Heart disease, also known as cardiovascular disease, is **a broad term for conditions affecting the heart and blood vessels**, with the most common type being coronary artery disease (CAD).

**Types of Heart Disease:**

1. **Coronary Artery Disease (CAD)/ Ischemic Heart Disease:** Narrowing or blockage of the arteries that supply blood to the heart, often caused by plaque buildup (atherosclerosis).
   * calcific stenosis
   * other stenosis
   * blood clots that narrow the arteries

**Diagnosis:**

* Electrocardiogram (ECG), Stress test, and Coronary angiography.

**Treatment:**

* + - Lifestyle changes: Quitting smoking, eating a healthy diet, exercising regularly.
    - Medications: Aspirin, beta-blockers, statins.
    - Angioplasty: A procedure to open up narrowed arteries using a balloon and stent.
    - Bypass surgery: A procedure to create new blood vessels around blocked arteries.

1. **Heart Failure:** The heart cannot pump blood effectively, leading to a buildup of fluid in the lungs and other parts of the body.
   * stroke, aneurysm,
   * endocarditis, heart infection
   * **Cardiomyopathy:** diseased heart muscle, hard for heart to pump blood effectively
     + might be hard to separate out cases, should include under heart failure?
2. **Arrhythmias:** Irregular heartbeats, which can be too fast, too slow, or irregular.
   * atrial fibrillation, afib, aflutter
   * bradycardia/tachycardia are usually fine/not indicative of heart disease (slow/fast heartbeat)
3. **Congenital Heart Defects:** Structural problems of the heart present at birth.
   * Symptoms
     + Getting very short of breath during exercise or activity.
     + Easily tiring during exercise or activity.
4. **Heart Valve Disease:** Problems with the heart's valves, which control blood flow.
5. **Vascular Disease:** Problems with blood vessels outside of the heart, such as in the legs or brain.

**Causes and Risk Factors:**

* **Atherosclerosis:** Buildup of plaque in the arteries, leading to narrowing and reduced blood flow.
* **High Blood Pressure:** Force of blood pushing against artery walls, putting strain on the heart.
* **High Cholesterol:** Excess cholesterol in the blood can contribute to plaque buildup.
* **Smoking:** Damages blood vessels and increases the risk of heart disease.
* **Diabetes:** Increases the risk of heart disease and stroke.
* **Obesity:** Increases the risk of heart disease and other health problems.
* **Lack of Physical Activity:** Contributes to high blood pressure, high cholesterol, and obesity.
* **Unhealthy Diet:** High in saturated and trans fats, can contribute to heart disease.
* **Family History:** Having a family history of heart disease increases your risk.

**Symptoms:**

* **Chest Pain or Discomfort:** Often described as pressure, squeezing, or tightness.
  + angina
* **Shortness of Breath:** Especially during physical activity.
* **Fatigue:** Feeling tired or weak.
* **Swelling:** In the legs, ankles, or feet.
* **Palpitations:** Feeling a fluttering or racing heart.
* **Dizziness or Fainting:**

**Prevention and Treatment:**

* **Lifestyle Changes:** Healthy diet, regular exercise, weight management, and quitting smoking.
* **Medications:** To lower blood pressure, cholesterol, and blood clots.
* **Procedures:** Angioplasty, bypass surgery, or valve replacement.