



## CVS 10 CORONARY OSTIA

### GROSS

The coronary arteries originate as the right and left main coronary arteries, which exit the ascending aorta just above the **aortic valve (coronary ostia)**

### SALIENT FEATURES:

- The most common cause of death from cardiovascular disease is **coronary atherosclerosis**.
- **Significant stenotic lesions** that produce more than 75% (three-fourth) reduction in the cross-sectional area of a coronary artery or its branch.
- **Zones of occlusion** are usually less than 5 mm in length, and the area of the severest involvement is about **3–4 cm from the coronary ostia**, more often at or near the bifurcation of the arteries, suggesting the role of hemodynamic forces in atherogenesis.

### Postmortem Examination

- Immersion of tissue slices in a solution of **triphenyl tetrazolium chloride (TTC)** gives red color to the healthy area (where dehydrogenase is preserved), but **infarcted** area appears **pale** if seen in about 4 h

### DETECTION

- **Enzyme histochemistry** is the most reliable method of detecting **early MI**. With malate dehydrogenase, normal myocardium stains dark blue-black and **infarcted area is devoid of color**.
- Periodic Acid-Schiff (PAS) stain
- Hematoxylin-Eosin (H&E) autofluorescence
- Acridine-Orange fluorescent stain