ST Segment Monitoring
Fact Sheet

WHAT DOES THE ST SEGMENT MONITORING SYSTEM MONITOR?
The AnalyST™, AnalyST Accel™ and Fortify™ ST implantable cardioverter defibrillators (ICDs) continuously monitor electrical changes between heartbeats (called ST segments), which can indicate an obstruction of blood flow or oxygen to the heart muscle. This obstruction is called cardiac ischemia. Changes in the ST segment also have been linked to significant clinical events such as heart attacks.

By monitoring the ST segment, physicians can learn earlier about conditions that may affect their cardiac patients. ST segment monitoring can potentially improve patient prognosis, as physicians have more timely information with which to diagnose and treat patients.

WHAT IS AN ST SEGMENT?
The ST segment is a portion of an electrocardiogram between the end of the QRS complex and the beginning of the T wave (see image).

WHAT DOES THE ST SEGMENT INDICATE?
- A normal ST segment has a slight upward concavity.
- Flat, down-sloping, or depressed ST segments, or ST segment elevation, may indicate cardiac ischemia or myocardial infarction (heart attack).

WHAT IS CARDIAC ISCHEMIA?
Cardiac ischemia occurs when blood flow to the heart is decreased by a partial or complete blockage of the arteries that supply blood to the heart muscle (called the coronary arteries). A sudden, severe blockage may lead to a heart attack (also called myocardial infarction). Cardiac ischemia may also result in a serious abnormal heart rhythm (arrhythmia), which can cause fainting, exacerbate heart failure or cause sudden death.

FAST FACT
Changes in the ST segment have been linked to significant clinical events such as heart attacks. Learning earlier about changes in a patient’s ST segment may lead to more timely diagnosis and therapy for patients.

MORE INFORMATION
For more information about the association of myocardial ischemia with adverse events in patients with ICDs, read “Association of Myocardial Ischemia With Mortality and ICD Therapy in Patients With Coronary Artery Disease at Risk of Arrhythmic Death,” in the Journal of the American College of Cardiology, Vol. 46, No. 9, 2005.