

# Quit Smoking

Before Your Operation

SURGICAL PATIENT  
EDUCATION PROGRAM  
Prepare for the Best Recovery



## Did you know that before surgery is the best time to quit smoking?

- ✓ You will decrease your risk of complications.
- ✓ Hospitals are a smoke-free environment, so you won't be tempted.
- ✓ The quit rate is much higher when you quit before your operation.

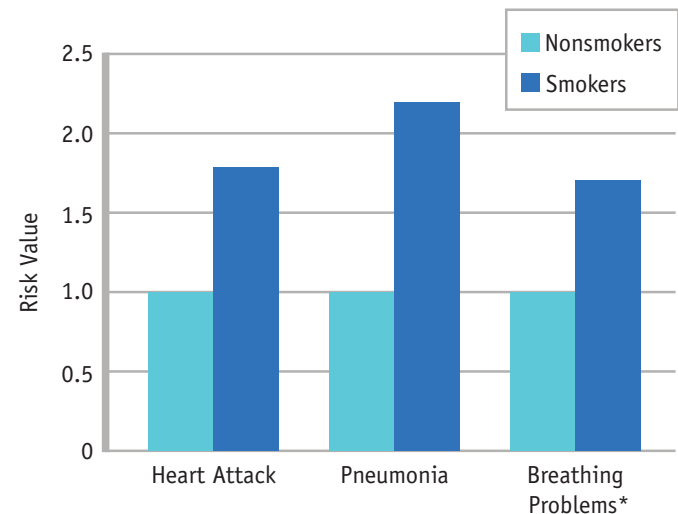
Do your part and quit now! *Your surgical team is here to help.*

## Smoking Increases Your Risk of Heart and Breathing Problems<sup>1</sup>

Smoking increases the mucus in the airways and decreases your ability to fight infection. It also increases the risk of pneumonia and other breathing problems. Airway function improves if you quit 8 weeks before your procedure.

The nicotine from cigarettes can increase your blood pressure, heart rate, and risk of arrhythmias (irregular heart beat). The carbon monoxide in cigarettes decreases the amount of oxygen in your blood. Quitting at least 1 day before your operation can reduce your blood pressure and irregular heart beats.

Smokers have an increased risk of blood clots and almost twice the risk of a heart attack as nonsmokers.



\*Breathing problems such as coughing, wheezing, and low oxygen levels are increased in smokers.

A smoker is **2.2 times more likely to get pneumonia** than a nonsmoker. So if a nonsmoker has a 10 percent risk, a smoker has a 22 percent risk.



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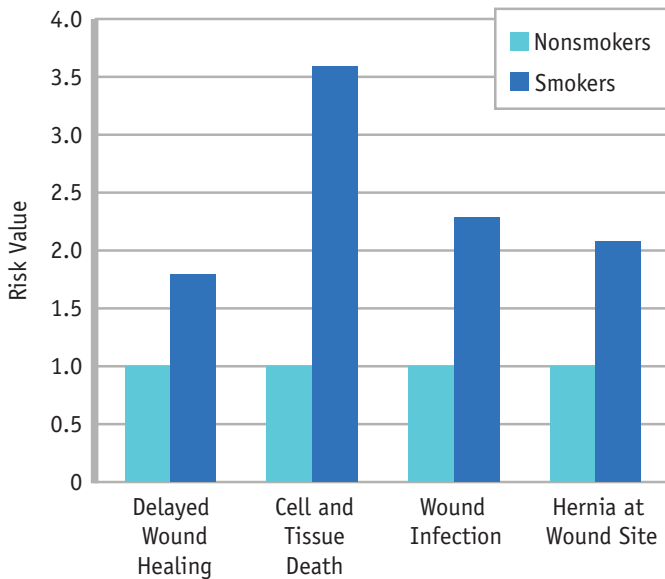
100+ years

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### Smoking Increases Your Risk of Wound Complications<sup>2</sup>



Oxygen is needed for your tissues to heal. Smoking can decrease the amount of blood, oxygen, and nutrients that go to your surgical site. **A smoker has almost 4 times the risk of tissue damage at the surgical site.**<sup>3</sup>

Smoking interferes with all phases of wound healing. It also decreases the ability of the cells to kill bacteria and fight infection. Having a wound infection increases the average length of stay by 2 to 4 days. Quitting 4 weeks before a surgical procedure reduces postoperative complications by 20 to 30 percent.

#### Studies identify that patients who smoke have:

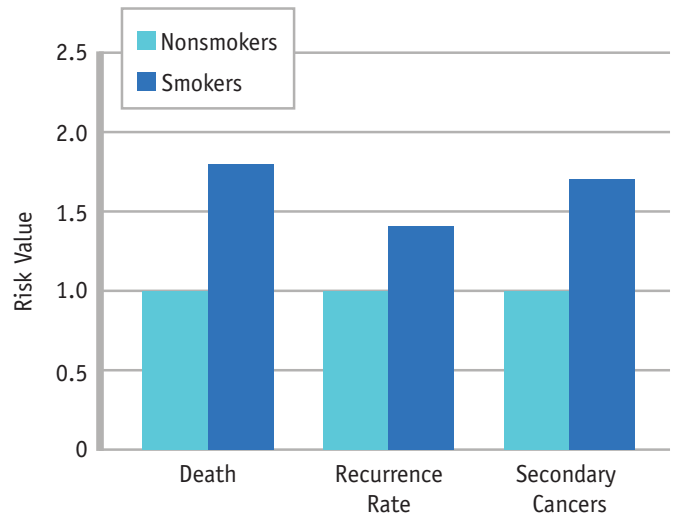
- Increased wound infection and splitting open of the wound in patients having general surgery or hip and knee replacements.
- Increased sternal (chest bone) wound infection after coronary bypass surgery.
- Increased wound necrosis (tissue death) after mastectomy and breast reconstruction.
- Increased incisional and recurrent inguinal hernias.
- Lack of bone healing after orthopaedic surgery.
- Delayed healing and tissue death in plastic surgery.
- Greater pain intensity and higher amounts of narcotics needed for pain control.

### Smoking Cessation at the Time of Surgery May Be the Best Time to Quit

- Smoking cessation counseling before a surgical procedure increases the quit rate.
- Multiple approaches (counseling plus medication) work best to help you stay quit for life.
- You will most likely be receiving pain medication after surgery, which will decrease your withdrawal effects.



### Smoking Increases Your Risk of Cancer Recurrence<sup>4</sup>



In cancer survivors, **continued smoking increases the risk of death** from cancer and other diseases. It also increases your risk of developing another cancer.

Secondhand smoke causes lung cancer in both children and adults who don't smoke.<sup>4</sup>

## Treatment

The following treatments are proven to be effective for smokers who want help to quit. Be sure to discuss with your doctor what is right for you.

- **Cold turkey:** Quitting on your own because you are motivated to have a successful surgery.
- **Smoking cessation counseling with your doctor/professional.**
- **Telephone counseling: Call the Quit Line at 1-800-QUIT-NOW (1-800-784-8669).** Help is free and all information is confidential.
- **Behavior therapy:** Training to help you cope when you want a smoke.
- **Medications, including:**
  - ◆ **Varenicline (Chantix) and bupropion SR (Zyban)** both require a prescription and are started 1 to 2 weeks before quitting.
  - ◆ **Nicotine replacement therapy (NRT)** delivers a safer source of nicotine than cigarettes, may decrease the withdrawal effect, and may help prevent overeating.
- **The health effects of electronic cigarettes (e-cigarettes) as a quit method and the vapors they give off are unknown.** Initial lab tests conducted by the FDA found levels of toxic cancer-causing chemicals.<sup>5</sup>

Medication	How Do I Take This?	When Do I Begin?
Varenicline*	Orally with a meal and water	1 to 2 weeks before quitting
Bupropion*	Orally; dose is decreased day by day	1 to 2 weeks before quitting
Nicotine patch	Apply patch to the skin	Do not smoke; use as directed
Nicotine gum	Chew	Do not smoke; use as directed
Nicotine lozenge	Dissolve in the mouth	Do not smoke; use as directed
Nicotine inhaler*	Spray in the back of the throat	Do not smoke; use as directed
Nicotine nasal spray*	Spray in the nose	Do not smoke; use as directed

\*Available only with a prescription

## Helpful Resources

### Quit Line Phone Number

1-800-QUIT-NOW or 1-800-784-8669

### National Cancer Institute Tobacco Line

1-877-448-7848

(also available in Spanish)

### American Lung Association

[www.lungusa.org](http://www.lungusa.org)

### Government Quit Smoking Resources

<http://teen.smokefree.gov>

<http://espanol.smokefree.gov>

<http://women.smokefree.gov>

### Center of Disease Control

Quit lines and access to all online state tobacco information:

[www.cdc.gov/tobacco/state\\_system/index.htm](http://www.cdc.gov/tobacco/state_system/index.htm)

### American Society of Anesthesiologists

[www.asahq.org/stopsmoking/provider](http://www.asahq.org/stopsmoking/provider)

## References

1. Turan A, Mascha EJ, Roberman D, Turner PL, et al. Smoking and perioperative outcomes. *Anesthesiology*. 2011;114(4):837-846.
2. Sørensen LT. Wound healing and infection in surgery. The clinical impact of smoking and smoking cessation: A systematic review and meta-analysis. *Arch Surg*. 2012;147(4):373-383.
3. Sørensen LT. Wound healing and infection in surgery: The pathophysiological impact of smoking, smoking cessation and nicotine replacement therapy: A systematic review. *Ann Surg*. 2012 Jun;255(6):1069-1079.
4. U.S. Department of Health and Human Services. The Health Consequences of Smoking-50 Years of Progress. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Printed with corrections, January 2014. [www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf](http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf).
5. U.S. Food and Drug Administration. FDA and Public Health Experts Warn about Electronic Cigarettes. July 22, 2009. Available at [www.fda.gov/newsevents/newsroom/pressannouncements/ucm173222.htm](http://www.fda.gov/newsevents/newsroom/pressannouncements/ucm173222.htm).

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### Your Action Plan. Doing Your Part for the Best Surgical Recovery.



My quit day is: \_\_\_\_\_

Pick the day and mark your calendar.

Getting Help	My Action (Write in boxes below)
Call the quit line.	1-800-QUIT-NOW or 1-800-784-8669
Decide on a plan, like using nicotine replacement or going to a smoking cessation class.	My plan instead of smoking:
If you use varenicline or bupropion, take your dose each day leading up to your quit day as instructed.	Start date for medication:
Ask your friends and family to support you.	Who will help:
Remove all tobacco products from your home, car, and work.	I got rid of tobacco on: Sign:
Stock up on oral substitutes like gum or hard candy, carrot sticks, or straws.	What I like to chew on:
Think about any previous quit attempts and what worked and what did not.	What worked: What did not work:
On Your Quit Day	My Action (Write in boxes below)
Keep busy and active. Drink lots of water or fruit juice.	What I am doing instead:
Rely on your friends and family for encouragement.	Who is helping?
Avoid being around other smokers at first as much as possible.	I feel comfortable around:
Avoid alcohol or coffee if you associated them with smoking.	I need to avoid:
Change your routine and avoid situations where there is an urge to smoke.	What do I like to do when there is no smoking?

"I Can Quit" Plans \_\_\_\_\_

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This information is provided by the American College of Surgeons (ACS) to educate you about preparing for your surgical procedure. It is not intended to take the place of a discussion with a qualified surgeon who is familiar with your situation. The ACS has endeavored to present information for prospective surgical patients based on current scientific information; there is no warranty on the timeliness, accuracy, or usefulness of this content.

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