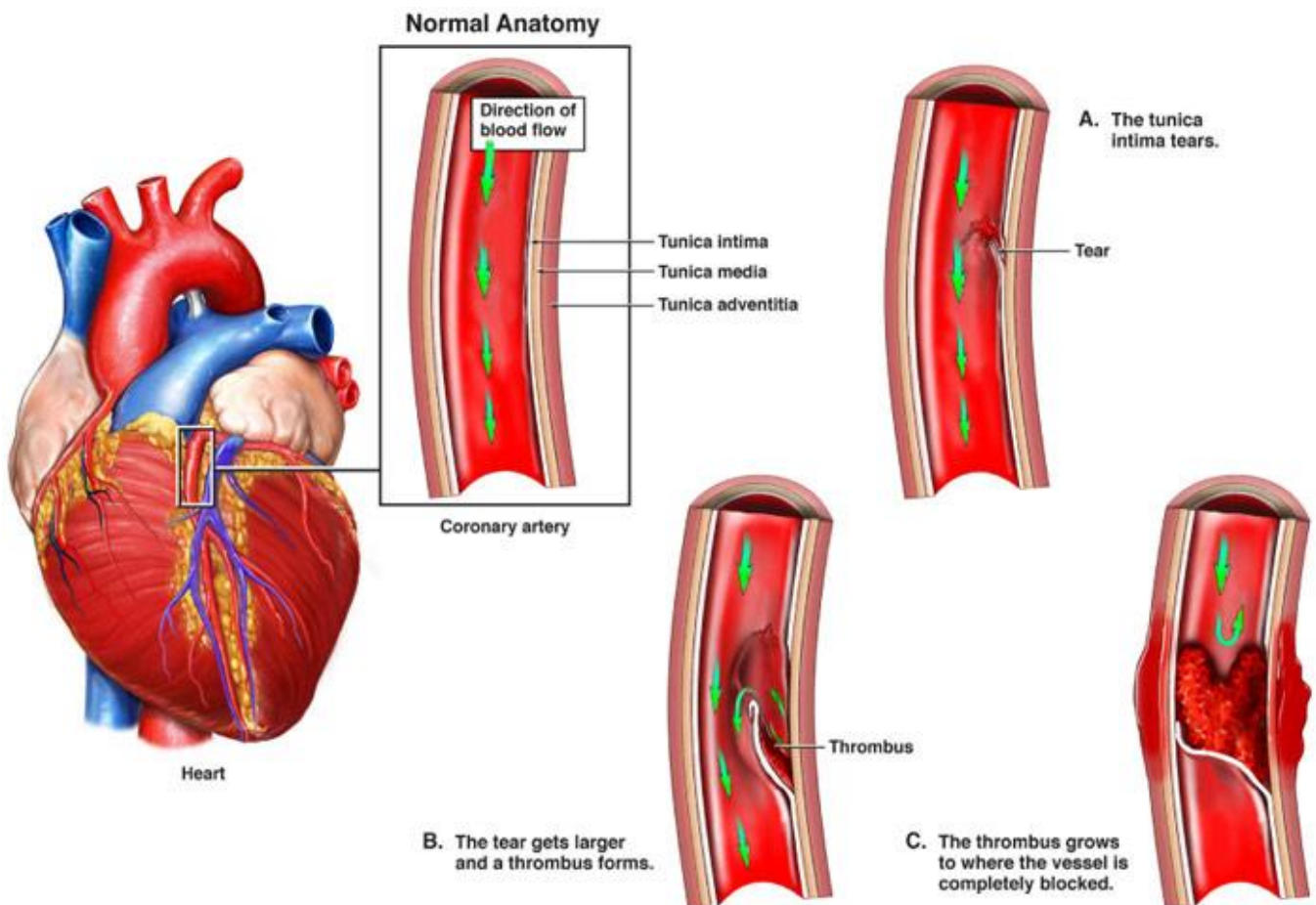


# Spontaneous Coronary Artery Dissection (SCAD)

Spontaneous coronary artery dissection (SCAD) is an uncommon emergency condition that occurs when a tear forms in a blood vessel in the heart. Blood accumulates within the artery wall and as it grows, the space for blood flow narrows, which can cause a heart attack or sudden heart death. SCAD most commonly affects women in their 40s and 50s, though it can occur at any age and can occur in men. 80-90% of SCAD patients are women and 10-40% of all heart attacks in women under the age of 50 are due to SCAD. People who have SCAD often do not have risk factors, such as, high blood pressure, high cholesterol or diabetes. SCAD can cause sudden death if it isn't diagnosed and treated promptly. Seek emergency attention if you experience heart attack symptoms, such as, chest pain, pain in your arms, shoulders, or jaw, shortness of breath, sweating, unusual extreme tiredness, nausea or dizziness - even if you think you are not at risk for a heart attack.



## Signs and symptoms:

- ♥ Chest pain
- ♥ Pain in your arms, shoulders or jaw
- ♥ Shortness of breath
- ♥ Sweating
- ♥ Unusual, extreme tiredness
- ♥ Nausea
- ♥ Dizziness

## Risk Factors:

- ♥ Female sex
- ♥ Recent childbirth
- ♥ Very high blood pressure
- ♥ Fibromuscular Dysplasia (blood vessel condition)
- ♥ Connective tissue diseases
- ♥ Illegal drug use

## Diagnosis:

- ♥ Coronary Angiogram – A long, thin tube (catheter) is inserted into an artery in the wrist or groin which is then threaded to the arteries in the heart. Dye is injected into the arteries and pictures are taken with an X-ray several times and in several different angles to determine abnormalities in the arteries. After the angiogram, a special imaging catheter may be inserted into the arteries to create pictures using sound waves (ultrasound) to help confirm SCAD and treatment plan. Sometimes a catheter with a special light (Optical coherence tomography) is passed into the arteries to create light-based pictures. These images may show abnormalities in an artery that can help confirm the diagnosis and gather information to guide treatment.

## Treatment:

The goal is to restore blood flow to the heart. Sometimes this occurs naturally, but it may also be necessary for doctors to restore blood flow by opening the artery with a balloon or stent. Bypass surgery may also be used. The most appropriate treatment depends on a patient's condition, including size and location of the tear in the artery, as well as any signs or symptoms.

- ♥ Stent placement during coronary angiogram
- ♥ Coronary bypass
- ♥ Medications may include one or more of the following:
  - Aspirin – May help prevent cardiovascular disease after SCAD
  - Blood thinning drugs – Reduces the number of blood-clotting platelets to reduce the risk of a clot forming in the torn artery
  - Blood pressure drugs – Can lower the heart's demand for blood, reducing pressure in the damaged artery. This may be an indefinite treatment.
  - Nitrates and calcium channel blockers – Helps control chest pain
  - Cholesterol lowering drugs – Reduces the risk of cholesterol and plaque from in the the arteries

## Continuous Care:

- ♥ Cardiac rehab – A customized program of exercise and education to help recover from a serious heart condition. This includes monitored exercise, nutritional counseling, emotional support and education.
- ♥ Reviewing medical family history – You may be referred to a genetic counselor to review family medical history and determine whether genetic testing may be appropriate.
- ♥ Check for weakness in other blood vessels – CT imaging may be performed of the head, chest, abdomen and pelvis to check for weakness and abnormalities in other blood vessels.
- ♥ Take care of yourself by getting enough sleep
- ♥ Eating a heart healthy diet (Mediterranean Diet)
- ♥ Exercise through moderate physical activity (walking and weight training 2-12 lbs) when advised to do so by a Cardiologist
- ♥ Do not lift anymore than 20 pounds
- ♥ Establish and maintain stress relieving activities to enhance mental well being

## Participating in the SCAD Research Program

For general questions about participating in the Mayo Clinic SCAD Research Program, contact the program's study coordinator:

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