

ANESTHESIOLOGIST ASSISTANT

Certified Anesthesiologist Assistant (CAA)
Certified Nurse Anesthetist (CRNA)



What is a Certified Anesthesiologist Assistant?



- Certified Anesthesiologist Assistants (CAAs) are highly skilled health professionals who work under the direction of licensed anesthesiologists to implement anesthesia care plans. CAAs work exclusively within the anesthesia care team environment as described by the American Society of Anesthesiologists (ASA). All CAAs possess a premedical background, a baccalaureate degree, and also complete a comprehensive didactic and clinical program at the graduate school level. CAAs are trained extensively in the delivery and maintenance of quality anesthesia care as well as advanced patient monitoring techniques. The goal of CAA education is to guide the transformation of qualified student applicants into competent health care practitioners who aspire to practice in the anesthesia care team.
- Certified Anesthesiologist Assistants and certified registered nurse anesthetists are both defined as "non-physician anesthetists" within the Centers for Medicare & Medicaid Services section of the Code of Federal Regulations.

Educational Differences Between CAAs and Nurse Anesthetists

Although both are considered to be equivalent clinical non-physician anesthesia providers and may serve as physician extenders in the delivery of anesthesia, CAAs and CRNAs are very different with regard to their educational background, training pathway and certification process.

CAA

- Bachelor's degree with prerequisites typical of premedical coursework
- Take the MCAT or GRE
- A clinical background is ideal, but not required
- Minimum of 24-28 months in a Master's level program accredited by the CAAHEP, based at, or in collaboration with, a university that has a medical school and academic anesthesiologist physician faculty, with at least one director that is a licensed, board-certified anesthesiologist
- Each CAA program must have at least one director that is a licensed, board-certified anesthesiologist
- Main clinical sites must be academic medical centers
- Average of 600 hours class/lab, 2600 hours of clinical anesthesia ed, and more than 600 anesthetics administered, including all types of surgery

CRNA

- Must have a bachelor's degree in nursing or another appropriate area and license to practice as a registered nurse
- Take the GRE or MAT, prior to matriculation
- Minimum of 24 months in a Master's level program accredited by the COA, at any college or university
- Minimum of 450 hours of class/lab, 800 hours of clinical anesthesia ed, administration of 450 anesthetics, including all types of surgery



What Do CAAs and CRNAs Do?

Under the medical direction and supervision of an anesthesiologist, the CAAs functions include, but are not limited to, the following:

- Making the initial approach to a patient of any age in any setting to obtain a preliminary preanesthetic health history, perform an appropriate preanesthetic physical examination and record pertinent data in an organized and legible manner for review by an anesthesiologist. These activities help to define the patient's current physical status as it relates to the planned anesthetic.
- Performing or assisting in the conduct of diagnostic laboratory and related studies as appropriate, such as drawing arterial and venous blood samples.
- Establishing noninvasive and invasive routine monitoring modalities as delegated by the responsible anesthesiologist.
- Assisting in the application and interpretation of advanced monitoring techniques such as pulmonary artery catheterization, electroencephalographic spectral analysis, echocardiography and evoked potentials.
- Assisting in inducing, maintaining and altering anesthesia levels, administering adjunctive treatment and providing continuity of anesthetic care into and during the postoperative recovery period.

[More...](#)

CRNAs have the main responsibility of administering anesthesia and monitoring patients through their surgeries. CRNA functions also include, but are not limited to, the following:

- Completing physical assessments of each patient
- Discussing the surgery and recovery with the patient prior to the procedure
- Preparing and administering the patient-specific amount of anesthesia needed for the procedure
- Maintaining the patient's anesthesia levels during surgery
- Ensuring proper anesthesia recovery for patients until patients are transferred to care units

[More...](#)

Working Conditions and Salary

Working Conditions

- Anesthesiologist assistants work in hospitals and surgery centers under the direction of a licensed anesthesiologist. The profession maintains a typical work week with options for on-call, evening or weekend assignments.

Salary Range and Outlook

- Anesthesiologist assistants are in high demand, because of the need for skilled personnel to deliver anesthesia. Anesthesiologist assistants operate as physician extenders, performing critical tasks that ensure the safety of the patient and promote optimal health outcomes.

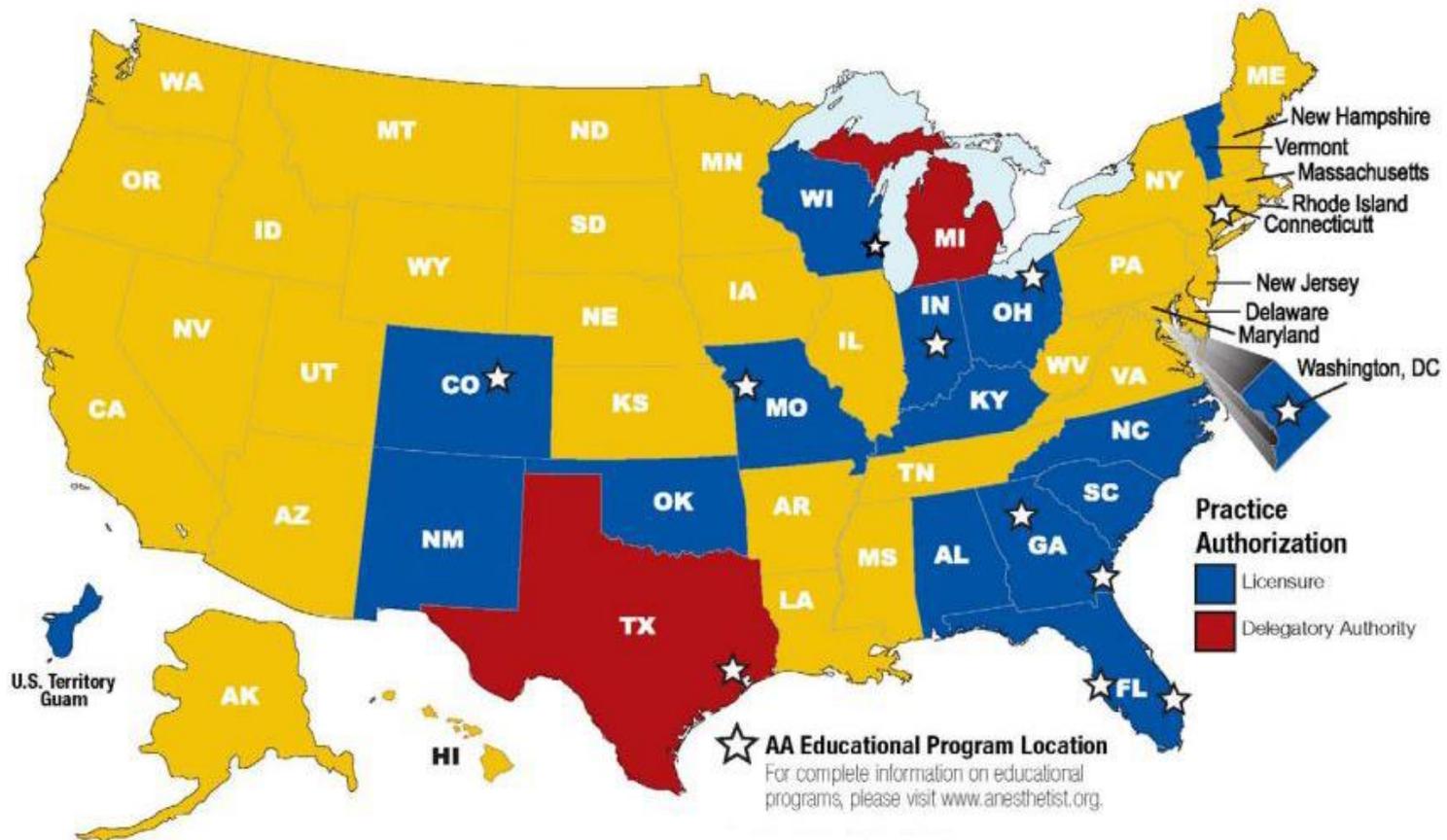
The average salary range for anesthesiologist assistants is \$95,000-180,000.

When employed within the same department and when possessing the same job description and experience level within the anesthesia care team, CAAs and CRNAs are compensated with identical salary and benefit packages. (per [AAAA](#))

Can CAAs and CRNAs Practice Without Supervision?

- In addition to the practical issues that limit how many anesthetists may be supervised by an anesthesiologist at any one time, ratios are also often specified as contract requirements from payors. For instance in order to meet the Centers for Medicare and Medicaid Services (CMS) requirements for medical direction, no more than 4 anesthetists (CAAs or CRNAs) may be concurrently directed by an anesthesiologist.
- The supervision ratio may also be defined in state law or Board of Medicine guidelines and is usually between 2:1 and 4:1. Check the regulations in your state for the applicable standard. It is important to note that in states where statutes specify a supervision ratio of CAAs to anesthesiologists at less than 4:1, the anesthesiologist may also concurrently supervise CRNAs up to a total combined ratio of 4:1 for both non-physician anesthetists.
- CMS recognizes both CRNAs and CAAs as non-physician anesthesia providers. Similarly, commercial insurance payors make no distinction between the two anesthetist types with regard to payments for services provided under medical direction by an anesthesiologist.
- According to the United States Code of Federal Regulations: If the hospital furnishes anesthesia services, they must be provided in a well-organized manner under the direction of a qualified doctor of medicine or osteopathy. The service is responsible for all anesthesia administered in the hospital.

Where are CAAs Practicing?



*CAAs may practice at any Veterans Affairs facility in all 50 states

UPDATED: MARCH 2017

Why Should You Consider a Career as a CAA?



- Joining an Anesthesia Care Team as a CAA is an extremely rewarding career. CAAs medically manage patient conditions under anesthesia, expand access and quality of anesthesia care to rural and under-served areas, and are advocates for patient safety.
- The job outlook for CAAs is very favorable. Many AA students receive multiple job offers before they even graduate. The starting salary for CAAs is about \$110,000 annually, with generous sign on bonuses, an average of five weeks vacation each year, pension and profit sharing, and other excellent benefits.

Why Become a CRNA?

- Certified Registered Nurse Anesthetists (CRNAs) are special people: compassionate, vigilant in their responsibilities, protective of and advocates for their patients. They dedicate themselves to one patient at a time, watching over them and seeing that the patient is pain free during surgery.

What makes someone want to dedicate their careers to the nurse anesthesia profession? Read about these amazing healthcare professionals in their own words.



Mary Nguyen, DNP, CRNA

- CRNA since 2017
- The decision came naturally...



Gloria Spires, BS, CRNA

- CRNA since 1975
- My aunt, a surgical nurse inspired me...



Johnny Moore, CRNA

- CRNA since 1976
- Not the most direct path...



Ryan Pettit, DNP, CRNA

- CRNA since 2015
- I was in finance, until the stock market crashed...

[More...](#)

CAA Educational Programs

- [Emory University](#) - Atlanta, Georgia
- [Case Western Reserve University](#) - Cleveland, Ohio
- [Case Western Reserve University](#) - Houston, Texas
- [Case Western Reserve University](#) - Washington, D.C.
- [Indiana University](#) - Indianapolis, IN
- [South University](#) - Savannah, Georgia
- [Nova Southeastern University](#) - Fort Lauderdale, Florida
- [Nova Southeastern University](#) - Tampa, Florida
- [University of Missouri Kansas City](#) - Kansas City, Missouri
- [Quinnipiac University](#) - Hamden, Connecticut
- [University of Colorado](#) - Aurora, Colorado
- [Medical College of Wisconsin](#) – Milwaukee, Wisconsin



Reading of Potential Interest:

Case Western Reserve University MS in Anesthesia Newsletter



The Anesthetist

In this issue:

CWRU Shifts to More Holistic Admissions Process
New Location for Houston Allows for Expansion
Spring 2019 Health Professions Fairs

Sample CAA Curriculum

from the University of Missouri-Kansas City

Year 1 - Didactic Phase

Spring

Anatomy for Anesthesiologist Assistants
Professionalism for Anesthesiologist Assistants I
Patient Monitoring and Instrumentation
Physiology for Anesthesiologist Assistants I
Introduction to Anesthesia
Orientation to Simulation & Clinical Application
Pharmacology for Anesthesiologist Assistants I
Research Applications in Medicine

Summer

Professionalism for Anesthesiologist Assistants II
Methods of Anesthesia I
Physiology for Anesthesiologist Assistants II
Anesthesia and Coexisting Disease I
Anesthesia Clinical Experience I
Physiological Model-based Simulation I

Fall

Anatomy for the Anesthesiologist Assistant II
Professionalism for Anesthesiologist Assistants III
Anesthesia and Coexisting Disease II
Anesthesia Clinical Experience II
Pharmacology for Anesthesiologist Assistants II
Methods of Anesthesia II
Physiological Model-based Simulation II

Year 2 - Clinical Phase

Spring

Anesthesia Clinical Correlation II
Anesthesia Clinical Experience III

Summer

Anesthesia Clinical Correlation III
Anesthesia Clinical Experience IV

Fall

Anesthesia Clinical Correlation IV
Anesthesia Clinical Experience V

Year 3 - Clinical Phase

Spring

Senior Seminar
Anesthesia Clinical Experience VI

Nurse Anesthesia Educational Programs

- Columbia School of Nursing, New York, NY
- Frances Payne Bolton School of Nursing, at Case Western, Cleveland, OH
- Yale School of Nurse Anesthesia, New Haven, CT
- University of Pennsylvania School of Nursing, Philadelphia, PA
- Mayo Clinic, Rochester, MN
- Drexel University College of Nursing and Health Professions, Philadelphia, PA
- Jefferson College of Nursing, Philadelphia, PA
- Boston College Connell School of Nursing, Chestnut Hill, MA

Sample Nurse Anesthesia Program Curriculum

from the University of Pennsylvania

Year 1

Summer

Advanced Physiology and Pathophysiology
 Basic Principles of Nurse Anesthesia Practice
 Advanced Physical Assessment & Clinical Design Making
 Applied Physiology for Nurse Anesthetists I

Fall

Pharmacology of Anesthetics and Accessory Drugs I
 Basic Principles of Nurse Anesthesia Practice II
 Advanced Pharmacology and Therapeutics for Nursing Practice
 Applied Physiology for Nurse Anesthetists II
 Clinical Fieldwork for Nurse Anesthesia Practice I

Spring

Current Issues in Health and Social Policy
 Adv. Principles of Nurse Anesthesia Practice:
 Obstetrics, Pediatrics, & Women of Childbearing Age
 Introduction to Research Methods and Design
 Applied Science Related to Anesthesia
 Clinical Fieldwork for Nurse Anesthesia Practice II

Year 3

Summer

Nursing Informatics
 Nurse Anesthesia Residency III
 DNP Project Implementation (DNP Project #3)
 Professional Aspects & Leadership for Nurse Anesthesia Practice

Fall

Conceptual & Theoretical Foundations of Advanced Nursing Practice
 Nurse Anesthesia Residency IV
 Health Care Economics & Business Planning
 DNP Project Evaluation & Dissemination (DNP Project #4)

Spring

Nurse Anesthesia Residency V

Year 2

Summer

Introduction to Principles and Methods of Epidemiology
 Advanced Principles of Nurse Anesthesia Practice:
 Cardiac, Vascular & Thoracic Surgery
 Clinical Fieldwork for Nurse Anesthesia Practice III
 Translating Research & Evidence into Practice (DNP Project #1)

Fall

Adv. Principles of Nurse Anesthesia Practice:
 Neurosurgery, Orthopedics, Pain Management & Trauma
 Leadership Development in Healthcare
 Nurse Anesthesia Residency I
 DNP Project Planning (DNP Project #2)

Spring

Advanced Principles of Nurse Anesthesia Practice: Specialty Surgery
 Pain, Science & Practice
 Data Analytics
 Nurse Anesthesia Residency II
 Principles & Practice of Quality Improvement &
 Patient Safety/Systems Thinking in Patient Safety

The Certification Process for CAAs and CRNAs

- Upon completion of an accredited nurse anesthetist program, a student may become certified by passing the Council for Certification of Nurse Anesthetists certification exam. This examination is an adaptive computer examination consisting of 90-160 questions. Forty hours of approved Continuing Education Units (CEU) are required every two years in order to recertify. To be recertified, nurse anesthetists are not required to pass any further testing. The NCCRNA has proposed a new recertification process requiring CRNAs to pass a recertification exam every 8 years beginning in 2015. If this measure is adopted all CRNAs will have passed a recertification exam by 2023.
- Upon completion of an accredited AA program, a student may become certified by passing the NCCAA examination. The examination is administered and scored by the National Board of Medical Examiners as part of services contracted to NCCAA. Performance information for test items and the overall exam are provided by NBME. NCCAA uses this data to set the passing score and provides notification of certification. NCCAA awards a time-limited certificate to each candidate who successfully completes the Certifying Examination.
- To re-certify, an AA must complete 40 hours of CME every two years and register the activities with NCCAA. Additionally, AAs must take the Continuing Demonstration of Qualification Exam every six years.

For More Information

- American Academy of Anesthesiologists Assistants <https://www.anesthetist.org/>
- The Association of Anesthesiologist Assistant Program Directors <http://www.aaapd.org/>
- Anesthesia Patient Safety Foundation <https://www.apsf.org/>
- Commission on Accreditation of Allied Health Education Programs <https://www.caahep.org/>
- American Society of Anesthesiologists <https://www.asahq.org/>
- National Commission for Certification of Anesthesiologist Assistants <http://www.aa-nccaa.org/>
- American Association of Nurse Anesthetists <https://www.aana.com/>
- The CRNA <https://thecrna.com/>
- Registered Nurse RN <https://www.registerednurses.com/>