

AMP-activated protein kinase (AMPK)

AMPK is a key kinase that controls many cellular processes, particularly pathways involved in cellular energy status. AMPK is activated during metabolic stress, where it then can either activate energy-producing pathways or inhibit energy-consuming pathways. For these reasons, it has been termed a “fuel gauge” of the cell.

Cardiac efficiency

Cardiac efficiency describes the relationship between energy produced (ie, cardiac work) and energy consumed (ie, oxygen consumption – MVO_2) by the ventricle during the course of cardiac contraction. Cardiac efficiency is therefore expressed as the ratio work: MVO_2 .

CONFIRM Registry

The COroNary CT Angiography Evaluation For Clinical Outcomes: An InteRnational Multicenter (CONFIRM) registry is a multicenter observational study of patients undergoing coronary computed tomographic angiography (CCTA). Patients are followed up after CCTA to identify adverse coronary artery disease (CAD) events, including death, myocardial infarction, unstable angina, target vessel revascularization, and CAD-related hospitalization. The primary aim of CONFIRM is to determine the prognostic value of CCTA findings for the prediction of future adverse CAD events.

Coronary computed tomography (CT)

Coronary computed tomography is a clinically utilized diagnostic tool that uses intravenous contrast agent and computed tomography technology to provide robust noninvasive assessment of coronary artery disease (CAD) with a high degree of accuracy. It can provide anatomical information about plaque stenosis and composition.

Electrocardiogram (ECG) exercise stress testing (ECG-EST)

ECG-EST is a stress test that records your heart's ECG (electrical activity) in response to the stress of exercise, usually for the purposes of identifying the cause of unexplained chest pain, especially if coronary artery disease (eg, myocardial ischemia) is suspected to be the primary culprit.

Fractional flow reserve (FFR)-guided percutaneous coronary intervention (PCI)

FFR-guided PCI utilizes FFR, which is a pressure-wire based index defined as the ratio of maximum blood flow in a stenotic epicardial coronary artery, relative to the maximum theoretical blood flow in the same artery in the absence of a stenotic lesion, to guide successful PCI of a coronary stenosis that is causing myocardial ischemia.

Microvascular angina

Microvascular angina, also referred to as cardiac syndrome X, is a heterogenous syndrome, the etiology of which is characterized by multiple pathogenic mechanisms. Patients with microvascular angina present typical chest pain characteristics of angina, but in the presence of a normal, or near-normal coronary angiogram. The diagnosis of microvascular angina requires evidence of coronary microvascular dysfunction with symptoms or signs of myocardial ischemia and no obstructive coronary artery disease.

Monocarboxylic acid transporters (MCTs)

MCTs encompass a family of plasma membrane transporters that carry molecules having one carboxylate group (eg, lactate, pyruvate) across biological membranes and are coupled with the transport of protons.

Nicotinamide adenine dinucleotide

Nicotinamide adenine dinucleotide is a coenzyme, whose two nucleotides are linked via their respective phosphate groups, with one nucleotide containing an adenine base and the other containing nicotinamide. The $NAD^+/NADH$ redox pair regulates flux through a number of pyridine nucleotide-linked dehydrogenase enzymes involved in the intermediary metabolism of both carbohydrates and fatty acids. A high ratio of $NAD^+/NADH$ favors substrate oxidation. Reduced NADH delivers electrons to the mitochondrial electron transport chain for the synthesis of ATP via oxidative phosphorylation.

Spontaneous coronary artery dissection

Spontaneous coronary artery dissection is an infrequent emergency condition that occurs when a tear forms in a coronary vessel, which can subsequently impede blood flow to the heart and potentially lead to heart attack or heart rhythm abnormalities.