

Oral Health Program Resource Playbook

MDHHS | Oral Health

Michigan Department of Health & Human Services

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About This Resource

This resource explores the vital link between oral health and overall health by:

1. **Connecting Chronic Diseases**: Illustrating how oral health influences chronic diseases such as diabetes, heart disease and Alzheimer's disease.
2. **Categorizing by Life Stage**: Providing specific information about health behaviors that can negatively impact oral and overall health from the perinatal period through older adulthood.
3. **Promoting Tools for Action**: Providing tips to manage oral health at each stage of life.

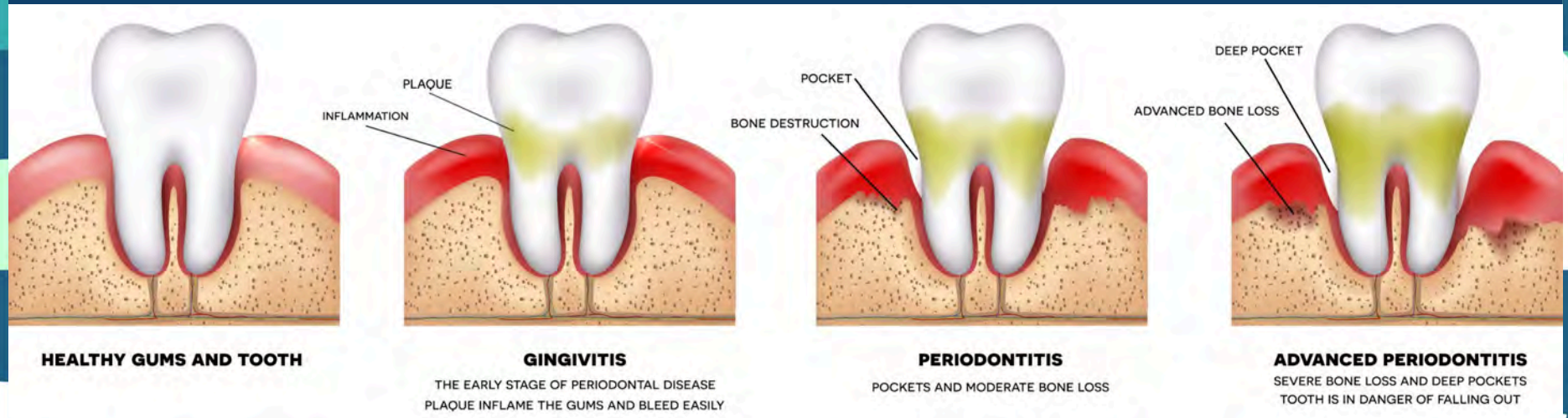
Use this guide to stay informed, proactive and healthy.

The Window to Health

The mouth is a gateway to the rest of the body.

Bacteria from the mouth can cause inflammation and infection in the tissues that support the teeth. Known as periodontal (gum) disease, this infection is linked to a range of negative short and long-term health conditions.



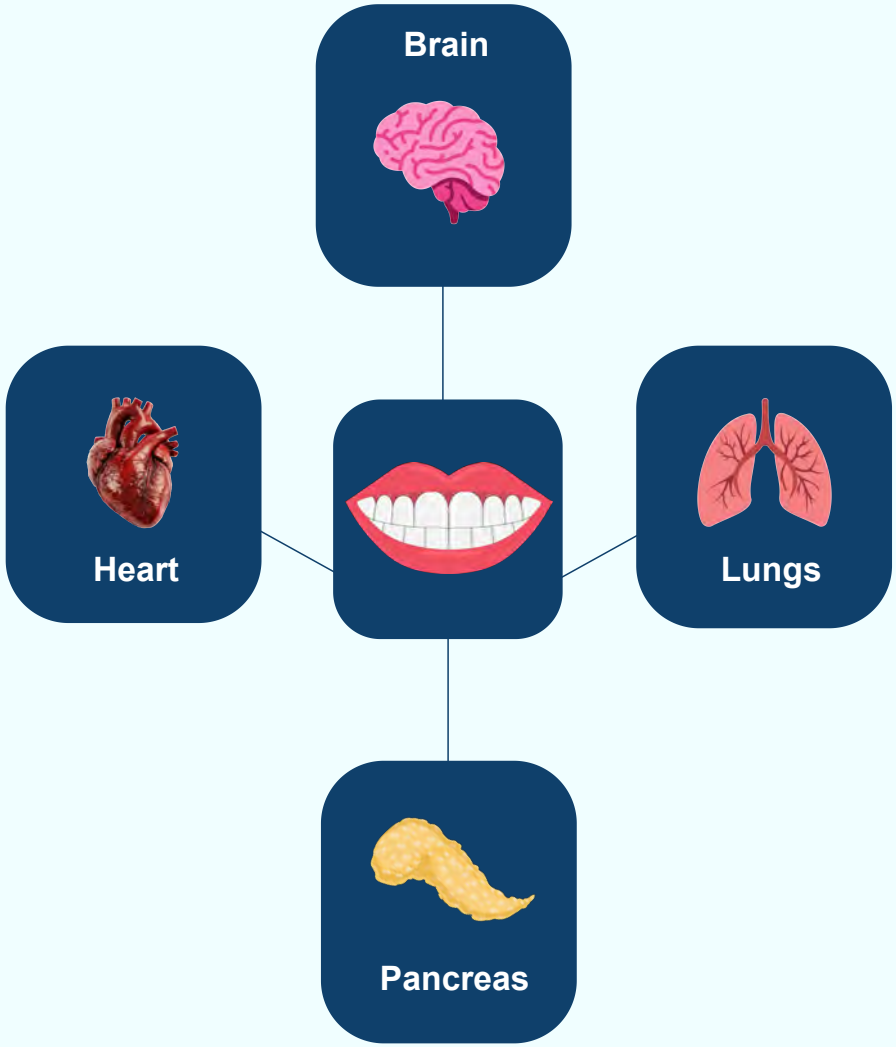


[1]Periodontitis, inflammation of the gums, detailed illustration by reineg

The Impact

Oral Health and Chronic Disease

When bacteria and inflammation from the mouth enter the bloodstream, they can increase the risk of chronic conditions such as heart disease, diabetes and Alzheimer's disease.[2]



[2] About Periodontal (Gum) Disease | Oral Health | CDC

Alzheimer's

Chronic oral inflammation can send bacteria through the bloodstream and to the brain, increasing the risk of Alzheimer's and related dementias.[3]

Heart Disease

Bacteria can enter the bloodstream, increasing the risk of heart disease, heart attack and stroke.[3]



Pneumonia

Bacteria can be inhaled into the lungs, increasing the risk of chest infections such as pneumonia, especially in older adults.[3]

Diabetes

Poor oral health can make it harder to manage blood sugar. Uncontrolled diabetes can increase the risk of severe mouth infections.[3]

[3]Inflammatory Networks Linking Oral Microbiome with Systemic Health and Disease - PMC

Oral Health and Chronic Disease Risks Across the Lifespan

Oral Health and Chronic Disease Across the Lifespan

Perinatal
(Pregnancy and up to first year postpartum)

Poor oral health increases inflammation linked to preterm birth, low birth weight and preeclampsia.



Childhood
(0-12 years)



Early oral disease can cause pain and raise lifelong chronic disease risk.

Adolescence
(13-18 years)

Vaping and human papillomavirus (HPV) can damage gums, lead to tooth decay and increase the long-term risk for oropharyngeal (throat) cancer and other chronic diseases.



Young Adulthood
(19-35 years)

Poor oral health can increase the risk of heart disease and other chronic diseases later in life.



Middle Adulthood
(36-64 years)



Chronic gum disease and medication-related dry mouth worsen chronic conditions and increase tooth decay, loss and infection risk.

Older Adulthood
(65+ years)

Chronic gum disease and tooth loss affect nutrition and trigger systemic inflammation linked to Alzheimer's disease, heart disease, heart attack and stroke.



Risk Factors Across the Lifespan

Perinatal
(Pregnancy and up to first year postpartum)

Gum disease: Natural changes in the body and immune system can increase the risk of early gum disease (gingivitis) and advanced gum disease (periodontitis), which are linked to preterm birth, low birth weight and preeclampsia.



Dental anxiety: Feeling anxious about going to the dentist during pregnancy can lead to missed visits and untreated dental problems that affect mom and baby.

Childhood
(0-12 years)

Constant sugar and acid exposure: Frequent sugary snacks or drinks between meals (four or more times daily) can lead to tooth decay that can progress and cause pain, infection or tooth loss.



Dental injuries from contact sports, bumps or falls can worsen oral health when not addressed early, potentially leading to long-term dental problems.

Adolescence
(13-18 years)

Vaping dries the mouth and damages tissues, increasing the risk of gum disease. This can trigger systemic inflammation linked to lung and heart disease, heart attack and stroke.



HPV is a sexually transmitted infection that can affect the mouth and is linked to throat cancer.

Risk Factors Across the Lifespan

Young Adulthood
(19-35 years)

Eating disorders can introduce harmful acids that strip away tooth enamel. This leaves teeth sensitive and vulnerable to decay.



Delayed dental care: Avoidance of or inconsistent dental visits can lead to delayed detection of oral health issues and reduced preventive care.

Middle Adulthood
(36-64 years)

Constant sugar and acid exposure: Frequent sugary snacks or drinks between meals (four or more times daily) can lead to tooth decay that can progress and cause pain, infection or tooth loss.



Poor Oral Hygiene: Infrequent and/or improper brushing and flossing can lead to tooth decay.

Older Adulthood
(65+ years)

Gum disease causes inflammation and can lead to tooth loss. Older adults with tooth loss have a higher risk of cognitive impairment and dementia. There is an increased risk with each missing tooth.



Medication side-effects: Common medications may cause side effects such as dry mouth, which can increase the risk of tooth decay and gum disease.

How can I manage my oral health?



Managing Perinatal Oral Health



2-2-2 rule: Brush twice daily for at least two minutes with fluoride toothpaste. Floss daily to remove plaque between teeth. Visit a dental professional twice per year (or as directed).

Talk to a dental professional about dental anxiety. They can help you feel more comfortable.

Eat nutritious foods that include fruits (not dried) and vegetables. Limit acidic foods and drinks with high-sugar content, especially before bedtime and between meals.

Since 60-75% of pregnant women have gingivitis due to hormonal changes that occur during pregnancy, these health behaviors can improve oral health and reduce the risk of negative pregnancy outcomes.[4]

[4]Talking to Pregnant Women about Oral Health | CDC

Managing Childhood Oral Health

A **mouthguard** is a protective appliance worn over the teeth that helps reduce the risk of injury to children's teeth, lips and jaws during sports and recreational play.

Dental sealants protect chewing surfaces of teeth to help prevent decay and are available through the school-based SEAL! Michigan program.



These preventive measures can help protect teeth from trauma (mouthguards) and decay (sealants), ultimately reducing the risk of costly dental emergencies and promoting good oral and overall health.

Managing Childhood Oral Health

Fluoride varnish is mainly used for individuals at higher risk of tooth decay and is applied by dental professionals to strengthen enamel and help reverse early tooth decay before cavities develop.

Silver Diamine Fluoride (SDF) strengthens teeth to prevent, slow down or stop tooth decay from getting worse.



Since tooth decay is the most common chronic disease in childhood, these tools can improve oral health by strengthening teeth.

Managing Adolescent Oral Health

Quitting vaping allows the mouth to heal from the harmful chemicals that damage teeth, gums and overall health.

HPV vaccine: 60-70% of throat cancers are caused by HPV. The vaccine can lower the risk of throat cancer.[5]

Visit a dental professional twice per year (or as directed). They can detect problems early.



Since vaping and HPV increase the risk of gum disease, oral cancers and other chronic diseases, quitting vaping and HPV vaccination are important to oral and overall health. These health behaviors can help protect oral health and reduce the risk of negative health outcomes.

[5] HPV and Oropharyngeal Cancer | Cancer | CDC

Managing Young Adult Oral Health

2-2-2 rule: Brush twice daily for at least two minutes with fluoride toothpaste. Floss daily to remove plaque between teeth. Visit a dental professional twice per year (or as directed).

Eat nutritious foods that include fruits (not dried) and vegetables. Limit acidic foods and drinks with high-sugar content, especially before bedtime and between meals.



In addition to an unhealthy diet, disordered eating can expose teeth to acids that damage enamel and promote decay. Speaking with a trusted loved one or health care professional and adopting harm-reduction behaviors, such as rinsing with one teaspoon of baking soda and water or a fluoridated mouthrinse immediately after acid exposure can help preserve enamel during recovery.

Managing Oral Health In Middle Adulthood

2-2-2 rule: Brush twice daily for at least two minutes with fluoride toothpaste. Floss daily to remove plaque between teeth. Visit a dental professional twice per year (or as directed).

Eat nutritious foods that include fruits (not dried) and vegetables. Limit acidic foods and drinks with high-sugar content, especially before bedtime and between meals.



Gum disease affects more than 40% of adults over age 30 and triggers systemic inflammation that can damage blood vessels.[6] This increases the risk of heart attack, stroke and other cardiovascular events. Consistent oral hygiene may reduce these risks and protect overall health.[6]

[6] Gum disease may be linked to plaque buildup in arteries, higher risk of major CVD events | American Heart Association

Managing Oral Health In Older Adulthood

Brush twice daily with fluoride toothpaste and floss daily to remove plaque between teeth. Using an electric toothbrush and a water flosser can be helpful.

Manage medication-induced dry mouth: Avoid alcohol-based mouthwashes, maintain hydration by drinking fluoridated water throughout the day and use sugar-free/xylitol gum to stimulate saliva.

Schedule dental visits and cleanings every six months or as recommended, even if you have dentures.



Since 95% of older adults manage at least one chronic condition such as cardiovascular disease or diabetes, and nearly 60% have chronic gum disease, practicing consistent oral hygiene is a vital step in protecting overall health.[7,8] Reducing systemic inflammation caused by gum disease can improve oral health and reduce the risk of negative outcomes such as heart attack and worsening cognitive decline.[7,8]

[7] Periodontal Disease in Adults (Age 30 or Older) | NIDCR

[8] Poor Oral Health in the Elderly and Its Effect on Chronic Disease - ScienceDirect

Caregiver Guide for Seniors



- Avoid alcohol-based mouthwashes.
- Monitor for bleeding or receding gums. Report any changes to dental professional.
- Offer soft, nutritious foods that are easy to chew and swallow such as eggs, fish, vegetables and yogurt.
- Guide or assist brushing and/or denture cleaning.
- Encourage fluoridated water frequently throughout the day.

Seek Help for Seniors Experiencing:



- Fever.
- Swelling.
- Difficulty eating.
- Persistent mouth pain.
- Sudden behavior changes.

Dental Care Resources



If you need help finding dental care or resources, visit:

MI Department of Health and Human Services Oral Health webpage. (URL: michigan.gov/OralHealth)

Or scan the QR code:

Food Access Resources

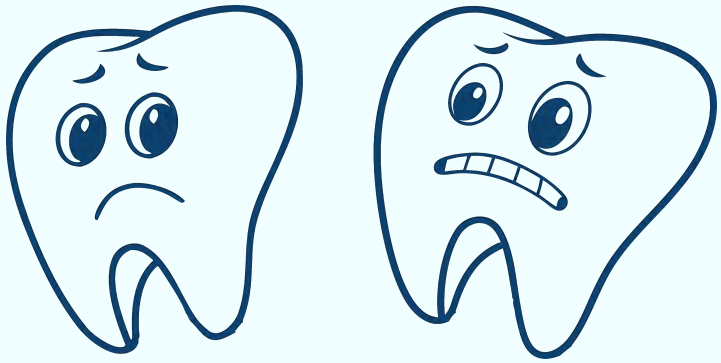


For food access and educational resources, visit:

MI Department of Health and Human Services Assistance Programs webpage.
(URL: michigan.gov/mdhhs/assistance-programs)

Or scan the QR code:

Dental Anxiety Resource



For a dental anxiety resource, visit:

Delta Dental's Understanding and Overcoming Dental Anxiety webpage.
(URL: bit.ly/48g5NdO)

Or scan the QR code:

References

[1] Adobe Stock Image by reineg. (n.d.). Periodontitis, inflammation of the gums, detailed illustration.

[2] Centers for Disease Control and Prevention. (n.d.). About periodontal (gum) disease. Centers for Disease Control and Prevention. https://www.cdc.gov/oral-health/about/gum-periodontal-disease.html

[3] Kleinstein, S. E., Nelson, K. E., & Freire, M. (2020, September). Inflammatory networks linking oral microbiome with Systemic Health and Disease. Journal of dental research. https://pmc.ncbi.nlm.nih.gov/articles/PMC7443998/

[4] Centers for Disease Control and Prevention. (n.d.-b). Talking to pregnant women about Oral Health. Centers for Disease Control and Prevention. https://www.cdc.gov/oral-health/hcp/conversation-tips/talking-to-pregnant-women-about-oral-health.html

[5] Centers for Disease Control and Prevention. (n.d.-b). HPV and oropharyngeal cancer. Centers for Disease Control and Prevention. https://www.cdc.gov/cancer/hpv/oropharyngeal-cancer.html

[6] Gum disease may be linked to plaque buildup in arteries, higher risk of major CVD events. American Heart Association. (n.d.). https://newsroom.heart.org/news/gum-disease-may-be-linked-to-plaque-buildup-in-arteries-higher-risk-of-major-cvd-events

[7] Periodontal disease in adults (age 30 or older) | nidcr. (n.d.). https://www.nidcr.nih.gov/research/data-statistics/periodontal-disease/adults

[8] Poor Oral Health in the Elderly and Its Effect on Chronic Disease. (n.d.-b). https://www.researchgate.net/publication/351163114_httpswwwsciencedirectcomsciencearticleabspiiS1051200421000968

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