



# The Heart of the Matter

## CODING FOR DIAGNOSTIC ELECTROPHYSIOLOGY STUDIES

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**E**lectrophysiology (EP) studies are performed to diagnose and localize disorders of the heart's conduction system. These procedures can be difficult to code due to their technical complexity, the number of potential code combinations, and the restrictive definitions of some of the CPT® codes for EP services. This column discusses EP studies involving the right heart only.

The EP study begins with puncture of a major vein (femoral, jugular, etc.). In most cases multiple sheaths are placed in this vein, through which catheters are passed into the right side of the heart. The catheters are typically positioned in the high right atrium, at the bundle of His, and at the right ventricular apex. The bundle of His is located in the inter-ventricular septum near the anterior leaflet of the tricuspid valve.

A catheter may also be placed into the coronary sinus, which empties into the right atrium. The coronary sinus catheter is used to evaluate electrical activity in the left side of the heart without the need for a left heart catheterization.

Additional catheters may be placed into the left atrium and/or left ventricle. This requires puncture of the interatrial septum so that a catheter can be passed from the right atrium into the left atrium. Alternatively, a catheter can be passed retrograde into the left heart through the arterial system.

Many patients undergo a comprehensive EP study. In order to be considered comprehensive, the study must include all of the following:

- Right atrial pacing and recording
- Right ventricular pacing and recording
- His bundle recording

Usually three separate catheters are placed to study these three sites, but the code assignment does not change if fewer than three catheters are used.

A comprehensive EP study nearly always involves induction of arrhythmias by means of programmed electrical stimulation. A comprehensive study with induction (or attempted induction) of arrhythmia is reported with CPT® code 93620 [*Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording*].

If the physician does not attempt to induce an arrhythmia, the study is reported with code 93619 [*Comprehensive electrophysiologic evaluation with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording, including insertion and repositioning of multiple electrode catheters, without induction or attempted induction of arrhythmia*].

Modifier 26 is required on codes 93619-93620 for professional component billing.

In some cases a comprehensive EP study is not necessary. For example, a patient with a ventricular arrhythmia may not require study of the right atrium, or a patient with atrial fibrillation may not require evaluation of the right ventricle.

Component codes are available for those instances in which a comprehensive study is not performed. These codes are sometimes referred to as "single catheter" codes, but their use is not dependent on the number of catheters that are placed.

Note that modifier 26 must be added

Component Service	Code
Bundle of His recording	93600
Intra-atrial recording	93602
Right ventricular recording	93603
Intra-atrial pacing	93610
Intraventricular pacing	93612
Induction of arrhythmia	93618

to all of these codes for professional component billing.

The "single catheter" codes should not be reported together with the comprehensive EP study codes (93619-93620) since all of the component services are included in a comprehensive study. If all of the component services are performed, a comprehensive study should be coded instead of reporting individual component codes.

There are many bundling edits involving codes 93600-93618. Coding and billing professionals should always check for bundling edits before reporting two or more of these codes for the same encounter.

Here are two examples of procedure combinations that are not bundled under the current version of the CCI.

- A limited EP study is performed consisting of right atrial pacing and recording only. Report 93602 [*Intra-atrial recording*] and 93610 [*Intra-atrial pacing*].
- A limited EP study is performed consisting of right ventricular pacing and recording and bundle of His recording. Report 93612 [*Intraventricular pacing*], 93603 [*Right ventricular recording*], and 93600 [*Bundle of His recording*]. ▲

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