PROCEDURE

Abdominal thrusts

Abdominal thrusts are an emergency first-aid procedure used to dislodge an object blocking a conscious person's airway.

PURPOSE
Remove an object blocking the airway during severe choking

PROCEDURE TYPE
Therapeutic bedside first aid using manual abdominal thrusts

WHERE IT IS DONE
At the bedside or wherever choking occurs

ANAESTHESIA
None

HOW LONG IT TAKES
Seconds to minutes, until breathing returns or CPR begins

PREPARATION
None; call emergency services and follow dispatcher instructions

RECOVERY
Prompt medical assessment; no driving if unwell

MAIN RISKS
Rib injury, internal organ injury, vomiting and aspiration

RESULTS
Immediately, when breathing, speech, or forceful coughing returns

Overview

Abdominal thrusts are an emergency first-aid procedure for severe choking. Choking happens when food or another object blocks the airway, preventing air from reaching the lungs.

The procedure uses quick inward and upward pressure on the upper abdomen. This pushes air out of the lungs and may force the object from the airway.

Abdominal thrusts are intended for a conscious adult or child older than 1 year who cannot breathe, speak, or cough effectively. They should not be used on someone who is still coughing forcefully.

Severe choking is an emergency. Call emergency services, or ask someone else to call, while first aid begins. Follow the emergency dispatcher's instructions if they differ from general

guidance.

Why the procedure is performed

Abdominal thrusts are performed to clear a severely blocked airway before the person loses consciousness. Without airflow, the brain and other organs cannot receive enough oxygen.

Signs of severe choking can include:

Someone with a partial blockage may still be able to speak and cough forcefully. In that situation, coughing is usually more effective and less likely to cause injury than abdominal thrusts.

- Inability to speak, breathe, or cough effectively
- A weak, silent, or high-pitched cough
- Holding the throat
- Increasing confusion or loss of responsiveness
- Blue, grey, or unusually pale lips or skin

Who should and should not have it

Abdominal thrusts may be appropriate for a conscious adult or child older than 1 year with signs of severe choking. If possible, tell the person what you are going to do and obtain permission before touching them. Consent may be assumed when a life-threatening emergency prevents a response.

Standard abdominal thrusts should not be used:

Infants receive back slaps and chest thrusts instead. For a pregnant person, or someone whose body cannot be encircled at the abdomen, chest thrusts are used rather than abdominal thrusts.

If the person becomes unresponsive, stop abdominal thrusts, lower them safely to the floor, and begin cardiopulmonary resuscitation, or CPR. Use an automated external defibrillator if available. Remove an object from the mouth only if you can clearly see and easily reach it. Blind finger sweeps may push it deeper.

- On infants younger than 1 year
- On someone who can cough forcefully, speak, or breathe

- On someone who is unconscious
- When the abdomen cannot be safely reached, including during later pregnancy

How to prepare

This is an emergency procedure, so there is no fasting, medicine adjustment, or planned preparation.

Confirm that the person is severely choking. Ask whether they are choking if they can respond. Have someone call emergency services and bring first-aid equipment if available. If you are alone, call emergency services on speaker so that you can begin helping while following the dispatcher's directions.

Make enough space to stand behind the person. If local first-aid guidance includes back blows before abdominal thrusts, begin with those.

If a treating facility gives you instructions after the choking event, that facility's own instructions take priority over general information in this article.

What happens during the procedure

Many first-aid protocols alternate five back blows with five abdominal thrusts for a conscious adult or child older than 1 year who has severe choking.

For back blows, the person is supported and leaned forward. The first-aid provider gives up to five firm blows between the shoulder blades using the heel of one hand. The airway is checked after each blow.

If the object does not come out, abdominal thrusts are performed:

Cycles of back blows and abdominal thrusts continue until the object comes out, the person can breathe or cough forcefully, trained help takes over, or the person becomes unresponsive.

If the person becomes unresponsive, CPR should begin. Each time the airway is opened for rescue breaths, look for a visible object that can be removed safely.

- The first-aid provider stands behind the person and wraps both arms around their waist.
- One hand is made into a fist and placed above the navel but below the lower end of the breastbone.
- The other hand grasps the fist.

- The hands pull sharply inward and upward.
- Thrusts are repeated, checking after each one to see whether the object has moved.

Recovery and what to expect afterward

Abdominal soreness can occur after thrusts. Severe, worsening, or persistent pain is not expected and needs urgent medical assessment because the ribs or internal organs can be injured.

Do not eat or drink if there is trouble swallowing, persistent coughing, vomiting, chest discomfort, or breathing difficulty. A healthcare professional may need to confirm that the airway and swallowing are safe. Once you have been assessed and feel completely well, normal eating can usually resume.

Avoid strenuous activity until you have been medically assessed, particularly if several forceful thrusts were needed. Follow any specific restrictions given after the examination.

No sedative or anaesthetic is used, so the procedure itself does not create a routine driving restriction. However, do not drive yourself for assessment if you have pain, breathing trouble, dizziness, coughing, or other symptoms. Use emergency transport when advised.

There is no fixed time away from work. A return the same day may be reasonable only after assessment if you feel well and no injury or remaining airway problem is suspected.

Risks and possible complications

Abdominal thrusts can save a life, but the force may cause injury. Possible complications include:

A remaining fragment may cause persistent coughing, wheezing, noisy breathing, trouble swallowing, or repeated chest infections later. Because some injuries are not immediately obvious, a person who received abdominal thrusts should be assessed promptly by a healthcare professional, even if the object came out.

- Bruising or abdominal pain
- Rib or breastbone injury
- Injury to an internal organ
- Vomiting, which may enter the airway

- An object remaining in the airway or moving deeper

Results and follow up

A successful result is usually obvious immediately. The object may come out, and the person may begin breathing, speaking, or coughing forcefully again.

The person still needs prompt medical assessment. The healthcare professional may examine the mouth, throat, chest, ribs, and abdomen. Further testing is based on symptoms and the object involved.

If part of the object may remain, the person may need imaging or bronchoscopy. Bronchoscopy uses a thin viewing instrument passed into the airways to locate and remove an object.

Follow-up may be brief if the examination is normal and symptoms fully resolve. Ongoing cough, swallowing trouble, pain, or breathing changes require further review.

Alternatives

The right response is based on age, consciousness, pregnancy, body size, and whether the airway blockage is partial or severe.

Waiting without providing first aid is not a safe alternative when someone cannot breathe, speak, or cough effectively.

- Encouraging forceful coughing: Best when the person can still breathe and cough strongly. It is less likely to cause injury, but it is not enough when coughing becomes weak or silent.
- Back blows: Often tried before abdominal thrusts. They may dislodge the object without abdominal pressure, but several attempts may be needed.
- Chest thrusts: Used for infants, pregnant people, or when the abdomen cannot be encircled. They avoid pressure on the abdomen but still require force to the chest.
- CPR: Used when the person becomes unresponsive. Chest compressions circulate some blood and may move the object, but CPR does not replace immediate treatment while the person remains conscious.

- Removal with airway instruments: Emergency clinicians may use forceps, laryngoscopy, or bronchoscopy. These methods can directly remove an object but require equipment, trained staff, and sometimes sedation or anaesthesia.

When to call your healthcare team

Call emergency services immediately if the person cannot breathe, speak, or cough effectively, becomes confused, turns blue or grey, collapses, or does not recover normal breathing after the object comes out.

Emergency help is also needed for severe chest or abdominal pain, coughing up blood, repeated vomiting, fainting, or worsening breathing difficulty.

Arrange prompt medical assessment after any use of abdominal thrusts, even when the person appears to have recovered. This is routine follow-up to check for hidden injury or a remaining piece of the object.

Contact your healthcare team again if coughing, wheezing, painful swallowing, fever, chest discomfort, or abdominal pain develops or continues after the initial assessment.

Common questions

Will I be asleep?

No. Abdominal thrusts are performed immediately while you are conscious and severely choking. No anaesthetic or sedative is used.

Can I drive home afterward?

There is no automatic driving restriction, but you should not drive if you have pain, dizziness, breathing trouble, persistent coughing, or swallowing difficulty. You should be medically assessed first.

How painful are abdominal thrusts?

They involve forceful pressure and may hurt. Mild soreness or bruising can occur. Severe or worsening pain needs urgent assessment because it may indicate a rib or internal injury.

When will I know whether they worked?

Usually immediately. You may cough out the object and regain the ability to breathe or speak. Medical assessment is still recommended afterward.

Can I perform abdominal thrusts on myself?

If you are alone and severely choking, call emergency services if possible. You may place your own fist above your navel, grasp it with the other hand, and thrust inward and upward. You can also press the same area firmly against the back of a sturdy chair. Follow the emergency dispatcher's instructions.

Why are abdominal thrusts not used on babies?

An infant's abdomen is more vulnerable to injury. Babies younger than 1 year receive alternating back slaps and chest thrusts instead.

Sources

- American Heart Association. Part 3: Adult Basic and Advanced Life Support, 2020 Guidelines for CPR and Emergency Cardiovascular Care
- Olasveengen TM, et al. European Resuscitation Council Guidelines 2021: Basic Life Support. Resuscitation . 2021;161:98-114
- Resuscitation Council UK. Adult choking guidance
- Resuscitation Council UK. Paediatric basic life support guidelines
- American Red Cross. Conscious choking first-aid guidance
- National Health Service. What should I do if someone is choking?