


Anesthetics



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-
- ❑ Benzocaine
 - ❑ Bupivacaine
 - ❑ Halothane
 - ❑ Ketamine
 - ❑ Lidocaine

- ❑ Midazolam
- ❑ Nitrous oxide
- ❑ Propofol
- ❑ Sevoflurane

Benzocaine

- **Local anesthetic**
- **Ester-type**
- **Blocks Na channels & nerve conduction**
 - **Topical anesthetic**
 - **Pain**
 - **Itching**
 - **Inflammation**
 - Burns
 - **Insect bites**
 - **Contact dermatitis**
 - Wounds

 - **Irritates skin when 1st applied**
 - Use caution w/ sunburn & large areas of skin
- Cross-sensitivity w/ other ester-type anesthetics

Bupivacaine

- **Local anesthetic**
- **Amide-type**
- **Blocks Na channels & nerve conduction**
 - Local or regional anesthetic
 - Surgical
 - Diagnostic
 - Obstetrical
 - therapeutic
- Cross-sensitivity w/ amide-type anesthetics

Halothane

- **General anesthetic**
- **Inhalational, halogenated hydrocarbon**
- **Potentiates GABA binding to GABA-A Cl ion channel**
 - **Suppresses sensory processing in thalamus**
 - General anesthetic
 - High blood:gas partition coefficient
 - **Slow rate of induction & recovery**
- Sensitizes heart to catecholamine-induced cardiac arrhythmia
- Hepatotoxic
 - Fluoride metabolites

Ketamine

- **IV anesthetic**
- **Glutamate antagonist**
- **Blocks glutamate NMDA receptors**
 - **Dissociate anesthesia**
 - **Analgesia**
 - **Immobility**
 - **Amnesia**

 - **Does NOT depression respiration or cause LOC**

 - **Anesthesia**
 - **Minor surgical & diagnostic procedures**
 - **Children**
- **Delirium**
- **Hallucination**
- **Irrational behavior during recovery**
- **↑ BP**

Lidocaine

- **Local anesthetic**
- **Amide-type**
- **Blocks Na channels & nerve conduction**
 - Topical
 - Infiltration
 - Nerve block
 - Epidural
 - Spinal anesthesia
 - Eutectic mixture
 - Lidocaine & prilocaine
 - Anesthetize intact skin for venipuncture
 - IV cannulation
 - Circumcism
- Cross-reactivity w/ amide-type anesthetics

Midazolam

- Sedative-hypnotic-anxiolytic
- Short-acting BZDP

- Potentiates GABA binding to GABA-A Cl ion channel
 - Sedation
 - Hypnosis
 - Amnesia

 - Preoperative sedation & anxiolysis
 - Sedation of mechanically vented pts

- Apnea
- Laryngospasm
- Respiratory depression
- Cardiac arrest

Nitrous Oxide

- Inhalation general anesthetic
- Anesthetic gas

- Potentiates GABA binding to GABA-A Cl ion channel
 - Suppresses sensory processing in thalamus

 - Minor surgery & dental procedures

 - Rapid induction & recovery
 - Euphoria – laughing gas

Propofol

- **General anesthesia**
 - **IV anesthetic**
 - **Diisopropyl phenol**

 - **Potentiates GABA binding**
GABA-A Cl ion channel
 - Hypnosis
 - Anesthesia
 - Amnesia

 - **NO analgesic effect**

 - Intubation & maintenance of general anesthesia
 - Sedation of intubated pts in ICU
- Bradycardia
 - Hypotension

Sevoflurane

- General anesthetic
- **Inhalation anesthetic**

- **Potentiates GABA binding to GABA-A Cl channel**
 - **Suppresses sensory processing in thalamus**
 - **Causes LOC**

 - General anesthesia