



Duke Anesthesiology

How can Duke Anesthesiology care for you?



「Anesthesiology is more than just “putting you to sleep...”」

Anesthesiologists are with you from the start of your procedure to the finish.

- * Anesthesia is given to you to ensure unconsciousness, prevent and treat pain, and relax your muscles during surgery so the procedure can be done with utmost precision.
- * We care for your breathing, your brain, your heart, your circulation, your kidneys and other important bodily functions during surgery.
- * After surgery, we care for your pain needs. We want to make you as comfortable as possible.

Duke anesthesiologists are world leaders in improving perioperative care. Our expertise includes monitoring and protecting the brain, heart, and kidneys during surgery, managing pain during and after surgery, and reducing nausea, vomiting and other undesirable occurrences after surgery. Our physicians have the knowledge and technology enabling these advances in medicine.

「Anesthesiology extends beyond the operating room and recovery room.」

We work in intensive care units to help restore critically ill patients to a stable condition. In childbirth, we manage the care of two persons; we provide pain relief for the mother while managing vital signs of both mother and baby.

Your participation in our research program makes anesthesia and surgery safer for yourself, your children, and many generations to come.

Duke Anesthesiology is recognized worldwide for the strength of its clinical research program. Some of the field's most significant discoveries were made here at Duke:

Tong J. Gan, MD discovered that acupuncture for treating chronic headache is more effective and has fewer side effects than medication. In addition, he found that acupuncture reduces the incidence of nausea and vomiting and the need for pain medication after surgery.

Stuart Grant, MD and the Regional Anesthesiology team improved the safety and reliability of nerve blocks by using ultrasound. Ultrasound allows the doctors to see the nerve that is being blocked while avoiding other structures such as blood vessels.

Mark F. Newman, MD and his team discovered that there was a strong correlation between cognitive dysfunction (difficulty with memory and concentration) and warming a patient too quickly after heart surgery. They found that patients who were allowed an additional 10 to 12 minutes to return to a normal body temperature after their procedure had better cognitive function after surgery. This practice of rewarming has since become a standard of care at medical institutions around the world.

Mihai Podgoreanu, MD and his colleagues are the first in the world to extend genetic research to examine the relationships between our genes and complications after surgery.

Dr. Podgoreanu's research is making huge strides in the direction of "personalized medicine," in which the treatments are tailored to the individual patient.

Scott Schulman, MD is making surgery safer for children by studying the safety of medications commonly given during and after surgery. Historically, drugs are rarely tested on children, but now there is a growing awareness that children need to be tested because they tend to react differently to medicines when compared to adults. Dr. Schulman is a leader in these trials sponsored by the National Institutes of Health.

The *future* of medicine, delivered *today*.

Your involvement in anesthesia research promotes positive outcomes and advancements for you and your loved ones. On behalf of Duke Anesthesiology, we thank you for trusting us with your care.

 **Duke Anesthesiology**
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Clinical Research

Duke Anesthesiology's research touches every patient. Our studies focus on making surgery safer as well as improving the quality of life after surgery. Our work continues to advance management of the following:

Nausea and vomiting

Pain

Kidney function

Genetic contributions to poor organ function (kidney, heart, brain)

Infection recovery

Bowel function

Migraine headaches

Stroke and heart attack

Please inform your doctor, nurse or staff if you are interested in joining us in a study!