

Pacific Dental Anesthesia, LLC

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Pregnancy and Dentistry

What is a Cochrane Type Study? Studies are selected or rejected based on:

1. Relevance 2. Strengths and weaknesses 3. Systematic collection of data. 4. Appropriate synthesis of data.

First Trimester-0 to 13 weeks-Abnormal-Development-

- Teratogens
 - drugs
- Mutagens
 - radiation

Second Trimester-14 to 27 weeks-

- Pregnancy Loss
- Medical Complications
 - Risk Assessment
 - Medical history
 - Gestational Diabetes
 - Eclampsia/Pre-eclampsia
 - Hypertension
 - Reproductive history --TPAL
 - Physical exam including blood pressure and heart rate

Third Trimester-28 weeks to term

- Physiologic Compromise
 - Cardiovascular
 - supine hypotensive syndrome
 - Pulmonary
 - oxygen reserve
 - Metabolism--Pharmacologic
 - NSAIDS
 - opioids
 - local anesthetics
 - safe drugs?

Postpartum

- Coagulation
 - 25 days
- Breast feeding
 - 5 half lives

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RECOMMENDATIONS FOR THE CLINICIAN

Avoidance of treatment in the first 10 weeks of pregnancy because teratogenic risk is highest. Keep in mind that an active infection may have a higher risk of adverse outcome than necessary treatment. Ideally, defer routine care between weeks 14 and 27.

Sulfonamides, nitrofurantoin, tetracyclines and quinolones seem to be associated with birth defects and should be avoided.

Radiographs may be taken as necessary, with appropriate precautions being taken to protect the fetus and the patient, such as a lead apron, a tightly collimated beam, and high-speed film.

All pregnant women requiring care need a thorough risk assessment including TPAL and medical history, with particular attention given to blood pressure (preeclampsia) and blood sugar (gestational diabetes).

Strict adherence to good local anesthetic technique is required. Aspiration to avoid intravascular injection, needle placement accuracy, and limiting to safe dosages is advised.

Vasoconstrictors decrease toxicity of anesthetics and can be used safely if intra-vascular injection is avoided.

Ester anesthetics should be avoided because of allergenicity. History of sulfite allergies should be considered.

Lidocaine is the local anesthetic most studied and least associated with medical complications. Other amide or hybrid anesthetics can also be used safely, albeit with slightly higher risk of adverse outcome.

In second and third trimesters, blood pressure should be monitored and the patient placed in left lateral position to avoid or relieve supine hypotensive syndrome. The angle of positioning can be determined empirically. Supplemental oxygen should be considered if hypotension occurs.

NSAIDs and aspirin should be avoided, especially in the last trimester and just after delivery. Acetaminophen can be used safely if dosages avoid hepatotoxicity.

BREAST FEEDING RECOMMENDATIONS

The American Academy of Pediatrics considers lidocaine to be safe for the breastfeeding mother. Vasoconstrictors necessitate the use of preservatives in local anesthetics. During lactation, the neonate can have idiosyncratic reactions to these preservatives, thus local anesthetics without vasoconstrictors may be associated with a lower incidence of adverse side effects.

Drugs administered to the mother may be passed on the breast fed infant. If the drugs have significant levels to the fetus, stored milk or formula should be substituted. To minimize, advise effects of breast milk-containing drugs; this should have a short half-life, and be given immediately after feeding.

A hypercoagulable state often exists for a minimum of 2 to 3 weeks after giving birth unless the patient had significant blood loss related to delivery. Epinephrine carries a risk of increasing coagulability.

Natal teeth are generally benign unless aspiration is a concern. The use of local anesthetics with epinephrine for the neonate may be wise because toxicity of the anesthetic is decreased.

The logo for Pacific Dental Anesthesia, LLC features a stylized, circular graphic composed of concentric, swirling lines in shades of gray, resembling a dental chair or a dental procedure. The text "Pacific Dental Anesthesia, LLC" is centered over this graphic in a large, black, serif font.

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What are the consequences of dental neglect during pregnancy?

Periodontal pathogens can lead to fetal death.

Low birth weight and prematurity are documented consequences.

Low birth weight can lead to breathing problems, anemia, jaundice, mental retardation, cerebral palsy, congestive heart failure, malnutrition, and death.

Less than half of pregnant women visit the dentist.