

# Englist.me



## Vocabulary Builder Reference from...

Steven Zheng: How does anesthesia work? | TED Talk

[https://www.ted.com/talks/steven\\_zheng\\_how\\_does\\_anesthesia\\_work](https://www.ted.com/talks/steven_zheng_how_does_anesthesia_work)

### Advanced Words Only

#### IMPORTANT

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## Session 1: Word List

### anesthesia

*n.* a state of controlled, temporary loss of bodily sensation or awareness that is induced for medical purposes

(1) **anesthesia** for surgery, (2) local **anesthesia**

He is in general **anesthesia** under the surgeon.

### anesthetic

*n.* a substance that is administered to a person or an animal to produce a loss of sensation or consciousness so that medical or surgical procedures can be performed without causing pain

*synonym*: sedative, anesthesia, painkiller

(1) **anesthetic** injection, (2) local **anesthetic**

The dentist administered an **anesthetic** to numb the patient's mouth before the procedure.

### opioid

*n.* substances that have an effect similar to opium, such as morphine, used in medicines to treat severe pain, but some people take them illegally for pleasure and become addicted

(1) an **opioid** analgesic, (2) **opioid** receptor

Treatment for **opioid** dependence may be a long-term process.

## poppy

*n.* a plant with large, showy flowers of various colors, including red, pink, yellow, and white, and a capsule containing small seeds, and some species of poppy are used to produce opium and its derivatives

(1) **poppy** tea, (2) **poppy** seeds

She wore a red **poppy** on her lapel to honor the veterans.

## mandrake

*n.* a plant with a forked root that is said to resemble the human body and that has long been used in traditional medicine and folklore

(1) **mandrake** cultivation, (2) **mandrake** plant

The **mandrake** root has been used in traditional medicine for centuries.

## anesthesiologist

*n.* a medical doctor who specializes in administering anesthesia to help control pain and monitor the vital signs of patients during procedures and surgeries

*synonym* : anesthetist, pain specialist, sedationist

(1) specialized **anesthesiologist**, (2) clinical **anesthesiologist**

The experienced **anesthesiologist** monitored the patient's vital signs throughout the procedure.

## inhale

*v.* to breathe in air or a different substance, such as smoke  
*synonym* : breathe in, take in, draw in

(1) **inhale** the smoke, (2) **inhale** the aroma

He **inhaled** deeply, trying to calm down.

## venous

*adj.* relating to, situated in, or carrying blood through the veins of the body

*synonym* : vascular

(1) **venous** blood, (2) **venous** thrombosis

The patient was diagnosed with a **venous** clot in his leg, requiring immediate medical attention.

## barricade

*n.* a barrier, often improvised or temporary, used to block passage or protect against danger or attack

*synonym* : barrier, obstacle, blockade

(1) **barricade** fencing, (2) police **barricade**

The protestors built a **barricade** to prevent police from entering the area.

## neuron

*n.* a cell that is specialized to carry information within the brain and between the brain and other parts of the body

*synonym* : nerve cell

(1) excite the **neurons**, (2) **neuron** cell body

Our body transfers information along each **neuron** using an electrical impulse.

## posit

*v.* to suggest or accept something as fact or as a basis for argument or consideration

*synonym* : assert, declare, assume

(1) **posit** the existence of life after death, (2) **posit** the premise

We should **posit** several hypotheses to discuss the matter.

## painkiller

*n.* medicine used to relieve physical pain

*synonym* : anesthetic, anodyne, analgesic

(1) a strong **painkiller**, (2) take a **painkiller** beforehand

Over-the-counter **painkillers** are less effective for patients who have taken many in the past.

## ophthalmology

*n.* the branch of medicine that deals with the anatomy, physiology, and diseases of the eye

*synonym* : eye care, optometry, eye medicine

(1) **ophthalmology** practice, (2) **ophthalmology** clinic

My grandfather had a problem with his eyes and went to an **ophthalmology** specialist.

## intern

*v.* to put someone in prison, especially for political or military reasons; (noun) a student or trainee who works, sometimes for free, to get work experience or to fulfill qualification criteria

*synonym* : apprentice, trainee, student

(1) **intern** civilians, (2) medical **intern**  
The navy **interned** ships of defeated nations.

## medicinal

*adj.* of or relating to the treatment or cure of disease  
*synonym*: curative, therapeutic, healing

(1) **medicinal** chemistry, (2) traditional **medicinal**  
The **medicinal** properties of this herb have been known to help with various ailments.

## ethyl

*n.* a chemical compound derived from ethane, used in producing many industrial chemicals and as a solvent, commonly used as a prefix for chemicals containing one or more ethyl groups

(1) **ethyl** group, (2) **ethyl** acetate  
The laboratory uses **ethyl** alcohol as a cleaning solvent for equipment.

## ethereal

*adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual  
*synonym*: airy, delicate, celestial

(1) **ethereal** beauty, (2) **ethereal** light  
The **ethereal** music created a dreamlike atmosphere in the concert hall.

## sedate

*adj.* calm, tranquil, and composed, often as a result of being under the influence of a sedative or tranquilizer; unhurried, deliberate, and without excessive movement or activity  
*synonym*: calm, composed, tranquil

(1) **sedate** atmosphere, (2) **sedate** patient  
The **sedate** environment of the library was perfect for studying.

## sedative

*n.* a drug or medication that has a calming or sleep-inducing effect on the body and mind; something that soothes or pacifies  
*synonym*: calmative, tranquilizer, sleeping pill

(1) **sedative** medication, (2) take a **sedative**  
The doctor prescribed a **sedative** to help me sleep.

## **fentanyl**

*n.* a potent synthetic opioid pain medication often used to treat severe or chronic pain, which is highly addictive and can be very dangerous or lethal in high doses

*synonym*: opiate, narcotic, painkiller

(1) **fentanyl** patch, (2) **fentanyl** overdose

The abuse of **fentanyl** has reached epidemic proportions in some parts of the country.

## **chaotic**

*adj.* without any order or organization; extremely disorganized, unpredictable, and confusing

*synonym*: disorderly, cluttered, topsy-turvy

(1) the **chaotic** economic situation, (2) **chaotic** theory

Change is also occurring in Turkey as a result of **chaotic** reform.

## **anesthetize**

*v.* to administer a drug or other substance that causes a loss of sensation or consciousness, often to perform a medical procedure; to numb or dull a physical or emotional sensation

*synonym*: numb, sedate, drug

(1) **anesthetize** a patient, (2) **anesthetize** a wound

The dentist will **anesthetize** your mouth before removing your wisdom teeth.

## **sever**

*v.* to break or separate something by cutting, especially suddenly and forcibly

*synonym*: cut apart, separate, detach

(1) **sever** a rope, (2) **sever** a positive relationship

He **severed** a branch from a tree quickly.

## **hemlock**

*n.* a poisonous plant with a characteristic odor, having white or purple flowers and finely divided leaves

*synonym*: conium, devil's porridge

(1) **hemlock** grove, (2) poison **hemlock**

**Hemlock** trees are often used as ornamental plants but can be dangerous if ingested.

### aconite

*n.* a highly toxic plant of the buttercup family, also known as monkshood or wolfsbane, containing alkaloid poisons, historically used as a poison or in traditional medicine for its sedative and analgesic properties

*synonym*: monkshood, wolf's bane

(1) **aconite** extract, (2) **aconite** plant

The detective suspected **aconite** poisoning when the victim showed severe gastrointestinal distress and respiratory failure symptoms.

### cesarean

*adj.* (also known as "C-section") relating to the delivery of a baby through a surgical incision made in the mother's abdomen and uterus rather than through vaginal birth

*synonym*: C-section, surgical birth

(1) **cesarean** delivery, (2) emergency **cesarean**

The **cesarean** recovery period can be longer and more challenging than a vaginal birth recovery.

### lifesaving

*n.* the act or process of rescuing someone else's life, especially from drowning

(1) **lifesaving** efforts, (2) **lifesaving** device

The patient needs a **lifesaving** transplant operation.

## Session 2: Spelling

1. an op\_\_\_d analgesic  
*n.* substances that have an effect similar to opium, such as morphine, used in medicines to treat severe pain, but some people take them illegally for pleasure and become addicted
2. ac\_\_\_\_\_e plant  
*n.* a highly toxic plant of the buttercup family, also known as monkshood or wolfsbane, containing alkaloid poisons, historically used as a poison or in traditional medicine for its sedative and analgesic properties
3. excite the ne\_\_\_ns  
*n.* a cell that is specialized to carry information within the brain and between the brain and other parts of the body
4. ac\_\_\_\_\_e extract  
*n.* a highly toxic plant of the buttercup family, also known as monkshood or wolfsbane, containing alkaloid poisons, historically used as a poison or in traditional medicine for its sedative and analgesic properties
5. in\_\_\_e the aroma  
*v.* to breathe in air or a different substance, such as smoke
6. oph\_\_\_\_\_ogy practice  
*n.* the branch of medicine that deals with the anatomy, physiology, and diseases of the eye
7. medical in\_\_\_n  
*v.* to put someone in prison, especially for political or military reasons; (noun) a student or trainee who works, sometimes for free, to get work experience or to fulfill qualification criteria

ANSWERS: 1. opioid, 2. aconite, 3. neuron, 4. aconite, 5. inhale, 6. ophthalmology, 7. intern

8. me\_\_\_\_\_al chemistry *adj.* of or relating to the treatment or cure of disease
9. local ane\_\_\_\_\_ic *n.* a substance that is administered to a person or an animal to produce a loss of sensation or consciousness so that medical or surgical procedures can be performed without causing pain
10. ma\_\_\_\_\_ke cultivation *n.* a plant with a forked root that is said to resemble the human body and that has long been used in traditional medicine and folklore
11. ve\_\_\_\_s blood *adj.* relating to, situated in, or carrying blood through the veins of the body
12. emergency ce\_\_\_\_\_an *adj.* ( also known as "C-section") relating to the delivery of a baby through a surgical incision made in the mother's abdomen and uterus rather than through vaginal birth
13. se\_\_\_\_e atmosphere *adj.* calm, tranquil, and composed, often as a result of being under the influence of a sedative or tranquilizer; unhurried, deliberate, and without excessive movement or activity
14. et\_\_\_\_\_al beauty *adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual
15. clinical ane\_\_\_\_\_ist *n.* a medical doctor who specializes in administering anesthesia to help control pain and monitor the vital signs of patients during procedures and surgeries

ANSWERS: 8. medicinal, 9. anesthetic, 10. mandrake, 11. venous, 12. cesarean, 13. sedate, 14. ethereal, 15. anesthesiologist



16. ne\_\_\_n cell body *n.* a cell that is specialized to carry information within the brain and between the brain and other parts of the body
17. ma\_\_\_\_\_ke plant *n.* a plant with a forked root that is said to resemble the human body and that has long been used in traditional medicine and folklore
18. take a se\_\_\_\_\_ve *n.* a drug or medication that has a calming or sleep-inducing effect on the body and mind; something that soothes or pacifies
19. et\_\_\_\_\_al light *adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual
20. se\_\_r a rope *v.* to break or separate something by cutting, especially suddenly and forcibly
21. fe\_\_\_\_\_yl overdose *n.* a potent synthetic opioid pain medication often used to treat severe or chronic pain, which is highly addictive and can be very dangerous or lethal in high doses
22. oph\_\_\_\_\_ogy clinic *n.* the branch of medicine that deals with the anatomy, physiology, and diseases of the eye
23. ba\_\_\_\_\_de fencing *n.* a barrier, often improvised or temporary, used to block passage or protect against danger or attack
24. poison he\_\_\_\_\_k *n.* a poisonous plant with a characteristic odor, having white or purple flowers and finely divided leaves

ANSWERS: 16. neuron, 17. mandrake, 18. sedative, 19. ethereal, 20. sever, 21. fentanyl, 22. ophthalmology, 23. barricade, 24. hemlock

25. se\_\_\_e patient *adj.* calm, tranquil, and composed, often as a result of being under the influence of a sedative or tranquilizer; unhurried, deliberate, and without excessive movement or activity
26. he\_\_\_\_k grove *n.* a poisonous plant with a characteristic odor, having white or purple flowers and finely divided leaves
27. specialized ane\_\_\_\_\_ist *n.* a medical doctor who specializes in administering anesthesia to help control pain and monitor the vital signs of patients during procedures and surgeries
28. po\_\_y tea *n.* a plant with large, showy flowers of various colors, including red, pink, yellow, and white, and a capsule containing small seeds, and some species of poppy are used to produce opium and its derivatives
29. se\_\_\_\_ve medication *n.* a drug or medication that has a calming or sleep-inducing effect on the body and mind; something that soothes or pacifies
30. po\_\_y seeds *n.* a plant with large, showy flowers of various colors, including red, pink, yellow, and white, and a capsule containing small seeds, and some species of poppy are used to produce opium and its derivatives
31. traditional me\_\_\_\_\_al *adj.* of or relating to the treatment or cure of disease

ANSWERS: 25. sedate, 26. hemlock, 27. anesthesiologist, 28. poppy, 29. sedative, 30. poppy, 31. medicinal

32. in\_\_\_n civilians
33. take a pai\_\_\_\_\_er beforehand
34. lif\_\_\_\_\_ng efforts
35. et\_\_l group
36. the ch\_\_\_\_\_c economic situation
37. fe\_\_\_\_\_yl patch
38. ane\_\_\_\_\_ze a wound
39. ane\_\_\_\_\_ia for surgery
- v.* to put someone in prison, especially for political or military reasons; (noun) a student or trainee who works, sometimes for free, to get work experience or to fulfill qualification criteria
- n.* medicine used to relieve physical pain
- n.* the act or process of rescuing someone else's life, especially from drowning
- n.* a chemical compound derived from ethane, used in producing many industrial chemicals and as a solvent, commonly used as a prefix for chemicals containing one or more ethyl groups
- adj.* without any order or organization; extremely disorganized, unpredictable, and confusing
- n.* a potent synthetic opioid pain medication often used to treat severe or chronic pain, which is highly addictive and can be very dangerous or lethal in high doses
- v.* to administer a drug or other substance that causes a loss of sensation or consciousness, often to perform a medical procedure; to numb or dull a physical or emotional sensation
- n.* a state of controlled, temporary loss of bodily sensation or awareness that is induced for medical purposes

ANSWERS: 32. intern, 33. painkiller, 34. lifesaving, 35. ethyl, 36. chaotic, 37. fentanyl, 38. anesthetize, 39. anesthesia

40. po\_\_t the existence of life after death      *v.* to suggest or accept something as fact or as a basis for argument or consideration
41. se\_\_r a positive relationship      *v.* to break or separate something by cutting, especially suddenly and forcibly
42. ane\_\_\_\_\_ze a patient      *v.* to administer a drug or other substance that causes a loss of sensation or consciousness, often to perform a medical procedure; to numb or dull a physical or emotional sensation
43. in\_\_\_e the smoke      *v.* to breathe in air or a different substance, such as smoke
44. lif\_\_\_\_\_ng device      *n.* the act or process of rescuing someone else's life, especially from drowning
45. ch\_\_\_\_\_c theory      *adj.* without any order or organization; extremely disorganized, unpredictable, and confusing
46. et\_\_l acetate      *n.* a chemical compound derived from ethane, used in producing many industrial chemicals and as a solvent, commonly used as a prefix for chemicals containing one or more ethyl groups
47. ane\_\_\_\_\_ic injection      *n.* a substance that is administered to a person or an animal to produce a loss of sensation or consciousness so that medical or surgical procedures can be performed without causing pain
48. a strong pai\_\_\_\_\_er      *n.* medicine used to relieve physical pain

ANSWERS: 40. posit, 41. sever, 42. anesthetize, 43. inhale, 44. lifesaving, 45. chaotic, 46. ethyl, 47. anesthetic, 48. painkiller

49. ce\_\_\_\_an delivery *adj.* ( also known as "C-section") relating to the delivery of a baby through a surgical incision made in the mother's abdomen and uterus rather than through vaginal birth
50. po\_\_t the premise *v.* to suggest or accept something as fact or as a basis for argument or consideration
51. ve\_\_\_\_s thrombosis *adj.* relating to, situated in, or carrying blood through the veins of the body
52. police ba\_\_\_\_de *n.* a barrier, often improvised or temporary, used to block passage or protect against danger or attack
53. op\_\_\_\_d receptor *n.* substances that have an effect similar to opium, such as morphine, used in medicines to treat severe pain, but some people take them illegally for pleasure and become addicted
54. local ane\_\_\_\_ia *n.* a state of controlled, temporary loss of bodily sensation or awareness that is induced for medical purposes

ANSWERS: 49. cesarean, 50. posit, 51. venous, 52. barricade, 53. opioid, 54. anesthesia

## Session 3: Fill in the Blanks

1. She wore a red \_\_\_\_\_ on her lapel to honor the veterans.
  - n.* a plant with large, showy flowers of various colors, including red, pink, yellow, and white, and a capsule containing small seeds, and some species of poppy are used to produce opium and its derivatives
  
2. The detective suspected \_\_\_\_\_ poisoning when the victim showed severe gastrointestinal distress and respiratory failure symptoms.
  - n.* a highly toxic plant of the buttercup family, also known as monkshood or wolfsbane, containing alkaloid poisons, historically used as a poison or in traditional medicine for its sedative and analgesic properties
  
3. The \_\_\_\_\_ root has been used in traditional medicine for centuries.
  - n.* a plant with a forked root that is said to resemble the human body and that has long been used in traditional medicine and folklore
  
4. The \_\_\_\_\_ environment of the library was perfect for studying.
  - adj.* calm, tranquil, and composed, often as a result of being under the influence of a sedative or tranquilizer; unhurried, deliberate, and without excessive movement or activity
  
5. The \_\_\_\_\_ recovery period can be longer and more challenging than a vaginal birth recovery.
  - adj.* ( also known as "C-section") relating to the delivery of a baby through a surgical incision made in the mother's abdomen and uterus rather than through vaginal birth
  
6. We should \_\_\_\_\_ several hypotheses to discuss the matter.
  - v.* to suggest or accept something as fact or as a basis for argument or consideration

ANSWERS: 1. poppy, 2. aconite, 3. mandrake, 4. sedate, 5. cesarean, 6. posit

7. The abuse of \_\_\_\_\_ has reached epidemic proportions in some parts of the country.
- n.* a potent synthetic opioid pain medication often used to treat severe or chronic pain, which is highly addictive and can be very dangerous or lethal in high doses
8. Over-the-counter \_\_\_\_\_ are less effective for patients who have taken many in the past.
- n.* medicine used to relieve physical pain
9. The dentist will \_\_\_\_\_ your mouth before removing your wisdom teeth.
- v.* to administer a drug or other substance that causes a loss of sensation or consciousness, often to perform a medical procedure; to numb or dull a physical or emotional sensation
10. He \_\_\_\_\_ a branch from a tree quickly.
- v.* to break or separate something by cutting, especially suddenly and forcibly
11. Treatment for \_\_\_\_\_ dependence may be a long-term process.
- n.* substances that have an effect similar to opium, such as morphine, used in medicines to treat severe pain, but some people take them illegally for pleasure and become addicted
12. The patient needs a \_\_\_\_\_ transplant operation.
- n.* the act or process of rescuing someone else's life, especially from drowning
13. The \_\_\_\_\_ music created a dreamlike atmosphere in the concert hall.
- adj.* delicate, light, and airy; extremely refined or subtle; heavenly or spiritual
14. The laboratory uses \_\_\_\_\_ alcohol as a cleaning solvent for equipment.
- n.* a chemical compound derived from ethane, used in producing many industrial chemicals and as a solvent, commonly used as a prefix for chemicals containing one or more ethyl groups

ANSWERS: 7. fentanyl, 8. painkillers, 9. anesthetize, 10. severed, 11. opioid, 12. lifesaving, 13. ethereal, 14. ethyl

15. He is in general \_\_\_\_\_ under the surgeon.
- n.* a state of controlled, temporary loss of bodily sensation or awareness that is induced for medical purposes
16. He \_\_\_\_\_ deeply, trying to calm down.
- v.* to breathe in air or a different substance, such as smoke
17. The doctor prescribed a \_\_\_\_\_ to help me sleep.
- n.* a drug or medication that has a calming or sleep-inducing effect on the body and mind; something that soothes or pacifies
18. My grandfather had a problem with his eyes and went to an \_\_\_\_\_ specialist.
- n.* the branch of medicine that deals with the anatomy, physiology, and diseases of the eye
19. Our body transfers information along each \_\_\_\_\_ using an electrical impulse.
- n.* a cell that is specialized to carry information within the brain and between the brain and other parts of the body
20. The navy \_\_\_\_\_ ships of defeated nations.
- v.* to put someone in prison, especially for political or military reasons; (noun) a student or trainee who works, sometimes for free, to get work experience or to fulfill qualification criteria
21. \_\_\_\_\_ trees are often used as ornamental plants but can be dangerous if ingested.
- n.* a poisonous plant with a characteristic odor, having white or purple flowers and finely divided leaves

ANSWERS: 15. anesthesia, 16. inhaled, 17. sedative, 18. ophthalmology, 19. neuron, 20. interned, 21. Hemlock



22. The experienced \_\_\_\_\_ monitored the patient's vital signs throughout the procedure.
- n.* a medical doctor who specializes in administering anesthesia to help control pain and monitor the vital signs of patients during procedures and surgeries
23. Change is also occurring in Turkey as a result of \_\_\_\_\_ reform.
- adj.* without any order or organization; extremely disorganized, unpredictable, and confusing
24. The \_\_\_\_\_ properties of this herb have been known to help with various ailments.
- adj.* of or relating to the treatment or cure of disease
25. The patient was diagnosed with a \_\_\_\_\_ clot in his leg, requiring immediate medical attention.
- adj.* relating to, situated in, or carrying blood through the veins of the body
26. The dentist administered an \_\_\_\_\_ to numb the patient's mouth before the procedure.
- n.* a substance that is administered to a person or an animal to produce a loss of sensation or consciousness so that medical or surgical procedures can be performed without causing pain
27. The protestors built a \_\_\_\_\_ to prevent police from entering the area.
- n.* a barrier, often improvised or temporary, used to block passage or protect against danger or attack

ANSWERS: 22. anesthesiologist, 23. chaotic, 24. medicinal, 25. venous, 26. anesthetic, 27. barricade