

## First Aid for Choking

The advice given in this article cannot, nor is it intended to, replace the first aid skills that can only be learned in an approved first aid course. Readers are encouraged to take a first aid course from their local St. John Ambulance Brigade or other recognized organization.

Choking occurs when air cannot get into a person's lungs because of a blockage somewhere between the nose and mouth and the lungs (the airway). The obstruction means the person either has trouble breathing or cannot breathe at all. The result will be death if first aid is not given right away.

### What Happens when a Person Chokes

Choking is a life-threatening emergency. When the air supply to the lungs is cut off, the person's

- in adults: talking, laughing or gulping drinks with food in the mouth.

- in elderly people: food and pills.

Swelling of the airway may also be caused by an injury to the throat or by illness; e.g. allergic reaction, asthma, croup, epiglottitis (swelling of epiglottis, a lid-like piece of tissue that protects the entrance to the voice-box.) In an unconscious person lying on the bed, the airway may be blocked by the tongue falling to the back of the throat or by saliva, blood or vomit pooling in the throat.

### Signs of Choking

The person who is choking will show different symptoms, according to how completely the airway is blocked.

The most obvious and universal sign of choking is when the person grabs the throat. The other signs are given in the illustration below. Notice how the signs differ depending whether there is good breathing or poor to no breathing.

### Choking with Good Breathing

- able to speak
- signs of distress - eyes show fear
- forceful coughing
- wheezing and gagging between coughs
- reddish face
- grabbing the throat
- drooling

### Choking with Poor or No Breathing

- not able to speak
- signs of distress - eyes show fear
- weak or no coughing
- high-pitched noise or no noise when trying to breathe or cough
- greyish face and bluish lips and ears
- grabbing the throat

face immediately becomes red. Shortly after, as the oxygen in the body is used up, the

face becomes grey and the lips and ear lobes become bluish. This change in color is called cyanosis. Soon the person becomes unconscious and the heart will stop.

### Causes of Choking

Among the more common causes are:

- in infants and children: food, toys, buttons, coins, broken balloons or bits of plastic are common causes.



**First Aid for Choking**

The type of first aid you give will depend on:  
 the cause of choking.  
 how well the person is breathing.  
 the age, size and condition of the person.

In many cases, an airway blocked by food or a foreign object can be cleared by the Heimlich manoeuvre. If choking is caused by swelling of the airway from an infection, injury or allergic reaction, the Heimlich manoeuvre won't work - get medical help quickly. CALL 911.



**HOW THE HEIMLICH MANOEUVRE WORKS**

When you choke on something, your body tries to unblock your airway by coughing. The Heimlich manoeuvre tries to do the same thing with an artificial cough.

The illustration on the right shows how an abdominal thrust creates a cough. An abdominal thrust pushes the diaphragm up towards the lungs very quickly - this forces air from the lungs up the airway and, hopefully, blows the object out. For the best effect, the fist has to be in the right place, your forearms off the abdomen and each thrust a strong and sudden movement.

**If the choking person is conscious**

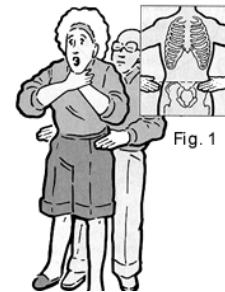
1. If the person can cough forcefully, speak or breathe, encourage coughing. This may dislodge the object. If choking lasts for more than a few minutes, call 911 and get medical help. Do not slap the person on the back. This could drive the object down the airway.
2. If the choking person's breathing is poor, ask "Can you cough?" If the person cannot cough forcefully, speak or breathe, use the Heimlich manoeuvre to try to remove the blockage.

**Using the Heimlich manoeuvre**

1. Stand behind, ready to support the person. Try to have a person who is sitting, stand up. If this is not possible, try reaching around from the back of the chair to give the Heimlich manoeuvre. If the choking

person is a child, you may have to kneel so you are at the right height to perform the Heimlich manoeuvre.

2. Find the correct hand position and give abdominal thrusts to try to remove the airway blockage.
  - find the top of the pelvic bones (Fig.1).
  - place a foot between the casualty's feet for a solid position
  - if the choking person is a child, kneel so you are at the right height (Fig.2).
  - place one fist midline, just above the other hand (Fig.3)
  - hold the fist with the other hand and press inward/upward with a sudden, forceful thrust - this is an abdominal thrust. Use only your fist; make sure you don't press against the ribs with your forearms (Fig.4).



3. Keep performing the Heimlich manoeuvre until either the object is removed or the casualty becomes unconscious.

**If the choking person is unconscious**

1. If the casualty is or becomes unconscious, don't panic.
2. Lower a collapsing person to the ground, remembering to protect the head and neck. Send someone to call 911 for medical help.
3. Check the mouth. Open the mouth with the tongue-jaw lift. The forward movement of the tongue may loosen the blockage. Finger sweep to remove any matter.
  - hold the jaw with your fingers and lift the jaw and tongue upwards

- hold the jaw in position and slide a hooked finger down the far side of the mouth to the base of the tongue
  - hook any foreign matter and pull it up against the near cheek - be careful, the object may be sharp or slippery
4. Try to breathe into the casualty's mouth.
    - push back on the forehead and lift the jaw
    - seal your mouth around the casualty's mouth
    - pinch the nostrils
    - blow slowly - watch for the chest to rise
    - if the chest doesn't rise, reposition the head, check the seals at the nose and mouth and try again
    - if the chest does rise, give another breath and continue with artificial respiration. If there is no pulse, begin CPR. (Both artificial respiration and CPR should be learned in an approved first aid course.)
    - if the chest doesn't rise on your second try, conclude the airway is blocked and try to clear the airway.
  5. Use the Heimlich manoeuvre to clear the airway. Find the right hand position and give up to five abdominal thrusts.

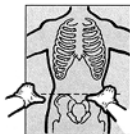


Fig. F

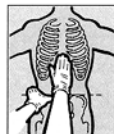


Fig. G

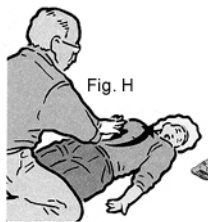


Fig. H

- kneel astride the person (Fig. F).
  - find the top of the hips with your hands
  - place the heel of one hand midline slightly above the other hand (Fig. G).
  - keep the fingers raised, in line with the center of the body and interlocked if you wish (Fig. H).
  - give up to five quick, inward and upward thrusts - give each with the intention of removing the object
6. Repeat steps 3, 4 and 5 until the chest rises when you blow into the casualty's mouth or

medical help arrives. If the chest rises, go to step 7.

7. If you remove the blockage, or if the chest rises when you ventilate, give a total of two slow breaths then check the breathing. If the person is breathing effectively, give ongoing care for choking as described below.

### Ongoing care for choking

Your job is not over when the airway blockage is removed and the airway has been cleared. The victim may be conscious, semi-conscious or unconscious. Continue giving first aid as described below.

#### If the casualty is conscious

- monitor breathing often, breathing difficulties can develop following choking
- stay with person until normal breathing returns
- urge the person to see a medical doctor. The Heimlich manoeuvre can cause internal injuries.

#### If the casualty is semi-conscious or unconscious

- call for help if not already called for
- monitor breathing
- place the person into the recovery position
- stay with the person until medical help takes over

### First Aid for a Choking Obese or Pregnant Person

If a choking person is very obese, the Heimlich manoeuvre will not be effective. In the late stages of pregnancy, the Heimlich manoeuvre may be harmful to the baby. Appropriate first aid treatment for these situations can be learned in a first aid course.

### Self-help

If you begin to choke on an object, what should you do?

1. Don't panic, though that's not easy. If there are people around, get their attention. Grab your throat to show them you are choking. This is the universal sign of choking. Do not leave the company of oth-

ers when you are choking (e.g. do not go to the bathroom.)

2. If you can cough forcefully, try to cough up the object. Do not allow anyone to slap you on the back.
3. If you can't cough forcefully, breathe or speak, and there is no one else to give you the Heimlich manoeuvre, give it to yourself as shown below. Use either your hands or a piece of furniture, whatever gives the best effect.



- make a fist, thumb-side in, midline on your abdomen just above your hips
- hold the fist with your other hand and pull inward/upward forcefully
- give yourself abdominal thrusts until you can cough forcefully, breathe or speak
- a second method is to use

a solid object like the back of a chair, a table or the edge of a counter

- position yourself so the object is just above your hips. Press forcefully to produce an abdominal thrust - keep giving yourself thrusts until you can cough forcefully, breathe or speak

If you are alone and you are choking, you must get help quickly -- you will be unconscious within minutes. Do whatever is necessary to get someone's attention. Call 911.

### PREVENT CHOKING

The prevention tips below are based on the most common causes of choking. Use these tips to reduce the risk of choking.

#### Preventing choking in adults

- Cut food into small pieces, or take small bites when not using a knife and fork.
- Drink alcohol in moderation. Alcohol causes you to lose the co-ordination of the muscles used in swallowing, and it is easier to choke.
- Don't talk, laugh or gulp drinks with food in your mouth.

#### Preventing choking in children

- Supervise children when they are eating.
- Don't feed the following food items to children under four years of age:
  - nuts
  - popcorn
  - round candies
  - grapes
  - hot dogs
  - thickly spread peanut butter
- Cut hot dogs in half lengthwise for older children.
- Teach children not to talk, laugh, run or move about when eating.
- Balloons are a common cause of choking - always supervise children when they are playing with balloons.
- Check your house regularly for items that could cause choking, especially under furniture and between the cushions on couches and chairs - coins and bits of plastic are a common cause.

#### Preventing choking in infants

- Inspect all toys for small parts that may come off - keep these toys away from infants.
- Only give infants small bite-sized pieces of food, especially when the child has few teeth, or is just learning to eat solids.
- Keep all toys out of the baby's crib.
- Throw away pacifiers with small parts or worn nipples.
- Do not let infants play with balloons.

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