

## Ablation Procedures

An extension of the diagnostic EP Study is the catheter ablation. In a similar way, catheters are placed intravenously and advanced to several positions within the right heart. These catheters can be used, as with the EP Study, to record from and stimulate the heart. These catheters can be manipulated throughout the heart in an attempt to identify the precise location from which an arrhythmia originates. Since most arrhythmias require a specific and usually small area of the heart in order to begin or continue, localization of these key, but vulnerable sites, could lead to eradication of the arrhythmia.

If these sites are identified, a catheter is moved to this area of the heart. The tip of a specially designed catheter placed in this position can be used to deliver high frequency, or radiofrequency, energy. This energy will heat up the adjacent tissue to the point of coagulation. The amount of tissue heated, however, is quite small. But if it includes the critical area for arrhythmia formation, this tissue can be permanently made nonfunctional and thus incapable of causing an arrhythmia.

This procedure lasts somewhat longer than the typical EP Study and also often requires a one night hospital stay.

The anticipated results of the procedure depend somewhat on the nature of the arrhythmia targeted. For the most common arrhythmias, the procedural success rate in experienced laboratories is in the range of 90-99%. The risks of the procedure are generally small and often only related to intravenous puncture. Serious cardiac complications are uncommon, but can occur.