



When Seconds Count...  
Physician Anesthesiologists Save Lives.™



## Education and Training Can Mean the Difference Between Life and Death

Physician anesthesiologists are highly trained medical doctors who save lives.

Surgical and other medical procedures relieve pain and in many cases extend and save lives, but all procedures carry risks.

As highly trained medical doctors with 12 years to 14 years of education and 12,000 hours to 16,000 hours of clinical training, physician anesthesiologists diagnose and treat potentially life-threatening medical issues that arise suddenly during surgery or other procedures. Their superior education in anesthesia, pain and critical care medicine prepares a physician anesthesiologist to medically manage the entire human body and all of its systems, properly preparing them to evaluate, diagnose, treat and manage the full spectrum of medical conditions and patient needs before, during and after surgery.

Physician-led anesthesia care saves lives.

Physician anesthesiologists prevented 6.9 excess deaths per 1,000 cases in which an anesthesia or surgical complication

occurred, according to an independent outcomes study published in the peer-reviewed journal *Anesthesiology*.<sup>1</sup>

Physician anesthesiologists deliver anesthesia and/or lead the Anesthesia Care Team, supervising anesthesiology residents, nurse anesthetists, anesthesiologist assistants and other health care professionals, to provide **the best possible patient outcomes**.

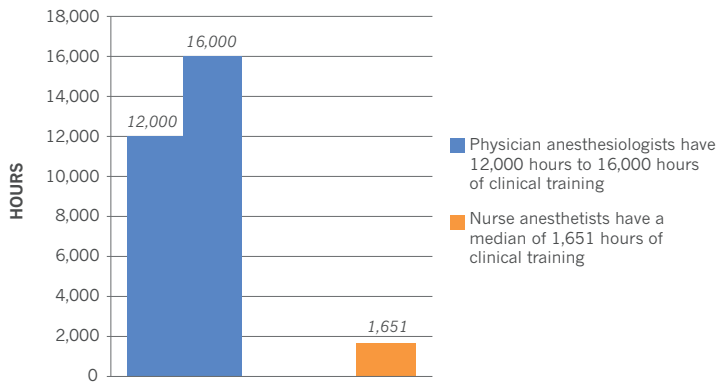
Nurses play an important role on the team, but it's essential to remember: **A nurse cannot replace a physician.** *It's too risky to administer anesthesia without the supervision of a physician.*

Physician anesthesiologists complete nearly double the education and 10 times the clinical training of nurse anesthetists.

Physician anesthesiologists have medical degrees. Nurse anesthetists have nursing degrees. Significant differences exist between physician anesthesiologists' and nurse anesthetists' education, training and responsibilities:

PHYSICIAN ANESTHESIOLOGISTS	NURSE ANESTHETISTS
<ul style="list-style-type: none"> <li>• <b>Medical degree (either M.D. or osteopathic) following bachelor's degree (8 years total)</b> <ul style="list-style-type: none"> <li>+ 1-year postdoctoral internship</li> <li>+ 3-year postdoctoral residency in anesthesiology</li> <li>- Board-certified physicians may complete an additional 1 year to 2 years of subspecialty education and training in one of the recognized anesthesiology subspecialty areas after successful completion of a postdoctoral residency</li> </ul> </li> </ul> <p><b>Total of 12 years to 14 years after high school</b></p>	<ul style="list-style-type: none"> <li>• <b>Bachelor's degree in nursing (not required prior to 1982)—approximately 20% to 25% of nurse anesthetists have only:</b> <ul style="list-style-type: none"> <li>- 2-year associate RN degree, or</li> <li>- 3-year diploma RN degree in nursing after high school</li> </ul> </li> <li>+ 1 year working as a nurse in an acute care setting</li> <li>• Master's degree from graduate school of nursing (not required prior to 1998)</li> <li>• No subspecialty training in nurse anesthesia</li> </ul> <p><b>Total of 5 years to 7 years after high school</b></p>
<ul style="list-style-type: none"> <li>• Medical education and training covers:           <ul style="list-style-type: none"> <li>- Continuum of the human life cycle including health and disease, functioning of all vital systems</li> <li>- Emphasis on diagnosis and treatment, indications and contraindications</li> <li>- Comprehensive medical care</li> <li>- Preventive care</li> <li>- Acute and chronic care</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Nurse anesthesia education and training covers:           <ul style="list-style-type: none"> <li>- Basics of anatomy, physiology and pharmacology</li> <li>- Principles and techniques of nurse anesthesia</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>12,000 hours to 16,000 hours of clinical training</b></li> <li>• Trained to provide comprehensive medical care to patients needing anesthesia, pain medicine or critical care services</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Median of 1,651 hours of clinical training</b></li> <li>• Trained to administer and assist in the provision of anesthesia services</li> </ul>

## Physician Anesthesiologists Have 10x More Hours of Clinical Training Than Nurse Anesthetists



### A Doctor of Nursing Practice degree isn't expected to expand nurses' scope of practice.

National nursing associations have recommended that advance practice registered nurses (APRNs), including nurse anesthetists, complete Doctor of Nursing Practice degrees (DNPs). The DNP will be required for nurse anesthetists by 2025.

The DNP is not equivalent to a Doctor of Medicine degree or Doctor of Osteopathic Medicine degree and the DNP "will not alter the current scope of practice for APRNs," according to the American Association of Colleges of Nursing. The group said it expects DNP graduates to seek positions as leaders of quality initiatives, executives in health care organizations, clinical program directors and faculty. No state boards of nursing have mandated the DNP as a requirement for nurse anesthetists.

### Take action. Protect patients.

Protect your constituents. Advocate for patient-centered, physician-led anesthesia care to ensure the highest-quality and safest medical care. Patients deserve no less.

1. Silber JH, Kennedy SK, Even-Shoshan O, Chen W, Koziol LF, Showan AM, Longnecker DE. Anesthesiologist direction and patient outcomes. *Anesthesiology*. 2000;93(1):152-63.



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To learn more about patient-centered, physician-led anesthesia care and the medical specialty of anesthesiology, please visit [www.asahq.org/WhenSecondsCount](http://www.asahq.org/WhenSecondsCount) or email [WhenSecondsCount@asahq.org](mailto:WhenSecondsCount@asahq.org).