	Coarctation of the aorta in adolescents
	Use to treat other lesions investigational
RF ablation	Some tachydysrhythmias

ASD, Atrial septal defect; *PDA,* patent ductus arteriosus; *RF,* radiofrequency; *VSD,* ventricular septal defect.

Electrophysiology studies: Catheters with tiny electrodes that record the impulses of the heart directly from the conduction system are used to evaluate dysrhythmias. Other catheters can destroy abnormal pathways that cause rapid rhythms (called *ablation*).

Nursing Care Management

Cardiac catheterization has become a routine diagnostic and therapeutic procedure but it is not without risks, especially in neonates and seriously ill infants and children. Risks include exposure to radiation and anesthesia, hypothermia in young infants, arrhythmias, vascular injury and bleeding that may require transfusion, renal insufficiency caused by contrast material, allergic reactions, and, rarely, injury to the heart or central nervous system (CNS), stroke, or death (Feltes, Bacha, Beekman, et al, 2011).

Preprocedural Care

A complete nursing assessment is necessary to ensure a safe procedure with minimum complications. This assessment should include accurate height (essential for correct catheter selection) and weight. Obtaining a history of allergic reactions is important because some of the contrast agents are iodine based. Specific attention to signs and symptoms of infection is crucial. Severe diaper rash may be a reason to cancel the procedure if femoral access is required. Because assessment of pedal pulses is important after catheterization, the nurse should assess and mark the pulses (dorsalis pedis, posterior tibial) before the child goes to the catheterization room. Baseline oxygen saturation using pulse oximetry in children with cyanosis is also recorded.

Preparing the child and family for the procedure is the joint responsibility of the patient care team. School-age children and adolescents benefit from a description of the catheterization