Prevent diabetes problems: Keep your mouth healthy

Number 7 in a Series of 7

National Institute of Diabetes and Digestive and Kidney Diseases

National Diabetes Information Clearinghouse
Prevent diabetes problems:
Keep your mouth healthy
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.
## What are the most common mouth problems from diabetes?

This chart shows the most common mouth problems from diabetes.

<table>
<thead>
<tr>
<th>Problem</th>
<th>What it is</th>
<th>Symptoms</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gingivitis</td>
<td>• the first stage of gum disease</td>
<td>• red, swollen, and bleeding gums</td>
<td>• daily brushing and flossing</td>
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<td></td>
<td></td>
<td></td>
<td>• regular cleanings at the dentist</td>
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<tr>
<td>Periodontitis</td>
<td>• a more severe form of gum disease</td>
<td>• red, swollen, and bleeding gums</td>
<td>• deep cleaning at your dentist</td>
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<td></td>
<td></td>
<td>• gums that have pulled away from the teeth</td>
<td>• medicine prescribed by your dentist</td>
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<td></td>
<td></td>
<td>• pus between the teeth and gums</td>
<td>• gum surgery</td>
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<td></td>
<td></td>
<td>• bad breath that won’t go away</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• permanent teeth that are loose or moving away from each other</td>
<td></td>
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<td></td>
<td></td>
<td>• changes in the way your teeth fit together when you bite</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• changes in the fit of dentures, which are teeth you can remove</td>
<td></td>
</tr>
<tr>
<td>Thrush</td>
<td>• the growth of a naturally occurring fungus that the body is unable to control</td>
<td>• sore, white—or sometimes red—patches on your gums, tongue, cheeks, or the roof of your mouth</td>
<td>• taking medicine prescribed by your doctor or dentist to kill the fungus</td>
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<tr>
<td></td>
<td></td>
<td>• patches that have turned into open sores</td>
<td>• fixing dentures that do not fit well</td>
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<td></td>
<td></td>
<td></td>
<td>• removing dentures for part of the day or night, and keeping them clean</td>
</tr>
<tr>
<td>Dry mouth, called xerostomia</td>
<td>• a lack of saliva in your mouth, which raises your risk for tooth decay and gum disease</td>
<td>• dry feeling in your mouth, often or all of the time</td>
<td>• taking medicine prescribed by your doctor or dentist to keep your mouth wet</td>
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<td></td>
<td></td>
<td>• dry, rough tongue</td>
<td>• rinsing with a fluoride mouthrinse</td>
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<td></td>
<td></td>
<td>• pain in the mouth</td>
<td>• using sugarless gum or mints to increase saliva flow</td>
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<tr>
<td></td>
<td></td>
<td>• cracked lips</td>
<td>• taking frequent sips of water</td>
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<tr>
<td></td>
<td></td>
<td>• mouth sores or infection</td>
<td>• avoiding tobacco, caffeine, and alcohol</td>
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<tr>
<td></td>
<td></td>
<td>• problems chewing, eating, swallowing, or talking</td>
<td>• using a humidifier, a device that raises the level of moisture in your home, at night</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• avoiding spicy or salty foods that may cause pain in a dry mouth</td>
</tr>
<tr>
<td>Burning mouth syndrome</td>
<td>• a painful, complex mouth problem</td>
<td>• burning feeling in the mouth</td>
<td>• depends on your needs and the cause</td>
</tr>
<tr>
<td></td>
<td>• cause unknown but linked to nerve damage, painful dentures, changes in hormones, dry mouth, and poor diet</td>
<td>• dry mouth</td>
<td></td>
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<td></td>
<td></td>
<td>• bitter taste</td>
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<td></td>
<td></td>
<td>• symptoms may worsen throughout the day</td>
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</tr>
</tbody>
</table>
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.
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.
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

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1 Information Way  
Bethesda, MD 20892–3560  
Phone: 1–800–860–8747  
TTY: 1–866–569–1162  
Fax: 703–738–4929  
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Internet: www.diabetes.niddk.nih.gov

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Fax: 703–738–4929  
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

National Diabetes Information Clearinghouse
1 Information Way
Bethesda, MD 20892–3560
Phone: 1–800–860–8747
TTY: 1–866–569–1162
Fax: 703–738–4929
Email: ndic@info.niddk.nih.gov

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