PROCEDURE

Gum biopsy

A gum biopsy removes a small tissue sample for examination under a microscope.

PURPOSE
Remove gum tissue for examination under a microscope

PROCEDURE TYPE
Diagnostic minor surgery using a scalpel or punch

WHERE IT IS DONE
Outpatient dental or oral surgery clinic

ANAESTHESIA
Local, with sedation sometimes offered

HOW LONG IT TAKES
Usually 15 to 30 minutes

PREPARATION
Medication review; fasting only if sedation is planned

RECOVERY
Same day; no driving after sedation

MAIN RISKS
Bleeding, infection, pain, swelling

RESULTS
Pathology usually within several days to two weeks

Overview

A gum biopsy is a minor surgical procedure in which a dentist or oral surgeon removes a small piece of tissue from your gum. A pathologist, a doctor who diagnoses conditions by examining cells and tissues, studies the sample under a microscope.

A biopsy can help identify inflammation, infection, immune-related conditions, precancerous changes, or cancer. Being offered a biopsy does not mean you have cancer. Many gum changes have noncancerous causes, but looking at the tissue is sometimes the only reliable way to tell them apart.

An incisional biopsy removes part of an abnormal area. An excisional biopsy removes the whole area, usually when it is small and can be taken out safely. A punch biopsy uses a small circular cutting tool to collect a sample.

Why the procedure is performed

Your dental or medical team may recommend a gum biopsy when an area cannot be identified confidently from its appearance or when it has not improved as expected.

Reasons may include:

The biopsy result can guide decisions about monitoring, medication, further surgery, or referral to another specialist.

- A persistent ulcer, lump, thickened area, or unexplained swelling
- A red, white, dark, or mixed-colour patch
- Gum tissue that bleeds unusually or changes shape
- An abnormal area found during a dental examination or scan
- Suspected inflammatory or immune-related disease
- The need to check whether abnormal cells are precancerous or cancerous
- Removal and testing of a small growth

Who should and should not have it

A gum biopsy may be appropriate when knowing the tissue diagnosis could change your care. It is especially useful when an abnormal area persists, has concerning features, or cannot be explained by a routine dental problem.

It may not be the right first step for a clearly temporary injury that is already healing, such as irritation from biting the gum. Your clinician may first remove an obvious source of irritation and arrange a review. If the area remains, biopsy may still be advised.

The procedure may need to be delayed or planned differently if you have:

These issues do not always prevent biopsy. They may mean you need blood tests, medication planning, sedation, hospital treatment, or assessment by an oral and maxillofacial surgeon. Do not stop a blood thinner like warfarin or apixaban unless the clinician responsible for your procedure tells you to do so.

- A bleeding disorder or poorly controlled medical condition
- Medicines that affect clotting, including anticoagulants or antiplatelet medicines
- An allergy to local anaesthetic or another planned medicine
- Difficulty remaining still or tolerating treatment while awake

- A lesion that may contain many blood vessels
- An infection or swelling that changes where a safe sample can be taken

How to prepare

Follow the instructions from your treating facility, as its own instructions take priority. Preparation differs according to the biopsy site, your health, and whether sedation is planned.

Give the team an up-to-date list of your medicines, supplements, allergies, and medical conditions. Tell them about previous problems with bleeding, local anaesthetic, sedation, or wound healing.

You can usually eat and drink normally before a biopsy performed with local anaesthetic alone. If you will have sedation or general anaesthesia, you may need to stop eating and drinking beforehand. Follow the exact fasting times provided by your facility.

Brush your teeth gently before the appointment unless instructed otherwise. Avoid applying creams or home treatments to the area on the day. If sedation is planned, arrange for a responsible adult to take you home and stay with you as instructed.

What happens during the procedure

The clinician first examines the abnormal area and confirms where the sample will be taken. Photographs or measurements may be recorded so the area can be compared later.

Local anaesthetic is injected into the gum. This may sting briefly. Once the area is numb, you should not feel sharp pain, although you may notice pressure, pulling, or movement.

The clinician removes part or all of the abnormal tissue using a scalpel, a small punch tool, or another surgical instrument. The sample is placed in a labelled container and sent to a pathology laboratory.

The wound may be closed with one or more stitches. Some stitches dissolve on their own; others need to be removed at a follow-up visit. Pressure, gauze, or a treatment that helps seal small blood vessels may be used to control bleeding.

Most gum biopsies take about 15 to 30 minutes, although larger or difficult-to-reach areas can take longer.

Recovery and what to expect afterward

Mild pain or tenderness is expected after the numbness wears off. Take pain medicine only as directed by your treating team. Avoid placing aspirin directly on the gum because it can damage the tissue.

Start with cool or lukewarm drinks and soft foods. Chew on the other side if possible. Avoid very hot, sharp, spicy, or hard foods until the wound is comfortable. Do not drink alcohol or smoke while the area is healing, because both can irritate the wound.

Keep activity light for the rest of the day. Strenuous exercise can restart bleeding. Follow your clinician's instructions about brushing, rinsing, dentures, and any prescribed mouthwash. Do not repeatedly touch the site with your tongue or fingers.

You can usually drive after local anaesthetic alone if you feel well and no other medicine affects your alertness. You must not drive yourself home after sedation or general anaesthesia. Follow the facility's restriction, which is commonly at least the rest of the day and may extend to 24 hours.

Many people return to desk work the same day or the next day. You may need longer if your work is physically demanding, speaking is uncomfortable, or you received sedation.

Risks and possible complications

A gum biopsy is a small operation, but complications are possible.

Expected short-term effects include soreness, minor swelling, bruising, and a small amount of bleeding or blood-stained saliva. Depending on the biopsy location, stitches may feel tight or irritating.

Possible complications include:

Local anaesthetic can cause temporary numbness of the lip, cheek, or tongue. Avoid biting or burning these areas until normal feeling returns.

- Bleeding that lasts longer than expected or restarts
- Infection, with increasing pain, swelling, discharge, or fever
- Delayed healing or the wound opening
- Scarring or a change in the gum's shape
- Temporary or, less often, lasting numbness if a nearby nerve is affected
- Injury to a nearby tooth, filling, denture, or dental implant
- A sample that does not provide a clear diagnosis, requiring another biopsy

Results and follow up

The clinician may tell you what the area looked like immediately after the procedure, but appearance alone is not the final diagnosis. The tissue must be processed and examined by a pathologist.

Results are often available within several days to two weeks. They may take longer if special stains, molecular tests, or review by another pathologist is needed. Ask how and when the team will contact you.

Your follow-up may include checking healing, removing non-dissolving stitches, and discussing the pathology report. The report may identify a benign growth, inflammation, infection, immune-related disease, precancerous change, cancer, or no definite diagnosis.

If the result is unclear, the next step may be another biopsy, laboratory testing, imaging, or referral to a specialist. If abnormal cells are found, your team will explain whether the area was completely removed and whether more treatment is recommended.

Alternatives

The alternatives depend on why biopsy has been suggested. No scan or visual examination can always provide the same information as examining tissue under a microscope.

Possible alternatives include:

If cancer or precancerous change is a concern, choosing observation instead of biopsy trades a simpler short-term approach for less certainty and a possible delay in diagnosis.

- Observation with planned review: Avoids surgery now, but delays diagnosis and may allow an important change to persist unnoticed
- Removing an irritant first: Adjusting a sharp tooth, filling, or denture may allow an injury to heal, but persistent tissue still needs reassessment
- Brush or scrape sampling: Less invasive, but collects surface cells rather than a full tissue sample and may miss deeper changes
- Swab or culture: Useful when infection is suspected, but cannot diagnose most growths or precancerous changes
- Imaging: X-rays, ultrasound, CT, or MRI can show the size and location of some abnormalities, but usually cannot replace tissue diagnosis

- Specialist referral before biopsy: May be safer for a large, vascular, or difficult-to-reach lesion, but can add another appointment

When to call your healthcare team

Contact your dental or surgical team during routine hours if pain or swelling is not gradually improving, stitches come out early, the wound repeatedly reopens, or you have questions about eating, cleaning, medicines, or results.

Seek prompt same-day advice for:

Seek emergency care for heavy uncontrolled bleeding, rapidly increasing swelling, trouble breathing, or trouble swallowing saliva.

- Bleeding that continues despite firm pressure as instructed
- Increasing pain, swelling, redness, discharge, or a bad taste
- Fever or feeling increasingly unwell
- Numbness lasting longer than your team said to expect
- Difficulty drinking enough fluid

Common questions

Will I be asleep?

Usually not. Most gum biopsies are performed while you are awake using local anaesthetic. Sedation may be offered if the biopsy is more involved or you are very anxious. General anaesthesia is uncommon.

Can I drive home?

You can usually drive after local anaesthetic alone if you feel well. Do not drive after sedation or general anaesthesia. Arrange an escort and follow your facility's exact restriction.

How painful is a gum biopsy?

The anaesthetic injection may sting briefly. During the biopsy, you may feel pressure but should not feel sharp pain. Mild soreness is common afterward and usually improves as the wound heals.

When will I know the result?

Pathology results commonly take several days to two weeks. Complex samples can take

longer. Your team should tell you how the result will be provided.

Will I need stitches?

You may need one or more stitches, particularly after a scalpel or punch biopsy. Some dissolve, while others are removed at a follow-up visit.

Does having a biopsy mean cancer is suspected?

Not necessarily. Biopsies are used to diagnose many noncancerous conditions. The purpose is to obtain a reliable answer when examination alone is not enough.

Sources

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