

# Myocardium

The **myocardium** (tunica media) is cardiac muscle that ensures regular heart contractions . It is the thickest part of the heart wall, which it forms together with the endocardium and epicardium . The strongest myocardium is found in the left ventricle, where the blood pressure is the highest, and where oxygenated blood is ejected into the systemic circulation.

## Structure

The basic building block of the heart muscle is the cardiomyocyte. These are Y-shaped muscle cells. The cell nuclei are located in the center of the cell and they are elongated. The cell nucleus may contain one to two nucleoli

## Properties

Cardiac muscle tissue combines the properties of skeletal and smooth muscle. It consists of striated cardiac muscle tissue, which **is not controllable by will** (it is not subject to free control - involuntary).

It is innervated by the autonomic nervous system, which controls the frequency of contractions. The contractions arise spontaneously in the cardiac conduction system (cardiac automation).

The myocardium is nourished by coronary arteries that arise directly from the aorta. If it is not adequately supplied with nutrients, complications occur in the form of diseases, especially myocardial infarction and coronary heart disease.

## Links

### Related articles

- Heart
- Heart/histology
- Myocardium (histology slide, HE)
- Heart conduction system
- Cardiomyocyte
- Pacemaker potential
- Coronary circulation
- Systemic circulation

### Bibliography

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