

Prevent diabetes problems: Keep your mouth healthy



U.S. Department
of Health and
Human Services

NATIONAL INSTITUTES OF HEALTH

NIDDK NATIONAL INSTITUTE OF
DIABETES AND DIGESTIVE
AND KIDNEY DISEASES

National Diabetes Information Clearinghouse

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Contents

How can diabetes affect my mouth? 1

What happens if I have plaque?..... 3

What are the most common mouth problems
from diabetes?..... 4

How will I know if I have mouth problems
from diabetes?..... 7

How can I prepare for a visit to my dentist? 8

What if my mouth is sore after my dental work? 9

How does smoking affect my mouth? 10

How can I keep my mouth healthy? 11

Pronunciation Guide 15

For More Information 16

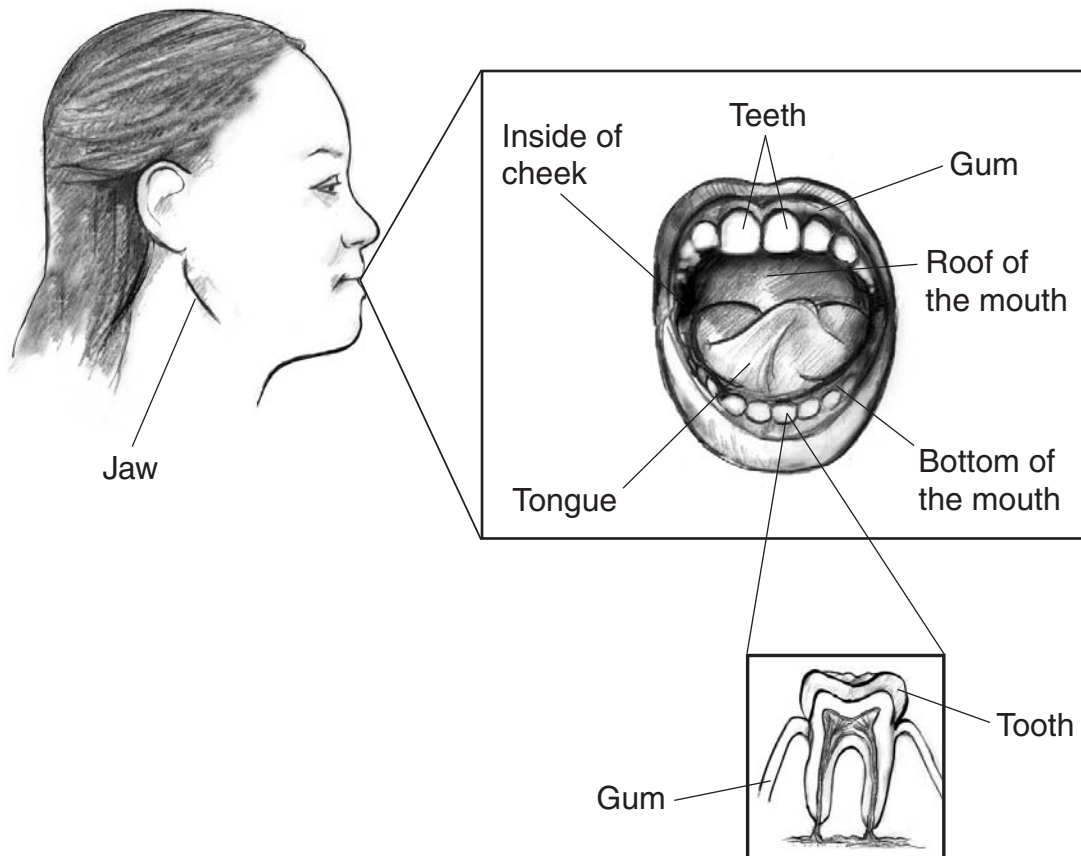
More in the Series 19

Acknowledgments 20

How can diabetes affect my mouth?

Too much **glucose**,* also called sugar, in your blood from diabetes can cause pain, infection, and other problems in your mouth. Your mouth includes

- your teeth
- your gums
- your jaw
- tissues such as your tongue, the roof and bottom of your mouth, and the inside of your cheeks



*See page 15 for tips on how to say the words in **bold** type.

Glucose is present in your **saliva**—the liquid in your mouth that makes it wet. When diabetes is not controlled, high glucose levels in your saliva help harmful germs, called **plaque**, grow. Plaque also comes from eating foods that contain sugars or starches. Some types of plaque cause tooth decay or cavities. Other types of plaque cause gum disease.

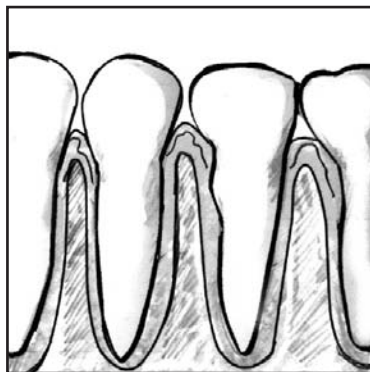
high glucose levels = ↑ plaque

Gum disease can happen more often, be more severe, and take longer to heal if you have diabetes. In turn, having gum disease can make your blood glucose hard to control. Some studies show that treating your gum disease makes it easier to control your blood glucose.

What happens if I have plaque?

Plaque that is not removed hardens over time and collects above your gum line. Hardened plaque makes it more difficult to brush and clean between your teeth. Your gums become red, swollen, and bleed easily—signs of the first stage of gum disease, called **gingivitis**.

When gingivitis is not treated, it can advance to **periodontitis**. In periodontitis, the gums pull away from the teeth and form spaces, called pockets, which become infected. Your body fights the germs as the plaque spreads and grows below the gum line. But the germs and your body's response to this infection start to break down the bone and the tissue that hold the teeth in place. If periodontitis is not treated, the gums, bones, and tissue that support the teeth are destroyed. Teeth may become loose and might need to be removed. If you have periodontitis, your dentist may send you to a **periodontist**, an expert in treating gum disease.



Healthy gums



Periodontitis

What are the most common mouth problems from diabetes?

This chart shows the most common mouth problems from diabetes.

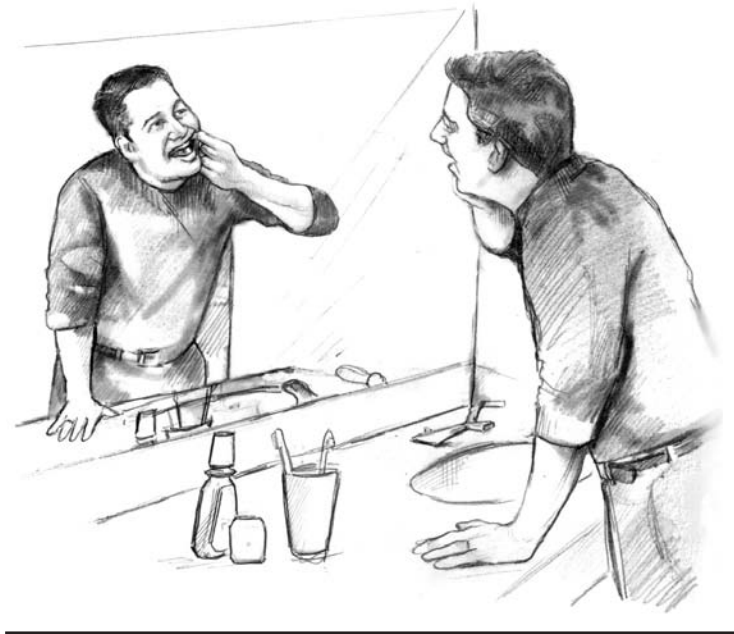
Problem	What it is	Symptoms	Treatment
Gingivitis	<ul style="list-style-type: none"> the first stage of gum disease 	<ul style="list-style-type: none"> red, swollen, and bleeding gums 	<ul style="list-style-type: none"> daily brushing and flossing regular cleanings at the dentist
Periodontitis	<ul style="list-style-type: none"> a more severe form of gum disease 	<ul style="list-style-type: none"> red, swollen, and bleeding gums gums that have pulled away from the teeth pus between the teeth and gums bad breath that won't go away permanent teeth that are loose or moving away from each other changes in the way your teeth fit together when you bite changes in the fit of dentures, which are teeth you can remove 	<ul style="list-style-type: none"> deep cleaning at your dentist medicine prescribed by your dentist gum surgery
Thrush	<ul style="list-style-type: none"> the growth of a naturally occurring fungus that the body is unable to control 	<ul style="list-style-type: none"> sore, white—or sometimes red—patches on your gums, tongue, cheeks, or the roof of your mouth patches that have turned into open sores 	<ul style="list-style-type: none"> taking medicine prescribed by your doctor or dentist to kill the fungus fixing dentures that do not fit well removing dentures for part of the day or night, and keeping them clean
Dry mouth, called xerostomia	<ul style="list-style-type: none"> a lack of saliva in your mouth, which raises your risk for tooth decay and gum disease 	<ul style="list-style-type: none"> dry feeling in your mouth, often or all of the time dry, rough tongue pain in the mouth cracked lips mouth sores or infection problems chewing, eating, swallowing, or talking 	<ul style="list-style-type: none"> taking medicine prescribed by your doctor or dentist to keep your mouth wet rinsing with a fluoride mouthrinse using sugarless gum or mints to increase saliva flow taking frequent sips of water avoiding tobacco, caffeine, and alcohol using a humidifier, a device that raises the level of moisture in your home, at night avoiding spicy or salty foods that may cause pain in a dry mouth
Burning mouth syndrome	<ul style="list-style-type: none"> a painful, complex mouth problem cause unknown but linked to nerve damage, painful dentures, changes in hormones, dry mouth, and poor diet 	<ul style="list-style-type: none"> burning feeling in the mouth dry mouth bitter taste symptoms may worsen throughout the day 	<ul style="list-style-type: none"> depends on your needs and the cause

More signs of a problem in your mouth are

- pain in the mouth, face, or jaw that doesn't go away
- loose teeth
- pain when chewing
- a changed sense of taste
- dark spots or holes in your teeth
- a sore, or ulcer, that does not heal

How will I know if I have mouth problems from diabetes?

Check your mouth for signs of problems from diabetes. If you notice any problems, see your dentist right away. Some of the first signs of gum disease are swollen, tender, or bleeding gums. Sometimes there are no signs of gum disease. You may not know you have it until you have serious damage. Your best defense is to see your dentist twice a year for a cleaning and checkup.



Check your mouth for signs of problems from diabetes.

How can I prepare for a visit to my dentist?

Plan ahead. Talk with your doctor and dentist before the visit about the best way to take care of your blood glucose during dental work.

You may be taking a diabetes medicine that can cause low blood glucose, also called **hypoglycemia**. If you take **insulin** or other diabetes medicines, take them and eat as usual before visiting the dentist. You may need to bring your diabetes medicines and food with you to the dentist's office.

You may need to postpone any non-emergency dental work if your blood glucose is not under control.

If you feel nervous about visiting the dentist, tell your dentist and the staff about your feelings. Your dentist can adapt the treatment to your needs. Don't let your nerves stop you from having regular checkups. Waiting too long to take care of your mouth may make things worse.



Tell your dentist and the staff about your feelings.

What if my mouth is sore after my dental work?

If your mouth is sore after your dental work, you might not be able to eat or chew for several hours or days. For guidance on how to adjust your usual routine while your mouth is healing, ask your doctor

- what foods and drinks you should have
- if you should change the time when you take your diabetes medicines
- if you should change the dose of your diabetes medicines
- how often you should check your blood glucose

How does smoking affect my mouth?

Smoking makes problems with your mouth worse. Smoking raises your chances of getting gum disease, oral and throat cancers, and oral fungal infections. Smoking also discolors your teeth and makes your breath smell bad.



Smoking and diabetes are a dangerous mix. Smoking raises your risk for many diabetes problems. If you quit smoking,

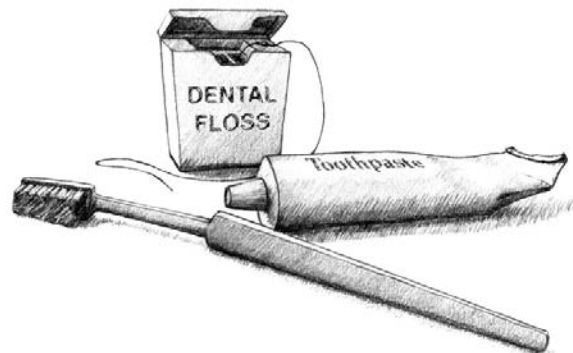
- you will lower your risk for heart attack, stroke, nerve disease, kidney disease, and **amputation**
- your **cholesterol** and blood pressure levels might improve
- your blood **circulation** will improve

If you smoke, ask your doctor to help you quit or call 1–800–QUITNOW (1–800–784–8669).

How can I keep my mouth healthy?

You can keep your mouth healthy by taking these steps:

- Keep your blood glucose numbers as close to your target as possible. Your doctor will help you set your target blood glucose numbers and teach you what to do if your numbers are too high or too low.
- Eat healthy meals and follow the meal plan that you and your doctor or dietitian have worked out.
- Brush your teeth at least twice a day with fluoride toothpaste. Fluoride protects against tooth decay.
 - Aim for brushing first thing in the morning, before going to bed, and after each meal and snack.
 - Use a soft toothbrush.
 - Gently brush the gum line.
 - Use small, circular motions.
 - Brush the front, back, and top of each tooth. Brush your tongue, too.



- Change your toothbrush every 3 months, or sooner if the toothbrush looks worn or the bristles spread out. A new toothbrush removes more plaque.
- Drink water that contains added fluoride or ask your dentist about using a fluoride mouthrinse to prevent tooth decay.
- Ask your dentist about using an anti-plaque or anti-gingivitis mouthrinse to control plaque or prevent gum disease.
- Use dental floss to clean in between your teeth at least once a day. Flossing helps prevent plaque from building up on your teeth. When flossing,
 - slide the floss up and down and then curve it around the base of each tooth
 - use clean sections of floss as you move from tooth to tooth



Another way of removing plaque between teeth is to use a dental pick or brush—thin tools designed to clean between the teeth. You can buy these picks at drug stores or grocery stores.

- If you wear dentures, keep them clean. Have them adjusted if they become loose or uncomfortable.
- Call your dentist right away if you have any signs of mouth problems.
- See your dentist twice a year for a cleaning and checkup. Your dentist may suggest more visits if you need them.
- Follow your dentist's advice.
 - If your dentist tells you about a problem, take care of it right away.
 - Follow any steps or treatments from your dentist to keep your mouth healthy.



See your dentist twice a year for a cleaning and checkup.

- Tell your dentist that you have diabetes.
 - Tell your dentist about any changes in your health or medicines.
 - Share the results of some of your diabetes blood tests, such as the A1C test or the fasting blood glucose test.
 - Ask if you need antibiotics before and after dental treatment if your diabetes is uncontrolled.
- If you smoke, get help to quit.

Pronunciation Guide

amputation (AM-pyoo-TAY-shuhn)

cholesterol (ko-LESS-tur-ol)

circulation (SUR-kyoo-LAY-shuhn)

fluoride (FLOR-eyed)

gingivitis (JIN-jih-VY-tiss)

glucose (GLOO-kohss)

humidifier (hyoo-MID-ih-FY-ur)

hypoglycemia (HY-poh-gly-SEE-mee-uh)

insulin (IN-suh-lin)

periodontist (PAIR-ee-oh-DON-tist)

periodontitis (PAIR-ee-oh-don-TY-tiss)

plaque (plak)

saliva (suh-LY-vuh)

xerostomia (ZEE-roh-STOH-mee-uh)

For More Information

To find diabetes teachers (nurses, dietitians, pharmacists, and other health care providers), contact

American Association of Diabetes Educators

Phone: 1-800-TEAMUP4 (1-800-832-6874) or
1-800-338-3633

Email: aade@aadenet.org

Internet: www.diabeteseducator.org

Under “About Diabetes Education,” click on
“Find a Diabetes Educator.”

To find dietitians, contact

Academy of Nutrition and Dietetics

Internet: www.eatright.org

Click on “Find a Registered Dietitian.”

To learn more about mouth problems from diabetes, contact

National Institute of Dental and Craniofacial Research

National Oral Health Information Clearinghouse

1 NOHIC Way

Bethesda, MD 20892-3500

Phone: 1-866-232-4528

Fax: 301-480-4098

Email: nidcrinfo@mail.nih.gov

Internet: www.nidcr.nih.gov/OralHealth

To get more information about taking care of diabetes,
contact

National Diabetes Information Clearinghouse

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TTY: 1–866–569–1162

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Email: ndep@mail.nih.gov

Internet: www.ndep.nih.gov

www.yourdiabetesinfo.org

American Diabetes Association

1701 North Beauregard Street

Alexandria, VA 22311

Phone: 1-800-DIABETES (1-800-342-2383)

Email: AskADA@diabetes.org

Internet: www.diabetes.org

Juvenile Diabetes Research Foundation International

26 Broadway, 14th Floor

New York, NY 10004

Phone: 1-800-533-CURE (1-800-533-2873)

Fax: 212-785-9595

Email: info@jdrf.org

Internet: www.jdrf.org

More in the Series

The Prevent Diabetes Problems Series includes seven booklets that can help you learn more about how to prevent diabetes problems.



For free single copies of these booklets, write, call, fax, or email the

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1 Information Way
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Phone: 1-800-860-8747
TTY: 1-866-569-1162
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Email: ndic@info.niddk.nih.gov

These booklets are also available at
www.diabetes.niddk.nih.gov.

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www.yourdiabetesinfo.org

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