

## Incision Care

Keep the incision area dry for 7-10 days. No dressings or Band-Aids are needed over the steri-strips unless there is drainage. After your child has been seen in clinic for a wound check, you will be instructed when you may begin to get the area wet. At that time, you may wash the incision with soap and water over the steri-strips and pat dry. The steri-strips will loosen within 1-2 weeks. Hydrogen peroxide may be used on a Q-tip to clean dried blood or scabs if needed. Do not soak the incision or swim until it has completely healed (4 weeks).

**Watch for signs of infection: increased pain, heat, redness, swelling, or drainage at the site, or a fever above 101°F. Notify your doctor or nurse practitioner if any of these occur.**

Lotions (Aloe Vera) are not necessary, but may be applied after the steri-strips are removed. Itching is a normal sign of healing. To reduce the risk of infection, instruct your child to avoid scratching. The incision may appear bright pink initially, but will slowly fade over several months. Avoid exposing the area to sun.

There may be some discomfort around the incision after surgery. Advil® or Motrin® may be given if needed. Do not rub or massage the area or manipulate the pacemaker.

If the device is implanted in the upper chest, your child will be instructed to wear an arm sling for 48 hours to support the arm and minimize movement on the affected side.

## School

Your child may return to school 1 week after discharge. Your child should not participate in physical education classes for at least 4-6 weeks. Inform teachers of your child's device and any restrictions.

## Activity

Activity restrictions are individually assessed. In general, your child should not engage in physical activities that involve swinging or overhead arm movements for 4-6 weeks (i.e. tennis, golf, baseball, basketball, swimming). Lifting heavy objects is also restricted during this time. Also, avoid slinging a backpack over the affected shoulder. Note: seat belts must be worn even if they cross over the incision area.

Because of the risk for lead dislodgement or fracture, your child should avoid contact sports that could involve a direct blow to the pacemaker site (i.e. tackle football, wrestling, karate, boxing).

Some children have further activity restrictions placed on them because of their heart condition. Be sure to discuss these with the doctor. A note to excuse your child from participating in such activities is available if needed.



## Environmental / Hospital Hazards

Your child can be safely exposed to most household appliances and tools that are in good repair and are properly grounded, including:

- Microwave ovens
- TVs, AM/FM radios, VCRs, remote controls
- Personal computers, printers, fax machines
- Hand-held appliances: hair dryers, shavers (avoid holding against implant site)
- Electric blankets, heating pads
- Cellular phones if kept at least 6 inches away from the pacemaker/ICD

Avoid strong magnets or electromagnetic fields:

- Industrial equipment, including resistance and arc welders, induction furnaces
- Large generators and power plants
- Large magnets, such as those used in some stereo speakers, magnetic badges, and magnetic therapy products
- Antennas used to operate a CB, ham radio, or other radio transmitters, including those used to control toys
- Large TV or radio transmitting towers and power lines carrying more than 100,000 volts (maintain a distance of 25 feet)
- Maintenance or repair of any electrical or gasoline-powered appliance or tool
- Touching a spark plug or distributor on an engine. Turn the engine off.

Medical equipment and procedures:

- No Magnetic Resonance Imaging (MRI) - however, x-rays and CT scans are OK
- Consult your child's cardiologist regarding electrocautery, diathermy, or lithotripsy. Be sure to notify any medical personnel that your child has a pacemaker or ICD.

Security systems at airports, stores:

- Your child may walk normally through security screening archways, but should not stop next to the detection equipment.
- The metal pacemaker or ICD may trigger the alarm. Be prepared to present the device identification card.
- Hand-held screening wands may be used, but not directly over the implanted device.

If your child feels "funny" or not right around any electrical equipment, step away from the area and see if symptoms resolve.



### **When to Call**

Notify the doctor or nurse practitioner for:

- Increased pain, heat, redness, swelling, or drainage from the incision
- Fever higher than 101°F (38.5°C)  
A mild, low-grade fever is not uncommon - call if fever lasts for more than 1 day
- Pulse rate less than the lower rate limit or higher than the upper rate limit.
- Palpitations
- Persistent hiccups or muscle twitching near the device due to pacemaker stimulation
- Chest pain or difficulty breathing.
- Increased fatigue or irritability
- Decreased exercise tolerance
- Fainting or dizzy spells
- An ICD shock

Check your child's pulse rate if any of the above signs or symptoms appear.

### **ICD Discharge (Shock)**

If your child experiences an ICD shock, evaluate how your child feels. Call 911 if the pulse rate is too fast or too slow, or your child has multiple shocks or a loss of consciousness. Begin CPR if needed. Usually you will find that the pulse is within the normal range and your child feels OK after a shock. In that case, call the cardiologist or nurse practitioner to notify them that you believe the ICD has delivered a shock. Then the ICD will be checked to see what the ECG showed at the time the shock occurred. Further treatment or reprogramming may be needed.

### **Pacemaker Rate Settings**

The doctor or nurse practitioner may adjust your child's pacing rate. Currently it is set to:

Lower rate: \_\_\_\_\_ Upper rate: \_\_\_\_\_

Your child's pulse rate should remain between these rates.

### **Follow-Up Care**

Your child should have a follow-up appointment with the cardiologist or nurse practitioner 1-2 weeks following implant:

<u>DATE</u>	<u>TIME</u>	<u>LOCATION</u>
_____		

WITH \_\_\_\_\_

Thereafter, your child's health care provider will arrange follow-up. Follow-up is important to ensure proper device function and to monitor the battery status.

At Lucile Packard Children's Hospital, follow-up will be with Deb Hanisch, RN, PNP in our Pacemaker/ICD Clinic. For pacemakers, follow-up is generally done at 1 month and 2-3 months after implant, and every 6 months thereafter. In addition, periodic telephone transmissions are recommended. For ICDs, follow-up is done at 1 month and 2-3 months after implant, and every 3 months thereafter.

If your child is cared for at another center, your cardiologist will provide you with a schedule for follow-up visits.



# **CARING FOR YOUR CHILD AFTER PACEMAKER / ICD IMPLANTATION**

## **Children's Heart Center**

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