PROCEDURE

Oropharynx lesion biopsy

An oropharynx lesion biopsy removes a small tissue sample from the throat for laboratory testing.

PURPOSE
Obtain tissue to identify an oropharyngeal lesion

PROCEDURE TYPE
Diagnostic, endoscopic or surgical biopsy through the mouth

WHERE IT IS DONE
Outpatient clinic or operating theatre

ANAESTHESIA
Local anaesthesia or general anaesthesia

HOW LONG IT TAKES
About 15 to 45 minutes

PREPARATION
Often fasting; medication and blood-thinner instructions

RECOVERY
Usually same day; no driving after sedation or general anaesthesia

MAIN RISKS
Bleeding, pain, infection, dental or throat injury

RESULTS
Pathology after several days; longer if extra tests are needed

Overview

An oropharynx lesion biopsy removes a small sample of abnormal-looking tissue from the middle part of your throat. The oropharynx includes the tonsils, the back third of the tongue, the soft palate and the side and back walls of the throat.

The sample is examined under a microscope by a pathologist, a doctor who diagnoses conditions by studying cells and tissue. A biopsy can show whether a lesion is cancerous, precancerous, inflamed, infected or caused by another noncancerous change.

The biopsy is usually taken through your open mouth. There is normally no cut in the skin. It may be done while you are awake with local anaesthetic, which numbs the area, or under general anaesthesia, which means you are unconscious.

Why the procedure is performed

Your healthcare team may recommend a biopsy when an examination or scan finds tissue that cannot be identified by appearance alone. Reasons may include:

Scans can show the location and size of a lesion, but they usually cannot confirm exactly what it is. A tissue diagnosis helps your team decide whether you need treatment, more testing or observation.

If the sample contains oropharyngeal squamous cell carcinoma, a common type of throat cancer, the laboratory may test it for a protein called p16. This helps assess whether the cancer is associated with human papillomavirus, or HPV, and can affect staging and treatment planning.

- An ulcer, lump, patch or area of swelling that has not resolved
- An enlarged or uneven-looking tonsil
- An abnormal area at the base of the tongue
- A lesion seen during a throat examination or imaging test
- A need to confirm or rule out cancer before planning treatment

Who should and should not have it

A biopsy may be appropriate when the value of obtaining a firm diagnosis outweighs the risks of the procedure. This is often the case when a lesion persists, looks concerning or produces an unclear scan result.

The procedure may be delayed or changed if you have:

Tell your team if you are pregnant or could be pregnant. A needed biopsy may still go ahead, but the timing and type of anaesthesia may be adjusted.

A biopsy may not be the best first step when a lesion appears likely to settle and can safely be reviewed after a short period. It may also be unnecessary if another recent tissue sample has already provided the required diagnosis.

- A bleeding problem that is not adequately controlled
- Blood-thinning treatment that has not yet been safely planned
- An acute illness that makes anaesthesia unsafe
- Significant swelling or another concern about keeping your airway open

- An infection that should be treated before an elective biopsy
- A lesion that can be sampled more safely in another way

How to prepare

The treating facility's own instructions take priority because preparation differs between an awake clinic biopsy and a procedure under general anaesthesia.

If you will have sedation or general anaesthesia, you will probably need to stop eating and drinking beforehand. Follow the exact fasting times given by the facility. Not following them may mean the procedure must be postponed for safety.

Give your team an up-to-date list of medicines, vitamins and supplements. Make sure they know about aspirin, anticoagulants and antiplatelet medicines, which affect clotting. Do not stop a prescribed blood thinner like warfarin or apixaban unless the clinician responsible for the procedure has given you a specific plan.

Also tell the team about allergies, diabetes, previous problems with anaesthesia, loose teeth, crowns, dentures, sleep apnoea and any bleeding disorder.

Arrange for an adult to take you home if you will receive sedation or general anaesthesia. You may also need someone to stay with you for the first night.

What happens during the procedure

Before the biopsy, the clinician will review the plan and ask for your consent. You can ask which area will be sampled, what type of anaesthesia will be used and whether any other procedures might be performed at the same time.

For an awake biopsy, numbing medicine may be sprayed or injected into the throat. You may feel pressure, pulling or a brief sharp sensation despite the local anaesthetic.

For a biopsy under general anaesthesia, an anaesthetist gives medicines that keep you unconscious. The surgeon passes a rigid or flexible viewing instrument through your mouth to inspect the oropharynx. A mouth guard may be used to protect your teeth.

A small piece of tissue is removed with forceps, a blade or another surgical instrument. More than one sample may be taken. Bleeding is controlled with pressure, medication, heat or another sealing method.

The sample is labelled and sent to the pathology laboratory. If the lesion is small, the procedure may remove all visible abnormal tissue, but the main purpose is usually diagnosis rather than

complete treatment.

Recovery and what to expect afterward

Pain: A sore throat is common. Discomfort may sometimes be felt in the ear because the throat and ear share nerve pathways. Use only the pain relief recommended by your team. Pain should gradually improve rather than become more severe.

Eating and drinking: Wait until throat numbness has fully worn off before eating or drinking, unless your team says otherwise. This reduces the chance of choking. Cool drinks and soft foods may be easier at first. Avoid foods that are sharp, very hot or irritating while the biopsy site is tender.

Activity: Plan to rest for the remainder of the day. Follow your facility's advice about exercise and heavy lifting, particularly because strenuous activity may increase bleeding.

Driving: Do not drive, cycle, operate machinery or make important decisions after sedation or general anaesthesia. Many facilities apply this restriction for at least the rest of the day and often for 24 hours. Follow the discharge instructions you receive.

Returning to work: After a small biopsy under local anaesthetic, you may be able to return the next day. After general anaesthesia or a larger biopsy, you may need a few days away, especially if your work involves heavy activity, driving or extensive speaking.

Risks and possible complications

Your team should explain the risks that apply to the biopsy site, your health and the planned anaesthesia. Possible complications include:

A biopsy samples only part of a lesion. Occasionally, the sample is too small or does not capture the abnormal area. Another biopsy may then be needed.

- Pain or difficulty swallowing for a short time
- Bleeding during or after the procedure
- Infection at the biopsy site
- Swelling that affects swallowing or, rarely, breathing
- Injury to a tooth, dental work, lip, tongue or nearby throat tissue
- Temporary voice or taste changes

- Reactions or complications related to sedation or anaesthesia

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 result. The pathology report usually takes several days. It can take longer when special stains, HPV-related testing or review by another pathologist is needed.

The report may describe normal or inflamed tissue, infection, a benign growth, precancerous cell changes or cancer. "Benign" means noncancerous. "Dysplasia" means abnormal cells that are not yet invasive cancer but may require treatment or monitoring.

Your team should arrange a routine follow-up appointment or call to explain the result. Ask when and how you will receive it. If the result does not explain the lesion, the next step may be another examination, imaging, a repeat biopsy or removal of more tissue.

Alternatives

The reasonable alternatives depend on how concerning the lesion appears and whether another site can provide the same information.

- Observation with repeat examination: Avoids an immediate procedure, but delays diagnosis and may allow an important condition to remain unidentified.
- Imaging such as CT, MRI or PET scanning: Shows the lesion and nearby structures, but usually cannot replace a tissue diagnosis.
- Brush or surface cell sampling: Is less invasive, but collects less information and may miss changes below the surface.
- Needle biopsy of an enlarged neck lymph node: May provide a diagnosis and staging information, but may not fully assess the original throat lesion.
- Complete removal of a small lesion: Provides more tissue and may also treat it, but creates a larger wound and may require general anaesthesia.
- No biopsy: Avoids procedural risks but leaves uncertainty and may delay treatment if the lesion is important.

When to call your healthcare team

Attend the planned follow-up even if you feel well. Contact your healthcare team promptly if you have worsening pain, fever, increasing redness or swelling, a bad taste or discharge, repeated minor bleeding, or difficulty eating and drinking.

Seek urgent medical advice the same day if you cannot keep fluids down, pain is not controlled by the recommended treatment or bleeding continues despite the measures in your discharge instructions.

Call emergency services if you have trouble breathing, rapidly increasing throat or tongue swelling, heavy bleeding, vomiting blood, fainting, or an inability to swallow your saliva. These are emergency symptoms rather than routine recovery.

Common questions

Will I be asleep?

You may be awake with local anaesthetic for a small, accessible lesion. A deeper or difficult-to-reach lesion is often biopsied under general anaesthesia. Your team should tell you which approach is planned.

Can I drive home?

Not after sedation or general anaesthesia. Arrange for someone to take you home. After local anaesthetic alone, driving may be possible, but follow the facility's instructions.

How painful is it?

You should not feel sharp pain during a procedure under general anaesthesia. With local anaesthetic, you may feel pressure or brief discomfort. A sore throat afterward is expected and usually improves over the following days.

When will I know the result?

The visual findings may be discussed on the day, but the final answer comes from pathology. This usually takes several days and may take longer if extra testing is required.

Does a biopsy make cancer spread?

A standard biopsy does not cause an oropharyngeal cancer to spread. The information from the sample is important for choosing appropriate care.

Will the biopsy remove the whole lesion?

Sometimes a very small lesion is removed completely. More often, only enough tissue for diagnosis is taken, and any further treatment is planned after the pathology result.

Sources

- American Cancer Society. Tests for Oral Cavity and Oropharyngeal Cancers .
- National Cancer Institute. Oropharyngeal Cancer Treatment (PDQ®)-Patient Version .
- Lewis JS Jr, Beadle B, Bishop JA, et al. Human Papillomavirus Testing in Head and Neck Carcinomas: Guideline From the College of American Pathologists . Archives of Pathology & Laboratory Medicine. 2018;142(5):559-597.
- Pynnonen MA, Gillespie MB, Roman B, et al. Clinical Practice Guideline: Evaluation of the Neck Mass in Adults . Otolaryngology-Head and Neck Surgery. 2017;157(2 Suppl):S1-S30.
- Royal College of Anaesthetists. You and Your Anaesthetic .
- Cleveland Clinic. Laryngoscopy: Procedure, Definition and Types .