



Preparing for Fracture and Reconstructive Surgery

UCSF Orthopaedic Institute
Trauma and Problem Fractures Service
1500 Owens Street, 2nd Floor
San Francisco, CA 94143
Appointment and non-urgent questions: 415-353-4982

For urgent medical issues, call 415-353-2808 (After hours you will be routed to the hospital operator, who will then page the on-call MD.)

Table of Contents



What to Expect	3
Your Roadmap	
Before Surgery	5
Ask your surgeon	
Prepare your home	
Plan ahead for discharge	
Gather necessary supplies	
Pack for your hospital stay	
Clean your surgical site	
During Your Hospital Stay	12
Ask your surgeon	
What to expect when you wake up	
Meet your care team	
Get moving again	
Monitor and communicate your pain	
Length of stay	
After Discharge	19
Ask your surgeon	
Prevent infection	
Protect your spine	
Care for your surgical site	
Additional Resources	
In case of emergency	27
Medical glossary	
Contact information	
Patient Reported Outcomes	

What to Expect

1. We'll do everything we can to make your surgery a success.

You will be undergoing surgery in the coming days to weeks. It may be a long journey to recovery, but our goal is to improve the quality of your life as much as possible. We know it can be overwhelming, but we'll be there to support you every step of the way.

2. Pain and discomfort are normal parts of the process, even after you go home.

We expect you to have some pain and discomfort following your surgery. Our goal is for your pain to be managed to a tolerable level so that you can maximize your rehabilitation.

3. You play the most important role in your own recovery.

Your care team will do everything to ensure that your procedure and recovery are successful, but there's also a lot you can do. This booklet contains instructions for keeping you safe and healthy before, during, and after surgery. Stay informed, ask questions, and try to maintain a positive attitude. If you're feeling overwhelmed, ask us for help!

What do you want to be able to do after surgery?

What's your personal goal following your surgery? Please write your goal here:



Please give this sheet to your surgical team. Thank you!

Your Roadmap to Your Elective Surgery

4

Before Surgery

Days or weeks

Follow steps to get medically cleared for surgery.

During Your Hospital Stay

0-5 days*

Work with your care team to get moving again and manage your pain.

After Discharge

1-2 years*

Care for your surgical site, manage your pain at home, and restore your ability to do daily activities.

*Hospital stay varies by procedure.

To obtain medical clearance for surgery, you must:

Days, weeks before surgery

- Stop smoking
- Complete ordered tests and blood work
- Schedule appointment with your primary care provider or notify them that you will be having surgery, as well as any other specialist that care for you. If you do not currently have a primary care provider, work at establishing a provider for yourself following your surgery.

- Stop all blood thinners, anti-inflammatory pain medications, vitamins, and supplements one week before your surgery after checking with your prescribing physician
- If you are someone who chronically takes opioids, talk to your surgeon and your outpatient prescriber before your surgery about your post-operative pain plan. Sometimes patients may benefit from seeing a pain specialist prior to an elective surgery

Week of surgery

- Attend Prepare appointment, where we will review lab results and your current medications
- Designate someone to drive you home from the hospital
- Pack for your hospital stay

One night before surgery

- Shower with Hibiclens (Chlorhexidine) Soap

Midnight before surgery

- Stop eating and drinking; sips of water are OK with required prescriptions



Ask Your Surgeon

6



More Questions?

Give us a call at
415-353-4982.

Why do I need lab tests before my surgery?

We want to be sure that you are medically safe for surgery. To do so, we may ask you to get some lab tests and diagnostics tests based on your medical history. The lab results will be ordered at your Prepare appointment.

Why do I need to stop smoking?

Cigarettes cause poor wound and bone healing. By causing blood vessels to constrict, nicotine decreases the oxygen supply to the wound and bone, which starves the bone graft of nutrients and prevents growth. It is also very important that you do not return to smoking for at least one year following surgery.

NOTE: Even if you are currently smoking, it is very important to stop smoking after surgery.

Why do I need to stop eating and drinking at midnight before surgery?

It is important that you have an empty stomach at the time of your operation to reduce your risk of choking while under anesthesia. You may take routine medications with sips of water before surgery, if and instructed to do so.

Should I keep taking my current medications?

Your medications will be reviewed at your Prepare appointment and you will be told which ones need to be stopped before surgery. The UCSF Prepare clinic ensures you are medically optimized for surgery. It is important, however, that you be aware of some overarching guidelines:

Please STOP taking these medications 7 days prior to surgery unless otherwise directed by your surgeon:

- Aspirin (or any aspirin-containing drugs) such as Excedrin, Bayer, and Percodan

- NSAIDs (non-steroidal anti-inflammatory drugs) such as ibuprofen (Advil, Motrin), naproxen (Aleve), and celecoxib (Celebrex)

- Herbal supplements that can increase risk of bleeding, such as Garlic, Ginger, Turmeric, Gingko Biloba, Ginseng, Vitamin E, and Fish Oil

- Glucosamine and chondroitin

- Monoamine oxidase inhibitors

- If you take blood thinners, such as Coumadin or Plavix, check with your doctor on how to safely taper off of these medications in advance of surgery.

Medications that increase your chance of infection

- Anti-rheumatic drugs, such as methotrexate, hydroxychloroquine, leflunomide, etanercept, and adalimumab

- Immune suppression agents

- Medications that interfere with bone healing

- Bisphosphonate medications for osteoporosis such as alendronate (Fosamax); ask your surgeon if your specific surgical treatment requires you to stop Bisphosphonate medications

Prepare Your Home

1. Well-lit path to the bathroom

Ensure you have a well-lit path for trips to the bathroom at night. Consider installing a nightlight.

2. Balance & support aids

Evaluate your bathroom setup for safety. Consider placing grab bars, purchasing a shower chair, nonslip bath mat, and commode. Assess the height of your toilet to determine if you may need a raised seat after surgery.

3. Accessible place to sleep

Set up sleeping accommodations on the first floor if needed, especially if there are stairs to your bedroom.

4. Tripping hazards

Roll up loose rugs. Rearrange furniture to make pathways free of clutter.

5. Items within reach

Place anything you'll need in easy to reach areas. Keep everything between hip and shoulder height.

6. Stock your fridge & pantry

Buy or prepare food that can be readily available (i.e. microwavable food or cold foods).

If you are unable to do any of these tasks, please consider asking friends and family to help prepare your home for your arrival after surgery. If you have any concerns, please discuss with your team.



Prepare Your Home: Caring for Pets

8

Tips on how to find care for your pet while hospitalized, when you return home

Anyone with pets knows how important they are to their owners. They provide unconditional love, a host of health benefits, and have a way of quickly becoming one of the most important relationships in a person's life.

1. **PACT** : PACT offers a hospital foster program that exists precisely to help people who have pets and are facing hospitalization. The main goal of the program is to keep beloved animals from ending up at a shelter by matching the pets of people who are hospitalized with foster families that can ensure they're well taken care of until the owner can resume care.

2. **Local Shelters**: Local shelters and rescue organizations routinely have foster programs. While these programs usually have a primary focus on placing dogs looking for a home with foster families, that means they do have a roster of foster parents that are both trained to take care of pets and used to giving them up after a short period of time.

3. **BorrowMyDog**: BorrowMyDog is a website devoted to helping bring together people who love dogs with people who have dogs. By tapping into the community of people in your area that love dogs, you may be able to find someone who can help care of your dog while you're hospitalized.

4. **Meals on Wheels Pet Support**: Meals on Wheels offers grants to help cover a number of pet-related needs, including the cost of boarding expenses. If cost is part of the issue you have with keeping your dog while hospitalized, check with your local Meals on Wheels chapter to see if they can help.

5. **Pet Sitting Sites**: Pet sitting sites like Rover and DogVacay allow you to find someone who's willing to watch your pet in their own home until you get out of the hospital.

6. **Turn to your neighbors**: NextDoor connects you directly with the people living in your neighborhood. You can post an update about your situation to see if there are any pet lovers nearby who are willing to help you out for a while.



Plan Ahead for Discharge

You'll need a caregiver to receive care instructions from hospital staff, drive you home, and help you with recovery.

Assign a relative, neighbor or friend to help you drive you to and from appointments, run errands, keep track of medications and help prepare meals.

We typically discharge patients between 11a.m. and 12 p.m., so please plan accordingly for your ride. Your caregiver will need time to receive training from the hospital staff so have them arrive a few hours early. We will inform you to tell you about your discharge time as soon as we can.

If you need a walker or cane, have your caregiver bring it for your ride home from the hospital.

These items are also available for purchase at the hospital.

Gather necessary supplies

- We recommend that you have the following supplies available when you get home from surgery:
- Laxatives & stool softeners, e.g. Docusate/Colace, Senokot, Miralax Prepared meals for your recovery
- Nightlights
- Ice packs, heat wraps
- Optional: Plastic wrap and tape or a cast cover if you need to cover the surgical site in the shower



Pack for Your Hospital Stay

10



Medication list

A written list of your medications, including dosing and frequency, so we can make sure you receive the medications you normally take at home during your hospital stay.

Entertainment

Books, mobile phones and other electronics for entertainment.

Clothes

A set of comfortable clothes and shoes to wear home when you leave the hospital.

Medical Equipment

Any Durable Medical Equipment (DME) you use routinely, e.g. cane(s), walker, wheelchair, CPAP.

Do not bring your own medications*

As a safety measure, we are not allowed to use your home medications. The hospital will provide you with the medications you normally take at home.

* Exceptions apply for certain medications that are rare or difficult to obtain. Check with the surgeon's office if you are unsure whether to bring your own medications.

Do not bring valuables†

Do not bring large amounts of cash, multiple credit cards, jewelry, or any other expensive valuables.

† You may need to purchase items during your hospital stay, so be sure to bring at least one credit card or a limited amount of cash.

Before Surgery

Clean your surgical site

With every surgery there is always a risk of infection. We will do everything we can to prevent an infection, but you can help by following these washing instructions before surgery.

Reducing the amount of germs on your skin prior to surgery is an important step you can take to protect yourself from developing an infection at your surgical site. The most effective way to do this is washing with a special soap called chlorhexidine gluconate (CHG), commonly found in stores as Hibiclens. The soap comes in a liquid form and can be purchased at most stores and pharmacies.

Shower with Hibiclens two nights before surgery, one night before surgery, and the morning of surgery.

1. Turn water off. Apply CHG soap to your entire body from the jaw down. Use a clean washcloth or your hands. Avoid getting CHG near your eyes, ears, nose or mouth.

2. **After applying CHG soap to your whole body, wash thoroughly for five minutes.**

Pay special attention to the area where your surgery will be performed. Do not scrub your skin too hard.

3. **Pat yourself dry with a fresh, clean, soft towel after each shower.** Do not wash with your regular soap after using the CHG.

4. Put on clean clothes or pajamas.

5. Use freshly laundered bed linens.



Do not shave the area of your surgery

Any new cut, abrasion or rash on your surgical extremity will need to be evaluated and may cause a delay in your procedure.

Do not use other hygiene products

Do not apply any lotions, hair conditioner, perfumes, deodorant or powders after using CHG soap.

During Your Hospital Stay

12

For any medical concerns, please call (415) 353-4982.

When you arrive on the day of your surgery:

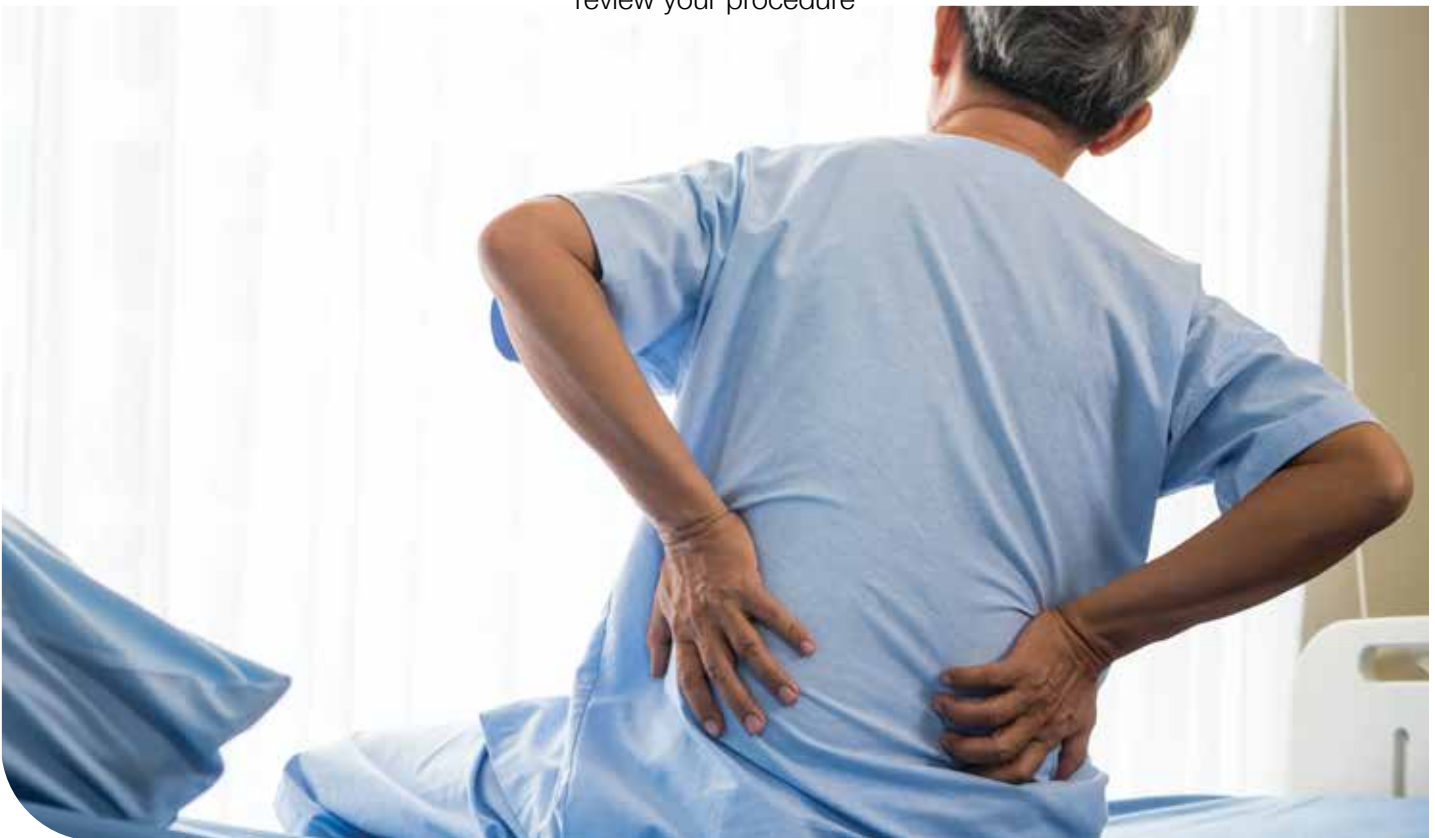
- Check in at the Admitting Department of the hospital. Meet your nurse and anesthesiologist, who will prep you for surgery.
- Ask any final questions of your surgeon that haven't been answered.

When you wake up after surgery:

- Work with your care team to help manage your pain. Speak with your surgical team to review your procedure.

You'll be ready to leave the hospital when:

- Your pain is managed on oral pain medications (not with IV medication).
- For patients who stayed overnight, please get cleared by Physical Therapy, Occupational Therapy and Case Management.
- For same-day surgery patients, you will be discharged with a Discharge Summary as well as any medications you may need.



Ask Your Surgeon

I'm in pain. Should I tell someone?

Please communicate with us about your pain. Let us know how your

pain is before it becomes severe. Don't wait to ask for pain medicine so that we can avoid "chasing" your pain. In addition, tell us how your pain feels: is it sharp, dull, hot, burning, a spasm? This information helps us determine the proper pain medication to treat your discomfort.

If I have visitors, can I get out of bed to visit with them?

We encourage you to invite visitors during your recovery at the hospital. However, they

cannot assist you in moving around until they've received training from physical therapy or nursing staff.

I'm feeling numbness or tingling. Is that normal?

Do not be alarmed if you experience mild numbness or tingling in certain areas after your procedure. Your nerves can be irritated and inflamed following your surgery and will heal over time. However, if you notice increasing symptoms or muscle weakness you should get in touch with us right away.

I have new symptoms I didn't have before surgery. Should I tell someone?

Yes! Be sure to let your care team know, and they will assess the situation. Symptoms could include dizziness, numbness, and nausea.



More questions?

Give us a call at (415) 353-4982.

What to Expect When You Wake Up

14

IV tube

An intravenous (IV) tube will be in place when you wake up after surgery. We use this IV to administer antibiotics, medications, and fluids to keep you hydrated.

Foley catheter

You may have a Foley catheter placed during your operation to drain your bladder. This catheter will be removed to reduce your risk of

developing a urinary tract infection (UTI), either the day of your surgery or first thing the following morning.

Brace/Splint

If needed, these devices are used to keep the broken bones aligned and stable. Your physical or occupational therapist will give you instructions on how to use it.

Sequential compression devices

Sequential compression devices (SCDs) will be placed on your legs while you are lying in bed, to help to reduce risk of blood clots. The SCDs will massage your legs and ensure proper circulation.

Oxygen tube

Most patients will have been under general anesthesia during their surgery. If needed, you may have an oxygen tube placed over your nose when you awake from surgery. It will be removed when you are awake and your oxygen levels are stable. Your nurse will show you breathing exercises to help prevent fluid build-up in your lungs and decrease your risk of a lung infection.

Drain

Some patients may have a small drain coming from your incision. The purpose of this drain is to prevent fluid (blood or other) from building-up in a closed space, which could cause disruption of the incision's healing process. Your nurse will monitor the drainage and output. It is usually removed 48-72 hours after surgery.



Meet Your Care Team

While you're at the hospital, many people will be taking care of you. Each of them has unique responsibilities, but they'll work together as a team.



Residents and Fellows

Residents and fellows are MDs who support surgeons and attending physicians.

Nurse Practitioners and Physician Assistants (NPs, PAs)

NPs and PAs are licensed medical providers who work closely with physicians.

Nurse (RN)

Your nurse will take care of your everyday needs. They will be your main point of contact for questions during your hospital stay.

Patient Care Assistants (PCAs)

PCAs will support your nurse in taking care of your needs.

Physical and Occupational Therapists (PTs, OTs)

The therapist will work with you to improve your mobility and your ability to perform your daily activities.

Case Managers

Case Managers will work to arrange your transition from the hospital to a skilled nursing facility, a rehabilitation facility, or home.

Pharmacists

Pharmacists will manage your medications during your hospital stay and provide your post-discharge medication schedule and instructions.

Monitor and Communicate Your Pain

16

Your body has been through a lot. Expect to have soreness, swelling and discomfort after surgery. At times, you may have significant pain on and around your surgical site.

Pain control is a key part of the healing process. Our team will continuously reassess your pain and pain medication regimen to ensure that you are getting adequate pain management for your needs. You should not expect to be pain free.

Our goal is to taper you off of the strong IV pain medications and determine the proper frequency and dosage of pain pills, so that we can evaluate what will work well for you at home.

Rate your pain



No pain

0



Discomforting

1

2



Distressing

3

4



Intense

5

6



Utterly horrible

7

8



Unimaginable

9

10

To continuously monitor your pain, the staff will frequently ask you how your pain is rated on a 0-10 scale, where 0 means no pain and 10 means the worst pain ever possible.

Get Moving Again

Early mobilization is the single most important thing you can do to advance your recovery. Usually, you will be out of bed within 8 hours of your surgery.

The first time you get out of bed, you may feel dizzy or light headed. It's important to stay safe so ALWAYS call for help before getting out of bed. Try your best! Don't get discouraged if you can't stand up right away.

We'll be there to help.

Our health care team will make sure you maintain proper precautions while getting up, and ensure that you do not fall or get injured. Depending on your level of mobility, we may use special equipment to help get you out of bed.

Once you tolerate getting out of bed, plan on being out of bed for all your meals.

A physical therapist will teach you how to:

- Move from the bed to sitting or standing.
- Sit out of bed for 15-30 minutes.
- Walk 15-30 feet, if you are able to do so within your pain limit.
- Be careful of various tubing such as IV lines, drains and oxygen cannula.
- Use the bathroom before it becomes an emergency. Waiting until the last minute means you will most likely rush and be more susceptible to improper movement and injury.
- Sit up as much as possible when in bed so the change from lying to sitting to standing isn't so great.



Length of Stay

18

The length of your hospital stay will depend on your medical history and the type of surgery. Our goal is to get you home as soon as possible to promote a successful and speedy recovery. On the day of discharge, your care team will try to **complete your discharge by noon that day**. Getting you out of the hospital before noon gives you time to settle in at home, and helps to avoid rush hour traffic, and care of patients having surgery that day. **Please make sure that the appropriate arrangements are made for your transportation and assistance.**

Type of procedure	Average length of hospital stay	
Clavicle (collar bone) Fracture Repair	Same day	Expect to go home as soon as the day of surgery
Proximal Humerus (Shoulder) Fracture Repair	0 to 1 day	Expect to go home as soon as the day of surgery or the next day
Humeral (upper arm) Fracture Repair	Come and go	Expect to go home as soon as the day of surgery
Elbow Fracture Repair	0 to 1 day	Expect to go home as soon as the day of surgery or the next day
Forearm Wrist Fracture Repair	Come and go	Expect to go home as soon as the day of surgery
Unicondylar Tibial Plateau Fracture Repair	0 to 1 days	Expect to go home as soon as the day of surgery or the next day
Bicondylar Tibial Plateau Fracture Repair	1 to 2 days	If surgery is on Monday, expect to go home on Tuesday or Wednesday
Patella (knee cap) Fracture Repair	Come and go	Expect to go home as soon as the day of surgery
Ankle Fracture Repair	0 to 1 days	Expect to go home as soon as the day of surgery or the next day
Pilon Ankle Fracture Repair	2 to 3 days	If surgery is on Monday, expect to go home Wednesday or Thursday
Fracture Nonunion Repair	1 to 7 days	Varies greatly depending on severity of the problem and amount of pain post-operatively
Soft tissue or bone infection; incision and drainage	1 to 7 days	Varies greatly depending on severity of the problem, intraoperative culture results and amount of pain post-operatively
Other procedures	To be determined	Your care team will discuss the expected hospitalization duration

Your care team will determine where you'll go after discharge, based on what's best for your recovery: home recovery, home health nurse, skilled nursing facility or acute rehab.

After Discharge

Day of discharge:

- Have your caregiver present for discharge instructions
- If you have a cane or walker, ask your caregiver to bring it for your ride home
- If your ride home is more than an hour long, take frequent breaks to stand up and walk around

In your first weeks at home:

- Get moving to promote circulation and prevent blood clots. Regain strength and mobility by following your therapy program
- Elevate the operated extremity to decrease swelling and pain
- Follow your discharge instructions to reduce your narcotic pain medication. Stop taking opioids as quickly as possible.

- Keep your surgical incision clean, dry, and covered for 2 weeks. Watch for fever, chills, night sweats or excessive swelling
- Identify and schedule with a physical therapist that is **close to where you live.**

2-3 weeks after surgery:

- If you have sutures or staples, your team will schedule an appointment with either our office or your primary care provider to have them removed.

In the following months:

- Generally, plan for a follow-up appointment at 6 weeks, 3 months, 6 months and possibly a year from surgery.

If recommended, you will begin working with physical therapy.



Orthopaedic Surgery Post-Operative Care Instructions

20



Please read these instructions carefully as many of your questions and concerns will be addressed in the information below.

What you can expect:

1. Swelling. This is to be expected. It is difficult to specify what constitutes an abnormal amount of swelling. You can minimize this by keeping the operative extremity elevated, ideally 6 inches above your heart. This applies for either lower or upper extremity. When moving around, swelling will increase. Minimize the time you have your operative extremity in a dependent position (down below your heart level). You can get up to go to the bathroom or get something to eat for about 15-20 minutes at a time - otherwise you should elevate until your follow-up visit.

2. Pain. Everyone experiences pain after surgery. Your surgical team will give you a prescription for pain medication. Be sure to start taking your pain medicine as directed before the pain gets severe.

This will keep you “ahead” of the pain. Waiting until after you experience pain to start your medicine can lead to a painful “catch-up” period where you need to take more medicine. However, if your pain is well controlled, do not take the pain medication, continuing to take pain medication does not speed up healing.

3. Dressing/Bandage. Your incision(s) were covered with sterile dressings in the operating room to minimize infection after surgery. Please keep the dressing clean and dry. Do not take the dressing or splint off until your follow up appointment. If you feel continued pain or rubbing is present from the dressing, then you should call the UCSF Trauma clinic at the listed numbers during business hours or call the on-call team after hours.

What to do after surgery

1. When you return home, **rest is important.** Surgery and anesthesia takes a toll and it is best to sleep and recover as much as you can. As you feel better, you can begin to move around more but be sure to take regular breaks. Do not go on an outing where you will not be able to get back home quickly if needed.

2. Do not do any excessive or unnecessary walking during the first few days after surgery. Do not bear weight on your operative extremity until you are specifically told that it is allowed. Please follow the discharge instructions provided.

3. You may use an ice pack or continuous cold compression device (available for purchase or rent from medical supply stores or online) to help with **swelling and pain. Ice/cold is a very effective way to address post-operative pain in a very safe and targeted way.** Twenty minutes of ice per hour is appropriate several times through the day. If you use a cold compression device, be careful not to “over-compress” the area to the point of discomfort. Do not leave the ice pack on overnight when you are sleeping. The more you elevate and ice the operative extremity, the less swelling and pain you will have. If you have a splint (half cast), you may still ice the splint across the front of the ankle, but you need to keep it dry like you would for a cast.

Medications

1. Post-operative pain medications are provided to decrease pain, but they will not completely eliminate pain. You should expect to still have some pain that will resolve with time. You should look into alternative ways to help control pain as well, including mindfulness meditation, acupuncture or other alternative modalities. You can search for mindfulness meditation apps on your phone or computer.
2. If you are taking pain medication, there are common side effects that are expected. These include: dizziness, drowsiness, nausea, feeling “out of sorts” and constipation. Taking your medicine with food can help decrease nausea.
3. If you are constipated, be sure to drink plenty of fluids. If constipation is severe, you can take Colace/senna/miralax to help stimulate a bowel movement. If those do not help, you will need an assessment by at an urgent care or your primary care provider.

4. If any severe symptoms or an allergic reaction occurs (rash, hives, shortness of breath), stop your medication and call the UCSF Trauma Clinic, your primary care provider or go to an urgent care/emergency room.

5. We will often use a multi-modal pain medication regimen using multiple pain medications to treat your pain. This will address your pain using different pathways. This will often include a narcotic (oxycodone, Norco), acetaminophen (Tylenol), NSAIDs (ibuprofen/naproxen), gabapentin (Neurontin) and potentially baclofen or Flexeril. The acetaminophen and/or NSAID's should be the primary medications you take. It is best to stagger these, meaning you take Tylenol and then about 4 hours later take the NSAID, and then 4 hours after that take Tylenol again. Initially, you can take the narcotic as prescribed but you should plan to decrease the dose as your pain decreases.

6. If you are struggling with pain control, we can provide a referral to a pain management specialist.

Do not do any of the following:

1. Do not get the bandages wet. When bathing, either sponge bathe, or cover the operative extremity with commercial plastic protectors found at a medical supply store or use a garbage bag with tape.

Be very careful. The bathroom area is wet and slippery. We recommend that someone be with you, especially while taking narcotics. If the bandages do get wet, and it's during business hours, please call our office immediately (415-353-4982); if bandages get wet after business hours, you should go to your nearest Emergency Department.

2. Do not remove your dressing unless instructed to do so.

3. Do not drive while taking narcotic medication. If you are instructed to be non-weight bearing on the operative extremity, you should not drive. When you will be able to drive depends on the type of surgery.

4. Do not put weight on your foot or leg until otherwise instructed. Baring weight may cause re-injury or lead to the fracture not healing.

Follow Up

22

Contact Numbers

**UCSF Orthopaedic
Institute Trauma Clinic:**
(415) 353- 4982

**UCSF Orthopaedic
Institute (main
appointments):**
(415) 353-2808

**UCSF Hospital Operator
(24/7): (415) 476-1000**

**UCSF Orthopaedic
Surgeon On Call:**
(415) 443-5621

Typically, your first post-operative appointment is within the first 2-3 weeks after surgery. If there is a different time frame, this will be discussed with you.

This appointment is usually with a Nurse Practitioner and not your surgeon. The purpose of the appointment is to have your wound examined and sutures or staples removed. You will likely be able to shower/get the operative area wet after this appointment.

Broken bones take a minimum of 6-8 weeks to heal and ligaments/tendons take longer.

Surgery on the leg can cause swelling to persist for months, as you increase your activity. Please do not be alarmed if you have continued swelling especially within the first several months - this is to be expected. If you have

calf swelling, pain or tenderness that does improve with elevation, go to your nearest emergency department to be evaluated for a blood clot.

If you have a high fever (>101 degrees) or rash/hives please call the office, go to an urgent care/emergency room or to your primary care provider. If you have shortness of breath or feel you have an emergency, contact the UCSF Trauma clinic and immediately go to your local emergency department.

We are interested in your prompt and healthy recovery, so please follow these instructions. Please understand that each surgery is different. These instructions are meant as guidelines for a smoother recovery, but they do not cover all aspects.

Medical glossary

If you are interested in researching your condition; please visit the American Academy of Orthopedic Surgeon website for detailed and accurate information:

<https://www.orthoinfo.org>



I'm still experiencing pain. Is that normal?

It is normal to have discomfort or pain at or around the surgical site during activity and at night for a few weeks or longer after your surgery. Exactly how long you will have discomfort or pain is hard to predict. It differs from patient to patient. With time, it should slowly get better. Using an icepack for 10-15 minutes may relieve pain at the surgical site. Hot packs are helpful for muscle tightness – just be sure not to put the hot pack too near your incision site.

Which medication should I take to treat my pain?

It is important to identify the type of pain you are having in order to know which pain medication will help:

Generalized pain

Can be treated with opioid narcotic pain medications (Norco, Percocet, oxycodone). These medications are also sometimes called “narcotics.” While they help with pain, they can also lead to addiction, slowed breathing, and other serious problems. You should only take these medications when pain is severe. Always take the lowest dose that works for you.

Neuropathic pain (often burning, tingling)

Gabapentin (Neurontin) will help with numbness or reduced ability to feel pain or temperature changes.

I'm experiencing constipation. What should I do?

Pain medicine and anesthesia cause constipation. We will provide you with medicine to help you stay regular while you are in the hospital, and recommend you purchase some over-the-counter medications to have at home after you are discharged:

- Docusate/Colace (stool softener)
- Senokot (laxative)
- Miralax (laxative)
- Eat plenty of fruits and vegetables

Don't go too many days before taking action!

How do I refill my medication? How long will it last?

Take your pain medications as instructed by your doctor. The narcotic pain medications should be reduced over time. We recommend using a pill box to help you manage the dose and how often you take them.

For refills, please contact the clinic **2-3 business days** before you run out of your current



**More questions?
Give us a call at
415-353-4982.**

medication supply. Your pain medications will be managed by us for up to 6 weeks post-operatively. After that, if you require pain medications, your pain care must be transferred to your primary care physician or a pain management specialist.

If you are someone with chronic pain or a history of challenging pain control after surgery, the best time to talk about your pain plan is before your surgery. If you have concerns about what will happen after those 6 weeks post-operatively, talk to your surgeon early about a pain plan! If you are someone who chronically takes opioids, you should always have your outpatient prescriber in the informed about your progress.

Prevent Infection

24

With every surgery there is always a risk of infection.

We will do everything we can to prevent an infection; we ask you to shower with Hibiclens before your surgery and we will give you IV antibiotics in the hospital. Infection prevention will continue when you go home, and there are a few simple steps you can take to help keep yourself safe.

Monitor your surgical site daily for signs of infection and call our clinic with any concerns. Signs of infection include:

- Redness
- Drainage
- Swelling and warmth at the incision site

- Fever or chills

If you have pets:

- Avoid having your pets sleep with you until your wound is completely healed and the sutures/staples are removed.
- Do not allow pets to lick you or your wounds.
- Wash your hands with soap after touching your pet.

Do NOT take baths or soak in water

Do not soak in a bath, Jacuzzi, or hot tub for at least 2-3 weeks after your staples/sutures are removed. Your skin should be fully healed before bathing.

Do NOT apply any creams, lotions, or ointments on your surgical site

Do not apply these while any sutures/ staples are still in place. Do not clean the incision with anything unless your doctor instructed you to do so.

Care for Your Surgical Site

If you have a splint or cast:

1. Staples/sutures may be removed between 10-21 days after surgery depending on your physician's recommendation. They can be removed at our office, your rehab center, your local primary care provider, or a home health nurse.

2. Keep the incision DRY while the staples/sutures are in place and 24 hours after they are taken out.

Use plastic wrap and tape to cover your skin when you take a shower to ensure your surgical

site does not get wet. If you notice the dressing is slightly wet following your shower, remove the dressing, pat your incision dry with gauze, and apply a new dressing.

3. You may shower as usual 24 hours after the staples/sutures are removed unless otherwise instructed.

Care for Your Surgical Site

26

If you have an external fixator:

Why is pin care important?

The area where the pin meets the skin is called the pin site. The opening must be kept clean to decrease the risk of infection. Infection can cause the pin to loosen, require its removal or infection can spread to the bone. It is essential that you care for your pin sites correctly to help prevent infection and to allow for more comfortable healing.

When will pin care start?

After surgery, your pin sites will be dressed with gauze and this dressing will remain in place for approximately one week or until your first post-op appointment. After your first post-op appointment, you will be able

to start to shower. While in the shower, gently clean your fixator with antibacterial soap and water. Do not submerge your pins under water. Afterwards, dry the fixator thoroughly with a clean towel. Now you can complete pin care.

How do I care for my pin sites?

1. Complete pin care once a day to keep them clean. Usually after your daily shower.
2. Wash hands thoroughly with antibacterial soap and water.
3. Remove any dressing or gauze. If the gauze is stuck, you may run normal saline or water over the site until they loosen. This will cause less pain and bleeding.
4. Inspect all sites for signs of infection such as redness, tenderness, and thick, foul-

smelling drainage. If signs of infection are present, you should start the oral antibiotics prescribed by the doctor and call us at 415-353-4982. Continue with pin care.

5. In a clean squirt bottle, mix warm water and 1-2 teaspoons of salt together to create a saline solution. Squirt each pin site with the saline solution.

6. Using a strip of gauze and concentrating at the junction of the skin and pin, rub with friction back and forth, as in a "shoeshine" method, to clean around each pin site. Use a different piece of gauze with each pin. Using friction will help remove crusty drainage from around the pin site.

7. If you wish or if you are instructed, cover the site with a split 2in. x 2in. gauze.

How will I know if I get an infection?

Even with proper pin site care, your pin sites may still become infected. Signs of infection include: excessive redness or swelling at the pin sites, yellow, thick, or foul-smelling drainage around the pins, and fever of 101.5 degrees or higher. If you experience these symptoms, start taking the antibiotics prescribed by the doctor. Make sure you take all of the pills prescribed (usually a 7 or 10 day course). Call the Orthopaedic Clinic with any signs of infection (415-353-4982).

What else should I know?

If you bang the external fixator on something, you may have some bleeding from a pin site. Apply pressure with gauze for a few minutes. This should stop the bleeding. If the bleeding does not stop, call the Orthopaedic Trauma Clinic (415-353-4982). Observe your weight bearing restrictions prescribed by your doctor at ALL times. Do not use powders, lotions or antibiotic ointment near the pin sites.

Any questions, feel free to call the Orthopaedic Nurse Practitioner at 415-353-4982.

If an emergency occurs with the pins overnight or during the weekend, please call 415-353-2808 and ask to speak with the Orthopaedic Resident on call.

Additional Resources

28

For appointments or non-urgent calls

Use MyChart or call 415-353-4982

(e.g. test results, medication renewals)

Urgent medical issues during or after business hours

Call 415-353-2808

(After hours you will be routed to the hospital operator, who will then page the on-call MD.)

Contact the clinic immediately if any of the following happens:

- Increased redness, swelling, pain, drainage or warmth around the incision
- Incision dehiscence (opening of the incision)
- Temperature higher than 101° F (38.3° C)
- Shaking, chills

- Severe or increasing pain that is not getting better with rest
- New or increased numbness or weakness in arms, legs, or torso
- Difficulty emptying your bladder, or urine or bowel incontinence
- Burning or pain with urination
- Pain, redness or swelling of the calf
- Increasing uncontrolled pain

Call 911 if you are experiencing:

Acute neurological changes

- New and sudden onset of limb weakness or numbness
- Total loss of bowel/bladder function

Signs and symptoms of heart attack (chest pain or shortness of breath)

Signs and symptoms of stroke (BE FAST)

- Balance: Sudden loss of balance
- Eyes: Sudden loss of vision in one or both eyes
- Face: Noticeable unevenness or droopiness in the face
- Arm: Weakness or numbness in one arm. One arm may drift downwards.
- Speech: Slurred speech.
- Time: Every second counts.

Measuring Your Recovery and Improvement

Many people in your situation have found surgery makes the quality of their lives a whole lot better. Before you know it, we expect you will be back to doing the things you love.

Part of your surgeon's evaluation of your recovery after surgery, we will have you complete several online assessments at various times throughout your recovery process. These assessments

are a set of statistically validated questions that are designed to track both your physical recovery, as well as the improvement to the overall quality of your life.

There are no right or wrong answers, but it is important that you answer each question to the best of your ability. You can expect each assessment to take about 15 minutes to complete.



You'll take the assessment from home, on any device.

Sample Question

What amount of pain have you experienced when going up or down stairs?

- None
- Mild
- Moderate
- Severe

Next Steps

Check your email

- A member of our Outcomes Team will contact you by email a few days before you are scheduled to take the first assessment to provide you with all the information you need. If you don't have email, you'll be contacted by phone.

Complete assessment

It is important that you complete each assessment within a few days of being contacted. This allows your care team to have all the information needed to provide you with the best care possible.

Questions?

If you have any questions, contact a member of our Outcomes Team at ucsf@patientoutcomes.com

We Need Your Email Because We Care.

30

We'll be asking you to complete several online assessments at various intervals throughout your recovery process. These assessments are designed to track your physical recovery and the improvement to your overall quality of life.



Sending these assessments via email is the easiest way for us to keep in touch.

If you haven't already provided your email address, please share it with our staff.

* INTERVALS VARY BASED ON SURGERY

Notes

Preparing for Fracture and Reconstructive Surgery

UCSF Orthopaedic Institute

Trauma and Problem Fractures Service

1500 Owens Street, 2nd Floor San Francisco, CA 94143

Appointment and non-urgent questions: 415-353-4982

For urgent medical issues, call 415-353-2808 (After hours you will be routed to the hospital operator, who will then page the on-call MD.)