

A photograph of a smiling pregnant woman with dark hair, wearing a pink cardigan over a white top, gently holding her belly. The background is a solid blue color.

Oral Health Care for Pregnant Women

South Carolina
 **Oral Health**
Coalition

Connecting
 **Smiles**

Updated 2017

Oral Health Care for Pregnant Women

Table of Contents

Acknowledgements.....	2
Timeline.....	3
Overview of Oral Health During Pregnancy	4
South Carolina Data	6
Oral Health During Pregnancy - Recommendations for Health Professionals	8
Oral Health Guidance during Pregnancy	8
Key Oral Health Messages for Pregnant Women	9
Suggestions for Pregnant Women with Nausea and Vomiting	9
Potential Impact of Pregnancy on Oral Health	9
The Oral Health Assessment: Ask, Advise, Refer	10
Oral Health During Pregnancy - Recommendations for Dental Professionals.....	11
Conducting Health History, Risk Assessment and Oral Examination	11
Prophylactic Antibiotics during Pregnancy	11
Advice about Dental Care (National Consensus Statement)	12
Oral Assessment	12
Community Water Fluoridation	12
Special Conditions that Impact Pregnancy and Oral Health	13
Periodontal Disease Risk Assessment	13
Oral Disease Identification, Management and Treatment for Pregnant Women	14
Pregnant Women and Oral Disease Management	16
Safe Administration of Drugs during the Perinatal Period	16
Collaboration with Prenatal Care Professionals	19
Improve Health Services in the Community (National Consensus Statement)	19
Strategies for the Dental Professional to Improve Access to Dental Care during Pregnancy	20
Guidance to share with pregnant women (National Consensus Statement)	20
Conclusion	21
Appendix	
Referral Forms	
Appendix: Referral Form for Pregnant Women to Receive Dental Care	25
Appendix: Dentist's Report: For the Prenatal Health Professional	27

Oral Health Care for Pregnant Women

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Oral Health Care for Pregnant Women

Timeline

The Surgeon General's Report on Oral Health in 2000 recognized the importance of good oral health during pregnancy. The report concluded that oral diseases can be associated with systemic conditions including adverse pregnancy outcomes. The results of this report spearheaded a national movement towards improving the oral health of pregnant women and infants. For over 10 years federal agencies, state health departments, health professional associations and community organizations have developed educational resources, practice guidelines, policy briefs, and initiatives that would enhance this national movement.

Year 2004: The National Center for Education in Maternal and Child Health published *Bright Futures in Practice: Oral Health* to promote and improve the oral health and well-being of pregnant women, infants, children and adolescents.

Year 2006: The New York State Department of Health published “Oral Health Care during Pregnancy and Early Childhood: Practice Guidelines.” These guidelines were the result of an expert panel of health professionals convened to reinforce the recommendations of national organizations and to provide guidance for health care providers.

Year 2008: The National Maternal and Child Oral Health Resource Center (OHRC), in collaboration with the Maternal and Child Health Bureau Perinatal Oral Health Workgroup, published “Oral Health Care During Pregnancy: A Summary of Practice Guidelines” based on the New York Department of Health’s publication. The guidelines were intended to bring about changes in the health care delivery system and to improve the overall standard of care for pregnant women.

Year 2008: Oral Health Resource Center (OHRC) published a “Policy Brief: Access to Oral Health Care during the Perinatal Period.” This brief was developed to help policymakers, health professionals, and the public better understand the importance of oral health during the perinatal period. The brief describes barriers to accessing oral health services and information, including myths and misperceptions, and present potential solutions.

Year 2009: The South Carolina Oral Health Coalition Early Childhood Workgroup developed the “South Carolina Takes Action: Oral Health Care for Pregnant Women Guidelines.”

Year 2011: The brief “Improving the Oral Health of Pregnant Women and Young Children: Opportunities for Policymakers” was produced jointly by the National Maternal and Child Oral Health Policy Center, AMCHP, ASTDD, March of Dimes, and Washington Dental Service Foundation.

Year 2012: “Oral Health Care during Pregnancy: A National Consensus Statement” was developed as the result of the Oral Health care during pregnancy Consensus Development Expert Workgroup meeting convened by HRSA’s MCHB in collaboration with American College of obstetrician and Gynecologists and American Dental Association and coordinated by the National Maternal and Child Oral Health Resource Center.

Oral Health Care for Pregnant Women

Overview of Oral Health During Pregnancy

Oral health is an essential component of the overall health status for pregnant women and women of reproductive age. Physiologic changes occurring during pregnancy can place a tremendous strain on a woman's body, including the mouth. Achieving and maintaining good oral health is very important for mothers and their children. Poor oral health of the mother, including dental decay and periodontal disease before and during pregnancy, has been linked to poor birth and pregnancy outcomes such as preterm birth and low birthweight. In addition, ensuring good oral health for women during the perinatal period plays a vital role in promoting the oral health of her children after birth (National Maternal and Child Oral Health Resource Center (NMCOHRC), 2008). In addition to these recommendations, good oral health is important to the overall health of all women across the lifespan.

However, according to the National Consensus Statement "health professionals often do not provide oral health care to pregnant women. At the same time, pregnant women, including some with obvious signs of oral disease, often do not seek or receive care. In many cases, neither pregnant women nor health professionals understand that oral health care is an important component of a healthy pregnancy." (2012)

Association between periodontal disease and preterm/low-birth weight babies

Periodontal disease is a bacterial infection detectable in up to 40% of pregnant women (ACOG Committee Opinion Number 569) that can lead to destruction of the gums, bones, and ligaments supporting teeth. A growing body of research has linked periodontal disease with premature delivery (delivery before 37 weeks of gestation) and low birth weight (weighing less than 5.5 pounds at full term) outcomes among infants. Poor health outcomes resulting from premature delivery and low birth weights are significant contributors to infant mortality and long-term health complications among infants (Kumar J, Samelson R, eds., 2006).

Tooth Decay

Tooth decay is a contagious bacterial disease that can affect all people across all age groups. Pregnancy impacts oral health in several ways. Changes in the woman's diet and oral hygiene practices during pregnancy can result in an increase in tooth decay. In addition, nausea and vomiting during pregnancy can cause extensive erosion of the tooth surface and lead to deteriorating oral health status. Treatment of tooth decay in pregnant women cannot only improve the overall health of the mother but also helps decrease the transmission of dental caries causing bacteria from the mother to the infant. (Kumar J, Samelson R, eds., 2006). Children whose mothers have poor oral health and high levels of oral bacteria are at greater risk for developing dental caries or tooth decay, as compared with children whose mothers have good oral health and lower levels of oral bacteria (Ramos-Gomez, Weintraub, Gansky, Hoover, and Featherstone, 2002).

Oral Health Care for Pregnant Women

The National Consensus Statement emphasizes that “Providing pregnant women with counseling to promote healthy oral health behaviors may reduce the transmission of such bacteria from mothers to infants and young children, thereby delaying or preventing the onset of caries (decay).”

Although tooth decay (dental caries) is largely preventable, it remains one of the most common chronic diseases of childhood, affecting children, adolescents and adults. The 2011-2012 National Health and Nutrition Examination Survey revealed that approximately 23% of children aged 2–5 years had experienced dental caries in primary teeth, while 10% of children 2-5 years of age had untreated tooth decay in primary teeth (Dye et.al, 2015). According to American Academy of Pediatric Dentistry, “early detection and management of oral conditions can improve a child’s oral health, general health and well-being, and school readiness.”

One of the best predictors of future decay is past experience with tooth decay. Children with severe dental problems are more likely to enter adulthood with severe dental problems and impaired ability to be productive members of the society. To prevent tooth decay in infants and young children, health education and promotion must start with the parents before the child is born.

Improving the oral health of pregnant women has the potential to improve overall health, to reduce complications of dental diseases during pregnancy and to reduce the risk of early childhood tooth decay in their children. In addition, improving the oral health of pregnant women may also reduce premature and low-birth weight deliveries. Given the importance of oral health to overall health and well-being, and the growing body of scientific evidence related to its association with poor birth outcomes, it is vital that South Carolina health professionals work together to ensure pregnant women receive oral health education, counseling, and access to dental services.



Oral Health Care for Pregnant Women

South Carolina Data

Infant Mortality and Preterm Birth in South Carolina

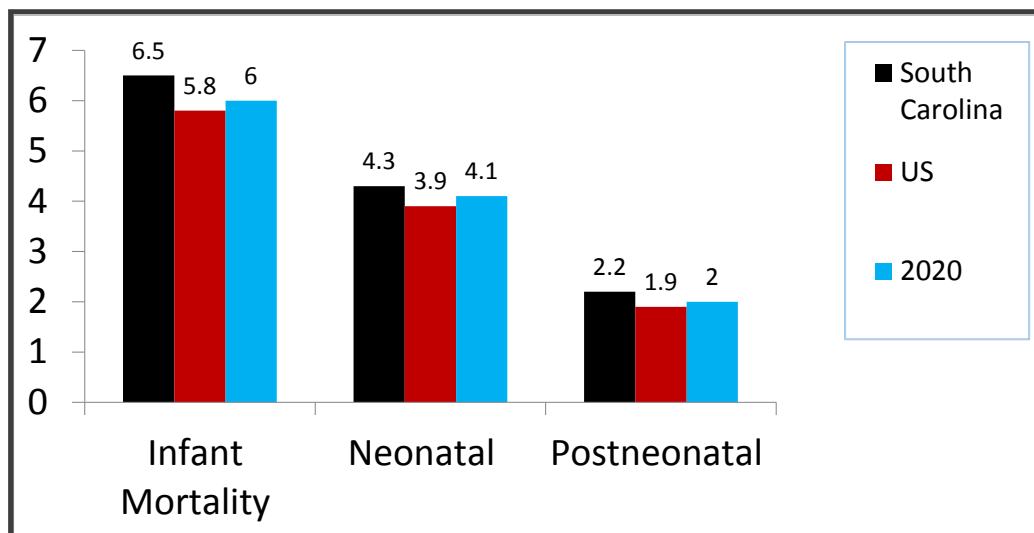
The infant mortality rate is an important health outcome measure that is often used as a measure of the overall health status of a given population. It reflects the health status of mothers and children and is also indicative of underlying socioeconomic and racial disparities. Nationally, infant mortality rates have steadily declined over the past 40 years as reflected in the 2013 infant mortality rate of 6.0 deaths per 1,000 live births.

Key Facts about Infant Mortality in South Carolina

Despite recent improvements, the infant mortality rate in South Carolina continues to exceed the national rate.

- The 2014 infant mortality rate of 6.5 deaths per 1,000 live births represents a historic low for South Carolina.
- In 2014 the overall infant mortality rate decreased 6% (from 6.9 in 2013, to 6.5).
- A notable 31.8% decrease in the post neonatal mortality rate was observed from 2012 (2.9 per 1,000 live births) to 2014 (2.2 per 1,000 live births).
- Despite marked improvement between 2013 and 2014, a significant racial disparity in infant mortality rates remains (blacks 2.2 times more likely to experience an infant death than whites).

Figure 1: How Is South Carolina Doing Compared to the US and Healthy People 2020 Objectives



Source: CDC Wonder (2014)

Neonatal- Death of a live born infant under 28 days of age

Postneonatal- Death of a live born infant 28-364 days of age

Oral Health Care for Pregnant Women

Dental Care Utilization and Oral Health Counseling During Pregnancy in SC

Access to timely oral health care during the perinatal period is a contributing factor to the health and well-being of both women and their unborn children. The South Carolina Pregnancy Risk Assessment Monitoring System (PRAMS) report for 2012-2013 on the dental experiences among South Carolina women during pregnancy reinforces the need for the development of the *South Carolina Takes Action: Oral Health Care for Pregnant Women* resource.

Key findings from the SC PRAMS (2012-2013) include:

- Dental Care Utilization: only 46.7% of pregnant women in South Carolina reported receiving dental care.
- Prenatal Oral Health Counseling: 47.1% percent received prenatal oral health counseling.
- Dental Problem during Pregnancy: 21% reported having a dental problem during pregnancy, and 56.6% of this group did not seek dental care.



Oral Health Care for Pregnant Women

Oral Health During Pregnancy - Recommendations for Health Professionals

Health professionals play a key role in preparing women for healthy pregnancies. These professionals can provide oral health education and counseling, as well as link women to dental care during the perinatal period. Within the health care system, there may be multiple opportunities among health professionals to reach pregnant women, such as:

- Family physicians
- Obstetricians
- Pediatricians
- Advanced Practice Registered Nurses, Registered Nurses, Licensed Practical Nurses
- Physician Assistants
- Certified Registered Nurse Midwives
- Health Educators
- Women, Infants and Children Program (WIC) Nutritionists
- Early Head Start Health Coordinators
- Healthy Start Staff
- Outreach Workers from Community Health Centers, Managed Care Organizations and other community outreach programs.
- Dentists, dental hygienists and dental assistant.

Oral Health Guidance during Pregnancy

“Pregnancy is a ‘teachable’ moment when women are motivated to adopt healthy behavior.” (ACOG, Committee Opinion Number 569) While specific treatment decisions are individually based, these recommendations provide general guidance for the purpose of enhancing the health care delivery system and improving the care for women during pregnancy. Key points that need to be addressed:

1. Explain the importance of maintaining oral hygiene and receiving dental care.
2. Explain that dental care during pregnancy is safe and effective and is essential for the pregnant woman and her fetus.
3. Reassure women that diagnosis (including necessary dental X-rays) and dental treatment for conditions requiring immediate attention are safe during the first trimester of pregnancy.
4. Inform women that needed treatment can be provided throughout the remainder of the pregnancy; however, the time period between the 14th and 20th week is the best time to provide dental care.
5. Advise women that delaying necessary treatment could result in significant risk to the mother and indirectly to the fetus (Kumar J, Samelson R, eds. 2006).

Oral Health Care for Pregnant Women

Table 1: Strategies for the Medical Professional to Improve Access to Dental Care during Pregnancy

Strategy	Activity
Prenatal Classes	Integrate a component on oral hygiene and dental care in prenatal classes.
Health Literacy	Develop oral health education materials at appropriate reading levels.
Patient Intake Forms	Include an oral health assessment that identifies problems and offers recommendations on patient intake forms.
Referral to Dentist	Make a referral to a dentist (sample form in Appendix).
Transportation	Assist women in securing transportation for dental care.
Counseling	Assist women in making decisions about dental care.

(Kumar & Iida, 2008)

Key Oral Health Messages for Pregnant Women

- Brush teeth twice daily with a fluoride toothpaste and floss daily.
- Limit foods containing sugar to mealtimes only.
- Choose water or low-fat milk as a beverage. Avoid carbonated beverages during pregnancy.
- Choose fruit rather than fruit juice to meet the recommended daily fruit intake.
- Obtain necessary dental treatment before delivery.

Suggestions for Pregnant Women with Nausea and Vomiting

Instruct pregnant women who are experiencing morning sickness to:

- Eat small amounts of nutritious food throughout the day.
- Rinse with a cup of water containing a teaspoon of sodium bicarbonate (baking soda) after vomiting to neutralize the stomach acid.
- Delay tooth-brushing for about one hour to minimize hard tissue loss and control sensitivity.
- Resume gentle tooth-brushing with a fluoride toothpaste (Kumar J, Samelson R, eds. 2006)

Potential Impact of Pregnancy on Oral Health

(American Congress of Obstetricians and Gynecologists –ACOG- Committee Opinion Number 569, 2013, reaffirmed 2015)

- Pregnancy Gingivitis
- Benign oral gingival lesions
- Tooth mobility
- Tooth erosion
- Dental Caries (decay)
- Periodontal Disease

Oral Health Care for Pregnant Women

“Despite the lack of evidence for a causal relationship between periodontal disease and adverse pregnancy outcomes, the treatment of maternal periodontal disease during pregnancy is not associated with any adverse maternal or birth outcomes. Moreover, prenatal periodontal therapy is associated with the improvement of maternal oral health.” (ACOG Committee Opinion Number 569)

The Oral Health Assessment: *Ask, Advise, Refer*

Conducting an oral health assessment is one way for health professionals to provide guidance and to educate pregnant women about the need for oral health care during the perinatal period. This assessment should include interviewing the patient using the following protocol.

Ask – Oral Health Questions

The following two interview questions are recommended for incorporation into the initial prenatal visit.

- Do you have bleeding gums, toothache, cavities, loose teeth, teeth that do not look right or other problems in your mouth?
- Have you had a dental visit in the last six months?

Advise – Pregnant Women On the Need for Oral Health Care

- If the last dental visit took place more than six months ago or if any oral problems (e.g. toothache, bleeding gums) are identified, tell women to schedule an appointment with a dentist as soon as possible.
- Encourage women to improve or maintain good oral health during pregnancy and to attend prenatal classes.
- Counsel women to adhere to their dentist’s recommendations for treatment or follow-up..

Refer – Pregnant Women for Dental Care

- Dental Referrals: Provide referrals as needed. (Appendix 1. Summary Doc Referral form for Pregnant women to receive oral health care)
- Dental Referral Network: Provide a list of dentists in the community, including those who accept Medicaid and other public insurance programs. (Access at: <http://www.scdhhs.gov/ADOProviderSearch.asp>.)



Oral Health Care for Pregnant Women

Oral Health During Pregnancy - Recommendations for Dental Professionals

Conducting Health History, Risk Assessment and Oral Examination

Every pregnant woman should receive a comprehensive dental examination early in the pregnancy or at some point during the pregnancy. Medical history should be taken and evaluated to identify predisposing conditions that may affect treatment, patient management, and outcomes. Such conditions include, but are not limited to, diabetes, hypertension, pregnancy, smoking, substance abuse and medications, or other existing conditions that impact traditional dental therapy (Kumar J, Samelson R, eds. 2006).

Topics to cover: (National Consensus Statement)

- When and where was your last dental visit?
- Do you have swollen or bleeding gums, mouth pain, problems eating or chewing, or any other problems in your mouth?
- Do you have any questions or concerns about getting dental care while you are pregnant?
- Since becoming pregnant, have you vomited? How often?
- Have you received prenatal care? If not, do you need help getting an appointment for prenatal care?
- How many weeks pregnant are you?

Determine Weeks of Gestation (due date)

- First trimester, defined as starting at the first day of the last menstrual period and continuing until 13 weeks and six days, is when organogenesis, development of the organs, takes place. Technically, the conceptus is called an embryo until the ninth week, when it becomes a fetus. It is during the embryonic period when the risk of teratogenicity, the ability to cause birth defects, exists. Performing dental care during early pregnancy has never been reported to increase the rate of malformations in infants.
- Second trimester—starts at 14 weeks
- Third trimester starts at 28 weeks (Kumar J, Samelson R, eds. 2006)

Prophylactic Antibiotics during Pregnancy

Pregnancy by itself is not an indication for prophylactic antibiotics during dental procedures. Criteria for prescribing antibiotics for bacterial endocarditis are the same for pregnant women as they are for all individuals (Wilson et al, 2007).

Oral Health Care for Pregnant Women

Advice about Dental Care (National Consensus Statement)

- Reassure women that dental care, including the use of radiographs, pain medication, and local anesthesia is safe throughout pregnancy.
- Encourage women to continue to seek dental care, practice good home care, eat healthy foods, and attend prenatal classes.

Oral Assessment

For adults there are a number of factors that contribute to caries risk such as:

- Visible cavities
- Many multi surface restorations
- Exposed root surfaces
- Deep pits/fissures on teeth
- Radiographic lesions
- Visible heavy plaque on teeth
- Saliva reducing factors (medications/radiation/systemic)
- Dietary history that includes frequent exposures to carbohydrates and frequent snacking and acidic beverages such as soda.
- Drug and alcohol abuse (Featherstone, 2007)

For pregnant adolescents, dental professionals may use the American Association of Pediatric Dentistry's (AAPD) caries-risk assessment tool (American Academy of Pediatric Dentistry, 2006). A member of the American Dental Association (ADA) can access the organization's website and use an assessment tool specific for ages greater than 6 years (ada.org). Utilizing historical and clinical findings gathered in a caries risk assessment will aid the dental professional in identifying risk factors in order to develop an individualized preventive approach. Protective factors include: access to fluoridated water, use of fluoridated toothpaste, adequate salivary flow, use of fluoride mouth rinse, and use of xylitol gum/mints (Featherstone, 2007).

Community Water Fluoridation The consumption of fluoridated water is a recognized protective factor for preventing dental decay. South Carolina participates with the Centers for Disease Control and Prevention's national public website, My Water's Fluoride, which allows consumers to learn the fluoridation status of their water system. The best source of information on fluoride levels is the local water utility; however, individuals can access My Water's Fluoride and follow the links to their local water system. My Water's Fluoride for South Carolina can be accessed through this link: https://nccd.cdc.gov/DOH_MWF/Default/CountyList.aspx?state=South%20Carolina&stateid=45&stateabbr=SC&reportLevel=2

Optimal fluoride level recommended by the US Public Health Service and CDC (2015) for drinking water is 0.7 parts per million (ppm).

Oral Health Care for Pregnant Women

Special Conditions that Impact Pregnancy and Oral Health

Diabetes and Pregnancy

For women with diabetes diagnosed prior to pregnancy, oral health is particularly important as acute and chronic infections make control of diabetes more challenging (DHHS, 2000).

Hypertensive Disorders of Pregnancy

Dental professionals should be knowledgeable of hypertensive disorders because of increased risk of bleeding during procedures and should consult the prenatal care provider before initiating dental procedures in women with uncontrolled severe hypertension (Kumar J, Samelson R, eds. 2006).

Table 2: Classification of Blood Pressure (US DHHS, National Institute of Health, 2003)

Category	SBP mmHg	DBP mmHg
Normal	<120	and <80
Prehypertension	120-139	or 80-89
Hypertension, Stage 1 (mild)	120-139	or 90-99
Hypertension, Stage 2 (severe)	≥160	or ≥100

*Reference card available (US DHHS, National Institute of Health, 2003)

Periodontal Disease Risk Assessment

Risk assessment for periodontal diseases should be part of every comprehensive dental and periodontal evaluation. This evolving paradigm in the treatment of chronic diseases, such as periodontal diseases, not only identifies the existence of disease and its severity, but also considers factors that may influence future progression of the disease. Some factors that may influence the progression of periodontal diseases are:

- Smoking and tobacco use
- Diabetes
- Pregnancy
- Cardiovascular disease
- Prescription medications that cause decreased flow of saliva
- HIV/AIDS
- Inadequate nutrition and stress (Kumar J, Samelson R, eds. 2006)

Oral Health Care for Pregnant Women

Oral Disease Identification, Management and Treatment for Pregnant Women

A clinical oral examination is an extensive evaluation, recording all extraoral and intraoral tissues as well as dental health indicators, including periodontal status. The challenge of periodontal disease is that it can progress silently, often without pain or overt symptoms that would alert the patient to its presence. Therefore, a key component of the clinical exam is a complete periodontal probing, which measures the crevice depth around each tooth.



If it is determined that treatment is needed, several key factors need to be considered in the development of a treatment plan. These include:

- Chief complaint (if any)
- Medical history
- History of tobacco, alcohol or other substance abuse
- Findings from the clinical evaluation, including the gingival and periodontal examination
- Findings from radiographs when needed
- Restorative dental service options
- Safe administration of drugs

In some cases diagnostic X-rays need to be used during pregnancy as part of the treatment plan. Current evidence suggests that there is not increased risk to the fetus with regard to congenital malformation, growth retardation or abortion from ionizing radiation at a dose of less than five rad. The US Food and Drug Administration (FDA) and the American Dental Association (ADA) have provided detailed guidelines for prescribing dental radiographs. Every precaution should be taken to minimize radiation exposure including the use of a protective thyroid collar and abdominal apron (American Dental Association, US Food & Drug Administration, revised 2012)

Oral Health Care for Pregnant Women

The National Consensus statement recommends the following in regard to managing patients that have oral disease during pregnancy.

- Provide emergency care at any time during pregnancy as indicated by dental condition.
- Develop, discuss with women, and provide a comprehensive care plan that includes prevention, treatment and maintenance throughout pregnancy.
- Discuss benefits and risks of treatment and alternative treatments.
- Use standard practice when placing restorative materials
- Use a rubber dam during restorative and endodontic procedures.
- Position pregnant women appropriately:
 - Keep head higher than feet
 - Place women in semi-reclining position and allow frequent position changes
 - Place a small pillow under right hip or have woman turn slightly to the left as needed to avoid dizziness or nausea from hypotension.
- Follow up with pregnant women to determine whether care has been effective



Oral Health Care for Pregnant Women

Pregnant Women and Oral Disease Management

It is recommended that the dental professional develop a comprehensive treatment plan and discuss it with the patient. Steps should include:

- Develop a plan for treatment of dental needs, maintenance of optimal health, and prevention strategies based on benefits, risks and alternatives
- Provide a timeline to complete all necessary dental procedures prior to delivery
- Provide for emergency care any time during pregnancy as indicated by oral condition
- Develop strategies to reduce maternal cariogenic bacterial load. Possible strategies include:
 - Use fluoride toothpaste and mouth rinse depending upon access to a public fluoridated water system
 - Use of chlorhexidine mouth rinse and fluoride varnish as appropriate
 - Use of chewing gum or mints that contain xylitol
 - Treatment of periodontal disease
- Recommend tobacco cessation. The South Carolina Quit Line Information and the Quit Line Provider Fax Referral are available online at the DHEC website. This information can be accessed at: <http://www.scdhec.gov/Health/TobaccoCessation/TobaccoQuitline/CalltheQuitlineNow/>
- Reinforce the importance of eating smart and making healthy food choices from the five food groups every day. Choices from these groups provide important nutrients for the mother and developing baby. An excellent resource for eating healthy during pregnancy is available at the March of Dimes Website: <http://www.marchofdimes.org/pregnancy/nutrition-weight-and-fitness.aspx>

Safe Administration of Drugs during the Perinatal Period

Dental professionals need to be fully informed about the safe administration of drugs for pregnant women. The FDA developed a classification system to provide therapeutic guidance for use of drugs during pregnancy. Most medications prescribed for common diseases can be used with relative safety (with a few notable exceptions like thalidomide and aspirin) because there have been few adverse drug reports. Moreover, the untreated disease or condition itself may pose more serious risks to both mother and fetus than any unsubstantiated risks from the medications.

Antibiotics and Analgesics

Dentists typically use antibiotics and analgesics for treating infection and controlling pain. Pharmaco-therapeutics should not be a substitute for appropriate and timely dental procedures. Drugs such as aspirin, aspirin containing products, erythromycin estolate and tetracycline should be avoided during pregnancy.

Recommendations for some commonly used drugs are summarized in Table 3.

Oral Health Care for Pregnant Women

Table 3: Antibiotics and Analgesics: Indications, Contraindications, and Special Considerations

Antibiotics	Always use for indicated medical conditions and with appropriate supervision.
Penicillin	May be used during pregnancy
Amoxicillin	
Cephalosporins	
Clindamycin	
Erythromycin (except for estolate form)	
Metronidazole	
Ciprofloxacin	Avoid During Pregnancy
Clarithromycin	
Levofloxacin	
Moxifloxacin	
Erythromycin in the estolate form	
Quinolones	
Tetracycline	Never Use During Pregnancy
Analgesics	Always use for indicated medical conditions and with appropriate supervision.
Acetaminophen	<p>May be used during pregnancy</p> <p>Oral pain can often be managed with non-opioid medication. If opioids are used, prescribe the lowest dose for the shortest duration (usually less than 3 days), and avoid issuing refills to reduce risk for dependency.</p>
Acetaminophen with codeine, hydrocodone, or oxycodone	
Codeine	
Hydrocodone	
Meperidine	
Morphine	
Aspirin	<p>May be used in short duration during pregnancy; 48 to 72 hours.</p> <p>Avoid in 1st and 3rd trimester</p>
Ibuprofen	
Naproxen	

Adapted, with permission, from Oral Health During Pregnancy Expert Work Group. 2012. Oral Health Care During Pregnancy: A National Consensus Statement. Washington, DC: National Maternal and Child Oral Health Resource Center at Georgetown University.

Oral Health Care for Pregnant Women

Anesthetic

Local anesthetic with epinephrine can be used during pregnancy. Lidocaine with epinephrine prolongs the length of anesthesia because the drug is absorbed slowly. There is a theoretical concern about the effect of epinephrine on uterine muscle. No scientific studies, however, could be found to confirm this effect in pregnant women. The frequency of malformations was not increased among reviews of almost 300 children whose mothers were given lidocaine during early pregnancy (Kumar J, Samelson R, eds. 2006).

Table 4: Anesthetics: Indications, Contraindications, and Special Considerations

Anesthetics	Always use for indicated medical conditions and with appropriate supervision.
Sedation	Consult with a prenatal care health professional before using intravenous sedation or general anesthesia. Limit duration of exposure to less than 3 hours in pregnant women in the third trimester.
Nitrous Oxide (30%)	May be used during pregnancy when topical or local anesthetics are inadequate. Pregnant women require lower levels of nitrous oxide to achieve sedation; consult with prenatal care health professional.
Local Anesthetics with Epinephrine	
Lidocaine (2%)	May be used during pregnancy
Mepivacaine (3%)	
Prilocaine	
Bupivacaine	
Etidocaine	
Procaine	

Adapted, with permission, from Oral Health During Pregnancy Expert Work Group. 2012. Oral Health Care During Pregnancy: A National Consensus Statement. Washington, DC: National Maternal and Child Oral Health Resource Center at Georgetown University.

Amalgam Restorations

The Division of Oral Health of the South Carolina Department of Health and Environmental Control defers to the American Dental Association on clinical matters concerning standards of care regarding the use of dental amalgam (American Dental Association, 2008).

Oral Health Care for Pregnant Women

Note: It is important that pregnant women are positioned appropriately during an examination and treatment procedure. Suggestions include:

- Keep the head at a higher level than the feet.
- Place a small pillow under the right hip, or have women turn slightly to the left to avoid dizziness or nausea (Kumar J, Samelson R, eds. 2006).

Collaboration with Prenatal Care Professionals

It is important that dental providers confer and connect with prenatal care professionals. Below are some recommendations from the National Consensus Statement and Kumar J, Samelson R, eds. 2006.

- Establish relationships with prenatal care professionals in the community. Develop a formal referral process.
- Share pertinent information about pregnant women with prenatal care professionals and coordinate care as appropriate.
- Consult with prenatal professionals as necessary.
 - Co-morbid conditions that may affect management of oral health issues
 - Use of intravenous sedation or general anesthesia water system
 - Use of nitrous oxide as an adjunctive analgesic to local anesthetic

Improve Health Services in the Community (National Consensus Statement)

- If a pregnant woman does not have a prenatal care professional, explain the importance of care. Facilitate referrals to prenatal care professionals in the community.
- On the patient intake form, record name and contact information for the prenatal care professional.
- Accept pregnant women enrolled in Medicaid and other public insurance programs.
- Partner with community-based programs that serve pregnant women with low incomes (WIC, Early Head Start).
- Provide referral for nutrition counseling.
- Provide culturally and linguistically appropriate care.

Oral Health Care for Pregnant Women

Strategies for the Dental Professional to Improve Access to Dental Care during Pregnancy

One of the most critical aspects for treating the pregnant woman is gaining access to care. (Kumar J, Samelson R, eds., 2006).

Table 5: Strategies for Dental Professionals to Improve Access to Dental Care during Pregnancy in South Carolina

Strategy	Activity		
Reduce practice-level barriers	Reduce long waiting lists for appointments or long waits in the dental office waiting room.		
	Accept patients enrolled in Medicaid and managed care organizations.		
Reduce system-level barriers	Develop partnerships with programs that reach pregnant women. Examples are:		
	WIC (the Special Supplemental Nutrition Program for Women, Infants and Children).	First Steps: Healthy Start	Early Head Start and other programs that serve pregnant women.
	For more information access information online at: http://www.fns.usda.gov/wic/women-infants-and-children-wic	For more information access information online at: http://scfirststeps.com/healthy-start/	For more information access information online at: http://www.headstartprogram.us/state/south_carolina

Guidance to share with pregnant women (National Consensus Statement)

- Any guidance provided should be modified based on a risk assessment.
- Create opportunities for thoughtful dialogue
- Get dental care
- Practice good home care
- Eat healthy foods
- Drink water with fluoride
- Consume 600 micrograms of folic acid
- Attend prenatal classes
- Stop use of any tobacco products. Avoid second hand smoke
- Stop consumption of alcoholic beverages



Oral Health Care for Pregnant Women

Conclusion

Oral health is an essential component of the overall health status for pregnant women and for women across the lifespan. The intent of these guidelines is to increase the comfort level of health professionals and dental professionals in the oral health care of pregnant women. It is essential that the health professional recognizes oral health care as a need and a priority area for women who are pregnant or who plan to become pregnant. Oral health must become a larger care priority during the perinatal period and health professionals must recognize the effect of poor oral health on the mother and the unborn child. In addition, it is vitally important for the dental professional to feel comfortable and informed in the treatment of his/her pregnant patients and to promote access to care for pregnant patients, including those covered by Medicaid. Pregnant women need to be encouraged to go to the dentist and dental professionals need to make every effort to attend to the unique needs of pregnant patients. With a greater level of understanding and an increased attitude of collaboration between the health professional and the dental provider, great strides can be made in reducing problems that may arise from poor oral health care during pregnancy. This all leads toward the ultimate goal of ensuring that pregnant women and their children will have the best health outcomes possible.



Disclaimer

South Carolina Takes Action: Oral Health Care for Pregnant Women is offered as a resource tool for dentists, physicians, and other health care professionals. They are not intended to set specific standards of care or to provide legal or other professional advice. Professionals should always exercise their own professional judgment in a given situation with any given patient and consult with professional advisors for such advice.

Oral Health Care for Pregnant Women

References

American Academy of Pediatric Dentistry (2006). Policy on Use of a Caries-risk Assessment Tool (CAT) for Infants, Children, and Adolescents. Chicago (IL): American Academy of Pediatric Dentistry. Accessed on at: http://www.aapd.org/media/Policies_Guidelines/P_CariesRiskAssess.pdf

Dye BA, Thornton-Evans G, Li X, Iafolla TJ. Dental caries and sealant prevalence in children and adolescents in the United States, 2011–2012. NCHS data brief, no 191. Hyattsville, MD: National Center for Health Statistics. 2015.

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



Oral Health Care for Pregnant Women

Appendix: Referral Form for Pregnant Women to Receive Dental Care

Referred to: _____ Date: _____

Patient’s Name: (First) _____ (Last): _____

Known allergies: _____

Estimated delivery date: _____ Week of gestation today: _____

Precautions: _____ None

Specify if any: _____

Patient may have (check all that apply):		
	Acetaminophen with codeine for pain control	
	Alternative pain control medication	Please Specify:
	Amoxicillin	
	Cephalosporins	
	Clindamycin	
	Erythromycin (not estolate form)	
	Penicillin	
	Local Anesthetic with epinephrine	
	Other, specify	

Name: _____ Date: _____ Phone: _____

Signature: _____

Do not hesitate to call with questions

Adapted from: Kumar J, Samelson R, eds. (2006). Oral Health Care During Pregnancy and Early Childhood: Practice Guidelines. Albany, NY: New York State Department of Health. Accessed on March 7, 2017

Appendix: Dentist’s Report: For the Prenatal Health Professional

Date: _____

Patient’s Name: (First) _____ (Last): _____

DOB: _____

Diagnosis: _____

Treatment plan: (check all that apply):	
<input type="checkbox"/>	Dental examination
<input type="checkbox"/>	Dental prophylaxis
<input type="checkbox"/>	Scaling and root planning
<input type="checkbox"/>	Extraction
<input type="checkbox"/>	Dental X-rays with abdominal and thyroid lead shield
<input type="checkbox"/>	Local anesthetic with epinephrine
<input type="checkbox"/>	Root canal
<input type="checkbox"/>	Restorations filling cavities
<input type="checkbox"/>	Other, specify

Name: _____ Date: _____ Phone: _____

Signature: _____

Contact information: _____

Adapted from: Kumar J, Samelson R, eds. (2006). Oral Health Care During Pregnancy and Early Childhood: Practice Guidelines. Albany, NY: New York State Department of Health. Accessed on March 7, 2017

Total Quantity - 500 Total Cost - \$270.00 Unit Cost - \$0.54

