

## Drugs used for Treatment of Ischemic Heart Disease

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When the patient has been diagnosed with acute coronary syndrome (unstable angina or acute myocardial infarction), then they should remain in hospital and rest. If the infarction is thanks to the entire blockage of a coronary artery, then treatment aims to unblock the artery as quickly as possible since every minute counts.

Medicines used during the acute phase are:

**Acetylsalicylic acid (aspirin):** stops the platelets from aggregating and sticking together inside the artery and therefore reduces the chance of thrombus formation (stationary blood clots). It's the primary drug that should be administered at the very onset of pain, even while at home.

**Other platelet aggregation inhibitors:** these reinforce the action of aspirin as they also prevent platelet aggregation. The most common one is clopidogrel, but prasugrel and ticagrelor also are utilized in particularly severe cases.

**Anticoagulants:** by means of a special mechanism, these also aim to dissolve any thrombi (clots) inside the artery. Different types of heparin are used and should be administered by either intravenous or subcutaneous injections.

**Beta-blockers:** they work by slowing down the patient's heart rate so it's during a more restful state and demands less oxygen. They also reduce the chance of arrhythmias.

**Pain relieving medicines:** in several cases patients may require morphine if the pain is very intense.

**Nitroglycerine:** are often administered as a tablet, sprayed underneath the tongue or by intravenous injections. It's accustomed dilate the heart's arteries allowing more blood to flow through them.

**Thrombolytic or fibrinolytic agents:** In cases where a thrombus is totally blocking an artery, these drugs are often administered so as to interrupt the clot down and thin the blood. They're very powerful and only indicated in very specific cases; they're not administered fairly often, unlike other medicines used for ischemic cardiomyopathy.

Some medical centers offer cardiac rehabilitation programs for patients with Ischemic heart condition or coronary insufficiency (a weak heart). These programs are supported regular exercise performed under supervision, alongside diet and lifestyle recommendations adapted to every individual. They need proven

very useful in terms of improving patient evolution and are recommended within the vast majority of cases.

### Drug therapy

Patients with Ischemic heart condition must take a mixture of medicine to scale back the heart's oxygen consumption, dilate the coronary arteries and stop the formation of a replacement blockage.

- **Nitroglycerine and its derivatives (nitrates, either as tablets or transdermal patches):** these drugs are referred to as vasodilators. They relax the arteries and veins, including the coronary vessels, thereby increasing blood flow within the affected area and eliminating pain from angina. They're also available as 'quick relief' tablets; patients with Ischemic heart condition should carry 1 or 2 tablets in their pocket. Whenever the pain appears you must stop any physical activities, sit down and place a tablet under your tongue. If the pain subsides in 10 minutes you'll restart the activity, but remember to inform your doctor about the episode at your next appointment. Against this, if the pain doesn't disappear you ought to take a second tablet. And if after this the pain persists, then you want to call the emergency medical services.

- **Statins:** These drugs reduce blood cholesterol levels. They also help stabilize and stop the rupture of athermanous plaques, reduce blood vessel inflammation and reduce the likelihood of an infarction. Statins are therefore indicated altogether patients with ischemic cardiomyopathy, although they have acceptable cholesterol levels.

- **Platelet aggregation inhibitors:** Patients who have suffered any event brought on by atherosclerosis must take platelet aggregation inhibitors permanently, unless they're contraindicated. These drugs stop platelets from clumping together which has the effect of thinning the blood and reduces the risk of thrombus formation inside arterial coronaries. Acetylsalicylic acid (aspirin) is that the commonest platelet inhibitor.

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- **Beta-blockers** (bisoprolol, carvedilol, nebivolol, metoprolol, atenolol, etc.): decrease vital sign and pulse, hence the guts requires less oxygen to function correctly. They will also reduce the danger of arrhythmias. Studies have shown that beta-blockers can increase the expectancy of patients who have had an infarction.

- Other **anti-anginal agents** are calcium channel blockers relax the muscles of the coronary arteries and mitigate the consequences of obstructions and spasms; ivabradine reduces heart rate then the heart requires less oxygen and ranolazine acts on the first and secondary blood vessels and reduces the danger of angina. This latter it's particularly effective in diabetic patients.