

Boulder Valley Anesthesiology

- All board certified physician anesthesiologist group
 - 25 anesthesiologists
- Primarily service Boulder Community Health
 - Foothills Hospital
 - Boulder Musculoskeletal ASC
 - Foothills Surgery Center (at Anderson Medical Center)
- Also cover 4 outside surgery centers

Anesthesia: What to expect before, during and after surgery

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What is “anesthesia”?

- Anesthesia-
- Loss of **sensation** and **often loss of consciousness** without loss of vital functions artificially produced by the administration of one or more agents that block the passage of pain impulses along nerve pathways to the brain.

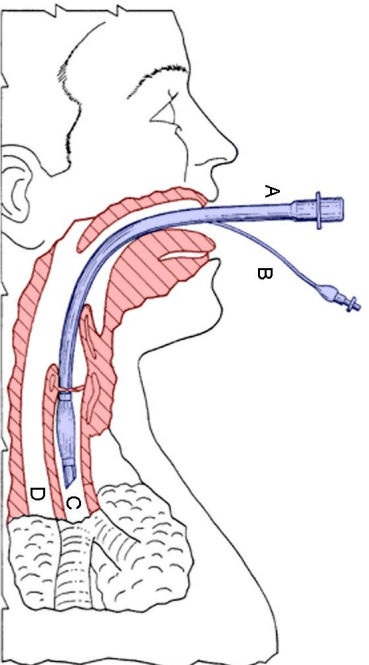
Types of Anesthesia

- General Anesthesia
- Sedation
- “light” vs “moderate” vs “heavy”
- Regional Anesthesia
 - Spinal and epidural
 - Blocks
 - Local

General Anesthesia vs Sedation

- General Anesthesia
 - Unarousable (out)
 - Necessary for certain procedures/surgeries
 - No memory of events
 - Often requires airway device (breathing tube)
 - Why do I have a sore throat?
- Sedation
 - Varies by type
 - Mild
 - Able to talk
 - Moderate
 - Sleepy but can be aroused if needed
 - Deep
 - Not easy (impossible) to arouse

Why do I have a sore throat?



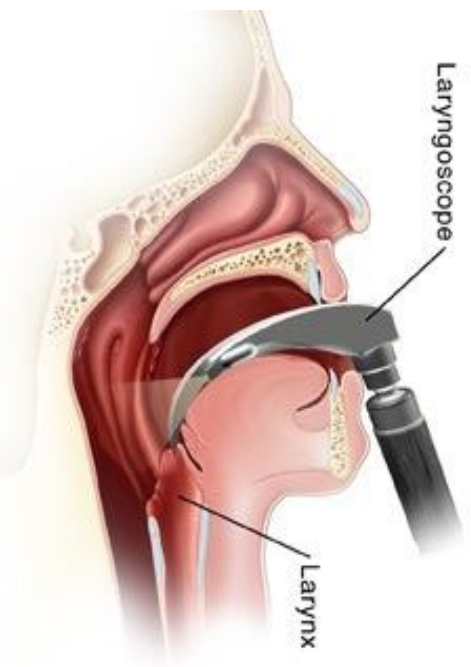
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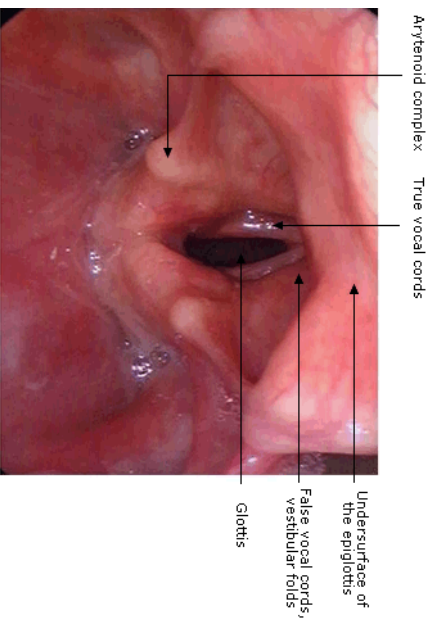
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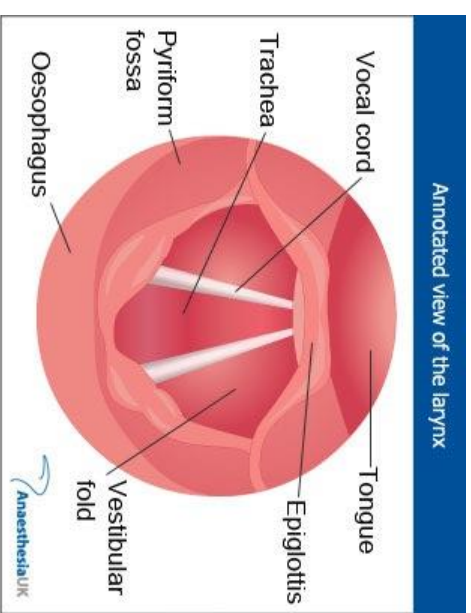
Why do I have a sore throat?



Why do I have a sore throat?



Why do I have a sore throat?



Why do I have a sore throat?



Why do I have a sore throat?



Regional Anesthesia

- Provide anesthesia to a region of the body
 - Largest area to smallest area
 - Spinal and Epidural
 - Blocks
 - “Local”

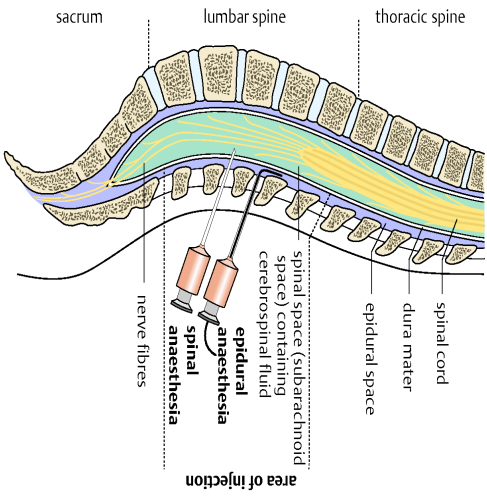
Why do I have a sore throat?



Spinal and Epidural with or without sedation

- **Spinal**
 - Single injection of local anesthetic in the spinal fluid
 - Patient very numb
 - Cannot be used for surgery in the upper body
 - Time limited
- **Epidural**
 - Placement of “local” anesthetic just outside the Dura
 - Dura = spinal column wrapping
 - Can place a catheter
 - Work for pain after surgery as well

Spinal and Epidural



Spinal



Epidural

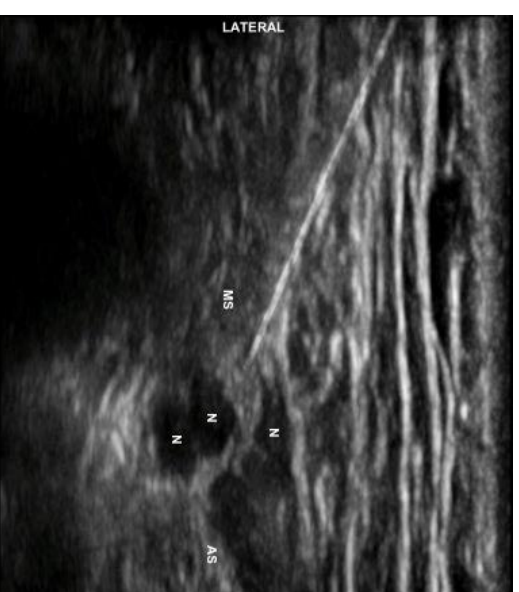
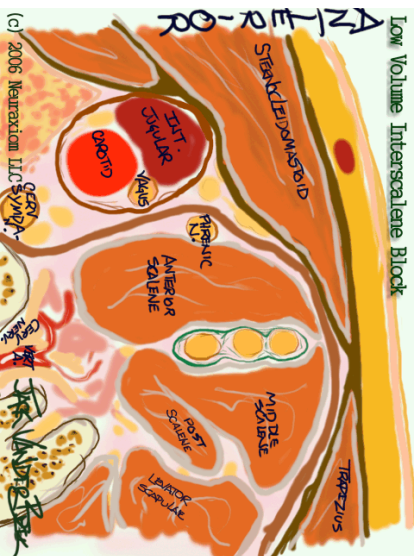


Blocks vs Local

Both can be with/without sedation

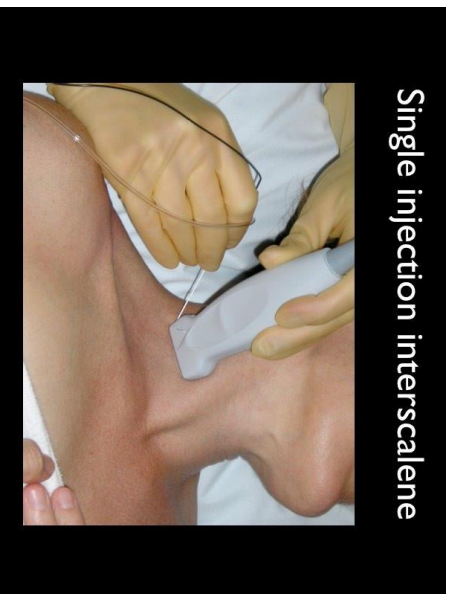
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| <p>Blocks</p> <ul style="list-style-type: none"> Place local anesthesia around nerves leading to the areas of the body where you will be having surgery. | <p>Local</p> <ul style="list-style-type: none"> Place local anesthesia directly into the area of surgery. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

Blocks



Blocks-Ultrasound

Single injection interscalene



Blocks-Nerve Stimulator



What is the process for surgery and anesthesia

- Surgeon schedules you for surgery
- Pre-Surgery Testing RN will call you before surgery.
 - 1 day to 4 weeks depending - earlier is better
 - When scheduled
 - Where schedule
 - Your health history
 - Complexity of case

What is the process for surgery and anesthesia

- An anesthesiologist will review any charts with questions from Pre-Surgery Testing prior to the day of surgery to make sure all needed testing is finished and okay.
 - Ideally this is 2 weeks before for bigger surgeries so we have time to get everything done to allow for as safe a surgery as possible.

What is the process for surgery and anesthesia

- Pre Surgery Testing will
 - Take your health history
 - Arrange for any testing needed which could include:
 - Lab tests
 - EKG
 - Consults
 - etc.

What is the process for surgery and anesthesia

- You will meet your anesthesiologist the day of surgery
 - At that point you will develop a plan
 - Frequently there is a “standard” way which will be recommended
 - e.g., podiatrists, total joints

What is the process for surgery and anesthesia

- Plan of anesthesia
 - Will be worked out between you and the anesthesiologist, with consideration to what the surgeon needs and wants.
 - Essentially pulling from the “menu”
 - General anesthesia
 - Spinal with sedation
 - Local with mild sedation

What to Expect After

- Partly depends on type of anesthesia
 - Common things are
 - Usually stay 1-2 hours after until
 - Awake and alert
 - Spinal worn off so legs have strength
 - Voided - sometimes
 - Eaten something (juice and crackers) without significant nausea
 - Stay longer if needed
 - Slow to recover
 - Medical issues - OSA

Common Side Effects (As opposed to Risks)

- | General anesthesia and deep sedation | Regional anesthesia with or without moderate sedation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Nausea is 10-15% risk depending on surgery• Will be groggy afterwards• Almost no chance of remembering the operating room• Maybe sore throat• Possible pain at surgical site | <ul style="list-style-type: none">• Nausea risk much lower• Only mildly groggy afterwards• Some chance of remembering being in the operating room (not pain)• Sore throat not likely• Possible pain at surgical site |

Risks - Why everybody worries

- All types are very safe
 - Generally was more dangerous to drive here tonight
 - Major risks are slightly different, but VERY low
 - General is not waking up or brain injury (<1:100,000)
 - Regional is nerve injury (<1:100,000)
 - Minor risks are still low
 - e.g., tooth injury with general anesthesia
 - Numbness for 1-2 weeks after regional

FAQ

- Will the anesthesiologist be with me the entire time?
- Are spinal really as dangerous as I keep hearing?
- I'm elderly, will anesthesia hurt my brain?
- Can I drive myself home or take the bus?
- When can I eat?

FAQ

- Will I wake up during my surgery?
- What about non-prescribed medications, including medical marijuana?
- Can I request a certain anesthesiologist?

Thank You

- Questions?