PIN SITE CARE AND INFECTION PROTOCOL

External fixator including the TSF

Fixator care

You should not get the fixator wet or shower until your incisions are healed and you have had your first follow up appointment with Dr. Gdalevitch.

After the first week, or as indicated by Dr. Gdalevitch, you must shower every single day. This helps keep your fixator clean. It is helpful to use a shower chair and hand-held shower hose for safety. A liquid antibacterial soap should be used. Be sure to rinse the fixator well. After showering, dry the fixator with a towel and use a hair dryer on the cool setting, to dry the remaining areas.

No other pin site care is required, unless otherwise specified by Dr. Gdalevitch. Please do not use alcohol or any special creams on your pins or on your leg.

Tub baths and spas are not permitted because of the hazard of dirty bath water entering the pin sites.

Pin care and sponges

Sponge dressings will be placed around your pins during your surgery. This allows the skin to heal after surgery and decreases the motion of the skin at the pin site. The sponges will be removed at your first follow-up appointment, approximately 7-10 days after surgery.

There is no other pin site care required, other than showering daily with antibacterial soap, as described above, unless otherwise specified by Dr. Gdalevitch or, if there is presence of a pin site infection.
Pin site infections

The most common and even expected problem with external fixation treatment is pin site infections. Pin site infections begin superficially (at the level of the skin) and if left untreated, will progress to the deeper soft tissues and eventually to the bone. It is therefore important to identify a pin site infection and treat it early. Pin site infections do not occur immediately after surgery and they are not present when you leave the hospital. It is therefore important for you (the patient or parent) to know the signs and symptoms of a pin site infection so that it can be taken care of early.

- The first sign of pin site infection is usually redness with tenderness around the pin, in an area that was previously not tender. Tenderness means that the skin around the pin site is sore to the touch. It is normal to have some redness around the pin as not all redness indicates pin site infection. However, if there is redness with tenderness, it is probably the beginning of an infection.
- The second sign of infection is drainage from the pin site. Not all drainage indicates infection. Clear watery drainage is often due to swelling rather than infection. Clear yellow drainage may be due to infection or swelling or both. The most obviously infected drainage is white, yellow, or green cloudy or opaque drainage that looks like pus. This may be red tinged if there is some bleeding associated with it. Frank red blood coming from a pin site is not due to infection. It is usually due to aggressive physical therapy with minor tearing of muscle or skin.
- The combination of redness, tenderness, and drainage around a pin is very suspicious for infection.
- Be sure to inspect all pin sites everyday for signs of infection.
Fever and a sense of not feeling well are later signs of infection and usually do not occur. When fever is present, one should rule out other causes of fever, such as the flu, ear infection, upper respiratory infection, urinary infection, etc. If there are no other causes for fever and you think one of the pins is infected, please go to the Emergency room (ER) immediately.

**WHAT TO DO IF YOU GET A PIN SITE INFECTION**

You will be discharged with a prescription for oral antibiotics. These are not to be taken unless you develop a pin site infection. If you develop some of the signs and symptoms listed above, we recommend that you begin to take the antibiotics.

If you have a pin site infection, we also recommend soaking your fixator twice daily for 10 minutes in a 5 gallon bucket with lukewarm water, 2 tablespoons of bleach and one cup EPSOM salts (that you can buy at the pharmacy). If your fixator is on your femur, then you may need to do this in the bathtub. Remember to use lukewarm water.

The tenderness and drainage should improve within 24 to 48 hours after starting antibiotics. If they do not, then please email Dr. Gdalevitch at info@drmarieg.com.

You may need to come in for an evaluation in the clinic if Dr. Gdalevitch thinks it is necessary. If your symptoms are getting worst or you develop a fever, please go immediately to the ER.

Admission to the hospital for treatment of pin site infection is rare, and the need for the intravenous administration of antibiotics at home is also uncommon.
Additional information about pin site care:

Daily washing of the pin sites with a showerhead is the best pin care possible. Swimming in chlorinated or salt water pools can also help clean the pin sites. Swimming in the ocean is permitted as long as the frame is rinsed from the sand with water. No swimming in lakes is permitted.

Daily pin site care is no longer recommended as this simply irritates the pin site. Instead, it is recommended cleaning only those pin sites that are draining or have crust around them. All crust should be removed from the pin site if possible since it is a non-living material and is a great host to bacteria. The body cannot remove crust itself. It may be difficult to remove the crust with a cotton swab. You may need to use tweezers. We recommend cleaning the tweezers in water and then soaking them in alcohol before and after each cleaning.

Pin care is only needed if there is a pin site infection or heavy crusting develops. The best time for pin care is after a shower or bath when the skin is damp and crusts can be removed easily by cleaning each site with a cotton-tipped applicator and normal saline solution.

Some fixators have larger pins called half-pins. These half-pins require the same care, as do the smaller pins.
Only pins that are applied to the FEMUR (upper leg) or HUMERUS (upper arm) should be compression wrapped during the treatment. The purpose of the wrap is to minimize pin skin motion, which in turn, helps prevent irritation, infection and skin overgrowth. The procedure is to wrap the half-pins with 3-inch Kerlix gauze after cleaning. If there are several pins close together, they may be wrapped as a cluster. These dressings should be changed daily. You should use the entire roll of Kerlix. The wrap must indent the skin in the fleshy thigh or upper arm in order for it to be doing something.

For any other questions or concerns, please call Anne-Marie or Serge at (514) 362-1000 ext. 62852 or email us at info@drmarieg.com. Please go to the ER at Verdun Hospital if there is an emergency.