

We should never get a  
preoperative pregnancy  
test.

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## Disclosures

- None.

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EVERYTHING THAT GUY JUST  
SAID...

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## Why

- It is unnecessary
- It creates a major hassle; often leading to case delays
- "Elective" surgery is often not really elective.

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What are the  
concerns with  
anesthesia

- Fetal Demise
- Fetal malformations

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## Teratogenic effects of Anesthetic Agents

Three stages of teratogenicity:

1. All or none stage: between conception and implantation
2. Organogenesis: 18-58 days after conception
3. Growth: Organ size or function

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No anesthetic agent has been identified that is a definite human teratogen

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## Anesthetic agents

- ☐ Inhalational Anesthetics
- ☐ Induction Agents
- ☐ Neuromuscular blocking agents
- ☐ Local Anesthetics
- ☐ Opiates
- ☐ Benzodiazepines
- ☐ NSAIDS

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## Anesthetic agents

- ☐ Inhalational Anesthetics OK
- ☐ Induction Agents
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### Inhalational Agents

- No clinical data have linked inhalational agents with teratogenic outcomes
- N<sub>2</sub>O inhibits methionine synthase (oxidizes B12) but does not impact fetus after brief exposure.

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## Anesthetic agents

- ☒ Inhalational Anesthetics OK
- ☒ Induction Agents (Ketamine)
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### Induction Agents

- No clinical data have linked Etomidate, Propofol or Thiopental with teratogenic outcomes.
- Ketamine can cause uterine contractions in early pregnancy.

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## Anesthetic agents

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### Neuromuscular Agents

- Do not cross the placenta.
- Safe (unless you hurt the mother.)

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## Anesthetic agents

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  - ✓ Induction Agents (Ketamine) OK
  - ✓ Neuromuscular blocking agents OK
  - ✓ Local Anesthetics OK
  - Opiates
  - Benzodiazepines
  - NSAIDs
- Local Anesthetics**
- Almost no placental drug transfer
  - No teratogenic effects

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## Anesthetic agents

- ✓ Inhalational Anesthetics OK
  - ✓ Induction Agents (Ketamine) OK
  - ✓ Neuromuscular blocking agents OK
  - ✓ Local Anesthetics OK
  - ✓ Opiates OK
  - Benzodiazepines
  - NSAIDs
- Opiates**
- Experience with recovering addicts and pregnant patient treated for acute pain fail to show adverse outcomes
  - In ASC only given a few doses.
  - Multimodal pain improves these outcomes.

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## Anesthetic agents

- ✓ Inhalational Anesthetics OK
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  - ✓ Opiates OK
  - ✓ Benzodiazepines OK
  - NSAIDs
- Benzos**
- Previous retrospective studies found an association with oral clefts. (When moms would often be taking diazepam at home.)
  - SINCE DISCREDITED in better, more recent studies.

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## Anesthetic agents

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  - NSAIDs
- NSAIDs**
- Aspirin and Ibuprofen may be associated with increased risk for gastroschisis. Even though prospective studies have failed to show an association.
  - Naproxen with oral clefts

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WHICH WOULD BE A PROBLEM IF WE WERE THE PRIMARY SOURCE FOR THOSE MEDICATIONS

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## Anesthetic agents

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- NSAIDs**
- Aspirin and Ibuprofen may be associated with increased risk for gastroschisis. Even though prospective studies have failed to show an association.
  - Naproxen with oral clefts
  - Considered safe in first trimester

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## What are the concerns with anesthesia

- Fetal Demise
- Fetal malformations

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## What are the concerns with anesthesia

- ~~Fetal Demise~~
- Fetal malformations

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## Unnecessary hassle

- Patients can now "opt-out"
- Case delays from unavailable urine samples.
- Not accounted for in the studies alluded to that demonstrate a very "low cost."
  - They also don't account for the grey hair on my head.

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## "Elective Surgery" is often not really elective.

Ask patients to test themselves when it is a truly elective procedure.

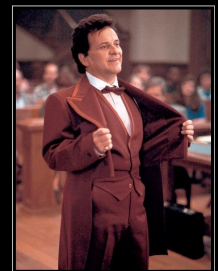
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Most anesthesiologists agree that anesthesia is generally safe during pregnancy. Opting out of testing would not otherwise be a thing.

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## Thank you

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WEARING A WORK UNIFORM  
"I wore this ridiculous thing for YOU"

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