

# Transmyocardial Revascularization (TMR)

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[Instructions for Use](#)

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Related Medicare Advantage Policy Guideline
<ul style="list-style-type: none"> <li><a href="#">Transmyocardial Revascularization (TMR) (NCD 20.6)</a></li> </ul>

## Coverage Guidelines

Transmyocardial revascularization (TMR) is covered when Medicare coverage criteria are met. Partial ventriculectomy is not covered.

For cardiac stenting, refer to the Coverage Summary titled [Percutaneous Transluminal Angioplasty and Stenting](#).

Transmyocardial revascularization (TMR) is a surgical technique which uses a laser to bore holes through the myocardium of the heart in an attempt to restore perfusion to areas of the heart not being reached by diseased or clogged arteries. This technique is used as a late or last resort for relief of symptoms of severe angina in patients with ischemic heart disease not amenable to direct coronary revascularization interventions, such as angioplasty, stenting or open coronary bypass.

Transmyocardial revascularization (TMR) is covered when all of the following criteria are met

- TMR is a late or last resort for patients with severe (Canadian Cardiovascular Society classification Classes III or IV) angina (stable or unstable), which has been found refractory to standard medical therapy, including drug therapy at the maximum tolerated or maximum safe dosages.
- The angina symptoms must be caused by areas of the heart not amenable to surgical therapies such as percutaneous transluminal coronary angioplasty, stenting, coronary atherectomy or coronary bypass.
- Coverage is further limited to those uses of the laser used in performing the procedure which have been approved by the Food and Drug Administration for the purpose for which they are being used.

Patients must also meet the following additional selection guidelines:

- An ejection fraction of 25% or greater;
- Have areas of viable ischemic myocardium (as demonstrated by diagnostic study) which are not capable of being revascularized by direct coronary intervention; and
- Have been stabilized, or have had maximal efforts to stabilize acute conditions such as severe ventricular arrhythmias, decompensated congestive heart failure or acute myocardial infarction.

Refer to the [National Coverage Determination \(NCD\) for Transmyocardial Revascularization \(20.6\)](#). (Accessed March 3, 2021)

## Policy History/Revision Information

Date	Summary of Changes
05/01/2021	<p><b>Template Update</b></p> <ul style="list-style-type: none"> <li>• Reformatted policy; transferred content to new template</li> </ul>

Date	Summary of Changes
03/16/2021	<ul style="list-style-type: none"> <li data-bbox="324 132 1531 172">• Routine review; no change to coverage guidelines</li> </ul>

## Instructions for Use

This information is being distributed to you for personal reference. The information belongs to UnitedHealthcare and unauthorized copying, use, and distribution are prohibited. This information is intended to serve only as a general reference resource and is not intended to address every aspect of a clinical situation. Physicians and patients should not rely on this information in making health care decisions. Physicians and patients must exercise their independent clinical discretion and judgment in determining care. Each benefit plan contains its own specific provisions for coverage, limitations, and exclusions as stated in the Member's Evidence of Coverage (EOC)/Summary of Benefits (SB). If there is a discrepancy between this policy and the member's EOC/SB, the member's EOC/SB provision will govern. The information contained in this document is believed to be current as of the date noted.

The benefit information in this Coverage Summary is based on existing national coverage policy; however, Local Coverage Determinations (LCDs) may exist and compliance with these policies are required where applicable.

There are instances where this document may direct readers to a UnitedHealthcare Commercial Medical Policy, Medical Benefit Drug Policy, and/or Coverage Determination Guideline (CDG). In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence ([Medicare IOM Pub. No. 100-16, Ch. 4, §90.5](#)).

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