothing)



3
PUSH DOWN HARD until a click
is heard or felt and hold in place for
3 seconds
REMOVE EpiPen®

Bites & Stings

Bites & Stings



Bites & Stings

<https://www.sja.org.uk/get-advice/first-aid-advice/minor-illnesses-and-injuries/ant>

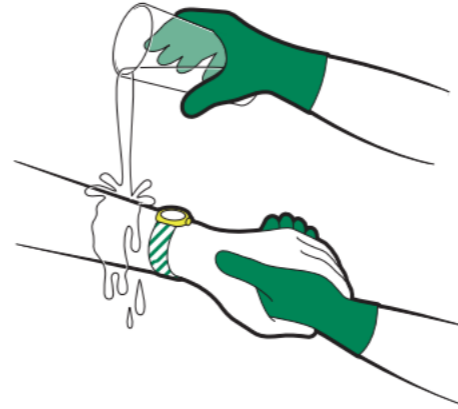
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<https://www.sja.org.uk/get-advice/first-aid-advice/minor-illnesses-and-injuries/ins>

Burns

Burns

- 1. Move the person away from the heat**
- 2. Place the burn or scald under cold running water for a minimum of 20 minutes**

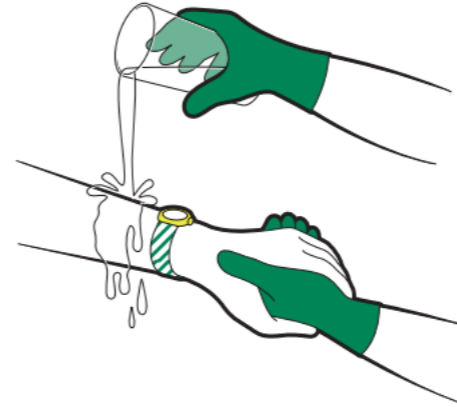


Burns

1. Move the person away from the heat

2. Place the burn or scald under cold running water for a minimum of 20 minutes

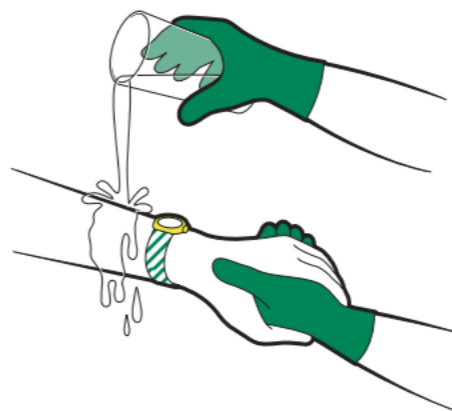
3. Remove jewellery and clothing around the area, unless stuck to the burn



Burns

1. Move the person away from the heat

2. Place the burn or scald under cold running water for a minimum of 20 minutes



3. Remove jewellery and clothing around the area, unless stuck to the burn



4. Cover the burn loosely, lengthways with kitchen film to prevent infection. Don't burst the blisters



5. If it is serious call 999.

Scenario



Further Resources

- **Oxford First Aid Society (OFAS) Facebook page**
- **St John Ambulance website**
- **Wilderness medicine; Paul Auerbach**
- **Where there is no doctor; David Werner**
- **Oxford Handbook of Expedition and Wilderness Medicine; Chris Johnson**
- **A Comprehensive Guide to Wilderness & Travel Medicine; Eric Weiss**
- **Daily talks at the Himalayan Rescue Association, Pheriche, Nepal**