UW Medicine
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Ultrasound: Guided Lavage

For calcific tendinitis

You are scheduled for ultrasound-guided lavage at University of Washington Medical Center (UWMC). 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. Ultrasound 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 being examined or treated.

What is lavage?

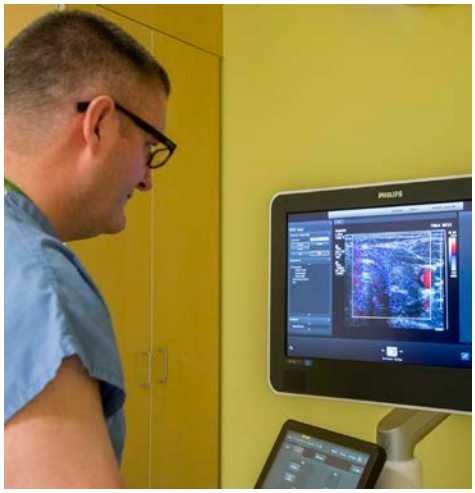
Lavage means "to wash out or irrigate." Ultrasound-guided lavage is one way to treat *calcific tendinitis*, also called *tendinopathy*.

Calcific tendinitis is caused by calcium deposits inside the tendons. Calcific tendinitis 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. The needle is moved, breaking the deposit 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 what is going on inside your body.

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- At the end of the procedure, a small amount of *steroid* medicine is injected into the *bursa* (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 evaluate your anatomy and 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 instruments and techniques.
- 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 doctor who prescribed these medicines before stopping them.

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- Stop taking all anti-inflammatory pain medicines. This includes aspirin and *non-steroidal anti-inflammatory drugs* (NSAIDs) such as ibuprofen (Advil, Motrin, and others) or naproxen (Aleve, Naprosyn, and others). You may use acetaminophen (Tylenol) for pain if your doctor says it is OK.
- You may eat and drink normally before the procedure. There are no dietary restrictions.
- You must give written consent before your lavage can begin.

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 have had any recent steroid injections into your shoulder.
- Call at least 24 hours before your procedure if you need to reschedule.

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 will keep your body's immune response from starting 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 no longer than 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 like brushing your hair or teeth is OK.
- Within 2 to 3 weeks, follow up with the doctor who referred you for lavage to talk about 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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