UW Medicine
UNIVERSITY OF WASHINGTON MEDICAL CENTER

Ultrasound: Guided Lavage

For calcific tendinitis

You are scheduled for ultrasound-guided lavage at University of Washington Medical Center (UWMC) - Montlake. This handout explains what lavage is, why ultrasound is used, and what you can expect before, during, and after your procedure.

What is ultrasound?

Ultrasound is a type of imaging that helps your doctor see what is going on inside your body. It uses sound waves to create images. It is often used by radiologists to help guide a procedure, since it provides clear images of the area that is being examined or treated.

What is lavage?

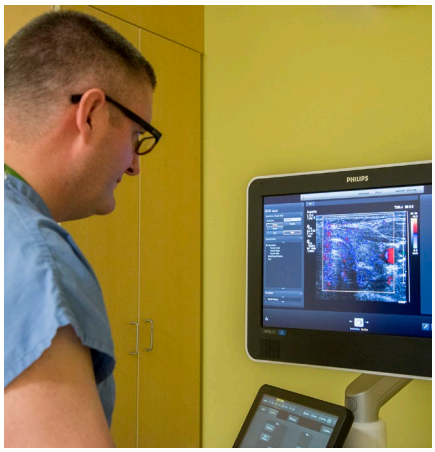
Lavage means "to wash out or irrigate." Ultrasound-guided lavage is one way to treat *calcific tendinitis*, also called *tendinopathy*.

Calcific tendinitis is caused by calcium deposits inside the tendons. It most often occurs in the tendons in the shoulder (*rotator cuff*) and can be very painful.

In ultrasound-guided lavage, your doctor will remove these calcium deposits without having to do surgery.

How is lavage done?

- First, we use a very small needle to inject local *anesthetic* (numbing medicine, such as lidocaine) into your skin and soft tissue.
- Then, your doctor uses ultrasound to guide a needle into the calcium deposits. As your doctor moves the needle, the deposit breaks into smaller pieces.
- A mixture of anesthetic and *saline* (salt water) is then flushed in and out of the area to remove the calcium pieces.



Ultrasound images help your doctor see inside your body.

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- At the end of the procedure, a small amount of *steroid* medicine is injected into the *bursa*. This is the fluid-filled sac that covers the shoulder muscles and tendons.

What are the benefits of this procedure?

The main benefits of lavage are:

- It is less invasive than surgery. This means it is easier on your body and you will recover more quickly than if you had surgery.
- It uses a small needle, the same size that is used for a blood draw.
- You will not need *general anesthesia* ("sleeping medicine").
- Even if your calcium deposits are too hard to remove during lavage, once the needle breaks up the deposits, your immune system will start to break it into even smaller pieces. This causes inflammation in the area, which helps dissolve the calcium.

What are the risks?

Calcium deposits in tendons can be as soft as toothpaste or as hard as a rock. Before we do lavage, we may not be able to tell how hard your calcium deposits are.

- If the calcium deposit is too hard, we may not be able to break it apart during lavage. If this happens, or if the calcification returns after your lavage, you may need surgery.
- There is a very low risk of bleeding with lavage. Using ultrasound to guide the needle reduces the risk of bleeding during the procedure. To lessen the risk of bleeding even more, we ask that you stop taking any blood-thinning medicines before your lavage.
- There is a very low risk of infection with lavage. To decrease this risk, we use sterile (germ-free) instruments and methods.
- After your lavage, your tendon will be weaker for a while. This means it can get injured more easily. Follow the precautions under "After Your Procedure" on page 3.

How do I prepare for lavage?

For 5 days before the procedure:

- Stop taking any medicines that thin your blood. Some of these are Coumadin (warfarin), Plavix, Clopidorel, Ticlid, and Aggrenox. Please talk with the provider who prescribed these medicines before stopping them.

- Stop taking all anti-inflammatory pain medicines. This includes aspirin and *non-steroidal anti-inflammatory drugs* (NSAIDs) such as ibuprofen (Advil, Motrin, and others) and naproxen (Aleve, Naprosyn, and others). You may use acetaminophen (Tylenol) for pain if your doctor says it is OK.
- You may eat and drink as usual before the procedure.
- You must sign a consent form before we begin your lavage.

What We Need to Know

- Tell us if you have an allergy to any medicines or local anesthetics such as lidocaine or novocaine.
- Tell us if you had any recent steroid injections into your shoulder.
- Call us at least 24 hours before your procedure if you need to reschedule.

Self-care After Your Procedure

- The local anesthetic used during lavage will wear off 3 to 4 hours after your procedure. When this happens, you may take acetaminophen (Tylenol) for pain relief, if needed.
- **Do not take ibuprofen (Advil, Motrin, and others), naproxen (Aleve, Naprosyn, and others), or other anti-inflammatory medicines.** These medicines will affect your body's immune response, which means it will not start to break up any remaining calcium deposits.
- Elevate your arm on the side that was treated.
- To reduce swelling, place a cold pack on your shoulder. To do this:
  - Do **not** put ice directly on your skin. Wrap an ice pack in a cloth or towel.
  - Keep the pack on your shoulder for **only 15 minutes at a time**. Do this on and off for the rest of the day.
- **For at least 2 weeks,** to lessen your risk of injuring your tendon:
  - Avoid lifting anything that weighs more than 2 pounds. (A quart of milk weighs about 2 pounds.)
  - Move your arm gently and avoid arm exercise.
- Normal activity such as brushing your hair or teeth is OK.

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Follow-up Care

Within 2 to 3 weeks after your lavage, follow up with the provider who referred you for the procedure. You and your provider will then decide the next step, such as physical therapy and rehabilitation.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

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