Exploring the Myths and Misconceptions about Oral Health and Pregnancy

CareQuest Institute Continuing Education Webinar

April 25, 2024

CareQuest Institute for Oral Health®

ACOG The American College of Obstetricians and Gynecologists

ADA

Housekeeping

- We will keep all lines muted to avoid background noise.
- We will send a copy of the slides and a link to the recording via email after the live program.
- We'll also make the slides and recording available on carequest.org.

To receive CE Credits:

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- Complete the evaluation by **Friday, May 3.**
- Eligible participants will receive a certificate soon after via email.

We appreciate your feedback to help us improve future programs!

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*Full disclosures available upon request

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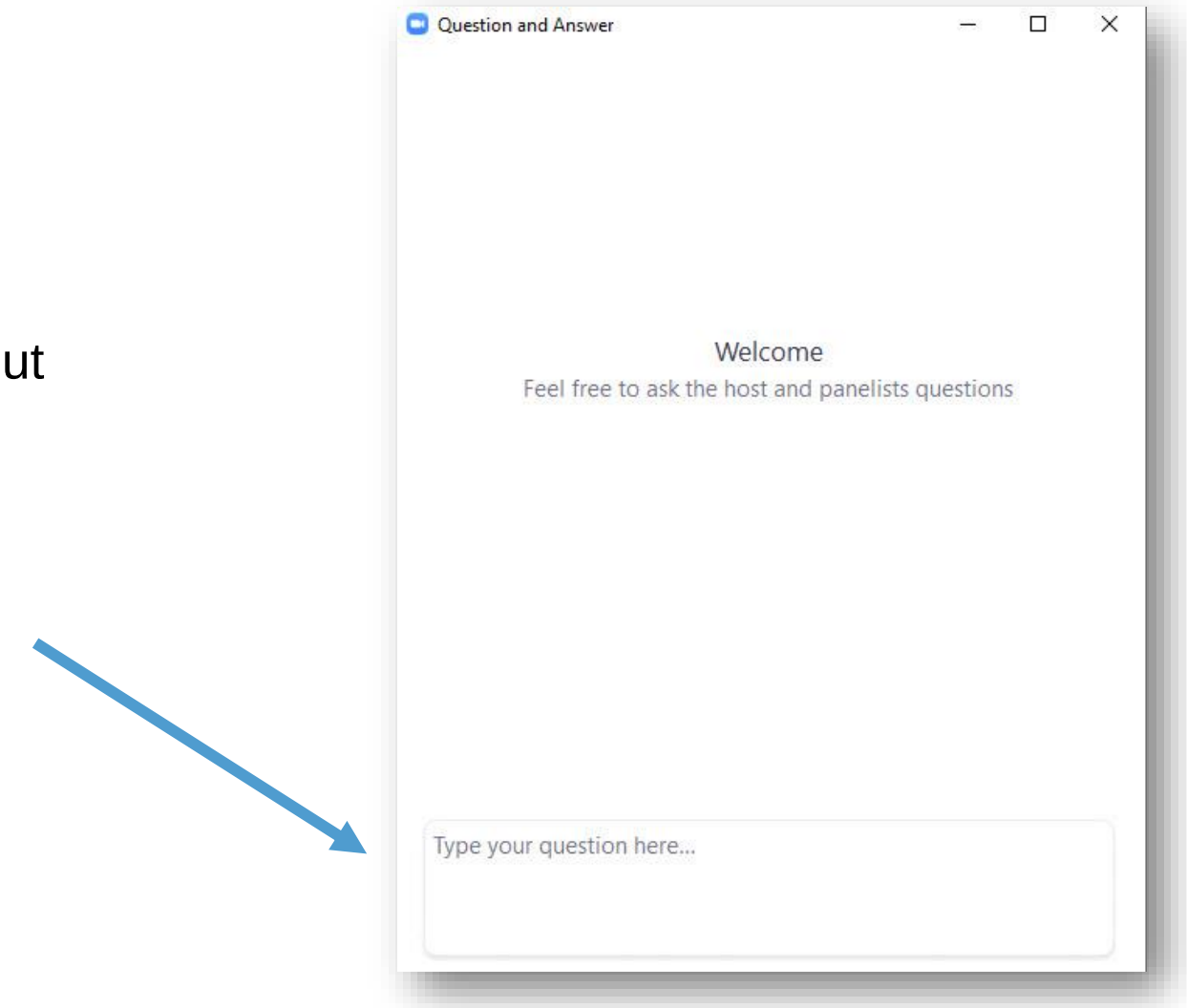
Question & Answer Logistics

- Feel free to enter your questions into the **Question & Answer box** throughout the presentations.
- We will turn to your questions and comments toward the end of the hour.



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Thank You

ACOG

The American College of Obstetricians and Gynecologists

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Learning Objectives

- Apply the most recent guidelines for dental care in pregnant patients to clinical scenarios, integrating current research findings into treatment and care plans.

- Analyze the factors contributing to the gap between current recommendations and clinical practice, including educational gaps and practitioner reluctance.

- Evaluate strategies for enhancing collaboration between dental and obstetric professionals to improve perinatal outcomes.

Exploring the Myths and Misconceptions about Oral Health and Pregnancy

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ACOG The American College of Obstetricians and Gynecologists

WEBINAR | Thursday, April 25, 2024 | 7:30–8:30 p.m. ET | ADA CERP Credits: 1

MODERATOR

Jane Grover, DDS, MPH
Senior Director Council on Advocacy for Access and Prevention, American Dental Association

PRESENTER

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Assistant Clinical Professor, OBGYN, Texas A&M University, 2024-25 ACOG Fellow At Large, Texas A&M Health, the American College of Obstetricians and Gynecologists

PRESENTER

Elizabeth Vi Simpson, DMD
General Dentist, Chair of the Council on Advocacy for Access and Prevention for the American Dental Association, American Dental Association

The Oral Health-Obstetrics Connection

Hector Chapa, M.D., F.A.C.O.G.
Assistant Clinical Professor, Obstetrics and Gynecology;
Texas A&M University School of Medicine
2024-25 ACOG Fellow at Large, ACOG National Office

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Overview

1. Why oral health in pregnancy matters
2. The “disconnect” between OB providers/dental providers awareness and action
3. How pregnancy affects the mouth
4. How the mouth affects pregnancy
5. Radiation safety
6. Amalgam use in pregnancy
7. Key points to remember

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Why This Matters . . .

- **40%** of pregnant women in the US have some form of periodontal disease, including gingivitis (**1 in 4 women** of childbearing age have untreated cavities)
- Children of mothers who have high levels of untreated cavities or tooth loss are more than **3 times more likely** to have cavities as a child.
- Children with poor oral health status are nearly **3 times more likely** to miss school because of dental pain.
- Periodontitis has also been associated with adverse perinatal outcomes (*treatment has not shown to reduce risk, so prevention is best*)

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CDC.Gov: Pregnancy and Oral Health (https://www.cdc.gov/oralhealth/publications/features/pregnancy-and-oral-health.html)

The Oral Health and Pregnancy Disconnect

The American College of Obstetrics and Gynecology (ACOG) and the American Dental Association (ADA) recommend routine oral health care during pregnancy. Despite this recommendation, many pregnant women do not receive routine dental care.

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Roussos-Ross, Kay MD; LaPorte, Amanda BS; Bright, Melissa PhD; Villanueva, Kara Mia MD. Oral Health Care in Pregnancy, ACOG Fellow Perspectives [27N]. Obstetrics & Gynecology 135():p 152S-153S, May 2020.

The Oral Health in Pregnancy Disconnect

- **80%** OB providers don't use oral health screening questions in their prenatal visits; **94%** did not routinely patients to a dentist.
- Many dentists may be concerned about the safety of dental procedures **during pregnancy.**
- Nearly **85%** of OB providers do not routinely inspect patient's oral cavity.

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Flagler CK, Troici CM, Rathore SA. A historical review of the effects of dental radiography on pregnant patients. J Am Dent Assoc. 2022 Oct;153(10):989-995.ACOG CO569; 2013 (reaffirmed 2022)

The Oral Health in Pregnancy Disconnect

ACOG District XII (FL/Colombia) Fellows (May and October 2019) were asked to participate in an anonymous electronic survey on their practices regarding oral health in pregnancy (**n=107**):

- **21%** reported receiving education/training related to oral health in pregnancy
- **48%** reported asking oral health screening questions
- **60%** recommend that women undergo routine dental cleaning
- **17%** reported insufficient clinic time
- **17%** of Fellows reported lack of accepting dentists

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Roussos-Ross, Kay MD; LaPorte, Amanda BS; Bright, Melissa PhD; Villanueva, Kara Mia MD. Oral Health Care in Pregnancy, ACOG Fellow Perspectives [27N]. Obstetrics & Gynecology 135:p 152S-153S, May 2020.

The Oral Health in Pregnancy Disconnect

The “disconnect” also lives within the PATIENTS’ BELIEFS as well:

A 2023 systematic review sought to examine unfavorable beliefs that **expectant or new mothers** frequently hold about oral health and the safety of dental care during pregnancy.

The most discussed unfavorable beliefs included:

- **“Pregnant women lose their teeth because of pregnancy”**
- **“Dental treatments are not safe and harm the fetus”**
- **“The developing baby absorbs calcium from the mother’s teeth”**

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Kamalabadi YM, Campbell MK, Zitoun NM, Jessani A. Unfavourable beliefs about oral health and safety of dental care during pregnancy: a systematic review. BMC Oral Health. 2023 Oct 15;23(1):762. doi: 10.1186/s12903-023-03439-4. PMID: 37840149; PMCID: PMC10577919.

Pregnancy's Effect on the Mouth

- Gingival tissues express estrogen-specific receptors (estrogen-sensitive tissue)
- Nausea/vomiting affect tooth enamel
- Pregnancy likely affects cellular and humoral immune responses of the tooth supporting periodontal tissues (periodontium)
- Pregnancy-associated pyogenic granuloma or epulis gravidarum may occur due to local accumulation of dental calculus
- Pregnancy-associated gingivitis is the **most common reversible condition** during pregnancy, with a prevalence ranging from **30% to 100%**

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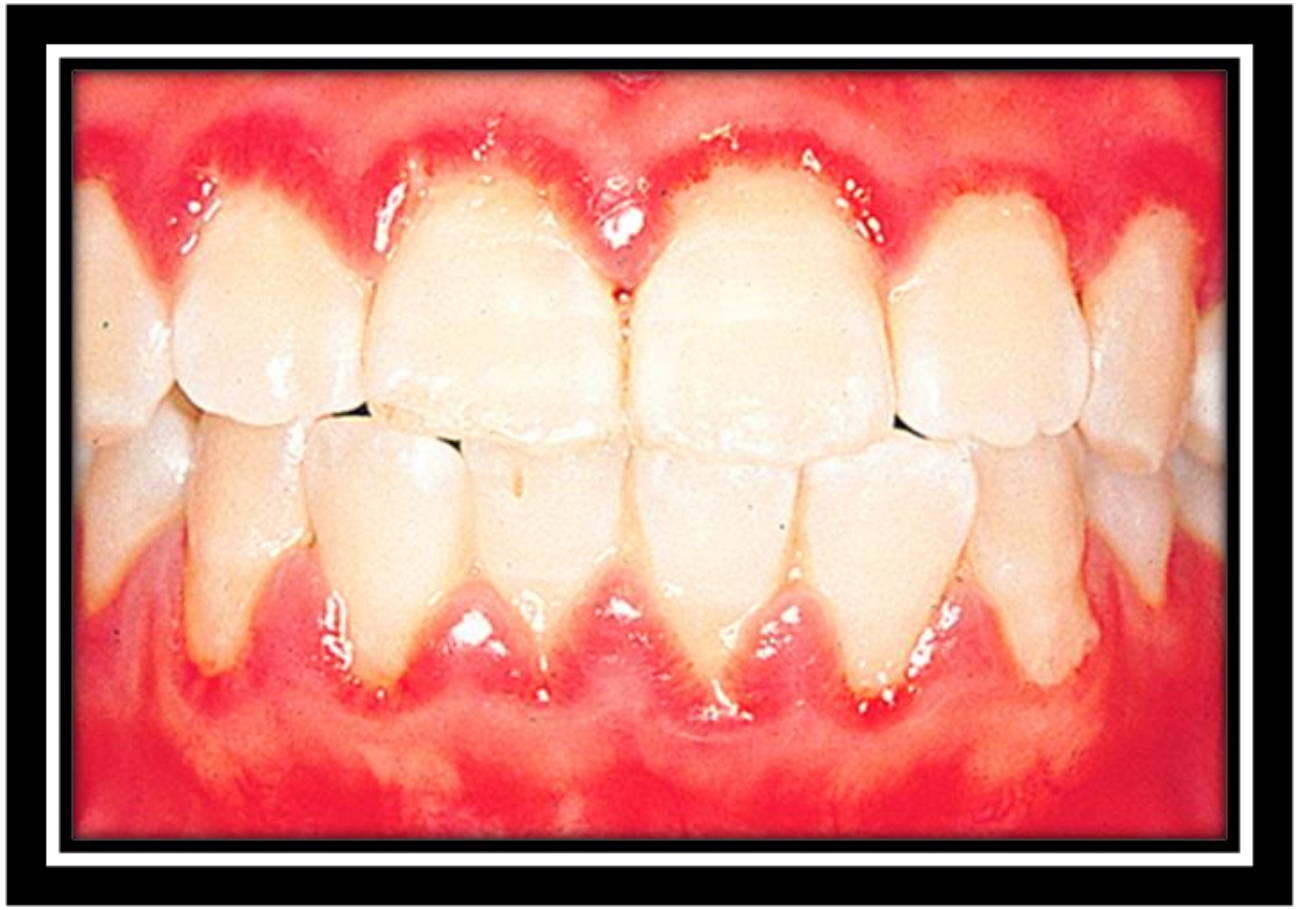
Bostanci N. Periodontal health and pregnancy outcomes: Time to deliver. Acta Obstet Gynecol Scand. 2023 Jun;102(6):648-651. doi: 10.1111/aogs.14548. PMID: 37212520; PMCID: PMC10201962.

Pregnancy Gingivitis



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The Mouth's Effect on Pregnancy

Periodontal disease has been associated with:

- Gestational DM
- Hypertensive disorders in pregnancy
- Preterm birth
- Low birthweight
- Future risk of offspring periodontal conditions

P. gingivalis has been found in human placenta and may be associated with increased risk of preterm birth. Preterm birth may also be related to chronic inflammatory markers.

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Bostanci N. Periodontal health and pregnancy outcomes: Time to deliver. Acta Obstet Gynecol Scand. 2023 Jun;102(6):648-651. doi: 10.1111/aogs.14548. PMID: 37212520; PMCID: PMC10201962.

Association Between Maternal Periodontal Disease and Adverse Pregnancy Outcomes

Maternal periodontal disease increases the odds of low birthweight by

10%

Maternal periodontal disease increases the odds of preterm birth by

15%

Maternal periodontal disease increases the odds of spontaneous abortion by

34%

Maternal periodontitis increases the odds of any maternal complications by

19%

Sung Eun Choi, Abhishek Choudhary, John M Ahern, Nathan Palmer, Jane R Barrow, Association between maternal periodontal disease and adverse pregnancy outcomes: an analysis of claims data, *Family Practice*, 2021;, cm

Source: Choi *et al*. Family Practice, 2021

The Mouth's Effect on Pregnancy

NewScientist

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Health Space Physics Technology Environment Mind Humans Life Mathematics Chemistry Earth Society

Life

Baby's first gut bacteria may come from mum's mouth

By Clare Wilson

21 May 2014

Other supporting data that maternal oral bacteria reach the fetus in-utero:

Jiménez E, Marín ML, Martín R, Odriozola JM, Olivares M, Xaus J, Fernández L, Rodríguez JM. Is meconium from healthy newborns actually sterile? Res Microbiol. 2008 Apr;159(3):187-93.

Yu K, Rodriguez M, Paul Z, Gordon E, Gu T, Rice K, Triplett EW, Keller-Wood M, Wood CE. Transfer of oral bacteria to the fetus during late gestation. Sci Rep. 2021 Jan 12;11(1):708.

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Radiation Safety

Although pregnant people comprise approximately **4 million of the US population** annually, less than one-half of these pregnant people seek professional oral health care owing to **concerns for the safety of their embryo or fetus** and fear of dental instruments. (1-5)

“Unnecessary fear surrounding the risks of ionizing radiation exposure has spread to the general population.” (11)

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Flagler et al. JADA, 2022

Radiation Reduction

- During the last **6 decades,** there has been a significant reduction in ionizing radiation exposure from dental x-rays.

- Progress in digital imaging has produced a **60%** reduction in exposure by switching from a D- to an F-speed film.

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Flagler et al. JADA, 2022

Fetal Risk from Radiation

“[Fetal] risk is considered to be negligible at 5 rad or less when compared to the other risks of pregnancy, and the risk of malformations is significantly increased above control levels only at doses above 15 rad.” – *National Council on Radiation Protection*

“Women should be counseled that x-ray exposure from a single diagnostic procedure does not result in harmful fetal effects. Specifically, exposure to less than 5 rad has not been associated with an increase in fetal anomalies or pregnancy loss.” – *American College of Obstetricians and Gynecologists*

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Yoon et al. NIH StatPearls, May 2023

Estimated Fetal Exposure for Various Diagnostic Imaging Methods

Type of Film	Rads	# of Films
Plain films- skull	0.004	1,250
Dental	0.0001	**50,000**
Cervical spine	0.002	2,500
Upper or lower extremity	0.001	5,000
Chest (two views)	0.00007	71,429
Mammogram	0.020	250
Abdominal (multiple views)	0.245	20

* Number of films needed to reach 5 rads

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The Amalgam Question

The FDA has made important recommendations to avoid dental repair that uses amalgams made with mercury.

“If you are a person who is in one of the high-risk populations identified and need a new filling, the FDA recommends you avoid dental amalgam if possible and appropriate.”

The Amalgam Question

US FDA:

Women who are pregnant or planning to become pregnant:

“Placement of new amalgam fillings in a pregnant mother may result in high, transient spikes of mercury exposure to the mother and fetus.

Some studies have shown a relationship between the number of amalgam fillings a mother has and mercury levels in umbilical cord blood.

Results from these studies did not identify any certain associations with harmful health effects; however, the data is very limited.”

https://www.fda.gov/medical-devices/dental-amalgam-fillings/information-patients-about-dental-amalgam-fillings#:~:text=Placement%20of%20new%20amalgam%20fillings,levels%20in%20umbilical%20cord%20blood.

Oral Health Care During Pregnancy: A National Consensus Statement

Use a rubber dam during endodontic procedures and restorative procedures

Position pregnant women appropriately during care:

- Keep the woman's head at a higher level than her feet
- Place woman in a semi-reclining position, as tolerated, and allow frequent position changes

Place a small pillow under the right hip, for **left lateral tilt**

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Oral Health Care During Pregnancy Expert Workgroup. 2012. Oral Health Care During Pregnancy: A National Consensus Statement. Washington, DC: National Maternal and Child Oral Health Resource Center.

A Key Point as We Near the End

Needed treatment can be provided throughout pregnancy; however, the **second trimester is ideal.** Delay in obtaining necessary treatment could result in significant risk to her and indirectly to the fetus.

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American Pregnancy Association: https://americanpregnancy.org/healthy-pregnancy/is-it-safe/dental-work-and-pregnancy/#:~:text=Dental%20work%20while%20pregnant%2C%20such,an%20extended%20period%20of%20time.

The ACOG Take-Home Message

Teeth cleanings, appropriate fillings, extractions, plaque removal, local anesthesia, and dental X-rays are safe for pregnant women.

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Treating our Pregnant Patients with Truth and Compassion

Elizabeth Vi Simpson, DMD
Chair, American Dental Association Council on Advocacy for Access and Prevention

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Overview

- Provide practitioners with the most up-to-date information that will make them feel confident and comfortable treating pregnant patients.

- Create consistency in messaging for our patients about when treatment is safe for pregnant patients.

National Consensus Statement

"Oral health care, including having dental radiographs taken and being given local anesthesia, is safe at any point during pregnancy.[1,2] Further, the American Dental Association and the American College of Obstetricians and Gynecologists (ACOG) agree that emergency treatments, such as extractions, root canals or restorations can be safely performed during pregnancy and that delaying treatment may result in more complex problems.[1]

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American Dental Association Resolutions Regarding the Dental Treatment and Oral Health of Pregnant Patients

Dental Examinations for Pregnant Persons and Persons of Child-Bearing Age (Trans.2014:508)

Resolved, that the ADA urge all pregnant persons and persons of child-bearing age to have a regular dental examination.

Dental Treatment During Pregnancy (Trans.2014:508)

Resolved, that the ADA acknowledges that preventive, diagnostic and restorative dental treatment to promote health and eliminate disease is safe throughout pregnancy and is effective in improving and maintaining the oral health of the mother and child.

Women's Oral Health Research (Trans.2001:460)

Resolved, that the ADA support increased funding for, and enhanced grant opportunities in, women's oral health research; support federal agency efforts to ensure that women are adequately represented as research subjects in dental clinical trials; and help disseminate research information, hold educational briefings and provide educational materials on women's oral health issues, as needed and appropriate.

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Observations and Overheard

- Pregnant patients turned away for not having a medical consult prior to periodontal probing
- Pregnant patients turned away for restorative treatment during 3rd trimester (inconsistencies among faculty)
- Students being told that treatment is “safest” in 2nd trimester and should be postponed
- Dental providers telling patients treatment is “safest” in 2nd trimester…let’s wait until after the baby is born

Medical Consults

Varying responses from Obstetricians: ??

When treating pregnant patients, it might be helpful to reach out to the obstetrician to develop a working relationship should consultation be needed later.

Questions to ask might include:

When is the expected delivery date?

Is this a high-risk pregnancy?
If so, are there any special concerns or contraindications?

Issues in Dentistry and Oral Health for Pregnant Patients

- Patient comfort and the origins of seeing patients in the 2nd trimester
- Anesthetics safety
- Analgesics safety
- Antibiotic and antimicrobial rinse safety
- Procedures/treatment
- Insurance
- Habits

“I have treated countless menopausal women in their 70s, 80s, 90s, & 100s who have all shared that when they were pregnant, dentists had refused to treat them or they were advised by their physicians not to seek dental treatment.

This is clearly an issue that several generations of women have had to deal with.”
- Dr. Kadambari Rawal

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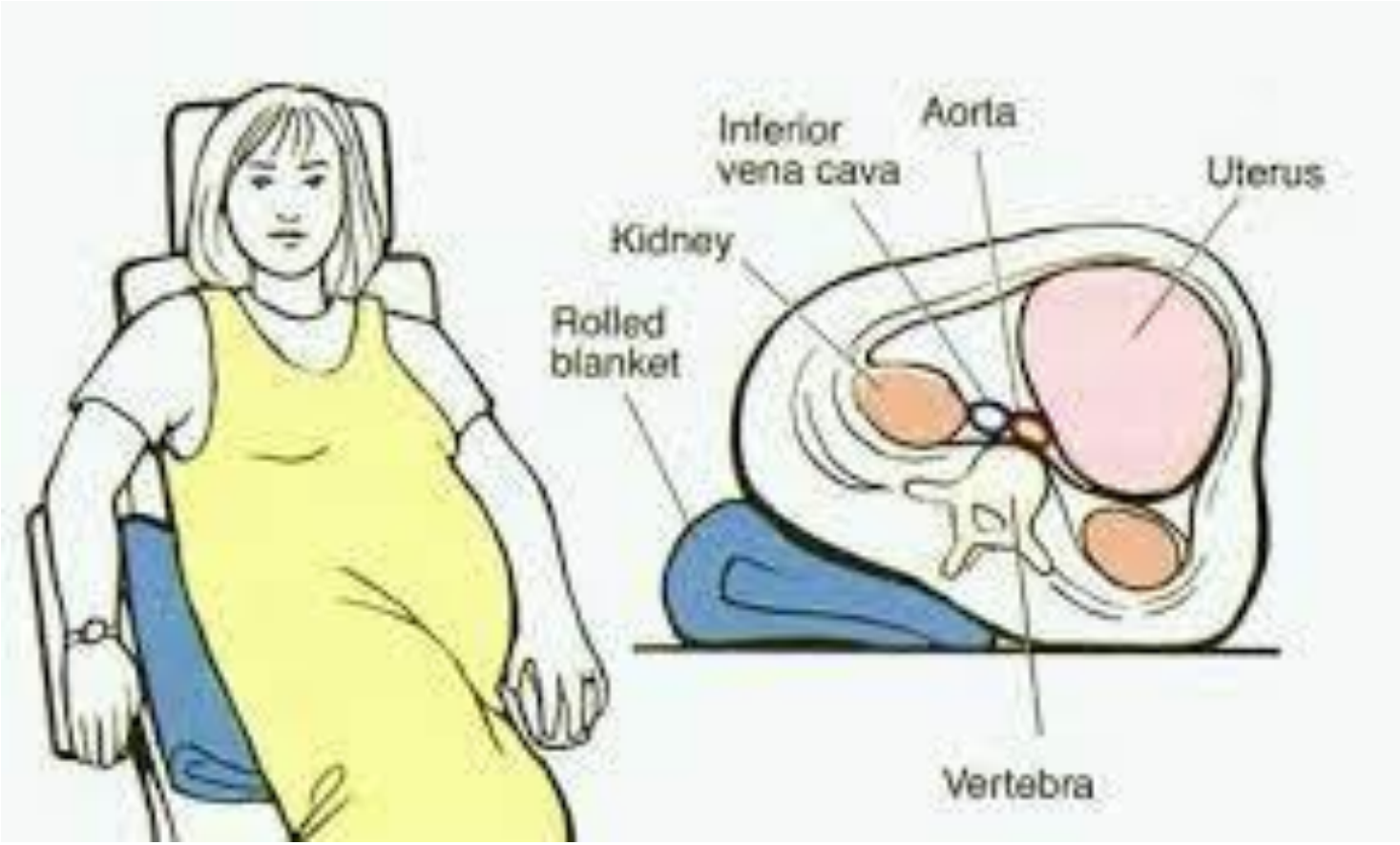
Patient Comfort



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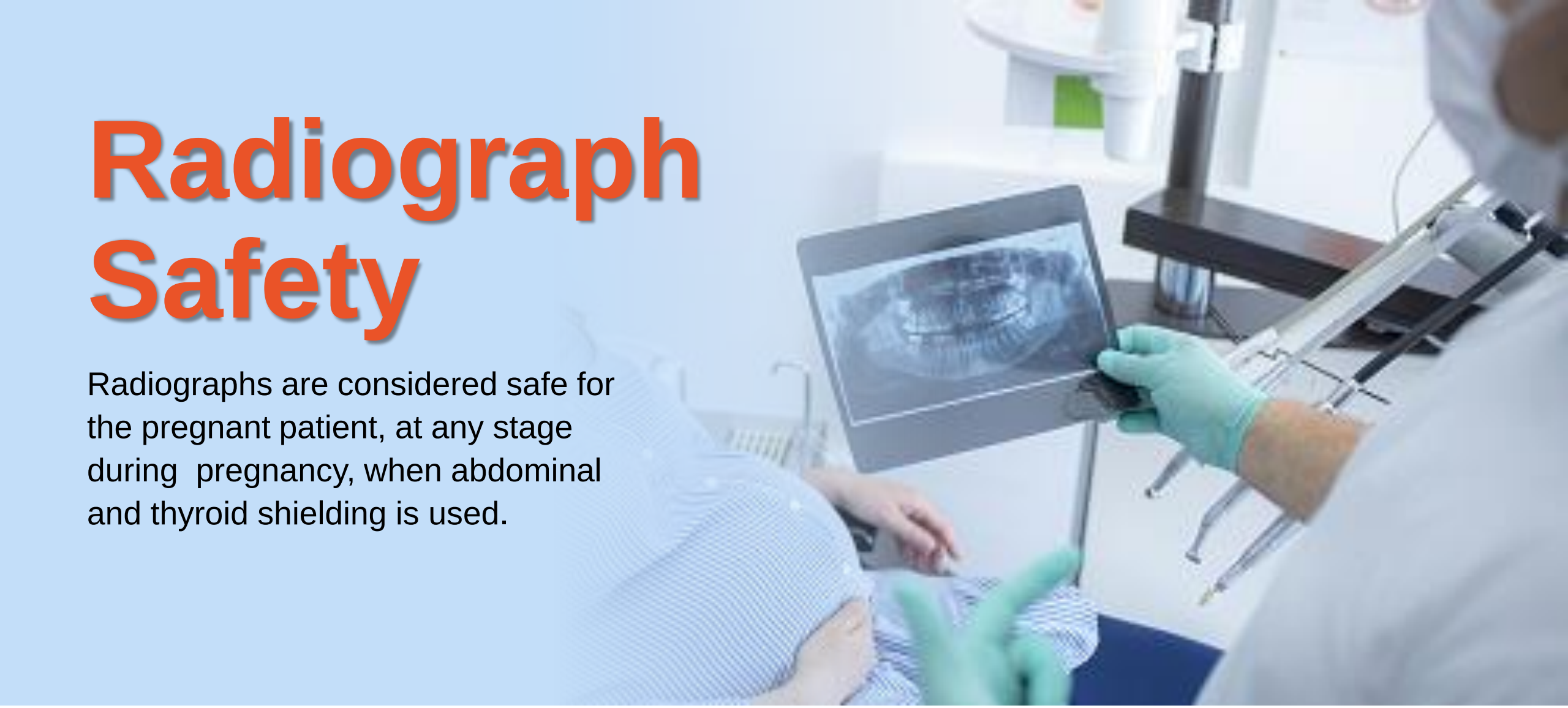
Third Trimester

- Placing a small pillow or rolled blanket under the patient's right hip helps to keep the Inferior Vena Cava and Aorta from being compressed by the uterus. If no pillow, have patient tilt to the left.

- Remember to keep the patient semi-inclined.

Radiograph Safety

Radiographs are considered safe for the pregnant patient, at any stage during pregnancy, when abdominal and thyroid shielding is used.



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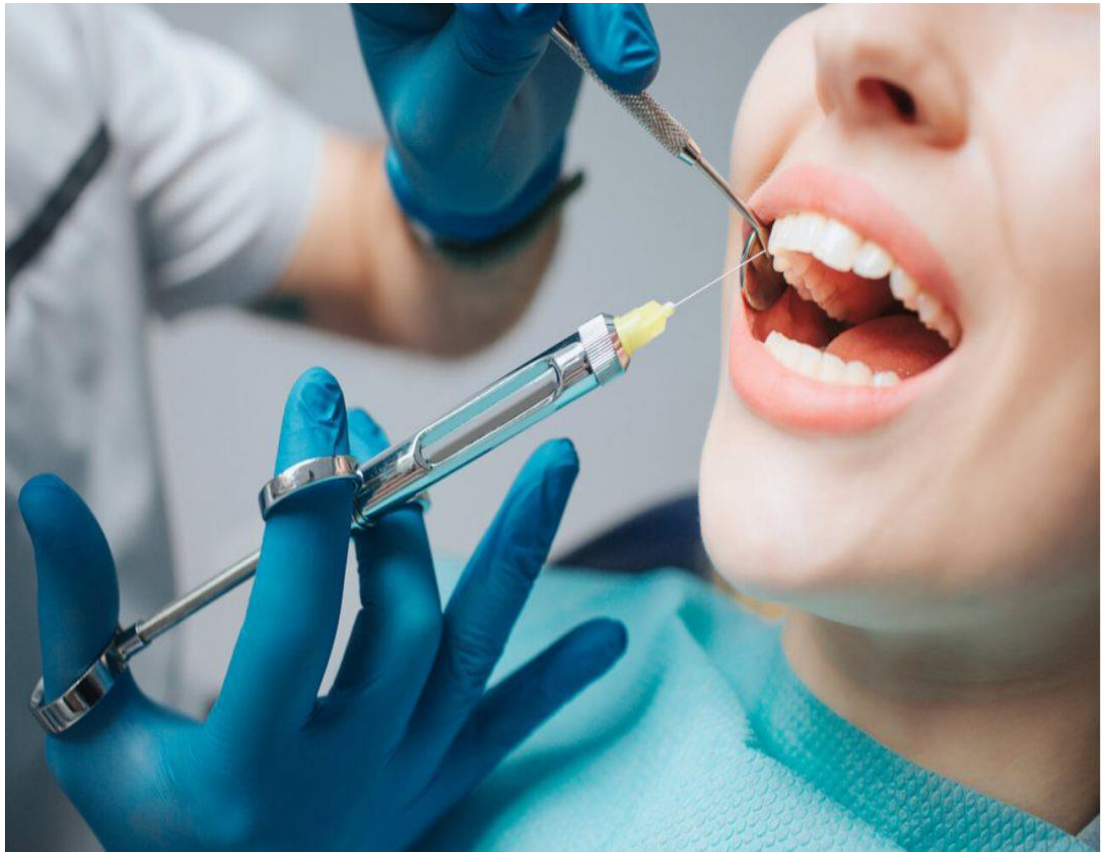
Anesthetic Safety

Consult with OB before using **IV sedation or general anesthesia.** Limit duration of exposure to less than 3 hours in pregnant women in the 3rd trimester.

- Local anesthetics ***with* epi** (*Bupivacaine*, *Lidocaine, Mepivacaine*) are safe to use.

- **Nitrous oxide** (30%) may be used if topical or local are inadequate. Pregnant women require lower levels of NO to achieve sedation; **consult with OB.**



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Analgesic Safety

Acetaminophen
Acetaminophen with Codeine, Hydrocodone, or Oxycodone
Codeine
Meperidine
Morphine

May be used during pregnancy. Oral pain can often be managed with non-opioid medication. If opioids are used, prescribe the lowest dose for the shortest duration (which is what we say for most patients!).

Analgesics, Continued . . .

Aspirin
Ibuprofen
Naproxen

1st trimester: *avoid use*
2nd trimester (13 up to 20 weeks): *may use for short duration 48-72 hours*
2nd trimester (20 up to 27 weeks): *limit use*
3rd trimester: *avoid use*

Antibiotic Safety

Amoxicillin
Cephalosporins
Clindamycin → **SAFE**
Metronidazole
Penicillin

Ciprofloxacin
Clarithromycin → AVOID
Levofloxacin
Moxifloxacin

Tetracycline → NEVER

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Antimicrobial Rinse Safety

Cetylpyridinium chloride mouth rinse

Chlorhexidine

Xylitol

All safe

Procedures/Treatment

Hygiene

- Prophylaxis
- Debridement
- SRP

Restorations

- Resin/Composites
- Glass Ionomer
- Crowns

All these procedures are SAFE during pregnancy!

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Procedures/Treatment, Continued

EXTRACTIONS

- Failure to perform a needed extraction can lead to cellulitis and spread of infection.
- Numerous antibiotics and analgesics can be used safely if needed.

ROOT CANALS

- Endodontic procedures are safe during pregnancy and should NOT be postponed.
- Treatment avoids over-use of medications, including self-medication by patient.
- Always use a rubber dam.

So, what does this mean for our pregnant patients?

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Insurance Issues

- Over 40% of pregnant patients are covered by Medicaid.
- Medicaid is required to cover medical care but not dental care.
- Currently, all states are covering dental care for up to 60 days post-partum but fewer for a year.
- Find out what your state covers and advocate for 12-month Medicaid pregnancy dental coverage post-partum

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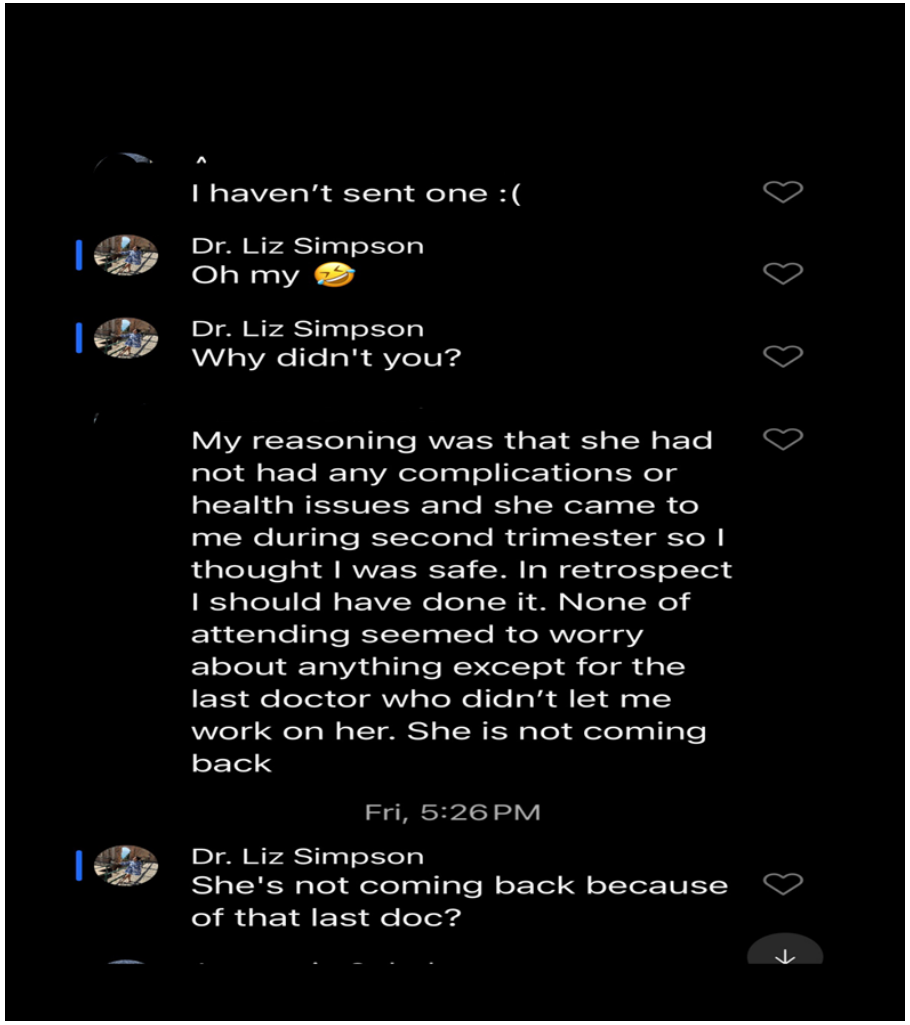
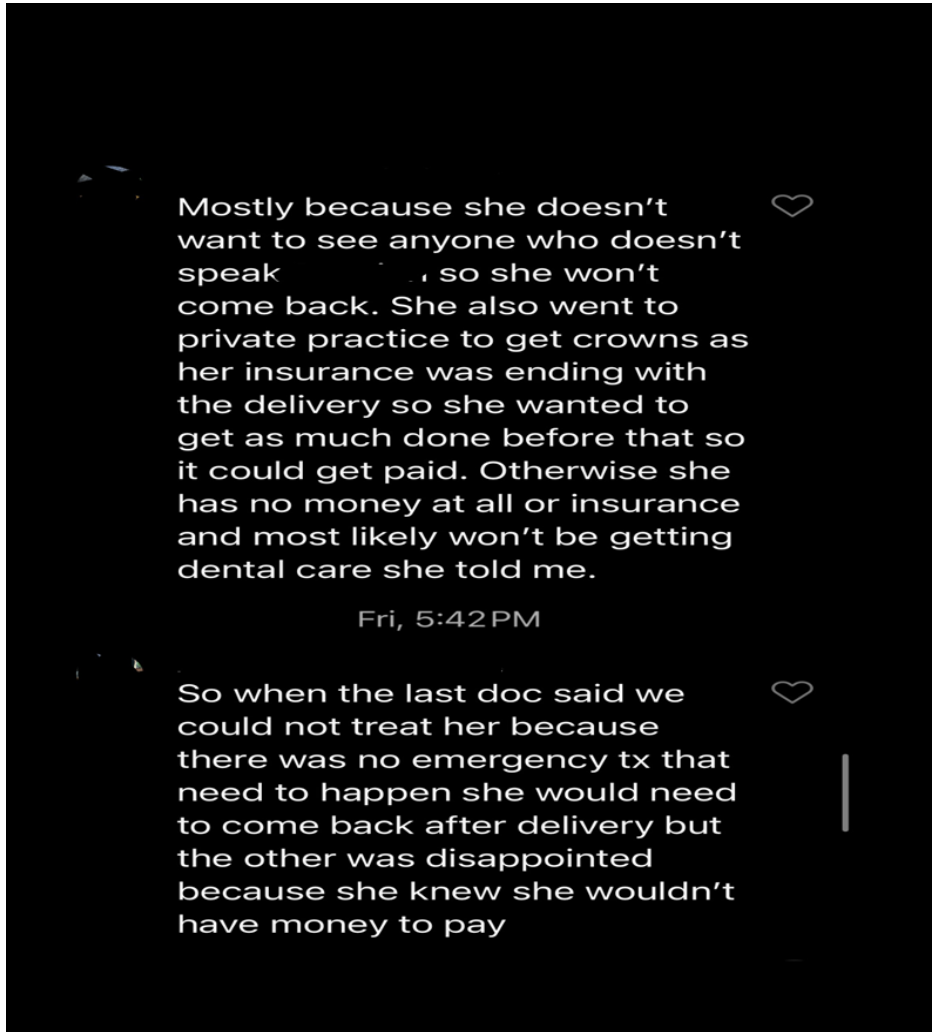
A Conversation With One of My Students . . .





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Habits: Oral Hygiene

- Brush twice daily with a fluoridated toothpaste and floss daily
- If brushing causes nausea, try a small-head, child-size toothbrush
- If patient suffers nausea with vomiting, add 1tsp baking soda to a glass of water and rinse after

If You Are Still Hesitant . . .

- Read “Oral Health Care During Pregnancy: A National Consensus Statement” at www.mchoralhealth.org

- Check out ADA, ACOG, and CareQuest Institute websites for more information

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Use this time to educate mother about oral health for her baby!

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The End

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Question and Answer

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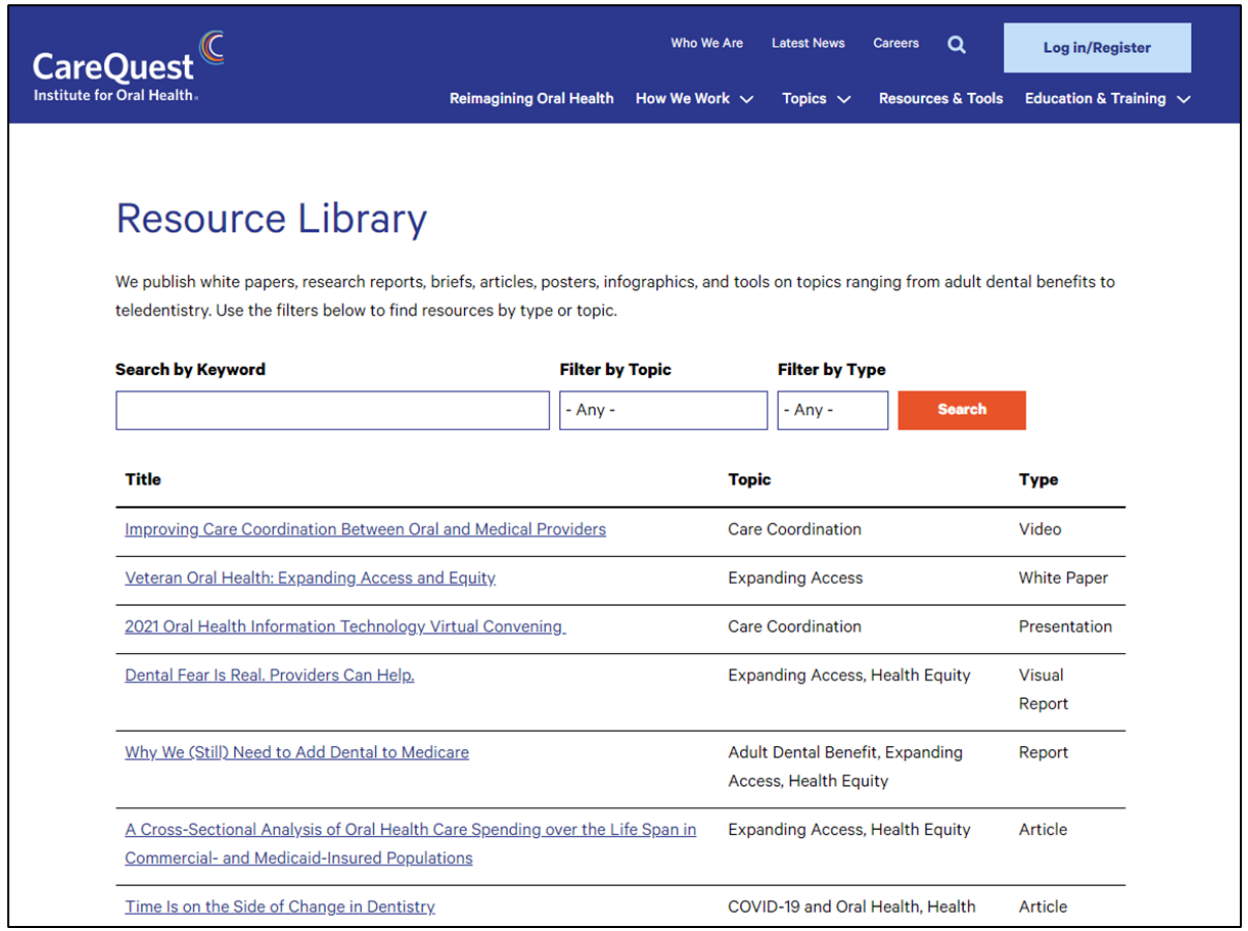
To Explore More Industry-Leading Research



www.carequest.org/resource-library

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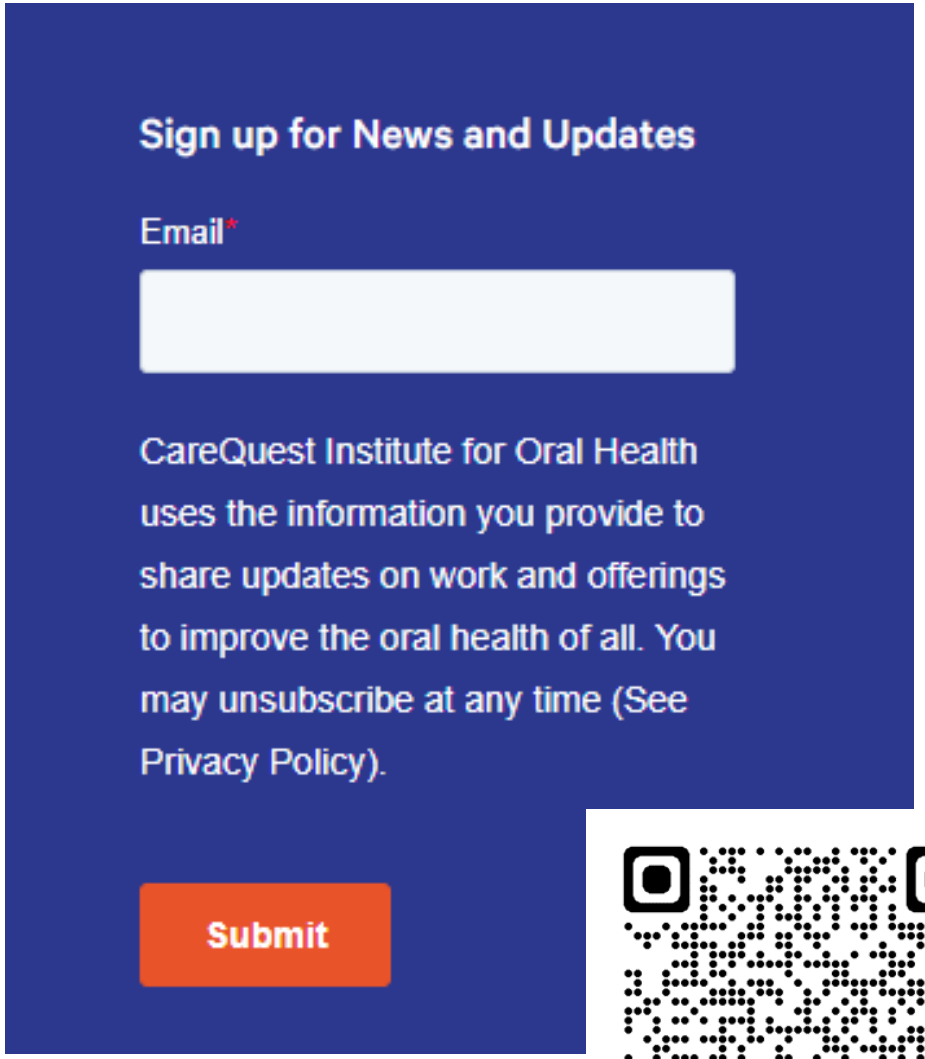
Webinar Evaluation

Complete the evaluation by **Friday, May 3** to receive CE credit. You will receive a link to the survey within 24 hours.

Next Webinar:

The Case for Accepting Medicare Patients in Your Dental Practice on **May 9 at 7 p.m. ET**

And we invite you to take a minute to sign up for our newsletter to get more information on future webinars!



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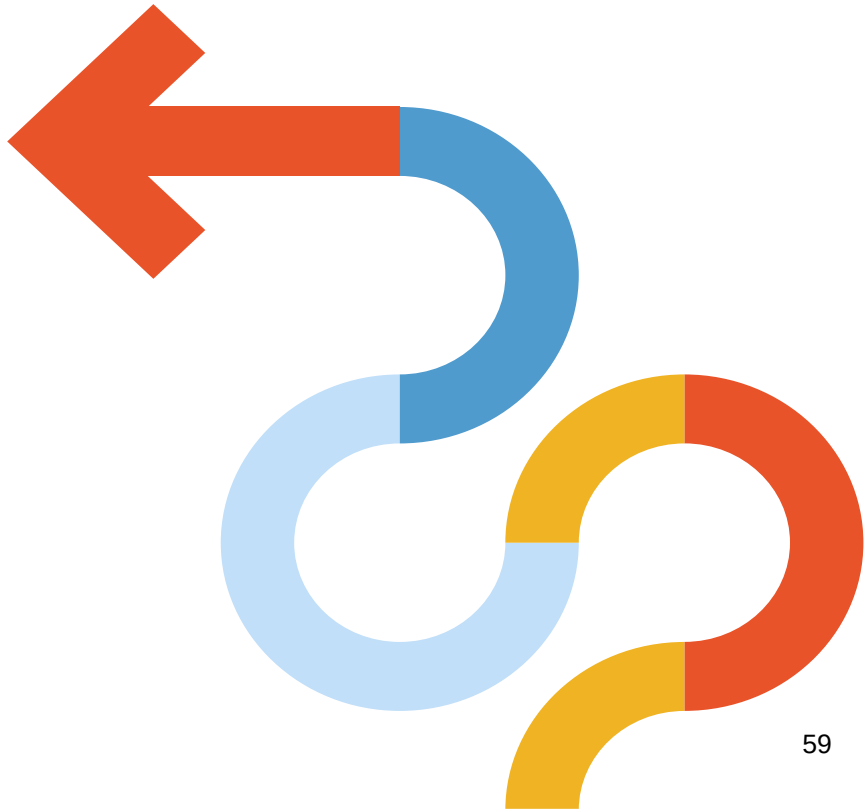

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