

Clinical First Aid: I Think My Patient is Sick



When Should We Call 911 ?

If you're not sure whether the situation is a true emergency, officials recommend calling 911 and letting the call taker determine whether you need emergency help ! Do NOT hang up until the dispatcher instructs you to.

The dispatcher's computer will show your location, unless you are on a cell phone . Try to remain calm and answer all questions quickly and accurately.

The dispatcher will need the following information:



- Nature of the emergency
- When the emergency first occurred
- Exact location or address
- Phone number that you are calling from
- Your name and who else is involved
- Follow all instructions given by the 911 dispatcher and stay on the phone until the dispatcher tells you to hang up, or for as long as it is safe to do so.



Panic Attack

Periods of intense fear or apprehension that occur suddenly. They can last from minutes to hours and can be incapacitating. Panic attacks usually begin abruptly but often come to a peak within 10 minutes. They can continue for longer periods of time if the attack is "triggered" by a situation from that the person can not "escape" from.

In panic attacks that are **situational** - and the person is trying to "escape" - they can become frantic to get away. This can cause them to become violent if you try to contain them while they are trying to "run".



Their intense feelings of fear can cause the body to have a **sympathetic response**

Which will initiate the "fight-or-flight response". This causes the body to be flooded with hormones, especially epinephrine (adrenaline), that aid it in defending against harm or presumed "attack".

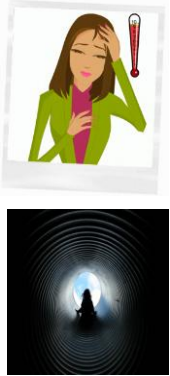


Panic attacks often abate on their own. If a person has had attacks in the past, they can have **anticipatory anxiety** in between the formal panic attacks. For those that have never had a panic attack before, people having one for the first time are often afraid they are having a heart attack.

Many have expressed that having a panic attack is one of the most intensely frightening, upsetting, and uncomfortable experiences they have ever had and can take days to recover from.




Patients having a panic attack may say that they have fear they are dying, "going crazy," or having a heart attack. There can also be complaints of: flashing vision, feeling faint or nauseous, body numbness, sweating, hyperventilation, and a loss of "control". Tunnel vision can also occur.



First Aid - Panic Attack

- Calm the Person
- Ask them what you can do to help.
- Reassure them that the attack will probably pass in a few minutes.
- Encourage them to take slow, even breaths.
- **Do not minimize the person's symptoms.**
- If unable to calm them down, get them to see a health care provider right away
- Do NOT try to restrain them



Fainting : "Syncope"

FAINTING: SYMPTOMS & SOLUTIONS



When someone feels faint, help him to lie down with his head low and his legs raised (without having to fight gravity) so that normal blood can flow to the brain can resume.

If a person feels faint and unable to lie down, he should sit with his head between his knees and his hands behind his head.

Fainting caused by dehydration from humidity and/or exercise causes loss in blood pressure and loss of electrolytes. Upon recovery and once a person is aware of his surroundings, a little water and/or an electrolyte solution can be taken gradually.


Because fainting is a brief loss of consciousness, after return to consciousness getting up too quickly may result in dizziness or cause a person to faint again.

Some symptoms to watch out for are blurred or loss of vision, turning pale, sweating or feeling sick. If you feel any of these symptoms sit down and call for help immediately


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Presyncope

A state of lightheadedness, weakness, and feeling faint, as opposed to syncope (fainting). Presyncope is usually cardiovascular in nature. Lightheadedness is often a symptom of orthostatic **hypotension**. This happens when the BP drops significantly when a patient stands up from a lying or sitting position.




Fainting, or unconsciousness, is a sudden, brief interruption of the blood supply to the brain. Usually, the blood flows again within a minute or less. These can be brief episodes, or it can be a critical time frame requiring immediate hospitalization. The person who faints may fall and potentially hurt themselves - so protecting them can be a difficult process !



Causes Of Fainting

- Temporary low blood pressure
- Heart attack
- Low Blood Sugar
- Dehydration
- Hyperventilation
- Massive bleeding
- Poisoning
- Vertigo
- Coughing hard
- Fear



Symptoms Of Fainting

- Light headed
- Drowsiness
- Weakness
- Nausea
- Headache
- Stupor (cognitively unresponsive)
- Blurred vision
- Disoriented or Incoherent
- Rapid Breathing
- Cold, clammy, pale skin



What To Do If They Feel Faint

- **Make them feel safe**
- Lay them flat on their back.
- Elevate their legs (to restore blood flow to the brain).
- Loosen tight clothing.
- If they become unconscious - try to revive them by briskly shaking them, or loudly calling their name. Place them on their side - if they vomit they will not choke.
- If they don't respond, call 911 immediately.



What To Do When They Start to Faint

- If you see someone fainting, try to prevent them from forcefully falling by stepping behind them and gently lowering them to the ground
- The most important thing to do is to make sure that the **airway remains unobstructed**. If breathing stops, you may need to begin CPR.
- If no injuries are apparent, move the person so that their head is on one side so that if they throw up it will drain to the side and not into their lungs.
- Keep them lying down after they regain consciousness for about 15 minutes and do not let them get up until their symptoms have disappeared.
- If they do not begin to recover, call 911.



What Not To Do

- Do not try to move an unconscious person into a sitting position.
- NO FOOD OR WATER**
- Do not slap his face or douse him with cold water.
 - Do not place a pillow under the head of an unconscious person

Call 911 if.....

- Has blue lips or face
- An irregular or slow heartbeat
- Chest pain
- Difficulty breathing
- Is difficult to awaken
- Acts confused



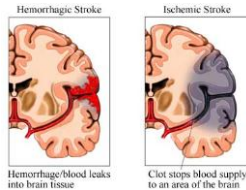
Vasovagal Response

A vasovagal response is usually recurrent and happens when the person encounters a specific "trigger" (i.e. dilation & fear). They also experience the same signs as "fainting". When they pass out (and in most cases fall down or go into a relaxed state) blood flow to the brain is restored, and they will regain consciousness. **Syncope** means "blacking out" and **vasovagal** refers to the abnormal stimulation of blood vessels by the vagus nerve causing the same reaction: fainting.



Stroke

Follow the **FAST** rule!
 A **stroke** occurs when a blood clot blocks an artery (a blood vessel that carries blood from the heart to the body) or another blood vessel breaks, interrupting blood flow to an area of the brain. When either of these things happen, brain cells begin to die and damage occurs.



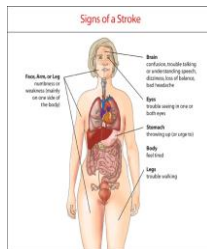
ohsu.edu

Signs Of A Stroke

- Paralysis or weakness on half of their face. Ask them to smile. If only one side of the face moves, they might be having a stroke.
- Paralysis or weakness on half of their body. Ask them to lift both their arms. Look to see if both arms are lifted to the same height.



- Slurred speech. Listen to see if they slur their words especially their s's.
- Confusion. Watch for normally sharp patients suddenly becoming confused or disoriented.
- Sudden loss of sight
- Sudden problems with balance.
- Sudden severe headache



www.mayoclinic

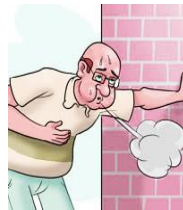
First Aid For Stroke

- If you suspect stroke, **call 911 immediately**
- Reassure the patient
- Have them lie down with their head and shoulders slightly elevated
- Monitor their breathing. IF breathing stops, start CPR
- Never give a suspected stroke victim anything to eat or drink
- Monitor their Blood Pressure & Pulse



Shortness Of Breath: Dyspnea

The best way to tell if someone is having trouble breathing is to ask them! If they can't answer you because they are out of breath, it's a strong sign of trouble. Also, **watch them breath**. Regardless of the cause of the shortness of breath, the only way for them to get more oxygen is to get more air. People with shortness of breath will often look like they've just finished running uphill.



- They use chest and neck muscles to take deep breaths
- They purse their lips when they exhale
- They rest their hands on their knees to help expand the chest
- They're "winded" or unable to speak long sentences
- Anxiety contributes to their symptoms. The feeling of 'breathlessness' can be terrifying and can lead to a panic attack because they have the feeling of suffocation /not being able to breathe.



oxygenandbronchodilatordelivery.wikispaces

First Aid for Shortness of Breath

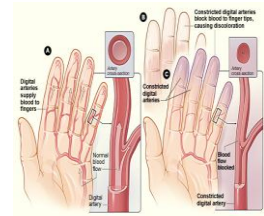
People experiencing severe shortness of breath need emergency medical help.

*If a person with shortness of breath can't control his or her breathing long enough to say an entire sentence, it's time to **call 911** !*



Warning Signs

- Blue lips, fingers, or fingernails
- Chest pain
- Dizziness or lightheadedness
- Excessive drooling
- High-pitched or wheezing sounds
- Nausea or vomiting
- Sweating



nhibi.nih.gov

Oxygen in the Clinic

Without proper storage, an unsecured oxygen cylinder could fall over and damage the cylinder stem or regulator.

This can release the gas that is normally under controlled pressure and cause it to be uncontrolled. This would cause the cylinder to become a torpedo like projectile. Ensure you have adequate racking or chains anchored to the wall to secure all cylinders in the clinic.



Supplemental oxygen is 100% oxygen vrs the air in the atmosphere, which is only 21% oxygen. Tank setting is usually between 2 and 4.

Monitor their oxygen saturation levels with a **pulse oximeter**. Notify your doctor if the reading drops below 90%.

Hyperventilating: "Over Breathing"



Hyperventilation is usually not dangerous but causes symptoms that can *mimic* dangerous disorders. Hyperventilation causes the carbon dioxide levels in your system to drop very low. This causes the blood vessels to constrict and your nerves to fire incorrectly. All of this leads to a host of problems that can mimic anxiety attacks :

- Rapid heartbeat.
- Chest pains.
- Lightheadedness/feelings of faint.
- Difficulty concentrating.
- Shortness of breath
- Weak or tingling limbs.



Paper Bag Breathing

There is some logic to this, but studies are mixed regarding the practice, and many feel the practice should be "retired". In some cases it can be dangerous (i.e. in cases of an asthma attack being confused as hyperventilation - reducing oxygen and increasing carbon dioxide can be deadly).

The idea behind it is to increase carbon dioxide levels. Hyperventilation causes the body to expel too much carbon dioxide. Breathing into a bag may improve the levels of carbon dioxide in your body, helping you overcome hyperventilation faster. Never do this though for longer than 10 breaths!



Alternatives To Paper Bag Breathing

If your patient starts hyperventilating, your goal is to help them increase their carbon dioxide level to help them decrease their symptoms.

- Reassure them. "You're doing fine," and "You are not going to die" can be helpful. Try and help them remain calm.
- To increase their carbon dioxide, they need to take in less oxygen. Try having them breathe through pursed lips (as if you are blowing out a candle).



Seizure or Convulsion

1. Recognize common symptoms



Blank staring



Chewing



Fumbling



Wandering



Shaking



Confused speech

www.pccschool335.org

The terms "seizure" and "convulsion" are often interchangeable.

Convulsions are when a person's body shakes rapidly and uncontrollably. During convulsions, the person's muscles contract and relax repeatedly. There are many different types of seizures from mild symptoms (no body shaking) to grand mal (Generalized Tonic-Clonic seizures).

Types Of Seizures

Generalized Seizures
(Produced by the entire brain)

Symptoms

- | | |
|--|---|
| 1. "Grand Mal" or Generalized tonic-clonic | Unconsciousness, convulsions, muscle rigidity |
| 2. Absence | Brief loss of consciousness |
| 3. Myoclonic | Sporadic (isolated), jerking movements |
| 4. Clonic | Repetitive, jerking movements |
| 5. Tonic | Muscle stiffness, rigidity |
| 6. Atonic | Loss of muscle tone |

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What Is A Seizure ?

The brain controls how the body moves. This is done by small electrical signals being sent through the nerves to the muscles. Seizures (convulsions) occur when abnormal signals from the brain change the way the body muscles function.



The causes for some seizures are never known, but usually they are an indication of either a temporary situation or a chronic condition.

- Temporary reasons could be: drug use /drug withdrawal or high fevers.
- Chronic could be: brain defects (tumor) or deterioration, dementia, and stroke. **Epilepsy** is a neurological disorder that causes recurring seizures. People that have more than one seizure should seek medical attention to determine if epilepsy is the cause.

jaggaalunimd.com

Warning Symptoms of Convulsion

- Fear, anxiety or aura
- Nausea
- Vertigo
- Visual symptoms - flashing bright lights, spots, or wavy lines before the eyes
- Brief blackout followed by period of confusion with time and space
- Changes in behavior
- Drooling or frothing at the mouth
- Eye movements

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- Loss of bladder and/or bowel control
- Mood changes : sudden anger, unexplainable fear, panic
- Shaking of the entire body
- Falling
- Teeth clenching
- Breathing irregularities
- Uncontrollable muscle spasms with twitching and jerking limbs

#ADAM

First Aid for Seizures

(Convulsions, generalized tonic-clonic, grand mal)

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www.pcschool535.org

First Aid For Seizures: What To Do

- **Make a note of when the seizure begins and ends** - seizures become extremely dangerous when they last longer than 5 minutes.
- Move objects or furniture away that they could hurt themselves on.
- Turn their head to the side to keep their airway clean
- Keep calm and reassure other people who may be nearby.
- **Don't hold the person down or try to stop his movements.**
- Loosen ties or anything around the neck that might make breathing difficult.
- Put something flat and soft, like a folded jacket, under the head.

- Turn them gently onto their side to keep their airway clear. Do not try to force the mouth open with any hard implement or with fingers. **It is not true that a person having a seizure can swallow his tongue.**
- Stay with them until the seizure ends.
- Be friendly and reassuring as they "awaken".
- Offer to call a taxi, friend or relative to help the person get home.

www.epilepsyfoundation.org

Heart Attack: Myocardial Infarct

Heart attacks can be sudden and intense or can start slowly, with minimal pain.

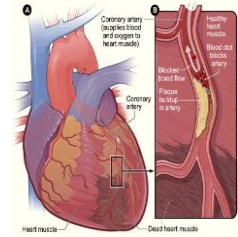
The common signs of a heart attack are:

- Uncomfortable pressure, squeezing, fullness and/or pain in the center of the chest that lasts for a few minutes, or goes away and then returns.
- Pain /discomfort in one or both arms, the back, neck, jaw or stomach.
- Shortness of breath with or without pain.
- A cold sweat, nausea or lightheadedness.



What Causes A Heart Attack

A heart attack happens when the blood flow to a part of the heart is blocked - usually by a blood clot. The clot happens because a coronary artery that supplies the heart with blood slowly becomes thicker and harder from a buildup of **fat and cholesterol (plaque)**. If the plaque breaks away, and a blood clot forms, that blocks the blood flow causing a heart attack. The heart muscle supplied by that artery will start to die. Damage increases the longer the artery stays blocked.



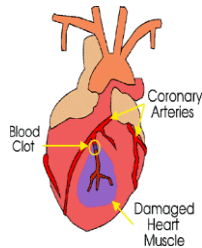
www.nhlbi.nih.gov

When somebody has a heart attack, they usually feel pain in their chest first. The pain spreads to the neck, jaw, ears, arms, and wrists and may also travel into the shoulder blades, the back, and the abdomen.

Changing position, resting or lying down does not help ease the pain. Patients describe the pain as one of pressure, like a clamp squeezing inside your chest.

Silent heart attack can occur and has no pain at all.

Painless heart attacks are more common among women than men.



newstrick.com

Men and Heart Attack



- Chest pain/discomfort that feels like uncomfortable pressure, fullness, squeezing or pain in the chest. Can last for a few minutes, or it can come and go.
- Discomfort/pain in one or both arms, the neck, jaw, back or stomach
- Shortness of breath, lightheadedness, nausea, or sweating
- Abdominal discomfort that may feel like indigestion

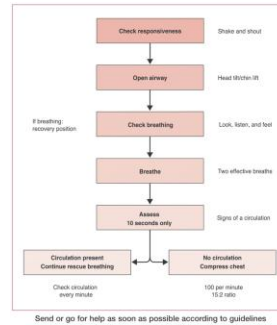
Women and Heart Attack

- Uncomfortable pressure, squeezing, fullness or pain in the center of the chest. Again, a few minutes, or comes and goes.
- Pain or discomfort in one or both arms, the back, neck, jaw or stomach.
- Shortness of breath with or without discomfort.
- Cold sweat, nausea or lightheadedness.

As with men, women's most common heart attack symptom is chest pain or discomfort. But women are more likely to experience some other symptoms, especially shortness of breath, nausea/vomiting and back or jaw pain.




CPR



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- **Open the airway.** Lift up the chin with two fingers. At the same time, tilt the head by pushing down on the forehead with the other hand.
- **Look, listen, and feel for breathing.** Place your ear close to the person's mouth and nose. Watch for chest movement. Feel for breath on your cheek.
- **If the person is not breathing or has trouble breathing:**
 - Cover their mouth tightly with your mouth.
 - Pinch the nose closed.
 - Keep the chin lifted and head tilted.
 - Give 2 rescue breaths. Each breath should take about a second and make the chest rise.
- Continue CPR (30 chest compressions followed by 2 breaths (if two rescuers) until the person recovers or help arrives. **If an AED for adults is available, use it as soon as possible**




www.epsoedf.com

Adult CPR


The following steps are based on instructions from the American Heart Association.

- **Check for responsiveness.** Shake or tap the person gently. See if the person moves or makes a noise. Shout, "Are you OK?"
- **Call 911 if there is no response.** Shout for help and send someone to call 911. If you are alone, call 911 and retrieve an AED (if available), even if you have to leave the person.
- **Carefully place the person on their back.**
- **Perform chest compressions:**
 - Place the heel of one hand on the breastbone -- right between the nipples.
 - Place the heel of your other hand on top of the first hand.
 - Position your body directly over your hands.
 - Give 30 chest compressions. These compressions should be fast and hard. Press down about 2" into the chest. Each time, let the chest rise completely. **IF single rescuer 15:2 breaths**





Child

1. Patient on a hard and flat surface
2. Rate at-least 100/min. Press chest down about 2" at a rate of 100 per minute (16 in 10 seconds).
3. Allow full chest recoil




Infant

Heartsaver® Infant CPR

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ADAM

HANDS ONLY

Two steps to save a life:

1



Call Right Away!

2




Push Hard & Fast in the Center of the Chest!

AED: Automated External Defibrillators

- Turn on the AED
- Wipe the chest dry
- Attach pads to bare chest
- Plug in the connector
- Make sure no one, including you, is touching the person!

Tell everyone to **"STAND CLEAR!"**

- Push the analyze button if necessary, let the AED analyze heart Rhythm
- Check Vitals
- The AED will shock up to **3 times**. Usually one shock is needed. Some pulseless heart rhythms can't be treated by defibrillation. If the AED does not advise a shock, check the pulse, and if there is none, continue CPR.



www.rhbi.nh.gov

